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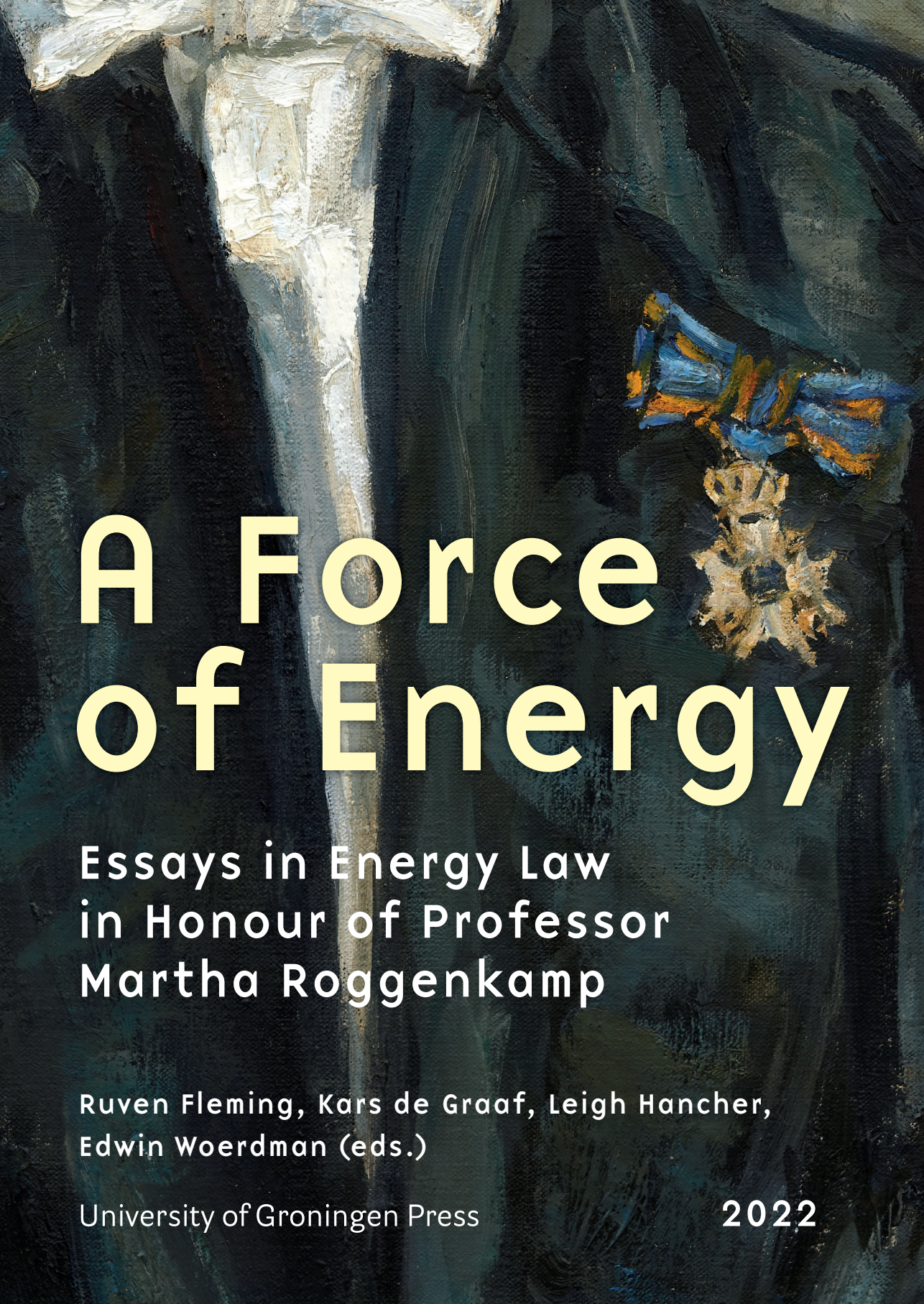

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Essays in Energy Law in Honour of Professor Martha Roggenkamp

Ruven Fleming, Kars de Graaf, Leigh Hancher, Edwin Woerdman (eds.)

University of Groningen Press 2022

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LIBER AMICORUM

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FOREWORD

Today's societies are complex. There are many technical, economic and human factors, which contribute to this phenomenon. In many respects, rare are the few who understand the technologies, trade flows, the products and services, the identity and nature of suppliers and customers upon we all depend. Even if most goods and services seem to find their way naturally to the customer, economic exchanges are far from obvious. In parallel with this development, rules have replaced trust. Increasingly complex regulation governs every detail of public and private life. General principles of law no longer suffice. Codes, regulations, directives and guidelines affect life of the modern State, company and citizen.

I therefore disagree with the comments made by Professor Lokin, professor of Roman law at the University of Groningen, after Martha Roggenkamp's inaugural lecture as the Dutch first professor in energy law, which I had the pleasure to attend in 2006. In his view, energy law was very interesting but did not offer any additional insights to what his preferred discipline, Roman law, could already offer. It may be true that security of supply and the prevention of toxic emissions were probably issues the Romans had to think about, but it is unlikely that they needed energy specific rules, such as the ones discussed in this *Liber Amicorum*. Even if early insights in the problematic effects of using fossil fuels could have prevented some of today's problems, energy markets did not work then as they do today. Nor do I think that energy transition was something that kept the senators and the people of Rome awake.

Energy law has grown into a legal discipline of its own. In many respects, Martha's legal career grew at that same pace. I remember her first steps at the International Energy Law Institute at Leiden University, where I met Martha as a lecturer and research fellow in 1986. After having finished her thesis on pipeline regulation, she continued to publish, teach and speak on energy law related matters. In addition to her academic skills, which were formalized, or, more accurately, normalized, by her appointment as a professor at the University of Groningen, Martha is a born organizer. As natural as gas, she contributed to the foundation of the Dutch energy law association, NEVER, which she presides, as well as the creation of the Dutch energy law review. Her career is not centered on the Netherlands alone. With her Dutch and Norwegian roots, the North-Sea region is her home base.

Even so, Professor Lokin's words were important. Just as any other sector specific rules, energy law, belongs to the Law, as an overarching concept, which purports to regulate

human conduct and to avoid or to regulate conflicts. All rules must converge to upholding the Rule of Law, a precious good in scary times, such as the ones we live today, in which autocrats do not hesitate to use energy as a means of domination.

Luxembourg, 24 January 2022

Marc van der Woude

EDITORIAL PREFACE

When it became clear that Professor Martha Roggenkamp would retire from her chair in Energy Law at the University of Groningen, ideas started to flourish on how to mark this memorable occasion and pay tribute to her academic work and scholarly accomplishments. Several people who have worked closely with Martha over the last decades put their heads together to consider what would be an appropriate celebration of her work. It was decided that Martha should be honoured with nothing less than a *Liber Amicorum*, to showcase her immense knowledge of practically all aspects of energy law and to draw on the networks and connections that Martha Roggenkamp made across institutions and continents in the past decades.

As Martha was born in Groningen and became professor at the University of Groningen, the choice for a publisher came naturally: the University of Groningen Press (UGP). The editorial team not only invited prospective authors but was also actively approached by various lawyers, academics and other practitioners who at some point in time shared a part of their working life and interests with Martha, and who wished to be included in the book. We are delighted that many have delivered a contribution.

Martha Margrethe Roggenkamp is known for her academic rigour, her passion for energy law and her original, sometimes strong-willed, views. We asked the authors to write chapters that celebrate and reflect this. We invited Martha's colleagues to write academic contributions with a scholarly perspective on the past, present or future of a topic related to energy law, either in English or in any other language that Martha masters. Rather than having one overarching topic, we chose to leave the theme of each contribution to the author to decide. This resulted in sound, creative and often innovative coverage of a rich and diverse range of legal as well as non-legal topics related to energy law.

With family roots both in Norway and the Netherlands, Martha started her career with the study of Scandinavian languages as well as Dutch law at the University of Groningen. Until this day, Martha is able to debate energy law matters with Dutch, English, Norwegian, Swedish and Danish colleagues in their mother tongues. From her early academic years Martha's focus was simultaneously national and international, a duality that still infuses her approach to research and teaching today, connecting international developments to national and local issues.

Academia has been a big part of her professional life. After working as a student assistant at the Asser Institute in The Hague, Martha became a researcher at the University of Leiden's International Institute for Energy Law. This turned out to be an important stepping-stone in her professional development, as this Institute became one of the 'breeding grounds' for European energy law. Martha met many people there that were decisive for her development. This culminated in the establishment of the first chair in Energy Law at the University of Groningen in the Netherlands in 2005, and subsequently, keeping up with the wider developments in the field, she co-founded the Groningen Centre of Energy Law in 2007 (together with Edwin Woerdman). In line with developments in energy law, this centre of expertise was further expanded and renamed to Groningen Centre of Energy Law and Sustainability in 2019.

But academia was not all. Martha also worked for various law firms as *of counsel* for more than a decade. Here she established long-lasting relationships in the professional world and engaged in the world of energy law. As a result, Martha has always been a keen advocate for a type of energy law academic that is not fixated on methodological discussions and 'ivory towers', but one who keeps the practical implications of academic research firmly in sight. This is also what she did and still does as chair of the Dutch Energy Law Association, co-established by her in 2002 (together with five other co-founders, including Michelle de Rijke), which currently has some 400 members.

Martha's work as a pioneer of energy law in the Netherlands influenced many young scholars as well as practitioners in various countries – and continues to do so to this very day. Her numerous publications including the landmark reference work 'Energy Law in Europe' (informally referred to as 'The Energy Law Bible'), her devotion to establishing energy law as an academic discipline, and her relentless efforts to connect lawmakers and researchers were recognized by her appointment as Knight of the Order of the Netherlands Lion in 2019.

This *Liber Amicorum* pays tribute to her work and to the force of energy that she is. It revisits some of the energy law topics that have been most important to Martha's working life, but also takes a leap forward to explore the multitude of energy law issues that lie ahead. This vibrant collection of essays, which is up to date until 1 April 2022, can only echo one of Martha's favourite expressions: 'never a dull moment' in energy law!

Ruven Fleming, Kars de Graaf, Leigh Hancher, Edwin Woerdman
Groningen, 1 April 2022

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CONCEPTUAL ISSUES

RESHAPING EU ENERGY LAW: TOWARDS DEGROWTH

Romain Mauger[1]

Abstract

Regardless of decades of social mobilisation, scientific research and political declarations to act against climate change, greenhouse gases emissions are spiralling up and are sending us towards a disastrous climate situation in the decades to come. Research shows that relying on a green growth strategy to avoid this fate is at best a gamble. Therefore, a much safer way to tackle climate change is to follow a degrowth strategy, relying on a steep reduction in energy and materials consumption, starting with developed countries. The implementation of such a strategy needs to be reflected in the law, hence also in EU energy law. This would require questioning existing principles, targets and instruments in order to increase the climate ambition level and to ensure targets can be reached on time.

1 Introduction

Between 2017 and 2021, I have had the honour of working under the supervision of Prof. Dr. Martha Roggenkamp. As a post-doctoral researcher at the famous GCELS and as a member of an H2020 project on smart grids, I have been exploring with Martha the legal impacts of- and requirements for- the deployment of new technologies for the energy transition of EU islands. Over these years, I got to appreciate Martha's attention for the produc-

1 Assistant Professor, Faculty of Law, University of Groningen, The Netherlands.

tion of high quality and easy-to-understand research for society. In addition to her result-oriented commitment, I also experienced Martha's creativity. I will long remember this conversation about a funding opportunity which gave rise to the idea of Water-Energy-Food (WEF) communities, relying on the concept of energy communities as integrated in EU law, but extending the logic to the field of WEF nexus studies. This application was successful and promises to deliver results which may actually change peoples' lives. I guess that's a good example of the oft-cited mantra: Think Bold.

With this chapter, I wish to take a step back and think (boldly?) about the potential impacts on EU energy law of radical measures to be adopted if we are to limit the increase in global average temperature levels to 1.5°C. I hope that the combination of the necessary radicalness of our times and the need for creatively reshaping EU energy law will be an adequate tribute to Martha's career.

2 Climate change and the need for degrowth

Regardless of decades of social mobilisation, scientific research and political declarations to act against climate change, greenhouse gases (GHG) emissions are spiralling up: CO2 emissions were 60% higher in 2018 than they were in 1990 and 2021 saw "the second-largest annual increase in CO2 emissions in history".[2] If humankind is to avoid the disastrous consequences of dangerous climate change, more radical actions are needed to curb GHG emissions way before 2030.

2.1 Avoiding dangerous climate change

In August 2021, the United Nations' Secretary General commented on the publication of the sixth Intergovernmental Panel on Climate Change's assessment report.[3] He emphasised that "[we] are already at 1.2 degrees and rising" in comparison to average temperature levels some 200 years ago. This level is dangerously high and leaves only very

2 Isak Stoddard *et al*., 'Three Decades of Climate Mitigation: Why Haven't We Bent the Global Emissions Curve?' (2021) 46 Annual Review of Environment and Resources 653, 655; International Energy Agency (IEA), 'World Energy Outlook 2021' (2021) 15.

3 Secretary General, United Nations, Secretary-General's Statement on the IPCC Working Group 1 Report on the Physical Science Basis of the Sixth Assessment, 9 August 2021, <www.un.org/sg/en/content/secretary-generals-statement-the-ipcc-working-group-1-report-the-physical-science-basis-of-the-sixth-assessment>.

limited room for manoeuver to comply with the Paris Agreement's goal of limiting global warming to "well below 2°C above pre-industrial levels" and as close as possible to 1.5°C.[4]

With the new pledges announced at COP26 held in Glasgow, Scotland, in November 2021, the global temperature increase could be limited to 1.8°C by the end of the century, which is still too high but marks an improvement. However, this is only if pledges are met in full and on time.[5] As is it, current policies would lead to 2.7°C of warming,[6] hence an implementation gap of close to 1 degree.

Europe and the Netherlands – where GCELS sits – will not escape climate change induced extreme weather events. The continent is for instance amongst the ones to suffer from more frequent and intense heavy precipitation and associated flooding already at +1.5°C.[7] The Netherlands risks to be particularly impacted by extreme sea level events, such as coastal flooding in low-lying areas,[8] and it shall also suffer heavier agricultural droughts in the inland region.[9] Of course, these are only a small part of the full climate damage to be suffered by Europe, including the Netherlands.

2.2 The mirage of green growth

Over the past decade, the notion of green growth emerged as the favourite approach for reducing GHG emissions in many countries as well as in international institutions, including the European Union (EU).[10] The idea of green growth contends that it is possible to decouple resource use and CO2 emissions from economic growth as measured

4 United Nations Framework Convention on Climate Change, Decision 1/CP.21, art 2 (1) (a).

5 IEA, COP26 climate pledges could help limit global warming to 1.8 °C, but implementing them will be the key, 4 November 2021 <https://www.iea.org/commentaries/cop26-climate-pledges-could-help-limit-global-warming-to-1-8-c-but-implementing-them-will-be-the-key>.

6 Climate Action Tracker, Glasgow's 2030 credibility gap: net zero's lip service to climate action, 9 November 2021, <https://climateactiontracker.org/publications/glasgows-2030-credibility-gap-net-zeros-lip-service-to-climate-action/?fbclid=IwAR3Yl8BlGuPx6FXV1RMZDWdM6I1P4RdarvYFuqB1lJQ9OT_Fs-3BevLmN9w>.

7 Valérie Masson-Delmotte *et al*., 'Summary for Policymakers' in Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change (2021) 32.

8 Ibid, 33.

9 Sjoukje Y. Philip *et al*., 'Regional Differentiation in Climate Change Induced Drought Trends in the Netherlands' (2020) 15:9 Environmental Research Letters 1.

10 See Jason Hickel and Giorgos Kallis, 'Is Green Growth Possible?' (2020) 25:4 New Political Economy 469, 469; and for the EU specifically, see the reference to decoupling in Regulation 2021/1119 of 30 June 2021 establishing the framework for achieving climate neutrality, recital 2.

by Gross Domestic Product (GDP). Technological change and substitution would allow to maintain the current economic system's main parameters (relying on continued economic growth) while effectively decarbonising it.[11] Yet, as Hickel and Kallis demonstrated, "empirical evidence on resource use and carbon emissions does not support green growth theory".[12] In more detail, absolute decoupling of GDP from emissions "is unlikely to happen fast enough to respect the carbon budgets for 1.5°C and 2°C against a background of continued economic growth".[13] The reason is that "[g]rowth increases energy demand, making the transition to renewable energy more difficult, and increases emissions from land use change and industrial processes."[14] Without heavily relying on negative emissions technologies which are "unproven or dangerous at scale",[15] it appears that reducing GHG emissions in a manner that allows us to limit the temperature increase to 1.5°C cannot be achieved while securing economic growth. The European Environmental Agency acknowledged that "growth has not been decoupled from resource consumption and environmental pressures and is not likely to become so" and called societies to "rethink what is meant by growth and progress and their meaning for global sustainability".[16]

The rationale for criticising green growth is simple: it is more difficult to decarbonise the economy by shifting its energy matrix to renewable (or at least decarbonised) energy sources if energy consumption is constantly rising. This is what actually happened from 2009 to 2019. The increase in energy consumption worldwide absorbed the 2-digit growth in modern renewable energy production technologies, such as wind and solar power, while the share of fossil fuels in the total final energy consumption only declined from 80.3% to 80.2%.[17] In addition, the substitution of fossil fuels by renewable energy sources (RES) promises to be extremely intensive in minerals. Typically, an "electric car requires six times the mineral inputs of a conventional car, and an onshore wind plant requires nine times more mineral resources than a gas-fired power plant".[18] As a consequence, the demand for lithium, cobalt, nickel, rare earth elements and copper is fore-

11 Hickel and Kallis (n 10), 469.
12 Ibid.
13 Ibid, 480.
14 Ibid.
15 Ibid.
16 European Environment Agency, 'Growth without economic growth', Briefing 28/2020, January 2021.
17 Ren21, 'Renewables 2021 Global Status Report' (2021) 33, fig 2.
18 IEA, 'The Role of Critical Minerals in Clean Energy Transitions', World Energy Outlook Special Report (2021) 5.

seen to skyrocket in the few decades to come.[19] To such a point that it "raises huge questions about the availability and reliability of supply".[20] Therefore, the less new wind turbines have to be installed, the lower the tension on supply, the quicker the energy transition and the decrease in GHG emissions, but also the lesser impacts on local communities and on the local environment in a context of mass extinction of biodiversity.

2.3 Towards degrowth?

In order to increase the chances for humankind to limit global warming to +1.5°C, another pathway is possible: degrowth. The idea of degrowth builds upon the second law of thermodynamics and posits that "during every production process (of combining energy embodied in raw materials and energy applied from outside), some energy irreversibly dissipates (and becomes unusable) in the form of waste or heat".[21] As a result, infinite economic growth is not possible on a finite planet with a limited amount of resources. Therefore, 'degrowthers' propose to consume less materials and less energy through a voluntary, equitable and democratic process.[22] Technological fixes won't solve the situation and energy efficiency improvements are not enough, especially due to the Jevon's paradox or "rebound effect".[23] As a consequence, a policy of sufficiency is needed,[24] in which society-wide behavioural changes allow to reduce energy consumption at the required pace, e.g. reducing flights, instead of solely relying on more energy-efficient jets.

It is to be noted that degrowth contains many similarities with other concepts being debated or officially used as guiding principles for the current energy transition, such as energy justice, energy democracy, just transition or even the older but still relevant con-

19 Ibid.

20 Ibid, 11.

21 Bengi Akbulut, 'Degrowth' (2021) 33:1 Rethinking Marxism 98, 100.

22 Ibid, 98.

23 Giorgios Kallis, 'Radical Dematerialization and Degrowth', (2017) 375 Philosophical Transactions of the Royal Society A 1, 3.

24 See for example, Matthew J. Burke, 'Energy-Sufficiency for a Just Transition: A Systematic Review' (2020) 13 Energies 1.

cept of soft pathways.[25] In fact, degrowth has also already been debated in European national parliaments.[26]

In sum: as demonstrated above, GDP growth is closely tied to growth in energy and material consumption, itself linked to GHG emissions (and to the destruction of the environment in general). Therefore, a programme of willingly reducing energy and materials consumption at the pace required by climate change and planetary limits would lead to a degrowth of the GDP, not to be mistakenly understood as an economic recession though.[27] Indeed, while a recession is an undesired economic contraction leading to an increase in unemployment and poverty, degrowth consists in producing less and sharing the work to be done in an organised, voluntary manner.[28] For sure, degrowth authors leave no doubt that the whole economic system would be severely impacted.[29]

3 Degrowth and EU energy law

Applying the logic of degrowth to society will require widespread amendments to the existing legal framework, especially in developed countries, being the ones with the highest climate footprint per capita. The production, import, export and consumption of everything needs to be questioned and caps need to be set where necessary.[30] This section places the focus on the role of – and the necessary amendments to – EU energy law if a degrowth strategy is to be implemented.

25 See Romain Mauger, 'Making Sense of Changing Concepts for the Energy Transition: An Energy Transition Concepts Nexus for the Development of Policy and Law' in Ruven Fleming, Kaisa Huhta and Leonie Reins (eds.), *Sustainable Energy Democracy and the Law* (Brill 2021).

26 Federico Demaria, 'When Degrowth Enters the Parliament' (*Ecologist*, 16 January 2017) <https://theecologist.org/2017/jan/16/when-degrowth-enters-parliament> accessed 20 October 2021.

27 Giorgios Kallis *et al.*, "The Case of Degrowth in a Time of Pandemic.", (*Open Democracy*, 14 May 2020) <www.opendemocracy.net/en/oureconomy/case-degrowth-time-pandemic> accessed 20 October 2021.

28 Ibid; Simone D'Alessandro *et al.*, 'Feasible alternatives to green growth', (2020) 3 Nature Sustainability 329, 331.

29 Kallis (n 23).

30 On caps, see for example, Riccardo Mastini, Giorgos Kallis and Jason Hickel, 'A Green New Deal Without Growth?' (2021) 179 Ecological Economics 1, 7.

3.1 Applying the logic of degrowth to existing EU energy law

An EU energy policy geared towards degrowth would question some of the fundamental principles of EU law that apply directly or indirectly to the energy sector. First, the EU objective of sustainable development, enshrined in article 3 of the Treaty on the EU,[31] might have to be amended or replaced, given the embodiment of economic growth within the concept of sustainable development itself.[32] Second, the rules on free movement and on competition, part of the Treaty on the Functioning of the EU (TFEU),[33] would have to be reassessed too. Indeed, an EU energy policy aiming first and foremost at lowering energy consumption at the required pace might consider that cooperation would have to prime over competition. It might also consider that the free flow of energy, capital and goods is a barrier to the new aim. Third, TFEU's article 194 on energy, turning the three core objectives of EU energy policy – competitiveness, sustainability and security of supply[34] – into law, won't escape a close examination either. Competitiveness translates as a functioning internal energy market, security of supply as a coordination of supply and demand for energy within an international context, and sustainability as the promotion of renewable energy sources (RES) and energy efficiency (EE).[35] All three would be impacted by a degrowth logic. Yet, the core objective that would most directly have to be amended is the third one, on RES and EE. Indeed, as mentioned above, EE and RES are not sufficient to reach our climate goals. Energy sufficiency needs to be added to this provision, so that the objective of significantly reducing primary and final energy use is made more reachable.

Following this critical examination of EU primary law, EU secondary law would have to be rewritten to some extent as well. Among the many directives to be reassessed, the focus is placed on the EE directive here.[36] The 2012 EE directive's central objective was to reach a 20% improvement in EE by 2020. To do so, it let EU Member States (MS) setting their indicative national EE target and notifying it to the European Commission.[37] National targets had to take into account a highly degrowth-compatible element: a cap

31 Hans Vedder *et al.*, 'EU Energy Law' in Martha Roggenkamp *et al.* (eds.), *Energy Law in Europe: National, EU and International Regulation* (3rd edn, OUP 2016) 195.

32 Hickel and Kallis (n 10), 469.

33 Vedder *et al.* (n 31), 188.

34 Ibid, 190.

35 Ibid, 195-196.

36 Directive 2012/27/EU of 25 October 2012 on energy efficiency; and Directive 2018/2002 of 11 December 2018 amending Directive 2012/27/EU on energy efficiency.

37 Art 1 (1) and 3 (1).

on the Union's 2020 primary and final energy consumption.[38] MS were also free to take into account some national circumstances when drafting these targets, among which GDP evolution and forecast,[39] reasserting the strong link between economic growth and energy consumption. The 2018 amending directive sets a new EU target for energy efficiency at 32.5% by 2030 and lowered the total energy consumption cap. Yet, the system of national targets is left untouched. In a degrowth context, the ambition of these EE targets and energy consumption caps would certainly be reassessed. But more importantly, existing criticism on the lack of bindingness and effectiveness of the national EE targets and on the minimal involvement of the Commission in this process would have to be listened to.[40]

3.2 Applying the logic of degrowth to the 'Fit-for-55' package

On 14 July 2021, the Commission presented its 'Fit-for-55' package, a set of eight pieces of legislation to be recast and five new initiatives in order to reduce net emissions by at least 55% by 2030 compared to 1990 and to reach carbon neutrality by 2050.[41] The wording used by the Commission to introduce the package can be related to degrowth theory in many instances. Indeed, the new package is about delivering a "transformational change"[42] or a "systemic transformation",[43] accelerating a "change in behaviour"[44] and reducing "systemic inequality".[45] The Commission even notes that: "we should not take more resources than the planet can afford to share with us".[46] The degrowth topics of a deep change of habits, of not only relying on 'technofixes', of planetary limits for energy and raw materials and on changing society to address its existing failures (e.g. on pollution and poverty) are all present. Yet, the overall tone of the document is much more oriented towards a green growth rationale rather than a degrowth one: there are many references to "growth" in the document.

38 Art 3 (1) para 1 (a).
39 Art 3 (1) para 2 (b).
40 Vedder *et al.* (n 31) 331 and 334.
41 European Commission, "Fit for 55': delivering the EU's 2030 Climate Target on the way to climate neutrality' (Communication) COM(2021) 550 final 1-3.
42 Ibid, 1.
43 Ibid, 5.
44 Ibid.
45 Ibid, 4.
46 Ibid, 10.

To go beyond a simple lexical assessment of the package's introductory document, an analysis is needed of the actual recast proposals and especially of the EE directive's to see if and how it would fit within a degrowth context. First, the proposal amends the 2030 targets. After assessing the existing national contributions for EE gains by 2030, the Commission realised that the 32.5% target would be missed by approximately 2.5 points.[47] In addition, following new calculations, the proposal further reduces the EU's primary and final energy consumption amounts for 2030.[48] It also explicitly qualifies these targets as collectively binding at EU level. Yet, the proposal still relies on indicative national EE contributions submitted to the Commission through the integrated national energy and climate plans, a process that involves the Commission a bit more than in the previous system.[49] Although the indicative national targets have so far failed to deliver sufficient commitments, the "strong opposition by the majority of Member States" made it impossible to include binding national targets.[50]

Second, the impact assessment used to prepare the proposal concluded that reaching the required EE levels only through market forces, current market organisation and technology development is unlikely to happen,[51] hence raising the question of the instruments to be used. The instruments mentioned in the proposal are generally the same as under the previous directives, hence not really engaging a systemic change. However, some details being amended can have a significant impact on the implementation of EE measures. One of them is the obligation to take into account EE requirements for public procurement by all administration levels and removing conditionalities with regard to cost-effectiveness, technical and economic feasibility.[52] These conditionalities represented a relatively easy way to circumvent the EE-in-public-procurement obligation and their removal substantially reinforces the provision and aligns with a degrowth logic.

Overall, the design and use of EE instruments are subject to one key principle and one major concern. The key principle is 'energy efficiency first', meaning that EE must be "considered as the first option in planning and investment decisions […] for the supply side and other policy areas".[53] This a great step to mainstream EE and to break silos between energy and non-energy sectors. Yet, this principle should be amended to include energy sufficiency too. Planners and decision-makers should therefore prioritise

47 European Commission, 'Proposal for a Directive on energy efficiency (recast)' COM(2021) 558 final, 2.

48 Ibid, 76-77, art 4 (1).

49 Ibid, 77, art 4 (2).

50 Ibid, 20.

51 Ibid, 2.

52 Ibid, 21, about art 7.

53 Ibid, 2-3 and 20, about art 3. See also 22, about art 25.

sufficiency *and* efficiency together in order to reach the energy reduction targets. For example, they should not only plan for more energy-efficient planes but also for less flights. Finally, the above-mentioned major concern is energy poverty. Various provisions refer to this topic and to its corollary: vulnerable customers. These provisions aim to ensure that EE improvements will target these people as a priority and will not negatively impact them.[54] This is fully in line with a degrowth logic.

4 Conclusion

Research shows that relying on a green growth strategy to avoid a disastrous increase in average temperature by more than 1.5°C compared to pre-industrial times is at best a gamble. Therefore, a much safer way to tackle climate change is to plan according to a degrowth strategy, relying on a steep reduction in energy and materials consumption, starting with developed countries. The implementation of such a strategy needs to be reflected in the law, hence also in EU energy law. Doing so would require questioning existing principles, targets and instruments in order to increase the climate ambition level and potentially to rely on different principles and tools.

To face such a challenge, a pinch of inventiveness is needed. Indeed, if EU energy law is to be rewritten, more energy lawyers will have to take part in what will certainly be an even greater paradigm shift than the 1990s' push for liberalisation in the EU and elsewhere. Hopefully, GCELS will play a key role in this future which will certainly reflect one of Martha's favourite expressions: "never a dull moment"!

54 Ibid, 4 and 21 about art 8, and 22 about art 20 and 22.

COMPETITION AND REGULATION IN THE RENEWABLE ENERGY ERA

Machiel Mulder[1]

Abstract

This chapter reflects on the future of competition and regulation in an area in which renewable energy will be the dominant type of energy. Martha Roggenkamp has extensively contributed to the legal discussion of these issues, while she has always been open for multidisciplinary collaboration, knowing that energy issues can only be appropriately treated when the various relevant disciplinary perspectives are taken on board. This chapter, therefore, provides an economic perspective on the regulation of renewable energy. It concludes that the topics Martha has worked on so intensively, will remain crucial when energy systems are changing dramatically.

1 Introduction

Energy systems have changed strongly over the past decades, and they will change even more in the future. The changes in the past mainly referred to the introduction of competition in the previously mainly vertically organized energy supply chains, while the future changes will be more directed at realizing a carbon-neutral energy supply. Both types of changes are not only visible in the technical and economic sense, but they are also reflected in energy law. To that end, Martha has contributed significantly by means of her publica-

1 Professor of Energy Economics and Director of the Centre for Energy Economics Research, Faculty of Economics and Business, University of Groningen, the Netherlands.

tions, presentations, lectures and supervision of (PhD) research on the topics of creating competitive circumstances in energy markets as well as the regulation of renewable energy supply chains. Clear examples of her contributions are in the field of unbundling and the legal organisation of offshore wind production, just to mention a few.[2]

In this chapter, I would like to reflect on the future of competition and regulation when energy systems are dominated by renewable energy sources. This reflection will be done from an economic perspective. This perspective is closely related to the legal one, as economists tend to focus on the question what would be the best (i.e. most efficient) way to organize systems, while lawyers focus (a.o.) on the question how this most efficient organisation can be implemented within (existing) (inter)national legal frameworks. Hence, lawyers and economists have to collaborate closely in order to contribute to solving societal issues, like the energy transition, just as other academic perspectives have to be taken on board. Martha has always been an active supporter of this interdisciplinary approach of energy issues, as shown by her active collaboration with energy colleagues at other departments of the University of Groningen through joint research projects or by her contribution to joint educational programs, such as the Energy Minor.

The outline of this chapter is as follows. Section 2 will present an economic view on the transition of energy systems towards renewable energy dominated systems. Section 3 deals with the question how competition is likely to evolve when the share of renewable energy has increased. Section 4 focusses on the need to regulate energy systems and how this need changes when the share of renewables increases. Section 5, finally, concludes by paying attention to the potential implications of my analysis for the legal framework.

2 Energy transition seen from an economic perspective

Energy transition is often defined as the movement in which conventional, centralized fossil-energy based technologies are being replaced by decentralized renewable energy sources. The replacement of fossil energy by renewable energy is indeed one of the key components of the energy transition, as, for instance, coal-fired power plants are being closed, while their position is taken over by renewable sources like wind turbines and

2 Roggenkamp, M.M., 'Full Transparency through Ownership Unbundling: Ownership Unbundling of Transmission and Distribution Grid in the Netherlands' in M.M. Roggenkamp and E. Woerdman (eds.), *European Energy Law Report VI* (Intersentia, 2009), pp. 61-67. See also: Shariat Torbaghan, S., H.K. Müller, M. Gibescu, M. van der Meiden and M.M. Roggenkamp [2015], 'The Legal and Economic Impacts of Implementing a Joint Feed-In Premium Support Scheme on the Development of an Offshore Grid', *Renewable and Sustainable Energy Reviews* 45: 263-277.

solar panels. It is, however, less obvious that this transition also includes a change from a centralized system with only a few large producers to a system characterised by many small producers. After all, also in a system with renewable energy, this energy can be produced by large companies operating large-scale production parks, like those offshore. Hence, energy transition does not necessarily include a transition from a centralized to a decentralized system.

No matter what precisely the content and the direction are of the energy transition, such definitions do not capture the essence of energy transition as seen from an economic perspective. The above definitions are rather descriptive regarding the outcomes, while the economic perspective is more directed at the process. In particular, the economic definition of energy transition refers to how the decisions by producers, consumers and all others involved (hereafter: economic agents) are affected. The fundamental assumption in economics is that every economic agent only takes those decisions which are best suited from its own perspective. This perspective is called 'utility' when talking about consumers and 'profit' when talking about firms. Hence, all these economic agents are assumed to be rational, which means that they are assumed to pursue their own objectives and to make choices accordingly. It is quite common among non-economists to ridicule this assumption as being unrealistic, but this perception can be attributed to a lack of understanding what is meant by this concept of rationality. This concept is related to the notion that it is impossible to assess the objectives (utility) of other human beings, as no one can see and feel what is in the mind of others. Hence, we can only assume that others are doing those things which satisfy their needs, and that no one is doing things voluntarily if they are not preferred. This implies that we can infer the preferences of individual economic agents from their actual behaviour, as this behaviour (e.g. the actual choices agents make) indicate what they really like. If this concept of rationality is omitted from the analytical framework, it is impossible to say anything about economic welfare, unless one (e.g. the government) determines what others (e.g. all inhabitants) should like.

Why is this concept relevant when talking about energy transition? This is because the current energy system based on liberalized markets where all economic agents can act freely, must be seen as optimal from the perspective of economic agents, otherwise they would have made other decisions resulting in a different energy system. From an economic perspective it can only be explained that an energy system is not optimal from a societal perspective (e.g. too much based on the use of fossil energy) if the coordination mechanisms (i.e. energy markets) are subject to fundamental shortcomings or market failures. These market failures do not state that economic agents, for instance, prefer too much fossil energy, while they should have other preferences (in this example, to use more renewable energy), but that the decisions which these agents make are distorted as the market signals are not correct. In the case of carbon emissions, economists

speak about negative environmental externalities, as the social costs of carbon emissions are not (and cannot) be taken into account by economic agents without the implementation of an appropriate carbon policy by governments. As a result, economic agents are producing and consuming too much fossil energy. Hence, in order to realize the energy transition by moving away from fossil energy, economic agents need to obtain appropriate (correct) signals about the social costs of fossil energy. When these correct signals are being given, then economic agents will make different decisions which result in a transition of the energy system. As a consequence, how this system will evolve fully depends on the decisions taken by economic agents. So, from an economic perspective, energy transition means that economic agents are given incentives (by governments) to control for imperfections in the organisation of energy systems. These incentives form the content of climate policy, such as subsidies for renewables, emissions-trading schemes, and restrictions on the use of coal. These incentives may, however, not only affect the technical structure of the energy system resulting in a lower level of carbon emissions, but also influence the competition among suppliers and the need for regulation.

3 Competition in the renewable energy era

The incentives related to carbon emissions given by governments to economic agents result in a different energy system. In economic terms, there will be new equilibria between demand and supply in the various energy (and related) markets. As said, no one can precisely predict how these new equilibria will look like. Nevertheless, one can speculate about the consequences for the efficiency of energy supply. In particular, the question is relevant to what extent these new equilibria will be an improvement for competition in energy markets. In the past, energy systems were characterised by only a few incumbent companies that could dominate markets for many hours in a year. Through several regulatory measures, including (a) the unbundling of network companies from commercial activities, (b) third-party access to the infrastructure under regulated tariffs, and (c) international integration of markets, the intensity of competition in natural gas and electricity markets has improved. What may be expected from the transition to more renewable energy? In general, one may expect that this transition will foster competition further as the number of producers will increase, just as the price elasticity of consumers, while also the international market integration will grow further.

The increase in number of suppliers depends, economically, on the presence of economies of scale in production, but also on policy measures used to foster renewable production. Renewable electricity can be generated more efficiently on a large scale basis than in small-scale projects because of scale advantages. This is the reason that we are

increasingly seeing large-scale offshore wind projects and onshore projects in both wind and solar. These scale advantages are, however, limited to a few hundred MW installed capacity, which is still below the size of conventional power plants. These limited scale advantages make that even in a renewable energy dominated system, a relatively high number of firms can be active.

In addition to this, policies are promoting small-scale generation, such as through the netting support scheme which enables residential consumers to net their annual electricity consumption with their annual production. Although small-scale electricity generation through solar panels on the roofs of houses is relatively expensive, for residential users this is (highly) profitable because of the tax on the consumption of electricity, which is the implicit subsidy for their production. As a result of such policy measures, the number of producers increases further, resulting in more intense competition in the electricity market.

On top of this, we are witnessing an increasing price sensitivity of consumers, resulting from the installation of smart meters and the development of short-term commercial products (such as retail contracts related to spot or real-time electricity markets). These growing price elasticities imply higher demand sensitivity, which reduces the ability of producers to behave strategically. Also this development fosters competition.

Finally, in an area with high shares of renewable energy, more international integration of markets is needed in order to obtain sufficient flexibility to balance the grid and to mitigate price fluctuations. Therefore, one may expect that the historical trend of increasing integration of markets in Europe will continue and be stimulated by policies to realize the energy transition. This higher level of integration can be realized through more cross-border transport capacity and higher efficiencies of using this infrastructure. These higher levels of market integration will not only result in less fluctuating prices in individual market (zones), but also in a more competitive environment as individual market players (i.e. suppliers) will experience fewer moments in which they have the option to influence market outcomes.

Overall, one may conclude that promotion of the energy transition by stimulating economic agents to produce their own (renewable) energy or to replace fossil energy by renewable energy plants, will result in more intense competition or at least maintains the current high levels of competition in electricity markets. This effect may also be attributed to the presence of well-developed and liquid wholesale markets which resulted from various types of regulatory measures. Hence, the benefits of the past efforts to realize competitive markets may be expected to stay in the renewable energy era

4 Regulation in the renewable energy era

The above conclusion that competition in energy markets will be stimulated by the transition towards renewable energy does not imply that the regulation of these markets should be cancelled. On the contrary, regulation of markets remains necessary to protect users of those parts of the supply chain which are natural monopolies, such as the transport infrastructure. In addition, the international integration of markets is a process that requires close cooperation between national regulators and network operators. Hence, sector-specific regulation will remain necessary to protect the intensity of competition and, ultimately, the end-user.

The transition towards more renewable energy, however, may call for a redesign of regulation as in the past the objective of regulation was mainly directed at improving efficiency of the energy supply chain, while from now on the objective is also directed at realizing the energy transition. The resulting question for regulators is to what extent regulation can and should help to foster this transition.

One particular question is to what extent regulators should give network operators more certainty about their future revenues of new investments in order to stimulate them to make the necessary investments in, for instance, connecting new renewable producers or to increase the network capacity to prevent future bottlenecks. Although such a development within regulation of energy networks may look logical given the societal objective to realize the energy transition, one should be careful of its adverse effects. Such effects may consist of less focus on efficiency by network operators resulting in overinvestments in infrastructure (e.g. so-called 'gold plating') and too high costs for consumers. Moreover, it is crucial for an efficient functioning of energy supply chains that all agents within this chain have to operate in circumstances which give them incentives to look for the best alternatives, i.e. alternatives which give higher benefits for end-users or result in lower costs for them.

Another question is to what extent network operators should be given a more coordinating role in energy systems. For instance, to let them inform producers about the best locations for new production facilities or to influence consumers about what type of energy (gas, electricity and/or heat) they should use. Currently, however, network operators have to operate as unbundled entities, which means that they are assumed to be fully independent from commercial activities in production and supply. If network operators would be given a more coordinating role, this may result in more efficient decisions regarding locations for building, for instance, a solar park. The condition for such an efficient result is of course that this information is purely restricted to informing network users about the (marginal) costs of network use. In less technical words, this means that the network operators only tell where grid capacity is or will become scarce and what it would cost to prevent this from happening. If network users would have such

information, they will make more efficient locational choices. Network operators should, however, not go beyond this level of information, by, for instance, trying to influence the actual decisions by producers and consumers because of their own preferences or expectations based on scenario studies conducted by network operators themselves. After all, the essential idea of having liberalized energy markets is that producers and consumers should be fully free in their decisions as such a decentralized form of organisation of energy systems results in optimal decisions from societal point of view.

5 Conclusion

In this chapter, we have shown that the key topics Martha Roggenkamp has worked on remain crucial in the future renewable energy era. Although in such an area the benefits of a competitive market environment can still occur, they have to be protected by ongoing regulation to shield consumers from inefficient market outcomes. Nevertheless regulation of energy markets has to be continuously reconsidered in order to see how it may continue to foster both efficiency of energy markets and the transition towards renewable energy.

ENERGY LAW AND ENERGY TRANSFORMATION

John Paterson[1]

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://nselp.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 Milieudefenssie v Royal Dutch Shell PLC*,[4] and the success of activist investors in placing at least two nominees on the board of Exxon[5] 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 Arctic[7] 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-fe85a307d9d0

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 pipeline[8] 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 CO_2 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 Yiallourides, "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.

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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.

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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.

THE CARBON PRICE PARADOX

Edwin Woerdman[1]

Abstract

Should the carbon price be high to stimulate climate-friendly technologies or should it be low to realize inexpensive emission reductions? This 'carbon price paradox' is unraveled for the EU on the basis of legal, economic and political arguments. Legally, the primary aim of the EU ETS Directive is to promote cost-effective emission reductions. Economically, the rate of emission reduction in the EU ETS and to an increasing extent also its indirect impact on technological innovation are not so much determined by the level of the allowance price, but rather by the rate at which the emission ceiling falls. Politically, a lower carbon price creates room to lower the emission ceiling more quickly. In sum, society should welcome a low carbon price.

1 Introduction

Professor Martha Roggenkamp and I jointly established the Groningen Centre of Energy Law and Sustainability (GCELS) in 2007. I was studying the economics of climate regulation, and Martha covered the entire field of energy law. Martha was the leading lady, not only because she was professor while I was associate professor at the time, but also because climate law was still in its infancy. Much has happened since then. Climate change has accelerated for the worst, and climate law established itself as a mature discipline alongside

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energy law.[2] Supported by Martha, I became a full professor in 2018, and as the influence of economics on climate policy grew, issues of carbon pricing migrated from economic theory to legal practice.

Both among economists and lawyers, a much-debated question is: should the carbon price be low or high? Or to put it differently: should society welcome a continuously rising carbon price or not? And more specifically: should national governments set a carbon price floor in the emissions trading scheme by implementing an extra carbon levy for industry, as the Netherlands recently did? The answers to these questions lead to an apparent contradiction: the 'carbon price paradox'.

Some scholars and commentators welcome higher carbon prices. An example is the recent price increase of tradable emission allowances in the European Union Emissions Trading System (EU ETS).[3] "Prices have risen from 5€ per ton in 2017 to 40€ in early 2021. This is a great achievement", Grischa Perino said.[4] Reuters even concluded: "Analysts say [the carbon] price needs to be much higher to speed change".[5] Nicholas Stern, for instance, argues in favor of a "strong and rising carbon price".[6] A rising price would strengthen the innovation incentive for emitters of greenhouse gases, including power companies, industries and airlines, to develop and adopt climate-friendly production technologies. An upward price trend would also bring the allowance price more in line with the damage costs of human-induced climate change.

Paradoxically, there are other voices that are either indifferent to the carbon price level or even welcome lower prices. "The market for allowances generates a carbon price in response to supply and demand, (…) focusing on emissions reductions (as opposed to setting a specific carbon price (…))", so that "there is no need for regulators to dictate specific abatement actions or to try to prescribe an optimum carbon price", Alexander Eden and others argue.[7] Jeroen van den Bergh and others conclude: "the cap (…) will

2 Woerdman, E., M.M. Roggenkamp & M. Holwerda (eds.) (2021), Essential EU Climate Law, second revised edition, Cheltenham: Edward Elgar.

3 Since 2005, the EU ETS caps emissions from carbon dioxide (CO2). Since 2013 it also regulates emissions from nitrous oxide (N2O) and perfluorocarbons (PFCs). These greenhouse gases are recalculated in carbon dioxide equivalents. This is why some still refer to the 'carbon' price of the EU ETS.

4 <https://lifedicetproject.eui.eu/2021/03/19/the-eu-ets-needs-a-new-autopilot-a-proposed-reform-for-the-msr/>

5 <https://www.reuters.com/business/energy/eu-carbon-price-tops-50-euros-first-time-2021-05-04/>

6 Stern, N. & A. Valero (2021), 'Innovation, Growth and the Transition to Net-zero Emissions', Research Policy 50(9): 1-12.

7 Eden, A., et al. (2018), *Benefits of Emissions Trading: Taking Stock of the Impacts of Emissions Trading Systems Worldwide*, Berlin: ICAP.

determine the adequate price level."[8] A downward price trend would therefore imply a successful realization of cost-effective emission reductions.

This brings us back to the original controversy: should society welcome a low or high carbon price? It is important to answer this basic question, not least as the European Commission proposes to expand the EU ETS to the maritime sector and aims to create a separate trading scheme for producers of fuel used in road transport and buildings.[9] This chapter argues that the 'carbon price paradox' can only be entangled by considering the institutional context of market-based climate instruments, which requires an appreciation of their economic rationale, legal objectives and political dynamics.

2 The polluter should pay

Environmental damage reduces welfare and must therefore be priced. Economists want external effects to be internalized. For reasons of effectiveness and fairness, lawyers want polluters to be accountable for the environmental damage they cause: that is why the so-called "polluter-pays" principle has been included in Article 191 of the Treaty on the Functioning of the European Union (TFEU). It is also better to be safe than sorry. Lawyers invoke the principle of preventive action, also enshrined in Article 191, while economists emphasize the *ex ante* incentive that pricing creates to reduce pollution.[10]

Pricing pollution ensures that the polluter pays and that those who cause it are encouraged to reduce or even cease their pollution. Such choices depend on the price level and on the design of the legislative instrument. This is where it gets exciting. Which instrument is the most efficient one for pricing pollution and how high should the price be that the polluter should pay?

Let's answer this economic question from the perspective of one of the greatest environmental problems and risks of our time: climate change.[11] Burning fossil fuels releases greenhouse gases, especially CO2, which contributes to global warming and leads to all kinds of damage, ranging from more forest fires and heavier rainfall to fiercer storms and major crop failures.[12]

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8 Baranzini, A., et al. (2017), 'Carbon Pricing in Climate Policy: Seven Reasons, Complementary Instruments, and Political Economy Considerations', WIREs Climate Change 8(4): 1-17.

9 The European Green Deal, COM(2019) 640 final, Brussels: European Commission.

10 Hanley, N., J.F. Shogren J.F. & B. White (1997), 'Economic Incentives for Environmental Protection: An Overview'. In: Environmental Economics in Theory and Practice, Londen: Palgrave.

11 World Economic Forum (2021), The Global Risks Report 2021, 16th edition, Genève: Zwitserland.

12 IPCC (2018), Global Warming of 1.5°C: Special Report.

3 The costs of auctioned versus free emission allowances

In order to price harmful CO2 emissions, a carbon tax or a carbon trading scheme must be introduced. With a carbon tax there is certainty about the CO2 price in the form of the tax rate, but there is uncertainty about its environmental effect: after all, how high must the tax be in order to achieve a certain emission reduction target? With carbon trading it is the other way around: there is certainty about the environmental effect, because emissions must remain below the emission ceiling, while there is uncertainty about the market price of CO2. There is no consensus among economists as to which of these two instruments is better,[13] reinforcing the political nature of instrument choice. The EU opted for a carbon trading scheme, mainly because a carbon tax required unanimity and therefore stranded in the legislative process. The energy-intensive industry also preferred emissions trading to an additional tax, because emission allowances could be obtained free of charge.[14]

The latter does not mean that free allowances have no cost. Free allowances have opportunity costs – the revenues foregone by not selling the allowances – when they are used to cover emissions. The price of the emission allowances must therefore be passed on to consumers via the product price. This pushes up the price of the polluting product, such as the price of electricity, steel or cement, exactly as intended by the polluter-pays principle.[15]

However, the financial advantage that free allowances imply for companies can be turned into a financial advantage for the government by auctioning the allowances.[16] Since 2013 electricity companies have to buy all of their allowances at auction, but the energy-intensive industry – exposed to international competition – enjoys allowances for free. This makes no difference to the effectiveness and efficiency of the EU ETS: these European companies must operate under absolute, decreasing emission ceilings and can trade the auctioned or free emission allowances on the carbon market.[17] If their emis-

13 Hsu, S.-L. (2020), 'Prices versus quantities', in: K.R. Richards & J. van Zeben (eds.), Policy Instruments in Environmental Law, Cheltenham: Edward Elgar, pp. 183-198.

14 Woerdman, E. (2004), The Institutional Economics of Market-Based Climate Policy, Amsterdam: Elsevier.

15 Woerdman, E., A. Arcuri & S. Clò (2008), 'Emissions Trading and the Polluter-Pays Principle: Do Polluters Pay under Grandfathering?', Review of Law and Economics 4(2): 565-590.

16 Woerdman, E., O. Couwenberg & A. Nentjes (2009), 'Energy Prices and Emissions Trading: Windfall Profits from Grandfathering?', European Journal of Law and Economics 28: 185-202.

17 Hahn, R.W. & R.N. Stavins (2011), 'The Effect of Allowance Allocations on Cap-and-Trade System Performance', Journal of Law and Economics 54(4): 267–94.

sions would exceed their emission allowances, an inflation-adjusted penalty of 100 euros (now rising to about 120 euros) per tonne of CO2 is imposed.

4 The impact of regulatory changes on the carbon price

In principle, the size of the aforementioned fine determines the maximum price level of emission allowances in the EU. Non-compliant companies also have a reparation obligation: if they emit too much in one year this must be compensated by extra emission reductions in the next year (Article 16 ETS Directive.)[18]

The allowance price is determined by supply and demand. The legislation determines the supply of emission allowances, which is capped and reduced annually. This means that the carbon price does not only react to increasing and decreasing demand, but also to legal changes of the carbon trading system. For example, the allowance price started at 10 euros in 2005 and rose to 30 euros in 2006, before falling back to almost zero euros in 2007 given that more emission allowances had been issued than there were emissions. On the one hand, the emission ceiling had become too high due to, *inter alia,* the import of emission reductions from climate projects from outside Europe. On the other hand, the allowance price fell as the legislation prohibited allowances from the first trading phase 2005-2007 to be transferred to the second trading phase 2008-2012.[19]

As of 2008, banking emission allowances has been made legally possible, which helps to avoid price collapses. More than ten years ago a carbon price in the EU was predicted of around 25 to 35 euros in 2010 and 35 to 50 euros in 2020.[20] The allowance price started at around 25 euros in 2008, but after a drop in demand due to the financial crisis, the price fell to around 5 euros at the start of the third trading phase 2013-2020. As a result, there were now two billion more emission allowances on the market than there were emissions. Nevertheless, the price did not fall to zero, because emission allowances were carried over to subsequent trading phases while a growing scarcity of allowances was anticipated in the long run.

The expected scarcity of emission allowances due to stricter climate rules has proven justified. The EU aims to be carbon neutral by 2050 and recently tightened the emission reduction target for 2030 from 40 to 55 percent. Importantly, the EU has introduced a kind of allowance 'vacuum cleaner' since 2019, the Market Stability Reserve (MSR),

18 Directive 2003/87/EC, OJ 2009 L.275/32–46.

19 Woerdman, E. (2021), 'EU Emissions Trading System', in: Woerdman, E., M.M. Roggenkamp & M. Holwerda (eds.), Essential EU Climate Law, Cheltenham: Edward Elgar, pp. 44-73.

20 Point Carbon (2008), Carbon 2008: Post-2012 is Now, Oslo: Point Carbon, p.31.

which automatically reduces the auction volume of emission allowances and even cancels part of the allowances in case of an allowance surplus.[21] Allowance supply is therefore limited by means of legal intervention. The surplus of emission allowances at the end of the third trading phase 2013-2020 had fallen by a third and the allowance price had risen from 5 euros in 2013 to more than 30 euros in 2020. Since the start of the fourth trading phase in 2021, the allowance price has increased to around 75 euros.

5 Regulatory intervention in the carbon price

According to Article 1 of the ETS Directive, this trading system is established "(...) in order to promote reductions of greenhouse gas emissions in a cost-effective and economically efficient manner."[22] A secondary goal, as stated in its preamble, is to stimulate climate-friendly technologies, such as combined heat and power in the electricity sector, but also hydrogen in the transport sector or CO2 storage by industry. Emissions trading is technology neutral: the market determines which technology can achieve the emission reductions at the lowest possible cost. The higher the allowance price, the more attractive it becomes for companies to develop and use relatively expensive abatement technology. But it also works the other way around: technological innovations, such as larger wind turbines at sea or solar panels with higher cell efficiency, can lead to cost savings in reducing carbon emissions, lowering the carbon price and thus making compliance cheaper.[23] This in turn gives more political room to tighten the emission ceilings further.

Empirical research shows that the EU ETS succeeds in reducing emissions and promoting climate-friendly technology, even at a low carbon price.[24] Nevertheless, during the third trading phase 2013-2020, when the allowance price was still around 5 euros, the United Kingdom (then still an EU Member State) and later also the Netherlands decided

21 Woerdman, E. (2021), 'Hoe emissiehandel werkt: als stofzuiger-met-wegwerpzak', Klimaatweb 12 april 2021.

22 Directive 2003/87/EC, OJ 2009 L.275/32–46.

23 Woerdman, E. (2019), 'Klimaatrecht tussen marktwerking en overregulering', Nederlands Tijdschrift voor Energierecht 18(2): 50-57.

24 Bayer, P. & M. Aklin (2020), 'The European Union Emissions Trading System Reduced CO2 Emissions Despite Low Prices' 117(16) PNAS: 8804-8812; Van den Bergh, J. & I. Savin (2021), 'Impact of Carbon Pricing on Low-Carbon Innovation and Deep Decarbonisation: Controversies and Path Forward', Environmental and Resource Economics 80: 705–715; Prest, B., D. Burtraw & K. Palmer (2021), Waiting for Clarity: How a Price on Carbon Can Inspire Investment, Report 21-08, Washington: Resources for the Future.

to introduce a carbon price floor for electricity companies. If the allowance price is lower than the floor price, these companies pay the difference in the form of a levy.

The floor price in the United Kingdom was set at 16 pounds in 2013 to gradually increase to 30 pounds in 2020. It is telling that the rising floor price was quickly capped permanently at 18 pounds. A carbon price of 30 pounds was, with hindsight, seen as to make climate policy too expensive, especially in a period of economic recovery after the financial crisis of a few years earlier.[25] These political interventions introduce rigidity into the market. After all, emissions trading acts as an automatic stabilizer: in economic good times the carbon price rises, in economic bad times the carbon price falls.[26]

The Netherlands also decided to intervene in the carbon price. The legislative proposal of a minimum CO2 price for electricity generation, which aims at a floor price of 12 euros in 2020 and 32 euros in 2030, has only been adopted early 2022. A CO2 floor price for the Dutch industry, however, is already longer in force: it will rise from 30 euros in 2020 to 127 euros in 2030, although initially a large part of the emissions will be exempted from this carbon levy.[27] France also tried to introduce a carbon tax, but it was met with massive, violent protests from the so-called 'yellow vest' movement.

The examples above demonstrate that it is complex but not impossible to increase the carbon price through administrative intervention. An added national carbon levy does indeed stimulate the development of climate-friendly technology, a derived goal of emissions trading, but it hinders a carbon price reduction because the extra levy acts as a floor price. This can make climate policy more expensive than necessary and potentially interferes with the primary goal of the ETS Directive: a cost-effective reduction of greenhouse gas emissions.

Crucially, raising the allowance price through administrative intervention ignores the rapidly falling costs of carbon-free energy technology and of CO2 reduction techniques. For example, the costs of wind energy, solar energy and battery storage have fallen spectacularly, actually more than expected, in recent years.[28] These cost reductions will ultimately be reflected in a falling carbon price. A low carbon price in an emission allowance market is therefore a signal that technological progress is effective in curbing emission reduction costs, despite increasingly stringent climate targets. In fact, these ever-tighter

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25 <https://commonslibrary.parliament.uk/research-briefings/sno5927/>

26 Woerdman, E. & A. Nentjes (2016), 'Misconceptions about Emissions Trading in Europe', in: A. Marciano & G.B. Ramello (eds.), Law and Economics in Europe and the U.S., London: Springer, pp. 211-227.

27 <https://wetten.overheid.nl/BWBR0044578/2021-01-01>

28 IRENA (2018), Renewable Power Generation Costs in 2017, Abu Dhabi: International Renewable Energy Agency (IRENA), p. 21; Glenk, G., et al. (2021), Clean Energy Technologies: Dynamics of Cost and Price, Working Paper, University of Mannheim.

reduction targets create business opportunities for entrepreneurs, for instance for those who become market leader by inventing or using carbon-free energy technologies that are cheaper than producing energy by burning fossil fuels.[29] Over time, therefore, the prospect of generating innovation profits could even become a stronger incentive for climate-friendly innovation than the carbon price itself.

The market price for CO2 is therefore a completely different story than the administrative price of a CO2 tax. In principle, the following applies in case of a tax: the higher the tax rate, the more sustainable the producer and, ultimately, the consumer. Due to inelastic demand for energy and consumer habits, a price increase may have a limited effect on emissions, but in principle higher taxes on dirty products lead to more sustainable consumer behavior.[30] In an emissions trading system, however, the rate of emission reduction is not so much determined by the level of the allowance price, but rather by the rate at which the emission ceiling falls. The lower the ceiling, the more sustainable the producer and, finally, the consumer.

6 The damage costs of carbon emissions

But should the price of emission allowances in the EU not be much higher than it is now, looking at the damage costs of carbon emissions, called the Social Cost of Carbon (SCC)? That may be a slippery slope. This slope slips from a few tens to many hundreds of euros per tonne of CO2. The problem is that the cost estimates of climate damage vary enormously, not only per country or region, but also depending on the model used and the assumptions chosen. Which economist do we want to listen to?

According to the American economist Matthew Kotchen, the damage costs for the EU are about 50 euros.[31] If that is the case, then we can be more than satisfied with the current emission allowance price of approximately 75 euros in Europe. But industrial parties that would like to earn money from, for example, the capture and storage of CO2, would rather see even higher prices: Carbon Capture and Storage (CCS) is usually only profit-

29 Grubb et al. (2021), 'Induced Innovation in Energy Technologies and Systems: A Review of Evidence and Potential Implications for CO2 Mitigation', Environmental Research Letters 16(4): 1-48.

30 Mulder, M. (2021), Regulation of Energy Markets: Economic Mechanisms and Policy Evaluation, Cham: Springer; Bolderdijk, J.W., L. Steg, E. Woerdman, R. Frieswijk & J.I.M. de Groot (2017), 'Understanding Effectiveness Skepticism', Journal of Public Policy & Marketing 36(2): 348-361.

31 Kotchen, M.J. (2018), 'Which Social Cost of Carbon? A Theoretical Perspective', Journal of the Association of Environmental and Resource Economists 5(3): 673-694.

able from around 60 euros per tonne of CO2 and often the costs are double as high.[32] Also financial service providers would in principle like to see further rising carbon prices, so that they can earn money from trading emission allowances as intermediaries.

According to a well-known *Nature* study by Katharine Ricke and others, global climate damage should be monetized between 154 and 700 euros per tonne of CO2, with a median of 363 euros.[33] Also according to various authoritative Dutch economists, including Jeroen van den Bergh and former State Secretary Rick van der Ploeg, climate damage is grossly underestimated.[34] They argue that if we weigh future climate damage more heavily and take less risk of irreparable damage to forests and biodiversity, while recognizing that oceans can absorb less and less carbon in the future, then CO2 prices should be at least 105 euros and should probably go towards 250 to 500 euros.

This sounds like a theoretical economic debate, irrelevant to lawyers. Which EU Member State now charges CO2 damage costs of 500 euros, or even more, while the market price for CO2 allowances is around 75 euros? The answer is: Sweden. In 2020, the Swedish Transport Administration increased the CO2 costs in cost-benefit analyses to assess investments in transport infrastructure from 100 euros to 682 euros.[35] This is approaching the upper range of 700 euros per tonne of carbon in the above-mentioned *Nature* study. That is not surprising, because the Swedish government body derived this price directly from this study and from other economic studies on climate damage.

The Swedish use of carbon damage studies is all the more interesting when one considers that the European Commission wants to extend the EU ETS to shipping and aims to set up a separate emissions trading system for producers of fuels used in road transport and buildings. Does this mean that the European allowance price, or the Dutch national carbon levy for the industry, must also be increased towards 700 euros in order to curb catastrophic climate change?

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32 Koelemeijer, R., et al. (2018), Kosten energie- en klimaattransitie in 2030 – update 2018, Planbureau voor de Leefomgeving Publicatienummer 3241; Beck, L. & L. Temple-Smith (2020), 'Is CCS Expensive? Decarbonisation Costs in the Net-Zero Context', Global CCS Institute Brief.

33 Ricke, K., et al. (2018), 'Country-level Social Cost of Carbon', Nature Climate Change 8: 895–900.

34 Bergh, J. van den & W. Botzen (2014), 'A Lower Bound to the Social Cost of CO2 Emissions', Nature Climate Change 4: 253–258; Dietz, S., F. van der Ploeg, A. Rezai & F. Venmans (forthcoming), 'Are Economists Getting Climate Dynamics Right and Does It Matter?', Journal of the Association of Environmental and Resource Economists.

35 Trafikverket (2020), Analysmetod och Samhällsekonomiska Kalkylvärden för Transportsektorn: ASEK 7.0; Vierth, I. & A. Merkel (2020), 'Internalization of External and Infrastructure Costs Related to Maritime Transport in Sweden', Research in Transportation Business & Management (in press).

The answer is: no. In principle, the level of the allowance price has no effect on the ever-decreasing size of the number of emission allowances. This falling emission ceiling is crucial: it ensures that the permitted emissions decrease every year, ultimately ending at net zero carbon emissions by 2050, as the EU aims for. Meanwhile, emissions trading ensures that companies can choose the cheapest way to meet their emission reduction obligations. If technology did not change, an ever-tighter emission ceiling would lead to an ever-higher emission price. But if renewable energy and CO2 reduction techniques are becoming cheaper, the carbon price should rise less rapidly – or even fall. The costs of climate damage should therefore not be confused with the price of emission allowances: the CO2 price reflects (not the damage costs but) the reduction costs per unit of CO2 below the emission ceiling.[36]

One economic nuance concerns the cancellation mechanism in the Market Stability Reserve (MSR).[37] From 2023, allowances in the MSR that exceed the auction volume of the previous year will be canceled. This means that an additional national carbon levy could lead to slightly more emission reductions in the EU if its rate is higher than the (fluctuating) price of emission allowances. Such an effective floor price leads to more emission reductions, so that more allowances come onto the market which increases the MSR, of which a portion is automatically deleted.[38] This extra reduction could be nullified later, however, because the MSR in its current legal design is allowed to release allowances if scarcity increases.[39]

7 Conclusion

Should the carbon price be high to stimulate climate-friendly technologies or should it be low to realize inexpensive emission reductions? This 'carbon price paradox' is unraveled, within the institutional context of the EU, on the basis of legal, economic and political considerations.

First, the primary legal aim of the EU ETS Directive is to promote cost-effective emission reductions. Second, from an economic point of view, the rate of emission reduction

36 Aldy, J.E. et al. (2021), 'Keep climate policy focused on the social cost of carbon', Science 373 (6557): 850-852.

37 Decision (EU) 2015/1814 concerning the establishment and operation of a market stability reserve and amending Directive 2003/87/EC, OJ 2015 L.264/1-5.

38 Gerlagh, R. & R.J.R.K. Heijmans (2019), 'Climate-conscious consumers and the buy, bank, burn program', Nature Climate Change 9: 428-433.

39 If the surplus of allowances is less than 400 million allowances, 100 million allowances from the reserve are released automatically.

in the EU ETS and to an increasing extent also its indirect impact on technological innovation are not so much determined by the level of the allowance price, but rather by the rate at which the emission ceiling falls. The allowance price then ensures an optimal distribution of emission reduction options: the market price reveals the lowest cost at which emissions can be reduced and prevents unnecessary investments in relatively expensive reduction technology. Administratively increasing the allowance price, for example with a floor price, thus ignores the rapidly falling costs of carbon-free energy technology. In fact, a low allowance price is a signal that technological progress is effective in keeping emission reduction costs low, despite increasingly stringent climate targets. Third, and finally, a lower carbon price creates political room to lower the emission ceilings more quickly. It is telling that the EU recently decided to significantly tighten its 2030 reduction target, from 40 to 55 percent, after a decade in which both the cost of abatement technology and the price of emission allowances were far below initial forecasts.

INTERNATIONAL CHALLENGES

THE ARBITRATION OPTION IN ARTICLE 26 OF THE ENERGY CHARTER TREATY AND ITS APPLICABILITY TO DISPUTES WITH THE RUSSIAN FEDERATION:

THE ISSUE OF JURISDICTION IN THE PCA CASES AA 226, 227 AND 228 (*YUKOS*) AND ITS AFTERMATH

Jan Willem Bitter[1]

Abstract

Some twenty years ago now, Martha was working as an expert lawyer on energy law in my then law firm Trenité Van Doorne. As the leader in fact of that firm's energy group, Martha had invited a gentleman of the secretariat of the Energy Charter Conference for the purpose of enlightening us about the Energy Charter Treaty (ECT). When we were told that the ECT at the time was only provisionally applicable, my mind drifted away from the subject and towards the concept of provisional application, a concept I vaguely remembered from the time I studied international law. I am afraid I lost track of the speaker's discourse, and the issue of

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provisional application slowly disappeared behind the horizon. It was not before 20 April 2016 (the date when the arbitral awards in the Yukos case were set aside by the District Court of The Hague) that my attention was again focused at the relevance and importance of the concept of provisional application. This chapter is the fruit of some thoughts on that concept, the seed of which was planted by professor Martha Roggenkamp.

1 Background: the ECT and the Yukos case

The Energy Charter Treaty ('*ECT*') is a multilateral treaty on cooperation in the energy sector. To the extent relevant for the present chapter, it seeks to promote and protect investments in that sector. Its text was agreed between the negotiating parties on 17 December 1994. Article 26 ECT provides that at an investor's request, disputes between investors and a host State shall be resolved by arbitration.[2]

The occurrence of criminal investigations against Yukos OJSC ('*Yukos*'), formerly one of the biggest energy companies in Russia, of arrest warrants against its officials, of the freezing of its assets, and of a USD 10 billion tax reassessment in 2003 and 2004, culminating in Yukos' bankruptcy in 2006, gave rise to claims under Articles 10 and 13 ECT (on protection of investments and on the regulating of expropriation respectively), filed by three of Yukos' (former) shareholders against the Russian Federation under the UNCITRAL arbitration rules. These shareholders[3], were all established outside of the Russian Federation.[4] They will from now on collectively be referred to as '*HVY*'.[5]

2 Arbitration proceedings and Court proceedings

The Russian Federation's alleged non-observance of the rules of Article 10 and of Article 13 ECT, caused HVY to initiate arbitration proceedings against the Russian Federation, under the arbitration clause set out in Article 26 ECT. By three final arbitral awards of 14

2 This is a very concise reflection of the complex set of provisions comprised in Article 26 ECT. For a comprehensive commentary to the article, see Hobér, Kai, 'The Energy Charter Treaty', Oxford 2020, p. 389 *et seq*.

3 These are Hulley Enterprise Limited (Cyprus), Veteran Petroleum Limited (Cyprus) and Yukos Universal Limited (Isle of Man).

4 On the Isle of Man and in Cyprus respectively.

5 which is an acronym of the first letters of their names.

July 2014[6], an aggregate amount of approximately USD 50 billion was awarded to the claimants. In the present chapter, the merits of the arbitral awards will not be discussed. Instead we will focus on the issue of the arbitral tribunal's jurisdiction, on the debate on that topic in the arbitration proceedings and in the setting aside proceedings.

Interestingly, the Russian Federation, though being a signatory to the ECT, had never given its consent to be bound by that treaty.[7] Yet, it was held by the arbitral tribunal (the '*Tribunal*') that, according to Article 45(1) ECT, the whole treaty would provisionally apply to its signatories.

Arguing that Article 26 ECT was not provisionally applicable under the rule of Article 45(1) ECT, it was the Russian Federation's case that the Tribunal had no jurisdiction. By three arbitral interim awards, the Tribunal decided in favour of its jurisdiction.[8]

In the setting aside proceedings in the Netherlands[9], the Russian Federation's argument of the Tribunal's lack of jurisdiction was first endorsed by the District Court of The Hague, thus causing the setting aside of all the Tribunal's awards.[10] The District Court's judgment was reversed by the Hague Court of Appeal's judgment of 18 February 2020.[11] The latter's judgment was reversed on points of law by the Supreme Court's judgment of

6 See: www.pca-cpa/cases/pastcases, 2005-03/AA 226 (Hulley), 2005-04/AA 227 (Yukos Universal) and 2005-05/AA 228 (Veteran Oil).

7 As a treaty, the ECT is governed by the Vienna Convention on the Law of Treaties of 1969. According to the Vienna Convention (Articles 12 -15) the consent to be bound is a term indicating a State's unconditional intention to be bound by a specific treaty.

8 These Interim Awards on Jurisdiction and Admissibility, each dated 30 November 2009, are all similar to each other but not identical. They can be found on the site mentioned in footnote 6. For the purpose of this chapter, the differences between the awards are of no consequence. For convenience's sake, whenever hereinafter reference shall be made to the Tribunal's decision on jurisdiction, we will solely refer to the Award 2005-03/AA226 (Hulley) (hereinafter: the '*Award*').

9 The seat of arbitration was The Hague, Netherlands. Hence the jurisdiction of the Dutch Courts on the issue of setting aside. See Article 1073 Dutch Code of Civil Procedure ('*DCCP*').

10 District Court (*Rechtbank*) of The Hague 20 April 2016, ECLI:NL:RBDHA:2016:4229 (Dutch) and ECLI:NLRBDHA:2016:4230 (English (unofficial) translation) (hereinafter: '*Judgment DC*').

11 Court of Appeal (*Gerechtshof*) The Hague, 18 February 2020, ECLI:NL:GHDHA:2020:234 (hereinafter: '*Judgment CA*'); case note by C. Verburg: 'The Hague Court of Appeal Reinstates the Yukos Awards', *European Investment Law and Arbitration Review Online,* 5(1), 297-314.

5 November 2021[12], but the Court of Appeal's decision in favour of the Tribunal's jurisdiction was upheld.[13]

3 The main issue: the provisional applicability of Article 26 ECT and the Tribunal's jurisdiction

Provisional application is a concept of international law, embodied in Article 25 of the Vienna Convention on the Law of Treaties of 1969 ('*VCLT*')[14], providing that, subject to agreement between the negotiating parties, a treaty shall provisionally apply from its signature onwards, instead of being applicable subject to the expression of one or more consents to be bound.[15]

Provisional application is a compromise between (i) the desire for immediate application of an agreement reached by the negotiating States in the international sphere and (ii) the prominence of the constitutional balance of powers in the internal sphere of each of these States. The latter will often require the involvement of bodies designated to control the executive branch of government. As a result, delays may occur, which may run counter to a desire of urgency, as may be felt in the international sphere.

In order to reconcile these two approaches, the practice has arisen in the international sphere to limit the scope of a treaty's provisional application, by clauses aimed at avoiding infringements of the constitution or laws of each of the negotiating States. Such clauses are commonly referred to as *limitation* clauses[16] and Article 45(1) ECT is one of them. This Article provides that '*(e)ach signatory agrees to apply this Treaty provisionally*

12 Supreme Court (*Hoge Raad)* 5 November 2021, ECLI:NL:HR:2021:1645 (hereinafter: '*Judgment SC*'). It was held by the Supreme Court that the Court of Appeal was wrong for having failed to substantively discuss the Russian Federation's argument of HVY's fraudulent conduct during the arbitration proceedings. See Judgment SC, §§ 5.1.3 – 5.1.18. The matter was referred to the Court of Appeal of Amsterdam for judgment to be rendered in accordance with the Supreme Court's decisions.

13 See Judgment SC, §§ 5.2.3 – 5.2.21.

14 The VCLT applies only to treaties between States. The conclusion of treaties between international organisations is governed by the Vienna Convention on the Law of Treaties between States and International Organisations of 1986.

15 The expression of the consent to be bound is often subject to parliamentary approval. On the rationale for provisional application see for instance: First Report on the Provisional Application of Treaties by Mr Juan Gómez Robledo, special rapporteur, Document A/CN.4/664 of 3 June 2013, Chapter I, §§ 25 – 35; Deley, Tim, 'De voorlopige toepassing van verdragen', Ghent, 2018 – 2019, §§ 7 – 15 and Klabbers, J., '*Verdragenrecht*', in Horbach, Lefeber and Ribbelink (eds.), 'Handboek Internationaal Recht', The Hague 2007, in § 5.

16 See for instance: Deley, *oc.,* § 93.

pending its entry into force for such signatory (……), to the extent that such provisional application is not inconsistent with its constitution, laws or regulations.'

From the outset, the Russian Federation argued that situations of *inconsistency* in Article 45(1) are to be assessed on a case by case basis. The provisional application of each single provision of the ECT would need to be assessed by checking its consistency with Russian law. This approach is referred to as the *piecemeal approach*.[17]

In arbitration and in the proceedings in the District Court it was argued by HVY that *inconsistency* in Article 45(1) ECT refers to the inconsistency between the *principle* of provisional application and domestic law[18]. Once in a given State the principle of provisional application would be recognised, the entire ECT should be applied to disputes in which such a State would be involved. This approach is referred to as the *all or nothing approach*.

The applicability of Article 26 ECT between the Russian Federation and an investor will, accordingly, in all cases depend on the interpretation of Article 45(1) ECT. This is a matter of treaty interpretation, a topic which will be addressed in the next paragraph.

4 The interpretation of treaties

The interpretation of treaties is a matter governed by international law. The relevant provisions are the Articles 31 and 32 of the VCLT. Treaties are to be interpreted in good faith, in (i) accordance with the ordinary meaning of the terms of the treaty, (ii) in their context and (iii) in the light of the treaty's object and purpose (Article 31(1) VCLT).[19]

Other means of interpretation, such as interpretation based on the treaty's history (including the *travaux préparatoires*) may only be relied on in order to confirm an interpretation based on the rule of Article 31(1), or in case an interpretation based on that provision would lead to an ambiguous or absurd result (Article 32 VCLT).

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17 A term, coined by the Tribunal; see for instance § 292 of the Award.

18 As held by the arbitral tribunal in its decison on jurisdiction in the matter of *Kardassopoulos vs. Georgia* of 6 July 2007 (ICSID Case No. ARB/05/18). This decision is extensively reviewed in connection with the Yukos case by Hobér, *oc.*, p. 520 – 526. The Kardasopoulos decision is also referred to in §§ 269, 309 and 391 of the Award. The term '*all or nothing approach*' is likewise coined by the arbitral tribunal. See § 292 of the Award. The discussion on the applicability of the piecemeal approach or the all or nothing approach is reflected in §§ 290 – 329 of the Award and in §§ 5.8 *et seq.* of the Judgment DC.

19 On the interpretation of treaties, see for instance: Aust, Anthony, 'Modern Treaty Law and Practice', Cambridge 2013, p. 205 *et seq.* and (more in depth): Gardiner, Richard, 'Treaty Interpretation', Oxford 2015.

5 The discussion of the Tribunal's jurisdiction by the Tribunal and the Dutch Courts

In the discussions on jurisdiction before the Tribunal and before the District Court, the focus was on the carve-out provision of the first paragraph of Article 45 ('*to the extent that such provisional application is not inconsistent with* [a signatory's] *constitution, laws and regulations*'). In this respect, two issues were found to be of peremptory importance: (i) what is meant by *'such provisional application*'? and (ii) what is meant by *inconsistency*?

5.1 'Such provisional application'

(a) *All or nothing or piecemeal? The Tribunal and the District Court*
Essentially, the debate on the concept of *'such provisional application*' before the Tribunal and the District Court was about the applicability of either the *all or nothing approach* (as advocated by HVY) or the *piecemeal approach* (as advocated by the Russian Federation).[20] The Tribunal found in favour of the all or nothing approach.[21] The District Court found in favour of the piecemeal approach.[22]

Taking the ordinary meaning of Article 31(1) VCLT as its point of departure, the Tribunal found that (i) in its initial part Article 45(1) ECT[23] provides for the provisional application of the ECT in its entirety ('*(e)ach signatory agrees to apply this Treaty*'[24]), and (ii) on account of the word *such* in the following part, the carve-out provision towards the end of Article 45(1) ('*to the extent* such *provisional application*…..') therefore refers to the concept of provisional application of the treaty as a whole.[25] Hence the Tribunal's position that solely an inconsistency between the *principle* of provisional application with a signatory's constitution, laws and regulations would preclude the provisional application of the entire ECT.

This ordinary meaning based argument was further supported by arguments relating to context, State practice, and to the ECT's object and purpose (Articles 31(1) and 31(3)(b) VCLT). The Tribunal found that in context a reference to the entire treaty accords better

20 See § 3 above *in fine*.
21 Award, § 329.
22 Judgment DC §§ 5.12, 5.18 and 5.23.
23 as partly quoted in § 3 above.
24 Article 45(1) ECT first line; emphasis added.
25 Award, § 304.

to the ordinaty meaning of Article 45(1) than a reference to only part of the treaty.[26] No State practice in favour of the *piecemeal* approach was found by the Tribunal. Moreover, according to the Tribunal, such an approach would run squarely against the ECT's object and purpose and against the grain of international law, for allowing too much importance to a State's internal law for the purpose of interpretation of a provision of international law (such as Article 45 ECT).[27] The disregarding of such principle of preponderance of international law, would require unambiguous and clear wording, which the Tribunal found to be lacking in the ECT.[28] Hence the Tribunal's preference for an all or nothing approach.

In the setting aside proceedings initiated by the Russian Federation, the Hague District Court, likewise, took the ordinary meaning of Article 45(1) ECT as its point of departure. By its judgment of 20 April 2016[29], the Court discarded the importance attached by the Tribunal to the word *such*, for stating the obvious.[30] Instead, the Court emphasised the importance of the words *to the extent*, followed by the reference to inconsistency with a signatory's constitution, laws and regulations. By the said expression, Article 45(1) would – in the Court's view – refer to multiple occurrences rather than to one single occurrence of inconsistency. This led the Court to expressing a preference for the *piecemeal approach*: each single provision of the ECT would be provisionally applicable unless the provision at hand were inconsistent with Russian law.[31]

Like the Tribunal, the Court found support for its ordinary meaning approach in arguments relating to context. Finding that the principle of provisional application is unlikely to be refuted by a signatory's *regulations*, the Court held that the use of that term would provide support for the piecemeal approach.

Support for the piecemeal approach was also found in the principle that similar terms in one and the same instrument should preferably be given the same meaning.[32] Noting that a carve-out provision, similar to that of Article 45(1) was applied in Article 45(2)(c) with respect to the sole provisional applicability of Part VII ECT (relating to the ECT's institutions and structure), the Court found that logically, the concept of inconsistency in Article 45(2)(c) cannot relate to the *principle* of provisional application, but can only relate to inconsistencies between the provisions of Part VII and the relevant laws of the State in question. Relying on the principle that identical terms, used at different spots,

26 Award, § 208.

27 Award, §§ 312 – 320.

28 Award, §§ 321 – 328.

29 ECLI:NL:RBDHA:2016:4229; an unofficial English version is set out in ECLI:NL:RBDHA:2016:4230.

30 Judgment DC, § 5.12.

31 Judgment DC, § 5.12.

32 Gardiner, *oc.*, p. 209, § 4.2.7.

shall have the same meaning, the Court found that just like Article 45(2)(c), Article 45(1) ECT should be deemed to refer to the case of the inconsistency of single provisions with a signatory's laws rather than to the *principle* of provisional application.[33]

Hence the Court's preference for the piecemeal approach.

(b) Tertium; an alternative approach on the interpretation of Article 45 ECT presented and discussed in the appeal proceedings; the Court of Appeal and the Supreme Court

In the appeal proceedings initiated by HVY against the District Court's judgment an *alternative approach* was presented and relied on by HVY: Article 45(1) should be interpreted as providing that the entire ECT is to be applied provisionally, save to the extent that in the State in question the application of *certain categories of provisions* would be inconsistent with its constitution, laws, or regulations.[34] This approach was endorsed by the Court of Appeal, based on the ordinary meaning of Article 45(1) ECT, and on arguments relating to context, object and purpose.[35]

Noting that in Article 45(1) ECT the use of the words *such provisional application* appears to rule out the piecemeal approach on the one hand, and that the use of the words *to the extent* seems to rule out the all or nothing approach on the other hand, the Court of Appeal found that each of the referenced wordings would have a logical meaning if the *alternative approach* were applied. On the one hand, the alternative approach would, as a matter of principle, refer to the provisional application of the entire ECT, which is in line with the use of the reference *such* to *this Treaty*. On the other hand the alternative approach would provide for more than one occurrence of inconsistency, which would be in line with the use of the words *to the extent*. Hence the Court's finding that on account of the ordinary meaning criterion, the alternative approach should be preferred to the piecemeal approach and the all or nothing approach.[36]

Context driven arguments would, in the Court's view, militate against the all or nothing approach. In this respect the Court of Appeal appears to share the District Court's argument relating to Article 45(2)(c) (provisional application of Part VII).[37]

Arguments based on the ECT's object and purpose would in the Court's view lead to discarding the piecemeal approach. It being one of the purposes of the ECT to promote and protect investments in the energy sector, *inter alia* by creating stable, equitable, favourable and transparent investment conditions, an approach requiring the testing of

33 Judgment DC, § 5.15; also shared by the Court of Appeal in § 4.5.19 of its judgment.
34 Judgment CA, § 4.4.2.
35 Judgment CA, §§ 4.5.48, 4.61, 4.7.32, 4.7.58, 4.7.65 and 4.9.2.
36 Judgment CA, § 4.5.13.
37 Judgment CA, § 4.5.18.

the consistency between each and any provision of the ECT on the one hand and the law of the host Sate on the other hand would be likely to create a situation of uncertainty for the beneficiaries of such protection and promotion. As a result of such uncertainty, the piecemeal approach (as advocated by the Russian Federation) would not – in the Court's view – be as effective for the reaching of the purpose of protecting and promoting investments as the all or nothing approach or the alternative approach.[38]

By its judgment of 5 November 2021, the Supreme Court found that, based on its reasoning, the Court of Appeal's interpretation of Article 45(1) ECT was correct in principle.[39] However, the Supreme Court refrained from further analysing such initial qualification on the ground that the Court of Appeal's finding was not only based on the *alternative approach* but also on the Court's analysis of piecemeal-approach based arguments advanced by the Russian Federation.[40]

5.2 Inconsistency[41]

At this point, the different approaches and decisions on *inconsistency* by the Tribunal, the District Court, the Court of Appeal and the Supreme Court respectively will be reviewed.

Having found in favour of the all or nothing approach and noting that from the days of the USSR onwards, the provisional application of treaties had been allowed and provided for, the Tribunal found there to be no inconsistency between the principle of provisional application and Russian law.[42] Nevertheless, in spite of its preference for the all or nothing approach, the Tribunal, subsequently also approached the issue of inconsistency by specifically investigating the inconsistency between the arbitration clause of Article 26 ECT and Russian law, thus employing the piecemeal approach.[43] Based on a thorough analysis of Russian law, the Tribunal again decided against inconsistency and in favour of its jurisdiction.[44]

The main cause of the District Court's decision to the contrary, having brought about the setting aside of the arbitral awards, seems to rest on the Court's rather broad defini-

38 Judgment CA, §§ 4.5.26, 4.5.27.

39 Judgment SC, § 5.2.10.

40 Judgment SC, §§ 5.2.6 and 5.2.10

41 For a summary of the discussion of the issue of *consistency* in the arbitration proceedings: Hobér, *oc.*, Part VIII (H), § iv, at p. 520 *et seq.*

42 Award, §§ 330 – 345.

43 Award, §§ 346 – 392, see also Hobér, *oc.* p. 525, 525.

44 Award, §§ 394, 396 and 397.

tion of inconsistency. By a hardly reasoned statement in its judgment of 20 April 2016, the Court held that an inconsistency between Article 26 ECT and Russian law would not only occur in the event of an outright prohibition of dispute resolution by arbitration as provided in Article 26 ECT, but also in the absence of a legal basis for arbitration as provided for by Article 26 or – when viewed in a wider perspective – if dispute resolution by arbitration would not harmonise or would be irreconcilable with the starting points and principles of the Russian legal system.[45] Based on that test, the District Court decided against the provisional applicability of Article 26 ECT and against the Tribunal's jurisdiction.[46]

Based on (i) the alternative approach[47], which it had endorsed, (ii) its rejection of the District Court's ample definition of *inconsistency* for being at variance with the ordinary wording of Article 45(1) and for depriving that provision of any practical meaning[48], (iii) the adoption of the test for inconsistency of the *impossibility of joint compliance*[49], and (iv), its finding that under Russian law, no category of treaty provisions was barred from being applied provisionally[50], the Court of Appeal concluded in favour of a duty for the Russian Federation to apply Article 26 ECT, and accordingly in favour of the Tribunal's jurisdiction.[51] Notwithstanding such finding, the Court of Appeal, just like the Tribunal, and superfluously[52], proceeded to apply the piecemeal approach by an analysis of the grounds adduced by the Russian Federation for inconsistency between Article 26 ECT and Russian law.[53] These grounds were: (i) inconsistency with the principle of separation of powers, (ii) the non-arbitrability of the dispute under Russian law and (iii) no title to sue for shareholders under Russian law under circumstances similar to those of the case at hand. Applying a rule based approach rather than – as the District Court did – an approach reflecting the principle of the Russian legal system, the Court of Appeal did not find any *inconsistencies* between Article 26 and Russian law.[54] Accordingly it was held that Article 26 is to be provisionally applied and that the Tribunal had jurisdiction after all.

45 Judgment DC, § 5.33.
46 Judgment DC, §§ 5.34 – 5.92.
47 Judgment CA, §§ 4.5.33 and 4.5.48.
48 Judgment CA: § 4.5.43.
49 Judgment CA, § 4.5.46.
50 Judgment CA, §§ 4.5.41, 4.6.1.
51 Judgment CA, § 4.6.1.
52 Judgment CA, § 4.6.2.
53 Judgment CA, §§ 4.6.2 and 4.7.1 *et seq.*
54 Judgment CAd §§ 4.7.32, 4.7.58 and 4.7.65.

The Court of Appeal's rejection of the Russian Federation's argument that Article 26 ECT would be inconsistent with Russian law in the absence of a legal basis for arbitration in cases contemplated by the ECT[55], was confirmed by the Supreme Court on the ground that such broad interpretation (i) is not justified by Article 45(1)'s ordinary meaning,[56] (ii) is not corroborated by the ECT's object and purpose[57] and (iii) is not supported by State practice.[58]

The Russian Federation's grievances against the Court of Appeal's judgment on the issue of the Tribunal's jurisdiction were accordingly rejected.[59]

6 Observations

The scope of this chapter does not really allow the presentation of a detailed and comprehensive set of concluding remarks. Instead, the following observations are presented that may provide food for further thought.

With the Supreme Court's judgement of 5 November 2021, the saga of the Yukos arbitration has not come to an end. The Court of Appeal's judgment of 18 February 2020 was set aside on the sole ground that the Court of Appeal was wrong in declaring the inadmissibility of the Russian Federation's claims based on HVY's alleged fraudulent conduct in the arbitration proceedings. All other grounds of appeal were rejected. That means that the Court of Appeal's judgment of 18 February 2020 stands firm but for the issue of HVY's alleged fraud.[60] Habitually, when providing clarification on a point of law and when setting aside a lower Court's judgment for that reason, the Supreme Court will refer the matter to a lower Court for judgment to be rendered by applying the Supreme Court's clarifications to the facts of the matter. In accordance with that way of working, the matter was referred to the Amsterdam Court of Appeal. That Court shall investigate whether or not the Russian Federation's allegations of fraudulent conduct by HVY are evidenced, and if so, whether such fraudulent conduct would justify the setting aside of the arbitral awards in the Yukos case. This will be the sole issue to be dealt with by the Amsterdam Court of Appeal. The issue of jurisdiction is finally dealt with, for the Russian Federation's arguments against the Court of Appeal's decision on that issue being dismissed.

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55 Judgment CA, §§ 4.5.47 and 4.7.47.

56 Judgment SC, §§ 5.2.12, 5.2.13.

57 Judgment SC, § 5.2.14.

58 Judgment SC, § 5.2.15; for further clarification see Gardiner, *oc*, p.223. *et seq*. and p. 253 *et seq.*

59 Judgment SC, § 5.2.16.

60 See Asser Procesrecht/Korthals Altes & Groen 7 2015/328 *et seq.*

In essence, the Tribunal's interpretation of Article 45(1) ECT rests on the primacy of international law and on the emphasis laid by the Tribunal on the protection of the ECT's object and purpose. By contrast, the District Court laid particular emphasis on the right of a negotiating State to protect its constitutionally based system of separation and attribution of powers. The Tribunal's approach can be legitimised by the rules of Article 31(1) and of Article 31(3) VCLT. However, Article 45(1) ECT unmistakably refers to rules of domestic law. For the dilemma thus created, the VCLT does not offer a solution since no weight or hierarchy is attached to the different elements that are to be taken into account for the purpose of interoperation.[61]

The Court of Appeal, cautiously opting for the *alternative approach,* and emphasising the ECT's object and purpose, decided in favour of the Tribunal's jurisdiction on grounds shared and confirmed by the Supreme Court.

The Supreme Court did not decide that the *alternative approach* is the approach to be elected instead of the *piecemeal approach* or the *all or nothing approach*. The Supreme Court simply did not make a choice between the two lines of argument underlying the Court of Appeal's decision in favour of jurisdiction. Such decision was not only based on the *alternative approach* (first line of argument) but also on its analysis of piecemeal-based arguments advanced by the Russian Federation (second line of argument). A grievance by the Russian Federation was directed against the Court of Appeal's applying the *alternative approach* but no grievance was directed against the Court of Appeal's finding in favour of the Tribunal's jurisdiction based on an analysis of arguments as advanced by the Russian Federation itself. It being the case that decisions and their underlying arguments shall stand firm in the absence of any grievance directed against them, the Supreme Court expressed that even if it were to hold that the Court of Appeal was wrong in deciding in favour of the Tribunal's jurisdiction on the basis of the *alternative approach*, a setting aside of the Court of Appeal's judgment on the issue of jurisdiction would not follow, absent a grievance against the second line of argument applied by the Court of Appeal. For the same reason, the request for the filing of preliminary questions to the ECJ was declined.

The Supreme Court also did not pronounce on the lower Courts' analysis of Russian law to the extent it would potentially give rise to an inconsistency with Article 26 ECT. The Supreme Court has no jurisdiction to decide on points of foreign law.[62]

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61 In this respect reference is often made to the '*crucible approach*'; see for instance Gardiner, *oc.*, p. 10, 32, 38, 162 and 495.

62 Article 79(1) of the Act on the organisation of the judiciary (*Wet R.O.*); The lower Courts have the duty to apply foreign law (if found applicable) *ex officio* (Articles 25 DCCP and 10:2 DCC).

The tool of provisional application is a tool within the context of international law with effects in the internal legal order of States. As such, wherever provisional application is relied on, it may potentially lead to clashes of arguments by those in favour of the protection of internal state law and those in favour of protecting and strengthening the position of international law. In so far as the Yukos case is concerned this means a difference between USD 50 billion and naught.

THE ROLE OF THE ENERGY CHARTER TREATY FOR DECARBONIZATION

Anatole Boute[1]

Abstract

Paradoxically, the EU aims to water down the protection that the Energy Charter Treaty provides to energy investors, including in the renewable energy sector, yet emphasizes the importance of regulatory stability for the energy transition under the 2018 Renewable Energy Directive. If adopted, the EU proposals will limit the protection of new investments in clean energy production, in particular in jurisdictions outside of the EU that lack sufficiently clear guarantees of stability for the renewable energy industry, potentially increasing the cost of financing these projects and thus the cost of the clean energy transition.

1 Introduction

Professor Roggenkamp's work on European energy law made an important contribution to understanding the legal architecture that the European Union (EU) created to organize energy supply on a liberalized market basis and transition towards low-carbon energy. Most notably the different editions of *Energy Law in Europe* and the *European Energy Law Reports* edited by Professor Roggenkamp helped shape the energy law discipline and continue to be essential references to the study of EU and national energy law.[2] In the mar-

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2 See e.g. M Roggenkamp et al, *Energy Law in Europe* (OUP, 2016).

ket-based approach that governs the organisation of energy supply in the EU, liberalization and decarbonization go hand in hand.[3] Both liberalization and decarbonization dimensions are at the centre of Professor Roggenkamp's work. Liberalization and decarbonization reforms also closely interact with international economic (trade and investment) law – a discipline to which Professor Roggenkamp also made an important contribution with her early work on energy transit.[4]

In the European context, the interaction of decarbonization with the Energy Charter Treaty (ECT) – the energy-specific trade and investment agreement – is a highly contentious issue. The ECT is under increasing criticism for the obstacles it allegedly creates for decarbonisation.[5] The "right to regulate", and in particular the right to adopt ambitious environmental measures (e.g. regulatory phase out of coal), is at the centre of the discussion on the modernization of the Treaty.[6] For the EU, there is "urgent need for progress in the negotiations for the modernisation of the Energy Charter Treaty, with a view to

3 According to the European Commission, "Proposal for a Directive Establishing a Scheme for Greenhouse Gas Emission Allowance Trading", COM(2001)581 final, OJ 2002 C 75E/33, when opting for emissions trading as cornerstone of the EU climate policy, it was "essential that this instrument [was] compatible with the liberalization of energy markets."

4 M Roggenkamp, "Transit of Networkbound Energy: A New Phenomenon?—Transit Examined from the Barcelona Transit Convention to the Energy charter Treaty" (1995) *World Competition* 119 – 146; M Roggenkamp, "Transit of Network-bound Energy: the European Experience", in Wälde (ed.), The Energy Charter Treaty (London: Kluwer International Law, 1996).

5 See e.g. https://energy-charter-dirty-secrets.org/. See also the analysis in Andrei Belyi, "The Energy Charter Process in the Face of Uncertainties" (2021) *The Journal of World Energy Law & Business* 363–375.

6 See EU Text Proposal for the Modernisation of the Energy Charter Treaty, https://trade.ec.europa.eu/doclib/docs/2020/may/tradoc_158754.pdf, proposing to include a new article on "Regulatory Measures" in the ECT (reaffirming the "right to regulate" of Contracting Parties "to achieve legitimate policy objectives, such as the protection of the environment") and EU Additional Submission to its Text Proposal for the Modernisation of the Energy Charter Treaty, https://trade.ec.europa.eu/doclib/docs/2021/february/tradoc_159436.pdf, proposing to exclude "Coal, Natural Gas, Petroleum and Petroleum Products, Electrical Energy" from the scope of protection of the ECT. See also the December 2020 Report of the ECT Modernisation Group at https://www.euractiv.com/wp-content/uploads/sites/2/2020/12/ECT-report-on-progress-made_FS.pdf; and media coverage, e.g. https://www.theguardian.com/business/2019/dec/09/energy-treaty-risks-undermining-eus-green-new-deal, following different investor claims challenging decarbonisation measures, e.g. the threat of investment arbitration against the regulatory phase out of coal fired power plants in the Netherlands, https://www.euractiv.com/section/energy/news/not-approprite-uniper-seeks-compensation-for-dutch-coal-phase-out/

driving an inclusive global energy transition in alignment with Paris Agreement objectives."[7]

In line with its long term decarbonisation targets,[8] "the EU is bound to discourage all further investments into fossil fuel based energy infrastructure projects, unless they are fully consistent with an ambitious, clearly defined pathway towards climate neutrality".[9] There is growing pressure to withdraw from the ECT, if the negotiations on the modernization of the treaty fail to ensure a sufficiently robust right to regulate to protect the environment and exclude fossil energies from the scope of investment protection.[10]

Building on the ideas first elaborated while I pursued my PhD at the University of Groningen under Professor Roggenkamp's supervision and that I further developed in subsequent publications, this contribution argues that focusing on the tension between the right to property and environmental protection has led the attention away from the positive contribution that the ECT, and investment law more generally, can make to decarbonisation.[11] The controversy on the application of the ECT to intra-EU disputes and on obstacles to the payment of arbitration-related damages under EU state aid law are not covered in the analysis below.

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7 EU Additional Submission, op cit.

8 Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 Establishing the Framework for Achieving Climate Neutrality, OJ 2021 L 243/1.

9 EU Additional Submission, op cit.

10 See e.g. ClientEarth, "EU Must Withdraw from Energy Charter Treaty", 6 July 2021, https://www.clientearth.org/latest/latest-updates/news/eu-must-withdraw-from-energy-charter-treaty/.

11 See e.g. A Boute, "The Potential Contribution of International Investment Protection Law to Combat Climate Change" (2009) *Journal of Energy and Natural Resources Law* 333-376; "Combating Climate Change and Securing Electricity Supply: The Role of Investment Protection Law" (2007) *European Environmental Law Review,* 227-248. See more recently A Boute, "The Rights of Environmental Investors: the Case of Renewable Energy", in S Bogojevic and R Rayfuse (eds), *Environmental Rights in Europe and Beyond* (Oxford: Hart Publishing, 2018) 229-252; A Boute, "Regulatory Stability and Renewable Energy Investment: the Case of Kazakhstan" (2020) *Renewable & Sustainable Energy Reviews* 109673.

2 The environmental criticism of the ECT

The criticism of international investment law, and the right to property more generally, as an obstacle to environmental regulation is not new.[12] First, the argument goes, as the foundation of the current capitalist system, property rights are to an important extent responsible for environmental degradation. Second, the protection of the right to property constraints environmental initiatives because it exposes states that adopt ambitious environmental measures to possible legal claims. According to Tienhaara, "It is evident that arbitrators have *expropriated* certain fundamental aspects of environmental governance from states. As a result, environmental regulation has become riskier, more expansive and less democratic, especially in developing countries."[13]

The criticism of the constraints that international investment law, and in particular the ECT, imposes on states' right to regulate is particularly acute in the context of the debate on the phase out of coal-fired power generation. On the one hand, to achieve carbon neutrality by 2050, all unabated coal plants should be phased out by 2040, and by 2030 in the EU and other advanced economies.[14] Banning the use of coal for electricity production is an effective way of accelerating the closure of polluting facilities.[15] On the other hand, the arbitration proceedings initiated by foreign companies against the forced closure of their installations (e.g. in the Netherlands) emphasize the risk that

12 See Boute, "The Rights of Environmental Investors", op cit., 229-252, discussing P Taylor and D Grinlinton, "Property Rights and Sustainability: Toward a New Vision of Property", in Prue Taylor and David Grinlinton (eds.), *Property Rights and Sustainability: The Evolution of Property Rights to Meet Ecological Challenges* (Martinus Nijhoff Publishers 2011) 1-20, 8; C Rodgers, *The Law of Nature Conservation: Property, Environment, and the Limits of Law* (OUP 2013) 307; K Tienhaara, *The Expropriation of Environmental Governance: Protecting Foreign Investors at the Expense of Public Policy* (CUP 2009) 3; J Viñuales, *Foreign Investment and the Environment in International Law* (CUP 2015) 253.

13 Tienhaara, op cit., at 3.

14 IEA, "Net Zero by 2050" (2021) <https://www.iea.org/reports/net-zero-by-2050>, at 116 and 165; IEA, "World Energy Outlook 2020", <https://www.iea.org/reports/world-energy-outlook-2020>, at 231; United Nations, "UN Chief Calls for Immediate Global Action to Phase Out Coal", 2 March 2021, <https://unfccc.int/news/un-chief-calls-for-immediate-global-action-to-phase-out-coal.

15 See B Caldecott and J Mitchell, "Premature Retirement of Sub-Critical Coal Assets" (2014) *Seton Hall Journal of Diplomacy and International Relations* 59-70; F Matthes, H Hermann, and R Mendelevitch, "Assessment of the Planned Compensation Payments for Decommissioning German Lignite Power Plants in the Context of Current Developments" (Öko-Institut e.V, 2020), at 30 <https://www.oeko.de/fileadmin/oekodoc/Assessment-of-the-planned-compensation-payments.pdf>.

investor-state arbitration poses to states that decided to ban the use of coal, as governments face the payment of significant damages to investors.[16]

3 The environmental argument for investment law

While the protection of property can be an obstacle to the introduction of ambitious environmental protection policies, it also has a key role to play in facilitating the transition of the economy towards sustainability by protecting the rights of investors in the green economy.[17] Investors have a crucial role to play in delivering the massive investments that are needed in the re-organisation of the economy towards more sustainable – and in particular more climate friendly – patterns.[18] The key role of investors for climate change mitigation is clear in the context of the ambitious EU climate change mitigation policy. This policy requires significant investments in energy production from renewable energy sources, in energy efficiency improvements and in carbon capture and storage.[19]

16 See e.g. ClientEarth, "Should German Coal Companies Get Cash to Close?" (2019), <https://cutt.ly/XjhTplA>; K Tienhaara and L Cotula, "Raising the Cost of Climate Action? Investor-state Dispute Settlement and Compensation for Stranded Fossil Fuel Assets" (International Institute for Environment and Development, 2020), <https://pubs.iied.org/pdfs/17660IIED.pdf>; A Van den Berghe, "Legal Opinion on Uniper's Legally Misconceived ISDS Threat to Dutch Coal Phase-out" (ClientEarth, 2019), <https://www.documents.clientearth.org/wp-content/uploads/library/2019-11-26-clientearth-legal-opinion-isds-threat-uniper-ce-en.pdf>.

17 See Boute, "The Rights of Environmental Investors", op cit., 229-252; and A. Boute, "Combating Climate Change through Investment Arbitration" (2012) *Fordham International Law Journal* 613-664.

18 UNEP, The Financial System We Need: Aligning the Financial System with Sustainable Development (2015) vii; Abbis Ababa Agenda of the Third International Conference on Financing for Development, UNGA Resolution 69/313, 27 July 2015, UN Doc A/RES/69/313; Executive Secretary of the United Nations Framework Convention on Climate Change, Investment and Financial Flows to Address Climate Change (2007) 42.

19 European Commission, Communication: A Policy Framework for Climate and Energy in the Period from 2020 to 2030, COM(2014) 15, 22 January 2014.

The investment community regularly highlights the regulatory and policy risks of investing in clean energy sources.[20] Governments in the EU have repeatedly interfered with the regulatory framework they have created to promote investments in the green economy.[21] The risk of changes to the regulatory and financial foundation of investments increases the cost of capital and delays the making of investments. According to a recent study on the impact of subsidy changes on renewable energy investments in the EU, "a retroactive subsidy change decreases the investment rate by approximately 45% for PV and 16% for onshore wind" and "once the seed of mistrust is sown, it is likely to have a lasting impact."[22] Constant changes to renewable energy regulation negatively impact on the credibility, and thus effectiveness, of future regulatory commitments.[23]

Inversely, mechanisms mitigating the risk of regulatory change reduce the cost of capital and facilitate the transfer of investments.[24] While a certain level of flexibility is needed to adapt support schemes to the rapidly changing energy market environment, the success of renewable energy policies to a significant extent depends on the stability of these policies. The Stern Review on the Economics of Climate Change defines regu-

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20 See e.g. A Vaughan, "UK Solar Power Installations Plummet After Government Cuts", *The Guardian*, 8 April 2016,: www.theguardian.com/environment/2016/apr/08/solar-installation-in-british-homes-falls-by-three-quarters-after-subsidy-cuts; T Macalister, 'UK Solar Panel Subsidy Cuts Branded 'Huge and Misguided', *The Guardian*, 17 December 2015, available at: www.theguardian.com/business/2015/dec/17/uk-solar-panel-subsidies-slashed-paris-climate-change; House of Commons Energy and Climate Change Committee, Investor confidence in the UK energy sector, Third Report of Session 2015–16, available at: http://www.publications.parliament.uk/pa/cm201516/cmselect/cmenergy/542/542.pdf; Letter from Institutional Investors Group on Climate Change to Mr. Zapatero on the Proposed Retroactive Reduction of 661 Tariff for Existing Investments (June 23, 2010), available at: http://www.iigcc.org/__data/assets/pdf_file/0010/1009/IIGCC-letter-to-Spanish-government.pdf.

21 For a discussion of these regulatory changes and their impact on renewable energy investments, see EU Commission, Commission Staff Working Document, 'Guidance for the Design of Renewables Support Schemes', SWD (2013)439 final, 3-4.

22 Sendstad et al., "The Impact of Subsidy Retraction on European Renewable Energy Investments" (2022) *Energy* 112675.

23 House of Commons Energy and Climate Change Committee, Investor confidence in the UK Energy Sector, Third Report of Session 2015–16, http://www.publications.parliament.uk/pa/cm201516/cmselect/cmenergy/542/542.pdf.

24 C. Klessmann, M. Rathmann, D. de Jager, A. Gazzo, G. Resch, S. Busch, M. Ragwitz, "Policy Options for Reducing the Costs of Reaching the European Renewables Target" (2013) *Renewable Energy* 390-403; P. Noothout, The Impact of Risks in Renewable Energy Investments and the Role of Smart Policies (Final report) (2016).

latory stability as the "belief that the policy will endure, and be enforced".[25] Investors must be confident that once irreversible investments are made, the government will not act opportunistically by adapting the rules or reneging on commitments.[26] Applied to the renewable energy sector, regulatory stability requires governments to honour promises of support.

The criticism of the ECT too often ignores the role that the Treaty's investment protection regime, and investment arbitration in general, plays in protecting the rights of investors in clean energy investments, in particular against sudden changes to renewable energy subsidies and carbon pricing mechanisms.[27] In fact, the majority of cases brought under the ECT relates to attempts by investors in low-carbon projects to enforce their rights under climate policies,[28] after failing to oppose unilateral changes to renewable energy subsidies based on the principle of legal certainty and the right to property.[29]

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25 N. Stern, *The Economics of Climate Change: The Stern Review* (Cambridge University Press, 2007).

26 C. Hepburn, Regulation by Prices, Quantities, or Both: A Review of Instrument Choice, Oxford Review of Economic Policy 22(2) (2006) 226-247; D. Helm, C. Hepburn, R. Mash, Credible Carbon Policy, Oxford Review of Economic Policy 19(3) (2003) 438-450.

27 See e.g. Andrei Belyi, "Letter: Investors Need Brussels to Stick with Energy Treaty", Financial Times, 19 February 2021, https://www.ft.com/content/bb0e2ac3-7d65-4442-b123-e66475d7ef5d, arguing that "Although it might sound implausible in light of widespread assumptions, the Energy Charter Treaty, as it is known, is the only existing agreement protecting investors in renewable energy against the arbitrary phasing out of the supporting policies that governments use to attract investors in the first place."

28 See https://www.energychartertreaty.org/cases/list-of-cases/. For an example of a non-ECT claim concerning changes to climate policies, see Westmoreland Coal Company v. Government of Canada, ICSID Case No. UNCT/20/3, https://www.italaw.com/cases/7002. See also https://www.iarewporter.com/articles/us-conglomerate-launches-nafta-legacy-claim-against-canada-over-cancellation-of-emissions-trading-program/.

29 On the protection of renewable energy investments based on the principle of legal certainty, see e.g. A. Boute, "The Quest for Regulatory Stability in the EU Energy Market: An analysis Through The Prism of Legal Certainty" (2021) *European Law Review* 675-692. For an analysis under the right to property, see e.g. A Boute, "The Protection of Property Rights under the European Convention on Human Rights and the Promotion of Low-Carbon Investments" (2010) *Climate Law* 93-132.

4 Regulatory stability and the ECT

The ECT contributes to regulatory stability in the energy sector.[30] According to the Energy Charter Treaty (Art. 10, para. 1), "Each Contracting Party shall (…) encourage and create stable, equitable, favourable and transparent conditions for Investors of other Contracting Parties to Make Investments in Its Area. Such conditions shall include a commitment to accord at all times (…) fair and equitable treatment." In investment arbitration proceedings, stability arguments are used to determine whether the state breached the so-called "fair and equitable standard", and in particular the obligation for states to respect "investors' reasonable and legitimate expectations".[31] In *Eiser v. Spain* and *Antin v. Spain*, the tribunals ruled that the ECT necessarily embraces "an obligation to provide fundamental stability in the essential characteristics of the legal regime relied upon by investors in making long-term investments."[32]

According to *Antaris v Czech Republic*, to demonstrate that a state breached the fair and equitable treatment standard, "a claimant must establish that (a) clear and explicit (or implicit) representations were made by or attributable to the state in order to induce the investment, (b) such representations were reasonably relied upon by the claimants, and (c) these representations were subsequently repudiated by the state."[33] Following the investment objective pursued with renewable energy support schemes, states promise support in exchange for investments in the development of renewable energy. Taking into account that investments in renewable energy are made based on these promises of support, terminating or fundamentally changing the "essential characteristics" of sup-

30 This section builds on Boute, "Regulatory Stability", op cit., 109673. See also Boute, "Combating Climate Change" op cit., 613-664.

31 R Dolzer and C Schreuer, *Principles of International Investment Law* (Oxford, Oxford University Press, 2012); M Potestà, "Legitimate Expectations in Investment Treaty Law: Understanding the Roots and the Limits of a Controversial Concept" (2013) *ICSID Review – Foreign Investment Law Journal* 88–122.

32 Eiser Infrastructure Limited and Energia Solar Luxembourg S.A.R.I. v. Spain, ICSID No. ARB/13/36, Award, 4 May 2017, https://www.italaw.com/cases/5721; Antin Infrastructure Services Luxembourg and Antin Energia Termosolar v. Spain, ICSID Case No. ARB/13/31, Award of 15 June 2018, https://www.italaw.com/cases/2319.

33 Antaris GMBH and Dr. Michael Gode v. Czech Republic, PCA Case No. 2014-01, Award of 2 May 2018, https://www.italaw.com/cases/2080.

port schemes can in principle be seen as a failure to honour the expectations of renewable energy investors.[34]

Some arbitration tribunals have restricted the scope of application of the fair and equitable treatment standard by requiring a specific commitment by the state that the support scheme would remain unchanged. In *Charanne v. Spain*, the first renewable energy arbitration decision under the ECT, the tribunal refused to recognise that the solar energy investor had a legitimate expectation to continue to benefit from the support scheme because Spain did not commit that "the regulated tariff would remain untouched for the rest of the regulatory lives of the [solar] plant".[35] According to this interpretation, investors can only shield their investments against changes to the priority access regime if the state committed that the access regime will remain unchanged.

The EU seems to support this narrow interpretation of the legitimate expectations of renewable energy investors. In the EU Text Proposal for the Modernisation of the Energy Charter Treaty, the EU proposes to amend the ECT by clarifying that the investment protection regime of the treaty "shall not be interpreted as a commitment from a Contracting Party that it will not change the legal and regulatory framework, including in a manner that may negatively affect the operation of investments or the investor's expectations of profits."[36] A Contracting Party's decision not to maintain a subsidy "in the absence of any specific commitment under law or contract to … maintain that subsidy" shall not constitute a breach of the ECT investment regime.[37]

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34 Novenergia II – Energy & Environment (SCA), SICAR v. Spain, SCC Arbitration (2015/063), Award of 15 February 2018, https://www.italaw.com/cases/6613; Eiser Infrastructure Limited and Energia Solar Luxembourg S.A.R.I. v. Spain, ICSID No. ARB/13/36, Award, 4 May 2017, https://www.italaw.com/cases/5721; Antin Infrastructure Services Luxembourg and Antin Energia Termosolar v. Spain, ICSID Case No. ARB/13/31, Award of 15 June 2018, https://www.italaw.com/cases/2319.

35 Charanne B.V. Construction Investments S.A.R.L. v. Spain, SCC ARB 062/2012, Award of 21 January 2016, https://www.italaw.com/cases/2082. See also Blusun S.A., Jean-Pierre Lecorcier and Michael Stein v. Italian Republic, ICSID Case No. ARB/14/3, Award of 27 December 2016, https://www.italaw.com/cases/5739, "In the absence of a specific commitment, the state has no obligations to grant subsidies such as feed-in tariffs, or to maintain them unchanged once granted. (…) Circumstances change and in the absence of specific commitments, the risk of change is for entrepreneurs to assess and assume".

36 EU Text Proposal for the Modernisation of the Energy Charter Treaty, https://trade.ec.europa.eu/doclib/docs/2020/may/tradoc_158754.pdf.

37 Ibid.

5 Stability under EU climate law

Paradoxically in the light of the EU attempts to limit the protection of investors' expectations in the stability of renewable energy subsidy regimes, stability is at the centre of the EU legal framework governing the decarbonization of energy supply. The 2018 Renewable Energy Directive (Recast) includes a specific regulatory stability clause that, at least to some extent, reflects the stabilization commitment demanded by arbitral tribunals to protect investors' legitimate expectations.[38] According to Article 6 Directive (EU) 2018/2001:

1. … Member States shall ensure that the level of, and the conditions attached to, the support granted to renewable energy projects are not revised in a way that negatively affects the rights conferred thereunder and undermines the economic viability of projects that already benefit from support.
2. Member States may adjust the level of support in accordance with objective criteria, provided that such criteria are established in the original design of the support scheme.

The reasoning underlying this stability regime is that "policy unpredictability and instability have a direct impact on capital financing costs, on the costs of project development and therefore on the overall cost of deploying renewable energy in the Union."[39]

Stability is also at the centre of the reform of the EU Emissions Trading System. The EU decarbonization policy is based on the idea that "a well-functioning, reformed EU ETS with an instrument to stabilise the market will be the main European instrument to achieve the Union's greenhouse gas emissions reduction target."[40] The 2009 reform of the EU ETS centralized the allocation of allowances and fixed the rate at which the quantity of allowances in circulation in the ETS will be reduced, aiming to a "predictable path" for the reduction of emissions and to provide to investors 'a clear, undistorted and long-term carbon price signal'.[41] More fundamentally, the Market Stability Reserve was estab-

38 Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources, OJ L 328, 21.12.2018, p. 82.

39 Recital 29, Directive (EU) 2018/2001.

40 Decision (EU) 2015/1814 of the European Parliament and of the Council of 6 October 2015 Concerning the Establishment and Operation of a Market Stability Reserve for the Union GHG ETS and Amending Directive 2003/87/EC, OJ 2015 L 264/1.

41 Directive 2009/29/EC of 23 April 2009 Amending Directive 2003/87/EC so as to Improve and Extend the Greenhouse Gas Emission Allowance Trading Scheme of the Community OJ 2009 L140/63; European Commission, Proposal for a Directive Amending Directive 2003/87/EC, at 3.

lished "to further enhance the stability of the European carbon market" by controlling the supply of allowances.[42]

6 Conclusion

Paradoxically, the EU aims to water down the protection that the ECT provides to energy investors, including in the renewable energy sector, yet emphasizes the importance of regulatory stability for the energy transition under the 2018 Renewable Energy Directive. If adopted, the EU proposals will limit the protection of new investments in clean energy production, in particular in jurisdictions outside of the EU that lack sufficiently clear guarantees of stability for the renewable energy industry, potentially increasing the cost of financing these projects and thus the cost of the clean energy transition.

42 Decision (EU) 2015/1814 of the European Parliament and of the Council of 6 October 2015 Concerning the Establishment and Operation of a Market Stability Reserve for the Union GHG ETS and Amending Directive 2003/87/EC, OJ 2015 L 264/1.

DUCK AND COVER! FROM THE DELUSION OF CLIMATE ADAPTATION TO THE AUTHORITY OF INTERNATIONAL SUSTAINABILITY LAW

Marcel Brus[1]

Abstract

The sustainability challenge that the global human society faces requires a common ground, a shared source of authority for global adaptation and for the related law and governance framework. Collective scientific knowledge is suggested as such a source of authority. A sustainable future requires a new approach to and a new basis of authority of international rules, procedures and institutions. This means that there is a clear task for lawyers to assist in designing and implementing comprehensive law and governance mechanisms and institutions for sustainability that are based on an authority that is truly supranational: our collective scientific knowledge.

1 Introduction

Duck and Cover! Martha is approaching! No, this is not behind the title for this essay. No need to seek cover when you hear a loud laugh in the corridor announcing Martha's arrival.

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With her good humor, endless energy and practical determination it was a privilege to work together throughout our entire academic careers; first at Leiden University and in the past 17 years at the University of Groningen. To celebrate this, I have written this essay in which I take a perspective on law that is different from Martha's perspective on law. Theory versus practice would be the shortest summary of these different perspectives, which allowed for fruitful complementary collaboration.

When I started this essay, I intended to focus on climate adaptation and international law since in my view this huge challenge received too little attention in comparison to mitigation. It is undisputed that climate change will occur and that responses have to be developed. How can climate adaptation be better embedded in international law? But as often in academic exploration, it quickly became clear that I was asking the wrong question(s) and that a much broader challenge lured behind the horizon. Let me try to take you on my exploratory journey mapping contours – rather than providing a full-fledged academic article – for further research.

2 Climate adaptation as a delusion

Climate adaptation can be defined as the measures to be taken to make societies more resilient to the unavoidable effects of climate change. In the 2015 Paris Agreement climate adaptation features prominently, but concrete legal obligations are almost absent. States are expected to formulate and report on national adaptation plans, but without setting specific targets or timetables. Assistance for states lacking financial or technological resources is highlighted, but without legal obligations for the rich, industrial states to provide support. While it is accepted that climate change mitigation requires international objectives, mechanisms and international legal commitment, for adaptation it is pretended that state-based, territorially-confined solutions are sufficient and do not need international collaboration backed up by international law. Does this mean that the role of international law ends here?

Yes, it does if one considers that the task of the lawyer is confined to describe what the climate adaptation provisions in the Paris Agreement say, who are subject to them and how they can be enforced (if at all). But certainly not if one realizes that 'Paris' is not enough and that better law and governance frameworks are needed which require a broader legal perspective. Indeed, there is a lively academic debate in international law on the question if and how climate change should lead to adaptation of international law in a broader sense: how can international law in areas related to for instance refugees and migrants, security, disaster response, health, and human rights, be adjusted to better incorporate the societal impacts of climate change? While important, these debates remain fragmented and, more importantly, do not address the real issue at stake. Legally

redefining, for example, the concept of refugee to include people that have to move due to climate change, does not address the question what causes the need to move – or, in other words, how to avoid climate change in the first place.

Reading and thinking about climate adaptation reminded me of the 1950s instructions given to school children (and citizens in general) in the United States on what to do when a nuclear bomb explodes close to you. The instruction was: "Duck and Cover!". Hide under your school desk, or behind a garden wall, to avoid being hit by flying splinters of glass or other debris when the bomb explodes.[2] It suggests that you are able to do something, obscuring the fact that it will be futile given its destructive power. In a similar way the suggested climate adaptation measures seem like saving a teacup when the proverbial pink elephant is destroying the room. Too little, too late. Three examples of climate adaptation action: (1) providing farmers in Africa with an app to warn them when the rain will come (if it comes), helping them to cope with changing weather patterns; (2) building the office for the Global Center on Adaptation in Rotterdam on a floating platform to protect it against sea level rise or against flooding through rivers; (3) making sure that international disaster response teams have access to states where climate disaster hits. All this may be important on a micro scale, but ultimately it is ineffective as a response to the disruptive effects of climate change. Can we rebuild Rotterdam on a floating platform? Does it really help the farmers to know that no rain (or too much rain) will be coming? Psychologically, it creates the delusion of being able to do something, thereby diminishing the urgency of addressing the need to tackle the underlying threat to human society.

3 What sustainability can learn from earlier global challenges

Climate change is the most urgent threat to deal with globally, but certainly not the only ecological one. Even if the world manages to reach the Paris Agreement objective of limiting global warming to 2°C, it does not mean that there is time to sit back and relax. We still have to deal with the effects of global warming, but also with so many other effects of the unsustainability of our consumption and production patterns: the diminishing biodiversity, natural resources depletion, pollution of land, water and air, population growth, urbanization, poverty, inequality, et cetera. This is not a new message. It is a discussion that has been with us for more than half a century: from the report to the Club of Rome in 1972 (*Limits to Growth*) to the adoption of the Sustainable Development Goals (SDGs) by the United Nations in 2015. The world knows but seems unable to act

2 Watch the 1951 instruction film on https://www.loc.gov/item/mbrs01836081/.

adequately. Adaptation is required, not as a response to the effects of climate change and other threats, but rather as the goal of international cooperation. Adaptation of our lifestyles is not a response, but should be the objective in the fight against climate change.

There is a broad scientific consensus on this need to adapt, for instance to move away quickly from the use of fossil fuels. However, in international law and governance there is no consensus on how to achieve this. This may be understandable, or at least can be explained by the short time horizon of politicians, the day-to-day need of businesses to make profits, and the difficulties of changing individual consumption patterns, like eating (too much) meat. Surely, much has been done since the 1970s: awareness has increased, many environmental treaties have been concluded and international organizations have developed policies. Some issues have been tackled successfully, but it has remained a compartmentalized approach with a breaking-up of the problems and trying to find a separate solution for each of them. It is a sad truth that international law and governance fails to find comprehensive solutions for the fundamental sustainability challenge. How long can the global society afford to stay on this course? Is an effective global response to the challenge of global sustainability legally possible? Can we learn from the experiences from earlier global challenges?

I have looked at three of such challenges with which the world society had to come to terms after WWII: (a) the challenge of peace and security, (b) the challenge of economic development, and (c) the challenge of respect for human rights. Article 1 of the 1945 United Nations Charter sums these up succinctly. Without claiming that these issues have been solved, or suggesting that the world society has turned into paradise, the three challenges have been tackled with sufficient success to allow the world society to develop into what it is now. In each of these fields, international law and governance frameworks have emerged as the backbone of the international society by limiting the freedom of action of individual states. I asked myself the question if it would be possible to identify the most basic reason for states to accept restraining their freedom of action in these fields. If so, this could perhaps assist in finding such a basis for a comprehensive framework for sustainability.

The starting point is that in the international society there is no central international authority, similar to the state or state institutions, with powers to determine and enforce law and governance decisions. Why then do states accept to act within the limitations expressed in the economic, security and human rights international law and governance frameworks? It is clear that these frameworks possess authority to influence state behavior.

Here, I use the term 'authority' to refer to the degree with which law and governance frameworks limit behavioral options of relevant actors. This is inspired by – and a free 'adaptation' of – the ideas of Kostiantyn Gorobets as expressed in his PhD defended at Groningen University in February 2022 (*Contemplating an Uneven Landscape: The*

Authority of International Law). In principle, behavioral options for actors (an individual, a state or other entity) are wide. In practice, there are many restraints that limit their options: ranging from physical powers to ethical, cultural, societal, religious and legal norms and rules that are shared in a society. This authority can be strong or weak, expressing the degree with which they limit options. When authority is strong, actors accept the restraints that follow from them as self-evident, contemplating alternative options only in extreme situations. It helps create stability and predictability in society. If authority is weak, actors will choose from a wider range of options, but this will require a more explicit and sometimes difficult decision-making process and may lead to unexpected choices possibly creating conflict and instability in society. To illustrate: we do not have to think twice to comply with the signal a red traffic light gives (even if there is no traffic in sight), and others can and do rely on this; but when we see the sign 'don't walk on the grass' we often determine case-by-case whether there is a good reason to comply with it. If we are not convinced we ignore it, possibly provoking reactions from others.

What is of interest here is the authority of international law and governance frameworks. How strong are these, or in other words, to what extent do they lead to general compliance by limiting the range of options of what is acceptable behavior? This approach to authority assists in assessing how important particular international law and governance frameworks are for dealing with core challenges in the international society. But we have to go one step further by asking why actors accept the authority of law and governance. There must be underlying sources for the voluntary acceptance by states of the authority of international law and governance. This essay does not allow a more general discussion, but must be limited to examining (in a rudimentary manner) the possible sources of authority in the context of the three aforementioned core challenges.

In the field of peace and security – despite the cruel and endless conflicts in the world – there is a basic consensus on ground rules for the use of force in international relations (namely the prohibition to use force in international relations in article 2.4 of the UN Charter) and the institutions established for this purpose (UN Security Council; the International Atomic Energy Agency (IAEA) and the Non-Proliferation Treaty (NPT); et cetera). This created a framework for national restraint and provided, among others, channels for dealing with conflict, thus avoiding direct military confrontation between the major powers. Despite being imperfect, the authority of these ground rules and institutions is strong: states restrain themselves to ensure that their aggression or interventions would not spark uncontrollable conflict. The source for this authority can also be found in the national security interest: major international confrontation would come with excessively high costs and even threaten the survival of the state and its population.

In the area of economic development one can observe that international cooperation has become based on market liberalism within the law and governance framework of the

GATT/WTO, the IMF, World Bank, and on international investment. Although this regulated market liberalism does not provide a solution for all economic problems or conflicts, virtually all states participate in this system and accept dependence on it for their economic prosperity. The authority of the trade, finance and investment framework is strong, and is based on, I argue, a realization by states that this is their best option to advance the prosperity of their national economies and therewith of their citizens.

The authority of the international human rights law and governance framework as reflected in the many international human rights conventions and treaty bodies, the UN Human Rights Council, and in regional frameworks like the European Convention and Court of Human Rights, however, is much weaker. Many states feel less restraint to choose behavior that violates human rights, despite their broadly expressed support for human rights in the past 70 years. The discrepancy between the acceptance of the norms and the willingness to implement them when competing with other interests, can be explained by morality as the source of its authority. Moral arguments are less restraining compared to the above-mentioned security or prosperity arguments. Yet, even though there are many violations, it is also a fact that for a large number of states the moral power of human dignity, as a shared human value in the international society, effectively restrains their behavioral options.

Where does this very rough sketch of sources of authority lead to for sustainability as the fourth major challenge for the international society? What would be a plausible source of authority to restrain behavioral options of states and other actors in a comprehensive international law and governance framework for sustainability? A complicating factor with sustainability is that there does not seem to be an option to partially fail. In the first three challenges human society can afford this, as is evident given the many armed conflicts, economic problems and human rights violations. However, this partial failure did and does not undermine the very existence of the global human society, except perhaps in case of large-scale nuclear war. But can we partially fail in halting climate change, in avoiding the extinction of fish stocks in the oceans, or in other existential threats to the planet's ecosystem? The current scientific consensus seems clear: there is some time left to make necessary adaptations. Irreversible ecological changes can be postponed or avoided if adequate action is taken now and in the next decades. However, scientific evidence also makes clear that the current and foreseen international action is not sufficient. The chances are real that they will not be enough to prevent an unpredictable chain of events once tipping points have been reached. Whereas the economy, human rights and power systems are man-made and can be changed or replaced when partial solutions are insufficient, the balance in the ecosystem is beyond human control and cannot be repaired once thresholds have been exceeded.

4 Towards a law and governance framework for global sustainability

Currently the international sustainability law and governance framework is fragmented, incomplete and without authority to drastically restrain state behavior. The international law and governance initiatives are based on pragmatic choices of states on a diversity of issues, but there is no sense of urgency to create a common normative and institutional framework, or an overarching international organization that comprehensively addresses the ecological crisis: a common endeavor to create solutions that are more than the sum of what individual states are willing to do. The building of a law and governance framework for global sustainability requires global coordination, ground rules, and an institution that can guide and implement collective action. Above all, it requires authority to restrain behavioral options. What can constitute the source of this authority?

Focusing on climate change as the most urgent threat, it is evident that the climate law and governance framework (the Climate Convention, the Kyoto Protocol and the Paris Agreement) has weak authority, even though virtually all states participate in it. The behavioral restraints that follow from this framework are limited and states continue to base their policy choices on the authority of the climate framework only if they coincide with their national interests. For example, the Dutch government, while politically supporting the global objectives related to climate change, was only willing to limit our national behavioral options as long as it would be achievable and affordable ("*haalbaar en betaalbaar*") within the Dutch context. The authority of the international climate framework, and even more so the wider sustainability framework, lacks a source that motivates states to restrain their options beyond self-interest, that is for the globally urgent need to avoid irrevocable ecological changes. The authority seems even weaker than in the field of human rights where many states restrain their action based on shared morality. This is reflected in the disappointing progress in climate change governance, most lately in the Glasgow conference in 2021. There is a virtual standstill in critical areas in the process. It is difficult, if not impossible, to identify the shared source of authority for the climate law and governance framework. In this regard, it is interesting to observe that the Commission of the European Union is willing to go much further in proposing climate action than most of its member states. Apparently, the EU is able to look beyond more narrow self-interest to propose more restraining actions, but on what basis? What can be a new common ground for global action?

5 Collective scientific knowledge as the source of authority for sustainability

This new source may already be with us, but it needs clear acknowledgement as the basis for the authority of sustainability law and governance. I would suggest that this source

is our collective scientific knowledge. Collective scientific knowledge has no (national) ownership, is transparent and open to continuous debate; it is dynamic and in constant evolution, and is not determined by national interests and able to express 'inconvenient truths'. Collective knowledge does not prescribe law and governance, but it can have a restraining impact on national options.

For the EU Commission, it seems that this source of authority is indeed the basis for its more drastic proposals. It is not new but a gradual development of the past decades. Take the International Panel on Climate Change (IPCC) as an example. Since the 1980s, it is a living lab experimenting with presenting collective scientific knowledge as a source of authority for law and governance. However, despite its hardly disputed authority in informing the decision-making processes, collective scientific knowledge has not yet succeeded in replacing the national interests as a source of authority for climate law and governance. States are not sufficiently prepared to use this scientific knowledge to restrain their behavioral options by accepting internationally formulated restrictions on their freedom. Where in security, economy and human rights states have accepted such limitations and correcting mechanisms, in sustainability this is still more aspirational than reality. Whereas it is possible to observe a process of gradually strengthening the importance of collective scientific knowledge as a source of authority, it is slow, perhaps too slow, to produce the required effects in time. It certainly is not a distant future or a utopian thought to consider collective science knowledge as a source of authority in law and governance. For example, in 2019 the Netherlands Supreme Court referred to scientific consensus regarding the need to reduce greenhouse gas emissions as a 'common ground' for the interpretation and application of the European Convention of Human Rights in the *Urgenda* case, deciding that the Dutch government is legally compelled to realize steeper reductions of its greenhouse gas emissions.[3]

If there is one source of authority that should be able to bridge the differences between the state societies in the world, it is our collective scientific knowledge. For national decision makers it can be a source of authority that restraints their policy options which can be explained to their national constituencies. At the same time, it would be internationally acceptable as this source of authority is based on a shared understanding of what the urgent collective needs are. Of course, deciding what has to be done specifically will remain a difficult process, but with collective scientific knowledge as its basis, a comprehensive law and governance sustainability framework will be more successful in guiding the urgently needed adaptation processes.

3 ECLI:NL:HR:2019:207 paras. 6.3 and 7.2.11.

6 Conclusion

This essay started with observing that the current 'duck and cover' climate adaptation response is a delusion. It then claimed that adaptation is not a response, but a collective objective. The sustainability challenge that the global human society faces requires a common ground, a shared source of authority for global adaptation and for the related law and governance framework. Collective scientific knowledge presents itself as this source of authority. Our best hope for a sustainable future is that this will be recognized by relevant decision makers. This means that there is a clear task for lawyers, whether specialized in international law, energy law or other branches of the law, whether in academia, legal practice or in courts. This task is to assist in designing and implementing comprehensive law and governance mechanisms and institutions for sustainability that are based on an authority that is truly supranational: our collective scientific knowledge.

THE NORTH SEA WIND POWER HUB PROJECT: SOME INTERNATIONAL AND EU LAW ASPECTS

Frans Nelissen & Ana Costov[1]

Abstract

In order to maximize the use of the energy potential of offshore wind in the North Sea, the North Sea Wind Power Hub project, co-designed jointly by Denmark, Germany and a Dutch consortium, aims to improve the electricity generation and transmission process by connecting offshore wind farms to the mainland through hubs. The latter, according to the consortium's plans, will be situated, *inter alia*, on artificial islands erected in the Doggersbank area of the North Sea. The present chapter will analyze the construction plans in light of some key international and EU legal instruments to assess the project's viability.

1 Introduction

Both of us know Martha as the passionate energy lawyer she is via the Groningen Centre for Energy Law and Sustainability (GCELS) and the Faculty of Law of the University of Groningen; be it as a dear colleague for over 20 years or as a student in her class, enrolled

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in the Energy and Climate Masters, which she both initiated and co-directed. We highly value her great contribution to Energy Law in general and to the Groningen Centre for Energy Law and Sustainability in particular and for this reason gladly contributed.

Our contribution builds on an earlier presentation given at the conference organized by Martha on the occasion of 10 years of Groningen Centre for Energy Law (today: Groningen Centre of Energy Law and Sustainability), 'The North Sea as a Source of Sustainable Energy and Law'.[2] Nevertheless, while drawing inspiration from the said presentation, it relies predominantly on more recent materials, including, importantly, a progress report issued by the NSWPH consortium in May 2021.

One way to achieve the Paris Climate Agreement target of keeping the rise in global average temperature to well below 2°C above pre-industrial levels is by increasing the share of energy produced from renewable sources.[3] For wind energy, notably the North Sea region has great potential. Over the past decade, the number of offshore wind projects in the North Sea expanded significantly, with Denmark's innovative plan to construct an artificial energy island receiving approval earlier this year as the most recent example.[4] However, to realize the full potential of the North Sea's offshore wind energy, increased inter-State cooperation is required. One of the solutions proposed is the North Sea Wind Power Hub project (hereinafter, NSWPH)[5] that constitutes a transnational approach to electricity generation, conversion, and transmission in the North Sea through connecting hubs in a coordinated network and includes plans for the construction of artificial islands, possibly also in the so-called Doggersbank area of the North Sea.[6] The latter will be the focal point of this contribution. We will discuss some international and EU law aspects of this idea. In particular, relevant international instruments such as the United Nations Convention on the Law of the Sea (hereinafter, UNCLOS) and the Convention for the Protection of the Marine Environment of the North-East Atlantic (hereinafter, OSPAR Convention), as well as a number of EU Directives will be briefly analyzed.

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2 The Hague, 8 December 2017, 'The North Sea Wind Power Hub – Island, some legal aspects', by Prof. Dr. F.A. Nelissen.

3 UN Framework Convention on Climate Change, Paris Agreement (signed 12 December 2015, entered into force 4 November 2016) UN Doc FCCC/CP/2015/L.9/Rev1, art 2(1)(a).

4 Danish Energy Agency, 'Denmark's Energy Islands' (ENS) <https://ens.dk/en/our-responsibilities/wind-power/energy-islands/denmarks-energy-islands> accessed 8 July 2021. Notably, Denmark's recent energy island project is a national one and will be conducted independently of the NSWPH project.

5 North Sea Wind Power Hub, 'Towards the First Hub-and-Spoke Project' (NSWPH, May 2021) <https://northseawindpowerhub.eu/knowledge/towards-the-first-hub-and-spoke-project> (NSWPH) accessed 8 July 2021, 7.

6 ibid 8.

2 NSWPH: A Short Overview of the Project

The NSWPH is a proposed network of energy wind farms, which is currently being developed by a Consortium consisting of Dutch-German electricity TSO TenneT, Dutch gas grid operator Gasunie, the Port of Rotterdam and the Danish TSO Energinet. Offshore wind farms situated in the North Sea will be interconnected between each other and also connected to hubs, which are possibly situated on artificial sand islands.[7] From there, the electricity generated will be transmitted to the mainland via undersea cables (spokes) linking the North Sea countries.[8] Power-to-X technology will enable conversion of the electricity produced by the wind farms offshore into other renewable energy carriers, such as hydrogen, synthetic fuels and chemicals.[9]

The great potential of the NSWPH project towards facilitating energy transition has been recognized at EU level. In 2019 the NSWPH project was included in the European Commission's list of Projects of Common Interest (hereinafter, PCI).[10] While the exact locations have not yet been established, the Doggersbank has been indicated as a potential area for the construction of a larger artificial sand island energy hub.[11] Located in the EEZ of the Netherlands, Germany, Denmark and the United Kingdom, the Doggersbank is the shallowest part of the North Sea[12], implying lower construction costs, while its strong winds will ensure high-energy yield.[13]

The following sections will briefly analyze the possibility of constructing artificial islands in the Doggersbank area under relevant international and EU legal instruments.

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7 ibid 18; other types of hub foundations include a gravity-based structure, a caisson island, and a jacket foundation, all of which were deemed suitable for the purposes of the project. The exact foundation will largely depend on the location selected.

8 ibid 4.

9 ibid 19.

10 ibid 10.

11 News Direct, 'Dutch company plans to build world's largest offshore windfarm' (7 February 2018) <https://www.youtube.com/watch?v=_nxcmA_L804> accessed 29 August 2021. The area is referred to as Doggersbank in the Netherlands, Doggerbank in Germany and Dogger Bank in the UK. This chapter uses the term Doggersbank in reference to the whole of the area.

12 See Lucette Mascini, 'Increasingly larger wind turbines are conquering the North Sea' (*Innovation Origins*, 14 October 2020) <https://innovationorigins.com/en/increasingly-larger-wind-turbines-are-conquering-the-north-sea/> accessed 8 July 2021.

13 TenneT, 'North Sea Wind Power Hub' (19 November 2020) <https://www.youtube.com/watch?v=n3zHr_wXnA1> accessed 29 August 2021.

3 NSWPH under UNCLOS

UNCLOS 1982 is the primary international convention governing the rights and obligations of States at sea. As 'the legal order of the Oceans' it is also of importance for the construction of energy hubs in the EEZ of coastal States bordering the North Sea.[14]

3.1 Artificial Islands under UNCLOS

UNCLOS defines an island as a 'naturally formed area of land, surrounded by water, which is above water at high tide'.[15] Therefore, areas of land formed as a result of human intervention, such as, for instance, an artificial sand island foundation for an energy hub within the means of the NSWPH project, will not be considered an island under UNCLOS. Instead, they will most likely fall under the scope of Article 60 dealing with artificial islands, installations and structures within the so-called Exclusive Economic Zone (EEZ).[16] However, UNCLOS does not define artificial islands. In the literature a common denominator is the absence of 'naturally'; if read in conjunction with the definition of an 'island' under UNCLOS, an artificial island may be defined as 'an area of land that is above water at high tide that is not naturally formed'.[17] As such, artificial islands are seen as areas of land that share the same characteristics as natural islands with the exception of being artificially created. Therefore, sand islands that are planned to serve as foundations for energy hubs in the North Sea will likely qualify as artificial islands.

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14 Jonathan I. Charney, 'The Marine Environment and the 1982 United Nations Convention on the Law of the Sea' The International Lawyer, Winter 1994, Vol. 28, No. 4 (Winter 1994), pp. 879-901.

15 United Nations Convention on the Law of the Sea (concluded 10 December 1982, entered into force 16 November 1994) 1833 UNTS 3 (UNCLOS), art 121.

16 ibid art 60. See for definition of the EEZ art 55. The reason for not dealing with the territorial see here is that the Doggersbank area falls outside the territorial waters of the surrounding coastal states.

17 Alex G Oude Elferink, 'Artificial Islands, Installations and Structures' The Max Planck Encyclopedia of Public International Law (September 2013) <https://opil.ouplaw.com/view/10.1093/law:epil/9780199231690/law-9780199231690-e247?rskey=c6mRO6&result=1&prd=EPIL> accessed 8 July 2021. See also Daniel Andreeff, 'Legal Implications of China's Land Reclamation Projects on the Spratley Islands' (2015) 47 New York University Journal of International Law and Politics 855, 881-882 and AMJ Heijmans, 'Artificial Islands and the Law of Nations' (1974) 21 Netherlands International Law Review 139, 140.

3.2 Rights and Obligations of Coastal States with Regard to Artificial Islands

With regard to the rights of coastal States in the EEZ, Article 56 confirms 'sovereign rights' over a number of economic activities, including energy production from wind.[18] Moreover, States have jurisdiction to 'establish and use artificial islands, installations and structures' in their EEZ.[19] Coastal States also enjoy an exclusive right to construct, authorize and regulate the construction, operation and use of artificial islands as well as installations and structures for the purposes of conducting said economic activities.[20] Therefore, under UNCLOS, the State in the EEZ of which the construction will take place, will have exclusive sovereign rights over the infrastructure and its operation.

Regarding States' obligations in the EEZ, Article 56 provides that the coastal State shall act in a manner compatible with the provisions of UNCLOS.[21] This includes Part XII of the Convention dealing with protection and preservation of the marine environment. Given that construction of a large-scale project such as NSWPH is likely to have a significant impact on the marine environment, States, among others, would be obliged to conduct an environmental impact assessment.[22]

Overall, the realization of the NSWPH project is possible under UNCLOS. However, there are environmental obligations, for instance, the obligation to conduct an EIA before the commencement of the construction.

4 NSWPH under the OSPAR Convention

The OSPAR Convention of 1992 guides inter-State cooperation on environmental protection in the North-East Atlantic against adverse impacts of human activities.[23] All of the North Sea countries are also Parties to the Convention. Recommendation 2003/3 encourages coastal State Parties to establish a network of Marine Protected Areas (hereinafter, MPAs) in order to conserve and protect species, habitats, ecosystems or ecologi-

18 Ibid (n 14), art 56(1)(a).
19 ibid art 56(1)(b)(i).
20 ibid art 60(1)(a).
21 ibid art 56(2).
22 ibid art 206.
23 Convention for the protection of the marine environment of the North-East Atlantic (concluded 22 September 1992, entered into force 25 March 1998) 2354 UNTS 67 (OSPAR Convention), Preamble and article 2(1).

cal processes of the marine environment.[24] Paragraph 3 of the Recommendation requires State Parties to report areas and develop a management plan for each area in accordance with the Guidelines document.[25] Germany, the Netherlands and the UK reported on the parts of the Doggersbank situated in their respective EEZs as MPAs under the OSPAR Convention.

According to the management guidelines, human activities, including, *inter alia*, construction of artificial islands and offshore wind farms need to be regulated under management plans supported by national legislation.[26] However, 'where Natura 2000 sites are also reported as OSPAR MPAs, Contracting Parties should be under no obligations to take any further action' as management plans for Natura 2000 sites are deemed to offer sufficient environmental protection.[27] As all three States nominated the Doggersbank as a Natura 2000 site, further addressed under Section 5, nothing under the OSPAR Convention precludes the construction of artificial islands, where a permit is obtained under the Habitats Directive.

5 NSWPH under EU law

According to the case law of the European Court of Justice, the general rule regarding the applicability of EU legislation to maritime areas is that EU law follows national jurisdiction.[28] Thus, EU legislation applies to the EEZ of Member States.[29] The present section will explore the prospect of realizing the NSWPH project in the Doggersbank area in light of three EU secondary legal instruments, namely, the Habitats Directive, the Strategic Environmental Assessment Directive (hereinafter, SEA Directive), and the Maritime Spa-

24 OSPAR Recommendation 2003/3 on a Network of Marine Protected Areas (2003) <www.ospar.org/convention/agreements?q=2003&t=32283&a=&s=#agreements-search> accessed 8 July 2021.

25 ibid paras 3(1) and 3(3). See also Guidelines for the Management of Marine Protected Areas in the OSPAR Maritime Area (2003) Agreement 2003/18 <www.ospar.org/convention/agreements?q=2003&t=32281&a=&s=#agreements-search> accessed 8 July 2021.

26 Guidelines (n 23), Table 1.

27 ibid, Appendix I.

28 Case C-37/00 *Herbert Weber v Universal Ogden Services Ltd* [2002] ECLI:EU:C:2002:122, paras 32 and 34; Case C-6/04 *Commission v United Kingdom* (*Habitats*) [2005] ECLI:EU:C:2005:626, paras 115, 117. See also Ceciel Nieuwenhout, 'Regulating Offshore Electricity Infrastructure in the North Sea: Towards a New Legal Framework' (PhD thesis, University of Groningen 2020), 55.

29 Jaap Waverijn and Ceciel Nieuwenhout, 'Swimming in ECJ Case Law: The Rocky Journey to EU Law Applicability in the Continental Shelf and Exclusive Economic Zone' (2019) 56 Common Market Law Review 1623, 1632; see also *Habitats* (n 26).

tial Planning Directive.[30] This choice of legislation is due to their applicability to the type of large-scale energy projects that the NSWPH represents, which means that its non-compliance with the rules and obligations laid down in the said legal instruments could jeopardize the success of the operation.

As such, the SEA process is similar to an Environmental Impact Assessment (hereinafter, EIA), which will also need to be undertaken under the EIA Directive. The difference lies with the fact that while the EIA Directive requires an assessment of the impacts of individual projects, the SEA Directive covers large-scale plans and programmes.[31] With regard to the NSWPH implementation, the Directive will come into play at a later stage and, given the transnational nature of the project, will likely require inter-State consultation alongside the national one.[32] Given this, the authors have decided to omit the EIA Directive from the scope of this chapter.

Another relevant instrument is the Marine Strategy Framework Directive, which aims to achieve a Good Environment Status (GES) in marine waters in the European Union, including the North Sea.[33] However, as the States' obligations under the Directive would coincide with the SEA and Habitats Directives, the former instrument is not addressed in detail.

5.1 Habitats Directive

The main objective of the Habitats Directive is to contribute towards 'ensuring bio-diversity through the conservation of natural habitats and of wild fauna and flora in the European territory of the Member States'.[34] This is done primarily through Member States designating 'Special Areas of Conservation' (hereinafter, SACs), for which management plans must be designed.[35] Importantly, where a project is determined to affect

30 While the Natura 2000 sites are designated under both the Habitats Directive and the Birds Directive, none of the countries designated the Doggersbank as a Special Area of Protection under the Birds Directive; hence, the focus will be placed on the Habitats Directive alone.

31 European Commission, 'Nature Protection and Environmental Impact Assessment' <https://ec.europa.eu/environment/legal/law/2/module_3_25.htm> accessed 30 December 2021. See also Nieuwenhout (n 27) 70.

32 SEA Directive (n 38) art 7.

33 Directive 2008/56/EC of the European Parliament and of the Council of 17 June 2008 establishing a framework for community action in the field of marine environmental policy (Marine Strategy Framework Directive) [2008] OJ L 164/19, arts 1(1) and 4(1).

34 Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora [1992] OJ L 206/7, art 2(1).

35 ibid arts 4(1) and 6(1).

the site negatively, it may nevertheless be executed where the following criteria are met: Firstly, there is no alternative solution to the project. Secondly, the project is to be carried out for imperative reasons of overriding public interest. Thirdly, Member States implementing the project shall take compensatory measures to ensure the overall coherence of Natura 2000 protection.[36]

Both the Dutch Doggersbank and the German Doggerbank areas have been designated under the Habitats Directive as a sandbank slightly covered by sea water all the time, with several species placed under protection.[37] Because of this implementation of a large-scale project such as the NSWPH, which is likely to negatively impact the habitat and the protected species, the NSWPH requires an extensive assessment by national authorities. Regarding the first condition under the Habitats Directive, it is uncertain whether less environmentally harmful alternatives in the North Sea exist. So far, the Doggersbank has been mentioned as the sole site under consideration, primarily due to its favorable location in the shallowest part of the North Sea. With respect to the second condition, according to the Guidance document to the Habitats Directive issued by the Commission, the 'imperative reasons of overriding public interest' may include activities of economic nature having beneficial consequences of primary importance for the environment, which could be applicable to the NSWPH project, certainly in light of its PCI status indicating the recognition of its imperative importance for reaching the climate goals. [38]

Finally, the 'compensatory measures' constitute 'the last resort' where a project having a negative impact on the habitat must nevertheless be carried out; their aim is to offset such impact.[39]

Given the critical role that the NSWPH is predicted to play in reaching the Paris objectives and the fact that alternative locations with the same advantages as the Doggersbank area are not easy to find, it is likely that the Consortium will be allowed to proceed with the project. Moreover, it will not constitute the first human activity in the Doggersbank capable of negatively affecting the habitat. There are currently nine oil and gas drilling

36 ibid art 6(4).

37 European Environmental Agency, 'Doggersbank' <https://eunis.eea.europa.eu/sites/NL2008001> accessed 30 December 2021; European Environmental Agency, 'Doggerbank' <https://eunis.eea.europa.eu/sites/DE1003301> accessed 30 December 2021. Notably, Denmark has not designated its part of the area as a SAC under the Habitats Directive.

38 Commission, 'Guidance document on Article 6(4) of the 'Habitats Directive' 92/43/EEC' (January 2007) <https://ec.europa.eu/environment/nature/natura2000/management/docs/art6/guidance_art6_4_en.pdf> accessed 8 July 2021, 7.

39 ibid, 11.

platforms installed in the area connected to the shore via cables and pipelines.[40] This suggests that a more environmentally friendly oriented project such as the NSWPH will likely receive an approval as well.

5.2 SEA Directive

The SEA Directive obliges Member States to carry out an assessment of plans and programmes, which are likely to have significant effects on the environment.[41] As a rule, all programmes that require an assessment under the Habitats Directive will also have to comply with the SEA Directive.[42] Accordingly, Member States have to submit a report underlining the potential effects that the programme will have on the environment; they also need to identify, describe and evaluate reasonable alternatives.[43] Furthermore, the report must be made available to the national authorities and the general public before the adoption of the plan or programme, and open for consultation.[44] The information included in the report, along with the results of the consultation procedure, shall be taken into account during the preparation of the project (and before its adoption).[45] Ultimately, even after the adoption of the programme, Member States remain obliged to monitor the implementation in order to identify the unanticipated negative impacts at an early stage and take appropriate action.[46]

5.3 Maritime Spatial Planning Directive

The Maritime Spatial Planning Directive aims at promoting sustainable growth of maritime economies, sustainable development of marine areas and sustainable use of marine

40 'Doggersbank Activiteiten' (Rijkswaterstaat) <www.rwsnatura2000.nl/gebieden/eez/eez_gebiedsinformatie/doggersbank/db_activiteiten/default.aspx> accessed 8 July 2021.

41 Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment [2001] OJ L 197/30 (SEA Directive), art 1.

42 ibid art 3(2)(b).

43 ibid art 5(1).

44 ibid art 6.

45 ibid art 8.

46 ibid art 10(1).

resources.[47] It is relevant with regard to energy production offshore, the sustainable development of which is listed as one of the main objectives of the Directive.[48] In particular, Article 8 requires Member States to design maritime spatial plans and identify 'the spatial and temporal distribution of relevant existing and future activities and uses'.[49] These activities include energy production from renewable sources and construction of related infrastructure.[50] Moreover, the Directive obliges bordering Member States, such as the North Sea countries, to cooperate to ensure the coherence and coordination of the spatial plans.[51] Additionally, Member States must designate relevant national authorities to oversee the implementation of the Directive.[52]

The relevance of the Directive to the NSWPH project is amplified given the large-scale nature of the project and its long-term character. Hence, it is essential to ensure that it is adopted in line with the Maritime Spatial Plan for the North Sea region and is in coordination with existing activities. While shipping and fisheries activities are relatively limited in the Doggersbank area, the oil and gas extraction projects remain ongoing.[53] Therefore, elaborate spatial planning is required, especially with regard to the construction of relevant infrastructure, but also cables and pipelines.

Overall, nothing under EU law seems to preclude the realization of the NSWPH project, albeit a number of management programmes and plans will have to be taken into account during the development stage. Most importantly, the project will need to satisfy the criteria laid down under the Habitats Directive. However, the operation of oil and gas extraction platforms in the Doggersbank area indicate that the Consortium is likely to receive the green light. Finally, EIAS and SEA will need to be conducted in order to ensure that the construction will not have a significant adverse impact on the marine environment of the North Sea.

6 Conclusion

The NSWPH project in the Doggersbank area of the North Sea is a perfect example of the subject matters surrounding energy transition Martha devoted her professional life to,

47 Directive 2014/89/EU of the European Parliament and of the Council of 23 July 2014 establishing a framework for maritime spatial planning [2014] OJ L 257/135, art 1(1).

48 ibid art 5(1).

49 ibid art 8(1) and (2).

50 ibid art 8(1) and (2).

51 ibid art 11(1).

52 ibid art 13(1).

53 Rijkswaterstaat (n 37).

and which brought her into the forefront of the International and Dutch Energy Law arena.

Ending our contribution, we recall that States will need to take precautionary measures and cooperate in order to ensure protection of the marine habitat in the Doggersbank area. The conclusion of our brief analysis of relevant international instruments would be that there is nothing to explicitly preclude the construction, as long as the mentioned environmental requirements are complied with.

While we examined some of the legal aspects that are already identifiable, a more detailed analysis will only be possible at a later stage; once more information regarding the project becomes available. Nevertheless, if realized, the NSWPH project is expected to make a valuable contribution to achieving the goals of the Paris Climate Agreement.

THREE BINARIES IN *PEOPLE V ARCTIC OIL*

Suryapratim Roy[1]

Abstract

In People v Arctic Oil, courts in Norway considered the question of whether the constitutional right to environment entails a duty of care on the state for curtailing emissions from oil exports. The cause of action was the issue of exploratory oil licenses. The Supreme Court found for the government, but there was a dissenting opinion, and lower courts developed novel jurisprudence. The reaction to the judgment has been polarised. In this Comment, I suggest that it is unhelpful to analyse the judgment using the binaries of international v domestic policy, regulatory v judicial competence, demand v supply responsibility.

1 Introduction

Professor Roggenkamp, Martha, has always been ahead of the curve. She can spot academic trends and potential regulation a mile away. This could be because she knows everyone – if you meet anyone important in the European and Scandinavian energy regulatory space, she will say, 'oh, do you know Martha?'. The researchers she mentors end up writing on the most contemporary things. All this sounds like someone to envy. Now onto the bit I admire.

In the second year of my PhD, I was given the opportunity by one of my supervisors – one of Martha's brilliant colleagues: Edwin Woerdman – to give a lecture on Climate Litigation in the LLM on Energy and Climate Law. I was worried. I had no idea how to teach these subjects without being mind-numbingly boring. And then I attended a lecture by

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Martha on European energy law. Going in, I expected Directive-this implementation-that blah. And the lecture was precisely the opposite. With startling clarity, Martha charted a political history of European energy law. It was also remarkably juicy. This combination – a crystal clear narrative and the most interesting anecdotes – can come only from a lifetime of engaged work. It inspired me. I am also grateful for the fact she took a chance on me to write a book chapter, and that she put me in front of large rooms full of practitioners and regulators to present my bookish thoughts.

One might say there's a research ethic in Martha's work – keep a finger on the pulse of new developments, temper such developments with a dose of realism, interdisciplinarity is cool, and don't forget the law. Let me try to utilise this ethic in sketching a perspective on the recent *People v Arctic Oil* case decided by the Norwegian Supreme Court. I think the case is right up Martha's alley – it involves offshore energy, transition to renewables, conflict between energy and climate law, and political intrigue.

2 The Judgement and its Discontents

People v Arctic Oil is a full-bench judgment delivered by the Norwegian Supreme Court in December 2020.[2] Greenpeace and Nature & Youth (joined by Grandparents' Climate Movement and the Friends of the Earth Norway as interveners) filed an application to quash licenses issued by the Norwegian government for petroleum exploration in the Barents Sea during the 23rd Licensing Round (Licensing Decision). The basis for the challenge was primarily Article 112 of the Norwegian Constitution on the right to a healthy environment. The case was first filed in 2016 before the Oslo District Court amidst a fair bit of publicity – there was an ice sculpture with '112' inscribed on it outside the court.[3] The publicity may be explained by the case being one among an explosion of public interest climate change lawsuits globally,[4] which increasingly utilise rights-claims

2 Greenpeace Nordic Association v Ministry of Petroleum and Energy (2020) Case no 20-051052SIV-HRET (Norwegian Supreme Court) (People v Arctic Oil). Unofficial translation <www.klimasøksma˚l.no/wp-content/uploads/2021/01/judgement_translated.pdf>.

3 https://media.greenpeace.org/archive/People-vs-Arctic-Oil-Court-Case-Ice-Sculpture-in-Oslo-27MZIFJX62PAG.html.

4 For an overview, see UNEP, *Global Climate Litigation Report 2020 Status Review*, available at: https://www.unep.org/resources/report/global-climate-litigation-report-2020-status-review; 'Climate change litigation cases spreading around the world', Grantham Research Institute on Climate Change and the Environment, Press Release, July 2021, available at: https://www.lse.ac.uk/granthaminstitute/news/climate-change-litigation-cases-spreading-around-the-world/.

to shape regulatory action.[5] But this one had more going for it for three reasons – it was the first lawsuit that connected the specific practice of oil drilling with climate harm, it raised the question of whether constitutional rights can be mobilised against a specific regulatory decision, and whether a State could be responsible for emissions from oil exports.

The case was dismissed in favour of the government at the District Court, Appeals Court and Supreme Court, but not without significant jurisprudential changes introduced by each court.[6] The District Court found that Article 112 enables citizens and organisations to hold the State accountable for lapses in its duty of care, but is applicable only to environmental harms within Norway.[7] The Appeals Court expanded the territorial scope of Article 112 by recognising – a first for any court globally – the possibility of the State's duty of care for extraterritorial emissions.[8] Notwithstanding, the Appeals Court did not interfere with the government's decision, as the separation of powers requires a high threshold for non-compliance with Article 112. The Supreme Court observed that combustion emissions would be relevant if harm to its citizens could be established because of such emissions, which has not been shown. Further, the Supreme Court was divided – a four-judge minority dissenting opinion found that the decision to issue licenses should be quashed due to the procedural deficiency of not accounting for extraterritorial emissions during impact assessments. It may be noted that the minority opinion of the Supreme Court, the District Court and Appeals Court judgments are of interest due to the diagonal[9] and diffusible[10] nature of transnational climate litigation, where both overturned and lower court judgments find their way in the reasoning of courts in other jurisdictions.

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5 J Peel and H Osofsky, 'A Rights Turn in Climate Change Litigation?' (2018) 7 *Transnational Environmental Law* 37.

6 Alongwith Alexandru Gociu, I chart the trajectory of the judgement in 'People v Arctic Oil: Context, Trajectory and Takeaways', Paper presented at IUCN IUCN-AEL Annual Conference on Environmental Law, University of Groningen, July 2021.

7 Greenpeace Nordic Association v Ministry of Petroleum and Energy Case (2018) Case no 16-166674TVIOTIR/06 (Oslo District Court).

8 Greenpeace Nordic Association v Ministry of Petroleum and Energy (2020), Case no 18-060499ASD-BORG/03 (Borgarting Court of Appeal). Unofficial translation <www.klimasøksmål.no/wp-content/uploads/2019/10/judgement_Peoplevs_ArcticOil_Appeal_Jan2020.pdf>.

9 H Osofsky, 'Is Climate Change International – Litigation's Diagonal Regulatory Role' (2008) 49 *Virginia Journal of International Law* 585.

10 S Roy and E Woerdman, Situating *Urgenda v the* Netherlands in Comparative Climate Litigation (2016) 34 *Journal of Energy and Natural Resources Law* 165

Scholarship on the judgment has been polarised. Most commentators have critiqued the outcome – the court did not order a ban on oil exploration and exploitation,[11] which goes against an emerging international trend.[12] With respect to Norway specifically, commentators point to supply-side responsibility – Norway is the seventh largest exporter of emissions in the world.[13] In terms of the reasoning advanced by the Court, commentators find that the way the right to a healthy environment was interpreted is too narrow,[14] and the deferential review adopted by the courts for policy decisions is somewhat backward[15] in the life of transnational climate law. On the other hand, scholars argue that responsibility for emissions from oil should be borne by importers on the demand-side,[16] international economic diplomacy in the wake of climate change cannot be litigated using constitutional rights[17] – this would amount to judicial overreach. Rather, it is up to states to negotiate climate concerns on the international stage based on domestic energy demand. Further, energy policy is intimately connected to the domestic priorities of the welfare state; caution should be exercised in prioritising climate issues that dilute this objective.[18]

What we get from the judgement and the abovementioned scholarship is that on the one hand we have energy policy which is shaped by domestic economic concerns. On the other hand, we have climate policy, which is negotiated at the international and EU level, and which is implemented at the domestic level. Seen in this way, climate and energy policy are antagonistic, and one needs to win out over the other. This polarity

11 D Shapovalova, 'Arctic Petroleum and the 2°C Goal: A Case for Accountability for Fossil-Fuel Supply' (2020) 10 *Climate Law* 282.

12 R Frost, 'The End of Fossil Fuels: Which countries have banned exploration and extraction?', *Euronews*, 12 August 2021. Available at: https://www.euronews.com/green/2021/08/12/the-end-of-fossil-fuels-which-countries-have-banned-exploration-and-extraction.

13 H McKinnon, G Muttitt, and K Trout, 'The Sky's Limit Norway: Why Norway should lead the way in a managed decline of oil and gas extraction' Oil Change International Report, August 2017, http:// priceofoil.org/2017/08/09/the-skys-limit-norway-why-norway-shouldlead-the-way-in-a-managed-decline-of-oil-and-gas-extraction/

14 C Voigt, 'The First Climate judgment before the Norwegian Supreme Court: Aligning law with politics' (2021) *Journal of Environmental Law,* available at: https://doi.org/10.1093/jel/eqab019.

15 P Minnerop & I Røstgaard, 'In Search of a Fair Share: Article 112 Norwegian Constitution, International Law, and an Emerging Inter-Jurisdictional Judicial Discourse in Climate Litigation' (2021) 44 *Fordham International Law Journal* 847.

16 A Zahar, 'A Leakage Case Litigated as a Human Rights Case', Paper presented at the 'Climate Litigation as Governance Tool' Conference, held at Duke Kunshan University, Suzhou, China, 24-25 October 2020, Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3714290.

17 Ibid.

18 A Gociu, 'The Norwegian Petroleum Regulatory Framework and the Transition to Green Energy' (2021) 1 *Queen Mary Law Journal* 33.

may be subdivided into three binaries: 1) energy policy is domestic whereas climate policy is international; 2) climate policy is a matter of legislative and executive competence while domestic social concerns may be a matter of judicial interest; and 3) responsibility for emissions should be on consumers (demand-side) as against the position that responsibility for emissions should be on producers (supply side). In this comment, I seek to unsettle these three binaries.

3 The Domestic and External Binary

Norway's treatment of energy is unique, and difficult to replicate given a mix of political and policy choices. When oil was discovered in the Norwegian Continental Shelf, Norway moved to simultaneously build up experience in the industry, and use the proceeds to strengthen the economy; specifically, to lay the foundations of a strong welfare state.[19] At the core of such regulatory choices was a particular idea of sustainable development – where human capital and natural resources were simultaneously developed.[20] This process paid off – Equinor (of which the Norwegian state owns 67%) is one of the most formidable oil companies in the world today, the Norwegian Pension Fund Global (financed by oil money) is the third largest sovereign wealth fund. Equinor heavily invests in carbon capture & storage, R&D in renewables;[21] Pension Fund Global invests heavily in renewable energy infrastructure worldwide.[22] From this account, it appears that Norwegian energy policy is very much a creation of domestic regulatory culture, and the internationalisation is an aspect of the network effects of Pension Fund Global. In contrast, climate prerogatives – in keeping with the global nature of climate change – appear to be an 'external' concern that Norway would have to respond to. The external concern idea points to a *lex specialis* argument – climate policy is internationally negotiated at the UN and EU levels, and then left to countries to implement and enforce.[23]

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19 CB Øvald, BSTranøy, and K Raknes, 'The Norwegian Petroleum Fund as Institutionalized Self-Restraint' in P't Hart and M Compton, *Great Policy Successes* (OUP 2019).

20 M Takle, 'The Norwegian Petroleum Fund: Savings for future generations' (2020) 30 *Environmental Values* 147.

21 See https://www.equinor.com/en/what-we-do/renewables.html,

22 See https://www.nbim.no/en/publications/submissions-to-ministry/2019/mandate-for-the-government-pension-fund-global--investments-in-renewable-energy-infrastructure/.

23 A position that Zahar takes in many of his works. See for instance, A Zahar, 'Climate Law, Environmental Law, and the Schism Ahead' in E Techera, J Lindley, K Scott, and A Telesetsky (eds) Routledge Handbook of International Environmental Law (2nd ed, Routledge 2020) 488 – 500.

We will assess the justiciability of 'climate policy as foreign policy' idea shortly. For now, it needs to be pointed out that Norwegian energy policy is, and has always been, a part of foreign policy and international negotiations. The Norwegian Continental Shelf has historically been a hotly negotiated territory, shaped by bilateral and multilateral treaties, international conciliation commissions and even an International Court of Justice ruling.[24] In *People v Arctic Oil* what is of concern is the Licensing Decision. The Licensing Decision pertains to the 23rd licensing round when there was a sudden spike in licenses issued. This spike could be explained by either a fear that international pressure would result in untapped crude oil becoming 'stranded assets' – something that had been suggested by the Norwegian Environment Agency.[25] Less speculative is the fact that the Barents Sea had been under bilateral dispute with Russia for forty-four years; this dispute was resolved by a delimitation treaty in 2010,[26] leaving Norway free to look for oil deposits. This bilateral agreement provides for joint development and discoveries if reservoirs spill into the Russian zone, including consultation on environmental matters for exploration on transboundary hydrocarbon deposits.[27] While the utilisation of proceeds subsequent to the issue of development and operation licenses could be characterised as a matter of domestic welfare policy, the exploration of the Norwegian Continental Shelf via exploration licenses is intimately connected to both international law and bilateral relations.

On the other hand is the characterisation of climate policy as *lex specialis* outside the ambit of domestic law and policy, and combustion emissions as a matter of 'foreign policy'. This argument had been countered in both *Massachusetts v EPA*[28] and the *Urgenda* district court judgement[29] – courts can require regulation on climate change when the State contributes to environmental harm, with *Urgenda* developing a jurisprudence of pro-rata responsibility. Both these cases used particular domestic law and jurisprudence to make these findings, and there may not be equivalent doctrine in Norwegian law especially for the issue of oil licenses. Notwithstanding, the State's duty of care

24 For an overview, see T Pedersen, 'The Svalbard Continental Shelf Controversy: Legal Disputes and Political Rivalries' (2006) 37 *Ocean Development and International Law* 1.

25 G Bang and B Lahn, 'From oil as welfare to oil as risk? Norwegian petroleum resource governance and climate policy' (2020) 20 *Climate Policy* 997, 1003-1006.

26 Treaty between Norway and the Russian Federation concerning Maritime Delimitation and Cooperation in the Barents Sea and the Arctic Ocean, 2010. An English translation of the treaty is available at: https://www.un.org/depts/los/LEGISLATIONANDTREATIES/PDFFILES/TREATIES/NOR-RUS2010.PDF.

27 Article 1.10 of Annex II on Transboundary Hydrocarbon Deposits.

28 549 U.S. 497 (2007).

29 [2015] HAZA C/09/00456689.

for transnational climate harm could very well be construed as a matter of domestic law – the fact that the Supreme Court did not explore this line of reasoning, choosing to characterise combustion emissions in general as 'foreign policy' is rather selective. More generally, the idea that the international regime of climate law is *lex specialis* is certainly discredited by the fact that duty of care is very much a creation of domestic law,[30] as *Urgenda* has demonstrated.

4 Policy and Rights Binary

What we see above is that the distinction between energy policy being domestic and climate policy characterised as 'foreign policy' is illusory, and that courts may have more of a role to play. Speaking of courts, the most prevalent binary in climate law is the policy v rights binary – it is the government that is called on to make climate policy, and courts should respect the separation of powers and apply a hands-off approach. Following this logic, rights would have limited potential to inform judicial review of energy and climate policy. In the Supreme Court decision, the Court observed that it cannot open a regulatory decision that is already made (in this case the Licensing Decision) unless it satisfies a high threshold of 'gross disregard of rights.'[31] The fact that an impact assessment was conducted was enough to acquit the government of its duty under Article 112. The minority opinion suggested otherwise.

Being premised on a procedural deficiency (in that impact assessments did not account for combustion emissions), it may appear that the minority opinion focuses on improper application of regulation, and has nothing to do with rights. This was domestic regulation, and the way the Strategic Environmental Assessment Directive was implemented – four out of sixteen judges were of the opinion that combustion of exported oil needs to be accounted for at the earliest stage possible, and measures for counteracting the adverse impacts of combustion emissions would need to be devised and made transparent. These two properties are derived from jurisprudence developed by the Court of Justice of the European Union, which is not binding law in Norway, but was utilised by the Supreme Court. More importantly, dissenting judge Webster J observed: 'The procedural rules in the petroleum legislation *must* be assessed in the light of Article 112 of the Constitution.' [emphasis added][32] Given Article 112 requires that Norwegian citizens

30 I have dealt with this argument in more detail in S Roy, '*Urgenda II* and its Discontents' (2019) 13 *Carbon and Climate Law Review* 130.

31 People v Arctic Oil (n 1) para 182.

32 People v Arctic Oil (n 1) para 255.

know 'the effects of any encroachment on nature that is planned or carried out;' there is an 'ongoing obligation' on the government to carry out impact assessments and make available such information for the entirety of the exploration and exploitation process ('from opening of a new maritime area for petroleum activities until any production in concluded and the maritime area is restored').[33] This view is taken notwithstanding the minority concurring with the majority that direct challenge to government action based on Article 112 could not be maintained. Thus, the role of enforceable constitutional rights is not only to challenge policy, but also to ensure policies have certain properties.

Though the case gained traction because of the larger issues of combustion emissions and whether oil exploration should be banned, one issue that that commentators missed is that the Licensing Decision challenged was one which saw a spike in licenses issued. The spike could be explained by a fear of oil becoming a stranded asset or the delimitation treaty as discussed earlier; in any event, a spike goes against the spirit of Norwegian energy policy – that is to 'go slow' and pursue an economic model that achieves a high standard of environmental protection.[34] Here there was a missed opportunity for the court to step in and steer Norway back to its development path, which it could have done by invoking the principle of non-regression.[35] This could have been another example of how courts can shape policy.

5 Producer and Consumer Binary

The need to take climate action was not in debate in *People v Arctic Oil*, nor was compliance with the Paris Agreement. By virtue of the European Economic Agreement (EEA), Norway has substantively adopted EU environmental law, including climate measures such as participating in the European Union Emissions Trading Scheme (EU ETS). Internally, Norway has taken several steps on climate change and use of renewables. Norway's energy sources are completely renewable, with *National Geographic* dubbing it the world's greenest nation.[36] On oil specifically, exploration is conducted using renewable sources, there are carbon taxes and a statutory framework including impact assessment. The issue as alluded to earlier is the emissions from oil exports. The debate on

33 People v Arctic Oil (n 1) para 273.

34 H Ryggvik, 'A Short History of the Norwegian Oil Industry: From Protected National Champions to Internationally Competitive Multinationals' (2015) *Business History Review* 89.

35 M Prieur, 'The Principle of Non-regression' *in Elgar Encyclopaedia of Environmental Law VI: Principles of Environmental Law* (Edward Elgar 2018) 251 – 259.

36 Matt Carroll, 'Norway's Leading the Charge on a Sustainable Electric Future', *National Geographic*, June 27, 2019.

whether it is consumers or producers who should be responsible for emissions goes back a long way, and it appears to be ethically irresolvable. Should a passenger or the airline pay for mitigation? Farms or meat-eaters? Should it be Chinese factories or Apple who pays for the emissions from iPhone production? This same debate may be applied to the emissions that are released when Norwegian oil is burnt by countries and companies that buy such oil. Zahar argues that the attack on supply has a 'populist scapegoatish appeal to it', rather, the focus should be on importing countries as 'the problem of climate change arises from the cumulative demand.'[37]

Framed as consumer v producer, or demand v supply, this debate seems irresolvable as it comes down to the philosophical question of causal responsibility. There have been creative regulatory and scholarly solutions to deal with this problem. The EU ETS, for instance, provides for direct liability of producers (due to penalties enforced by applying strict liability) and indirect financial burdens on consumers due to pass-through of costs (provided competition does not prevent a pass-through).[38] To attribute liability to the producer may be justified by an efficiency perspective – costs of identifying and monitoring producers for the purpose of liability may be lower than diffuse non-point sources.[39] The tables might be turned if there are a fewer number of large consumers than multiple small producers of a particular commodity. An ethical perspective would bring in comparative historical advantage to shape rules and reap benefits from fossil fuels.[40] Political scientists have argued that key decisive moments have put us on a fossil fuel trajectory, such as investment in coal rather than hydropower to provide mobility and avoid trade unions in Britain,[41] or post-war oil subsidies in the US.[42] Economists have attempted to develop nuanced supply-chain perspectives for distribution of responsibility for mitigating emissions;[43] including a suggestion to dissolve the producer-consumer binary and move to an income-based responsibility model.[44] Thus, arguments such as Zahar's endorses the uncritical perspective that consumers are to blame for global warm-

37 Zahar (n 16) 6.

38 Discussed in S Roy, 'Distributive Choices in *Urgenda* and EU Climate Law' in M Roggenkamp and C Banet (eds.) *European Energy Law Report XI* (Intersentia, 2017).

39 S Roy, *Situating the Individual within Climate Law: A behavioural law and economics approach to end-user emissions trading*, University of Groningen Dissertation, 2017.

40 S Caney, 'Climate Change and the Duties of the Advantaged' (2010) 13 *Critical Review of International Social and Political Philosophy* 203.

41 A Malm, *Fossil Capital: The rise of steam power and the roots of global warming* (Verso 2016).

42 T Mitchell, Carbon Democracy (2009) 38 *Economy and Society* 399.

43 J Feng, 'Allocating the Responsibility for CO2 over Emissions from the Perspectives of Benefit Principle and Ecological Deficit' (2003) 46 *Ecological Economics* 121.

44 A Marques, J Rodrigues, M Lenzen, T Domingos, 'Income-based Environmental Responsibility' (2012) 84 *Ecological Economics* 57.

ing. The Appeals Court recognized that combustion emissions from oil exports may well be taken into account in the State exercising its duty of care, the scope of which was reduced by the Supreme Court in its ruling that extraterritorial emissions may be accounted for only when they directly affect people on Norwegian territory. In a way, the Supreme Court avoided the producer and consumer binary by concentrating on harms within Norwegian territory. Having said that, the focus on direct harm to citizens within Norwegian territory goes against the *Massachusetts* and *Urgenda* idea of duty of care of states for contributory emissions.

6 Conclusion

In the above whirlwind treatment of *People v Arctic Oil*, we see that the case deals with a concern that is central to the interface of climate and energy law: can responsibility for extraterritorial emissions shape energy policy? In Norway, this is crucial as energy policy is central to its economic policy and welfare policy. It has been suggested in this brief comment that thinking of this issue through binaries is not helpful. As anyone influenced by Martha would surely agree, some nuance would always be of assistance.

ON ENERGY LAW AND CROSS-BORDER ENERGY INVESTMENTS: IS INTERNATIONAL ENERGY INVESTMENT LAW A DISTINCT SUBSET OF LAW?

Cees Verburg[1]

Abstract

In the energy sector large cross-border investments have been made for over a century and disputes between foreign investors and host states or state owned enterprises (SOEs) have arisen on a regular basis. This has resulted in a relatively well documented volume of jurisprudence involving inter-state and investor-state cases as well as disputes between investors and SOEs. Perhaps as a result, terms such as '(international) energy investment law' or '*lex petrolea*' have been used by authors to refer to instruments that regulate the relationship between foreign investors and host states or SOEs and the resulting jurisprudence. This chapter examines what 'international energy investment law' encompasses and whether it can be considered as a distinct subset of law.

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1 Introduction

What is energy law and what does it encompass? Those are questions that have most likely been posed to all energy lawyers and that I discussed on several occasions with Professor Roggenkamp, under whose supervision I wrote my PhD dissertation. The topic of my dissertation was the promotion and protection of renewable energy investments under the Energy Charter Treaty (ECT).[2] As such, I – personally – considered that my dissertation was principally about International Investment Law (IIL) as applied in the factual context of the renewable energy sector. The question was whether this resulted in a dissertation about 'energy law.' At first sight, there is a very close connection between the energy sector and IIL, with disputes in the former often contributing to the development of the latter.[3] Probably due to the considerable amount of published legal decisions, the attention of authors was sparked, who subsequently used terms as 'International Energy Investment Law'[4] (IEIL) or '*lex petrolea*'[5] to refer to the corpus of instruments and legal decisions (mostly arbitral awards) relating to cross border energy investments or, in the case of *lex petrolea,* specifically to the petroleum industry.

In this chapter, I will give my two cents on whether IEIL is a distinct subset of law as the term implies. The reader might ponder why this is a question worth considering. Whether one works in academia or private practice, there are seemingly advantages to using specific 'labels' for your field of expertise. It has been said that in academia, the creation and usage of labels may contribute to the acceptance of the ideas that a label intends to carry forward, which may result in new areas that can be studied and taught.[6] When working in private practice, the usage of such labels may even create advantages. For instance, the Dutch bar association maintains a register[7] of fields in which an attorney specializes and the register is supposed to be an important objective yardstick for defining the quality of the legal profession, in the interest of both the attorney and the litigant.

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2 Cees Verburg, *Modernizing the Energy Charter Treaty: Facilitating Foreign Investment in the Renewable Energy Sector* (University of Groningen 2020, diss.), 431 p.

3 Anibal Sabatar and Mark Stadnyk, 'International Arbitration and Energy: How Energy Disputes Shaped International Investment Dispute Resolution', in Kim Talus (ed.), *Research Handbook on International Energy Law* (Edward Elgar 2014).

4 Peter Cameron, *International Energy Investment Law – the Pursuit of Stability* (Oxford University Press 2010).

5 Doak Bishop, 'International Arbitration of Petroleum Disputes: The Development of a *Lex Petrolea*' [1998] 23 Yearbook of Commercial Arbitration 1131.

6 Terence Daintith, 'Against '*Lex Petrolea*' [2017] 10(1) Journal of World Energy Law and Business 1.

7 Energy law is – (partially) thanks to Professor Roggenkamp – recognized in said register.

This chapter is structured as follows. Section 2 will briefly address the most important matters that are regulated by IEIL and in section 3 the question pertaining to the existence of IEIL will be discussed. Finally, this chapter will end with a conclusion.

2 Scope of Regulation of International Energy Investment Law

Large cross-border investments were probably already common in the energy sector long before the word 'globalization' came into use. Since energy investments are usually made for the long term and the various interests involved – both private and public – are significant, it is no surprise that disputes between foreign investors and host states have occurred regularly. In case a dispute arises, the relationship between the host state and the foreign investors may well be regulated through a variety of legal instruments, such as i) the administrative law and/or constitutional law of the host state, ii) applicable human rights law, iii) investment contracts and/or concessions as concluded between the investor and the host state or a SOE, and iv) Public International Law (PIL), including International Investment Agreements (IIAS).

To illustrate the frequency with which investment disputes have arisen in the energy sector, one can refer to the upstream oil sector where 'waves' of nationalizations occurred in the 1930's, '50s, '70s and the first decade of this century.[8]

Investment disputes are not, however, limited to the petroleum sector. By now they have arisen in every subsector of the energy industry and the energy transition, which includes phasing out certain economic activities that are no longer considered desirable, has already caused several disputes as well.[9] This is also the reason that in this chapter the term IEIL is used, which encompasses all energy sources, and not the narrower term *lex petrolea,* which is often used to refer to a specific *lex mercatoria* for the oil sector.

Some of these past disputes gave rise to seminal legal decisions that will ring a bell with many. Decisions such as *Saudi Arabia v. Arabian American Oil Company*[10] and *Conocophillips v. Petroleos de Venezuela, S.A.*[11] are probably familiar names to arbitration

8 Peter Cameron, 'In Search of Investment Stability', in Kim Talus (ed.), *Research Handbook on International Energy Law* (Edward Elgar 2014), p. 124.

9 This becomes apparent when one considers the investor-state disputes that have arisen under the ECT: <https://investmentpolicy.unctad.org/investment-dispute-settlement> accessed on 12 June 2021.

10 *Saudi Arabia v. Arabian American Oil Company (Aramco)* Award [1958] 27 ILR 1963 117.

11 *Phillips Petroleum Company Venezuela Limited, Conocophillips Petrozuata B.V. v. Petroleos de Venezuela, S.A., Corpoguanipa, S.A., PDVSA Petroleo, S.A.*, ICC Case No. 20549/ASM/JPA, Final Award, 24 April 2018.

specialists. As are the *ELSI* case[12], *Barcelona Traction*[13], and the *Anglo-Iranian Oil Company* case[14] to public international lawyers. Finally, the worlds of PIL and arbitration law collide in cases such as *Yukos v. Russian Federation*[15], *Methanex Corporation v. United States of America* [16] and *ExxonMobil v. Venezuela*.[17]

From the above, one might get the impression that IEIL merely relates to post-establishment investment protection and dispute settlement. While these elements certainly explain why rules on foreign investment are so important to energy investors, the scope of regulation of IEIL is broader.

For instance, investment liberalization commitments are increasingly included in IIAs which are aimed at removing barriers to Foreign Direct Investment (FDI) by prescribing non-discriminatory treatment in relation to market access. By agreeing to such rules, states limit their sovereign right to regulate the inflow of FDI.[18] Such (often far reaching) liberalization commitments are usually accompanied by extensive lists – of up to hundreds of pages – of exceptions and derogations. It is often in these exceptions that the word 'energy' appears.[19]

Rules regarding FDI liberalization are highly relevant to energy investors. In the past, the state or SOEs often dominated domestic energy markets in many countries, in particular the gas and electricity markets. However, privatization and liberalization has often reduced the role of the state from active market participant to regulator. This means that certain crucial roles to sustain modern day life, such as the management of gas and electricity grids, may well be performed by private companies. If these companies fall into foreign hands, in particular if the new owner is from a rivalling nation,

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12 *Case Concerning Elettronica Sicula S.P.A.(ELSI) (United States of America v. Italy)* [1989] ICJ Rep 15.

13 *Barcelona Traction, Light and Power Company Limited (Belgium v. Spain)* (Second Phase) [1970] ICJ Rep 3.

14 *Anglo-Iranian Oil Co. case (United Kingdom v. Iran)* (Jurisdiction) [1952] ICJ Rep 93.

15 *Yukos Universal Limited (Isle of Man) v. The Russian Federation*, UNCITRAL, PCA Case No. 2005-04/AA227, Award, 18 July 2014.

16 *Methanex Corporation v. United States of America,* UNCITRAL, Final Award of the Tribunal on Jurisdiction and Merits, 3 August 2005.

17 *Venezuela Holdings, B.V. and others v. Bolivarian Republic of Venezuela*, ICSID Case No. ARB/07/27, Award of the Tribunal, 9 October 2014.

18 Anna Joubin-Bret, 'Admission and Establishment in the Context of Investment Protection' in August Reinisch (ed.), *Standards of Investment Protection* (Oxford University Press 2008), p. 13.

19 See for the Schedule Japan, sub 7, Agreement Between Japan and Georgia for the Liberalisation, Promotion and Protection of Investment (Japan-Georgia) (adopted 29/01/2021, entrance into force still pending). Annex I HKSAR-10, Investment Agreement Between the Government of Australia and the Government of the Kong Kong Special Administrative Region of the People's Republic of China (adopted 26/03/2019, entered into force 17/01/2020).

worse yet, a SOE from a rivalling nation, this often evokes strong emotions from civil society and politicians. For instance, attempts of Chinese companies to acquire (shares) in European electricity system operators were viewed with suspicion and, in some instances, triggered reactions from legislators that *de facto* kept these Chinese investors out.[20] However, in case the Comprehensive Agreement on Investment between the European Union and China is concluded, which is supposed to contain rules regarding market access and investment liberalization, it might be more difficult in the future to obstruct controversial transactions involving Chinese investors.[21]

Moreover, many states enacted legislation that is ostensibly incompatible with FDI liberalization commitments, and which affect the ability of international investors to enter foreign markets. In this regard, one can think of domestic equity participation requirements, domestic content requirements, restrictions on the ability of foreign investors to own land, and FDI screening mechanisms. It is thus to be expected that, as states more often include FDI liberalization commitments in IIAs, the impact thereof for the energy sector becomes more apparent.

Furthermore, investor behavior and conduct are also topics that are increasingly regulated in IIAs and which are relevant for energy investors, as energy investments are regularly tainted with fraud, corruption and/or associated with environmental degradation.[22]

Contemporary IIAs are largely a one-way street in procedural and substantive terms and merely regulate state conduct and not investor behavior, perhaps with the main exception that investments are to be made in accordance with the domestic law of the host state.[23] Consequently, all that investment tribunals can do in cases of fraud and corruption is decline jurisdiction or declare a claim inadmissible.[24]

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20 Cees Verburg, 'The Screening of Foreign Direct Investments into the European Union: Regulation 2019/452 and its Implications for Energy Investments' [2020] 13 European Energy Law Review 219, pp. 220-221.

21 For an overview of the EU-China Comprehensive Agreement on Investment, see: European Commission, The EU-China Comprehensive Agreement on Investment, the Agreement in Principle (30 December 2020) available at <https://trade.ec.europa.eu/doclib/docs/2020/december/tradoc_159242.pdf> accessed on 30 May 2021.

22 Lucina Low and Richard Battaglia, 'Corruption and the Energy Sector: Inevitable Bedfellows?', in Kim Talus (ed.), *Research Handbook on International Energy Law* (Edward Elgar 2014).

23 For several interesting cases where a broader scope is adopted, see: *Burlington Resources Inc. v. Republic of Ecuador*, ICSID Case No. ARB/08/5, Decision on Ecuador's Counterclaims, 7 February 2017, para. 60. *Urbaser S.A. and Consorcio de Aguas Bilbao Bizkaia, Bilbao Biskaia Ur Partzuergoa v. The Argentine Republic*, ICSID Case No. ARB/07/26, Award, 8 December 2016, paras. 1110-1211.

24 *Churchill Mining PLC and Planet Mining Pty Ltd v. Republic of Indonesia*, ICSID Case No. ARB/12/14 and 12/40, Award, 6 December 2016. *Plama Consortium Limited v. Republic of Bulgaria*, ICSID Case No. ARB/03/24, Award, 27 August 2008.

Slowly but surely, the one-way street is widening. IIAs, or model texts thereof, increasingly include investor obligations relating to a variety of topics, such as corruption, corporate social responsibility, the environment, labor rights, and human rights.[25] It has to be noted however, that this development is still in its infancy and shortcomings can be identified that may affect the legal consequences of said developments. For instance, clauses may be phrased in a non-normative manner or fall outside the scope of the investor-state dispute settlement clause. Nevertheless, the first signs of a paradigm shift are seemingly emerging.

3 The Existence of International Energy Investment Law

While rules on FDI are thus highly relevant in the energy sector, is it possible to consider IEIL as a distinct subset of law? The first 'I' in the abbreviation 'IEIL' implies that it concerns rules of PIL relating to energy investments. However, a literature review demonstrates that this is not necessarily the case.

In 1998, Doak Bishop published his well-known article on the '*lex petrolea*' in which he reviewed and categorized arbitral awards regarding contract based petroleum disputes, many of which related to expropriation.[26] At the end he concluded that 'this *lex petrolea* may yet mature into a fully-developed subset of *international law*.'[27] In a 2011 'update' of this article, Thomas Childs, also took into account arbitral awards rendered by tribunals that were constituted under investment treaties.[28]

In 2010, Peter Cameron published a book titled 'International Energy Investment Law' in which he assessed a variety of contract and treaty based instruments in commer-

25 See for instance, Articles 14, 17, 18, 19, 20 and 24, Agreement between the Government of the Kingdom of Morocco and the Government of the Federal Republic of Nigeria for the Reciprocal Promotion and Protection of Investments (concluded 3/12/2016, entrance into force still pending). Article 10, Agreement between the Slovak Republic and the Islamic Republic of Iran for the Promotion and Reciprocal Protection of Investments (concluded 19/1/2016, entered into force 30/08/2017). Article 7, Netherlands Model Bilateral Investment Treaty 2019. Articles 11 and 12, Indian Model Bilateral Investment Treaty 2015. Article 16, Canada Model Bilateral Investment Treaty 2021.

26 Doak Bishop, 'International Arbitration of Petroleum Disputes: The Development of a *Lex Petrolea*' [1998] 23 Yearbook of Commercial Arbitration 1131.

27 Ibid, pp. 1207-1208. Emphasis added.

28 Thomas Childs, 'Update on *Lex Petrolea*: The Continuing Development of Customary Law Relating to International Oil and Gas Exploration and Production' [2011] 4(3) Journal of World Energy Law and Business 214.

cial and international law that are aimed at protecting the respective interests of investors and states.[29]

What the above-mentioned sources have in common is that they analyze arbitral awards rendered by tribunals that derive their jurisdiction from both contracts and treaties.[30] In my view, however, IEIL does not include contracts and concessions as these are governed by the domestic law of a state. As such, they are not (public) international law, notwithstanding the fact that the transaction involved may well be international, in the sense that it involves parties from different jurisdictions.

Making this distinction is in line with the view of the International Court of Justice (ICJ). In the *Anglo-Iranian Oil Company* case the United Kingdom (UK) argued that a 1933 concession entered into by the Anglo-Iranian Oil Company (AIOC) and Iran had a double character, in the sense that it was both a concession contract between Iran and AIOC and a treaty between the UK and Iran.[31] The ICJ did not concur and held that the concession was 'nothing more than a concessionary contract between a government and a foreign corporation.'[32] Hence, it did not regulate any public matters directly concerning the UK and Iran and it could not possibly be considered to lay down the law between the two nations.[33]

This does not mean, however, that concessions are not relevant in investment disputes.[34] After the *Anglo-Iranian Oil Company* case, IIAs started to include so-called 'umbrella clauses' which require a host state to observe any obligations it has entered into with investors of the other contracting party.[35] Obligations of the host state *vis-à-vis* the

29 Peter Cameron, *International Energy Investment Law – the Pursuit of Stability* (Oxford University Press 2010).

30 As to awards regarding contractual disputes, see: Doak Bishop, 'International Arbitration of Petroleum Disputes: The Development of a *Lex Petrolea*' [1998] 23 Yearbook of Commercial Arbitration 1131, pp. 1154-1165. Thomas Childs, 'Update on *Lex Petrolea*: The Continuing Development of Customary Law Relating to International Oil and Gas Exploration and Production' [2011] 4(3) Journal of World Energy Law and Business 214, pp. 217-220. Peter Cameron, *International Energy Investment Law – the Pursuit of Stability* (Oxford University Press 2010), pp. 103-144.

31 *Anglo-Iranian Oil Co. case (United Kingdom v. Iran)* (Jurisdiction) [1952] ICJ Rep 93, p. 111-112.

32 Ibid, p. 112.

33 Id. See also: *Sebian Loans case (France v. Serb-Croate-Slovene State)* (Judgment of 12 July 1929) PCIJ Series A, No. 20.

34 André von Walter, 'Investor-State Contracts in the Context of International Investment Law', in Marc Bungenberg *et al* (eds.), International Investment Law – A Handbook (C.H. Beck 2015).

35 See for instance, Article 10(1) Energy Charter Treaty (adopted 17/12/1994, entered into force 16/04/1998): "Each Contracting Party shall observe any obligations it has entered into with an Investor or an Investment of an Investor of any other Contracting Party."

foreign investor are thereby elevated to obligations on the inter-state level.[36] The protection offered by umbrella clauses may even include commitments undertaken by the host state in its national law.[37] While the violation of a concession or statutory law may consequently amount to an internationally wrongful act by the host state, the concession or law itself remains an instrument of national law.[38]

It has to be noted however that of the more than 3.000 IIAs in existence, nearly all apply to foreign investment in general. The ECT is the most notable example of an IIA that applies specifically to investments associated with an economic activity in the energy sector.[39] This observation is most likely the strongest argument against the existence of IEIL as a separate subset of law: while rules of PIL regarding foreign investment are of tremendous importance to the energy sector, few of such rules relate *specifically* to the energy sector.

4 Conclusion

In the introduction I explained why, in my view, labels matter and Professor Roggenkamp, and her tireless promotion of 'energy law', is an excellent illustration thereof. She has contributed – in the Netherlands and far beyond – to the wider acceptance and dissemination of 'energy law' as a field of law that is worthy of research, education and specialization. With her retirement imminent, it seems safe to say that the recognition of 'energy law' as a field of law has already reached a point of no return a while ago. After all, societal interest in anything related to energy is expanding at such a rate that few will question the existence and relevance of energy law nowadays.

But is IEIL a distinct subfield of law? While it is undeniable that rules of IIL are of great importance in the energy sector, it is – arguably – difficult to justify the existence of IEIL

36 Anthony Sinclair, 'The Origins of the Umbrella Clause in the International Law of Investment Protection' [2004] 20(4) Arbitration International 411, p. 412.

37 Maria Cristina Gritón Salias, 'Do Umbrella Clauses Apply to Unilateral Undertakings?' in Christina Binder *et al* (eds.), *International Investment Law for the 21*st *Century: Essays in Honour of Christoph Schreuer* (Oxford University Press 2009), p. 491. Rudolf Dolzer & Christoph Schreuer, *Principles of International Investment Law* (Oxford University Press 2012), pp. 177-178.

38 It has to be noted that umbrella clauses have given rise to divergent lines of jurisprudence, see: James Crawford, 'Treaty and Contract in Investment Arbitration' [2008] 24 Arbitration International 351.

39 Article 1(6) Energy Charter Treaty (adopted 17/12/1994, entered into force 16/04/1998). See also, Annex 14-E, paragraph 6(b), United States-Mexico-Canada Agreement (adopted 30/11/2018, entered into force 01/07/2020).

as a separate subfield of law, since few rules of IIL relate specifically to investments in the energy sector. Nevertheless, a few of such rules most definitely do. Therefore, IEIL can be said to exist, no matter how small. Since the scope of regulation of IIAs is broadening – and increasingly includes investor behavior and investment liberalization – and the forces of globalization are seemingly unstoppable, the relevance of IIAs for energy investors will only increase in the future.

Rest to say that I am grateful to have had Professor Roggenkamp as my mentor in the field of energy law, from LLM student to PhD candidate and thereafter. I wish her all the best for years to come.

ARTIFICIAL ISLANDS UNDER UNCLOS: ROOM FOR 'NEW BEASTS'?

Jaap Waverijn[1]

Abstract

This contribution discusses how the term artificial islands as used in article 60 of the United Nations Convention on the Law of the Sea ("UNCLOS") may be interpreted. The 1982 United Nations Convention on the Law of Sea has not provided a definition for the term "artificial islands". This contribution first discusses UNCLOS in relation to the term "artificial islands", followed by an analysis of a grammatical interpretation of the relevant provisions and the context of the relevant provisions. The contribution then analyses the definition of artificial islands as *man-made deposits of sand, rock and gravel*. The contribution further concludes that it can be argued that artificial islands do not overlap with the categories of installations and structures referred to in article 60 UNCLOS.

1 Introduction

The last law in the Netherlands in the French language, the '*Loi concernant les Mines, les Minières et les Carrières*' introduced by Napoléon Bonaparte in 1810, its successor the Dutch Mining Act, the ownership of hydrocarbons under national and international law, and European regulation of the oil, gas and electricity sectors are but a few topics of Martha's research, lectures and academic presentations throughout the years. The law of the sea,

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however, takes a special place within her work. Not only because of her work on the decommissioning and re-use of offshore mining installations and the regulation of carbon capture, transport and storage, but also in particular because of her PhD on 'The legal framework of pipelines in the oil and gas industry: the regulation of petroleum pipelines in the European Community, the Netherlands and the North Sea'.

The law of the sea and the North Sea also play an important role in my work with Martha, with Martha being first supervisor of my PhD research on ownership, security rights and private law coastal state jurisdiction relating to offshore energy installations, in which the law of the sea and the Netherlands as a North Sea jurisdiction are instrumental. Moreover, from 2011, we worked together on the North Sea Energy Law Programme and we have made many trips together in the North Sea area to our partners in Aberdeen, Oslo and Copenhagen.

Topics which usually are of additional interest to Martha are those relating to which many questions and unknowns exist, which is often the case for those which in her words are a 'new beast' or an 'entirely different beast'. This contribution tries to honour this tradition by discussing a question in relation to coastal state jurisdiction regarding offshore energy facilities, which facilities may also include 'new beasts' such as floating installations and offshore energy islands.

This contribution will focus on the question how the term artificial islands as used in the article 60 of the 1982 United Nations Convention on the Law of the Sea ("UNCLOS") may be interpreted.

2 Treaty law

In addition to article 60 UNCLOS, also article 56 UNCLOS is relevant for the answer to the question which facilities are subject to coastal state jurisdiction under international law. Pursuant to article 56 UNCLOS coastal states enjoy sovereign rights for the purpose of exploring and exploiting, conserving, and managing the natural resources in their Exclusive Economic Zone ("EEZ"), and with regard to other activities for the economic exploitation and exploration of the zone, such as the production of energy from the water, currents and winds. Article 56(1)(b)(i) states that coastal states enjoy jurisdiction as provided for in the relevant provisions of UNCLOS with regard to the establishment and use of artificial islands, installations and structures. This is specified in article 60 UNCLOS, which is the main provision discussed here.

> Article 60(1) UNCLOS
> In the EEZ, the coastal state shall have the exclusive right to construct and to authorize and regulate the construction, operation and use of:

1. artificial islands;
2. installations and structures for the purposes provided for in article 56 and other economic purposes;
3. installations and structures which may interfere with the exercise of the rights of the coastal state in the zone.

The subsequent paragraphs of article 60 UNCLOS provide more detail on the jurisdiction of coastal states. Amongst others, the coastal state must give due notice of the construction of artificial islands, installations and structures, must maintain permanent means for giving warning of their presence, and must remove installations and structures no longer in use in whole or in part, in order to ensure safety of navigation.[2] The coastal state can establish safety zones of 500 meters around the artificial islands, installations and structures.[3] The artificial islands, installations and structures do not have a territorial sea of their own, nor do they influence the delimitation of the maritime zones.[4]

3 Grammatical interpretation and context

While article 60 UNCLOS specifies what the coastal state may regulate in relation to artificial islands, installations and structures, and thus provides more clarity than article 56(1)(b)(i) UNCLOS, the provision leaves ample room for questions relating to interpretation. For example, a definition of 'artificial islands', 'structures' or 'installations' is not provided. Therefore, the rules of public international law on the interpretation of international agreements, notably the 1969 Vienna Convention on the Law of Treaties ("VCLT"), must be consulted to conclude which types of facilities coastal states may construct and regulate, and for which purposes.

Article 31(1) VCLT provides that a treaty shall be interpreted in good faith in accordance with the ordinary meaning to be given to the terms of the treaty in their context and in the light of its object and purpose. A grammatical interpretation (according to the Oxford Dictionary of English) provides that installations are 'a large piece of equipment installed for use', such as 'a military or industrial establishment'.[5] A construction is defined as 'a building or other object constructed from several parts' or 'something (such

2 UNCLOS, article 60(3).

3 UNCLOS, article 60(5); CSC, article 5(3).

4 UNCLOS, article 60(8); CSC, article 5(4).

5 Angus Stevenson (ed.), *Oxford Dictionary of English* (3rd edn, OUP 2010). The Merriam-Webster defines installations as 'something that is installed for use' or 'a military camp, fort, or base'.

as a building) that is constructed'.[6] Artificial islands are defined as 'a man-made island or other structure surrounded by or floating on water'.[7] All of these definitions are very broad and could be used to argue that any type of facility qualifies as an artificial island, installation or structure. The VCLT provides, however, that the ordinary meaning should be seen within their context, which includes the text of the treaty.

For example, other UNCLOS provisions where similar terms are used could potentially assist in the interpretation of the terms artificial islands, installations and structures. Article 1(5) UNCLOS on dumping speaks of 'vessels, aircraft, platforms and other man-made structures at sea', article 147 refers to 'installations' used for carrying out activities in the Area, article 194(3)(c)(d) to measures to reduce pollution from 'installations and devices' used for the exploration and exploitation of natural resources, article 209(2) on pollution in the Area refers to 'vessels, installations, structures and other devices', articles 258-262 refer to 'installations or equipment' used for marine scientific research, article 94(7) speaks of damage to 'ships or installations', article 109(2) of radio or TV transmission from a 'ship or installation' and article 87(1)(d) to the freedom of the high seas to construct 'artificial islands and installations'.

UNCLOS does not provide definitions of these terms either. It is clear that the use of these terms throughout the Convention is highly inconsistent and incoherent. Noting the lack of consistency, the Drafting Committee of UNCLOS had considered the introduction of a new subparagraph stating that installations also include artificial islands and structures, but such a subparagraph was not introduced.[8] The ordinary meaning of these terms, and the other treaty provisions set out above, thus provide no definite answers, while the dictionary definitions may be used to argue that each term can capture any type of facility.

4 Artificial islands as man-made deposits of sand, rock and gravel

In the absence of a definition of artificial islands, installations, and structures in UNCLOS, many commentators have argued that because article 60(1)(1) UNCLOS does not contain a limit to coastal state rights regarding *artificial islands*, entirely man-made structures

6 ibid. The Merriam-Webster provides 'something (such as a building) that is constructed'.

7 Not defined by the Oxford Dictionary of English, but from there referred to Lexico.com (by Oxford).

8 Satyah N Nandan and Shatbai Rosenne (eds), *United Nations Convention on the Law of the Sea 1982: A Commentary*, vol 2 (Martinus Nijhoff Publishers 1993) 584.

and facilities are in fact artificial islands and thus subject to coastal state jurisdiction.[9] The result would be that any type of fixed, floating or mobile 'facility' could potentially qualify as an artificial island. While the distinction between the three categories (artificial islands, installations, and structures) may be difficult to determine,[10] recognizing coastal state jurisdiction regarding any type of 'facility' within their EEZ and continental shelf seems to be incorrect when taking other factors into account.

While artificial islands are defined in neither article 60 nor any other provision of UNCLOS, the context can provide assistance in this instance, as UNCLOS contains a definition of islands. Article 121(1) UNCLOS provides that an island is 'a naturally formed area of land that is above water at high tide'. By extension, an artificial island could be defined as follows:

'a non-naturally formed area of land that is above water at high tide'.[11]

'Naturally formed' in the context of article 121 UNCLOS means by natural processes, without human intervention such as dumping sand and stones in shallow waters.[12] An 'area of land' excludes constructions which are entirely concrete, steel or otherwise.[13] Following this line of reasoning, this leads to the conclusion that artificial islands could be defined as being created through the artificial deposit of natural substances such as sand, gravel and rocks in the sea.[14]

Considering that article 31 VCLT provides that the text of the treaty should be taken into account, it is somewhat surprising that many commentators do not refer to article 121(1) UNCLOS for the interpretation of artificial islands.[15] Instead, several (leading) commentators note that "it is paradoxical that artificial islands can be constructed for any

9 Barbara Kwiatkowska, *The 200 mile Exclusive Economic Zone in the new Law of the Sea* (Martinus Nijhoff Publishers 1989) 108; referring to David Attard, *The Exclusive Economic Zone in International Law* (Clarendon Press 1987) 87-89; Nikos Papadakis, *The International Legal Regime of Artificial Islands* (Sijthoff 1977) 79; Elmar Rauch, 'Military Uses of the Ocean' (1985) 28 GYIL 229, 254.

10 See, for example, Donald R Rothwell and Tim Stevens, *The International Law of the Sea* (Hart 2010) 91; Robin Churchill and Vaughan Lowe, *The law of the sea* (Manchester University Press 1999) 168; Kwiatkowska (n 9) 106.

11 In agreement, Alex G Oude Elferink, 'Artificial Islands, Installations and Structures' in *Max Planck Encyclopedia of International Law* (2013) para 3.

12 Papadakis (n 9) 93.

13 ibid.

14 See also Alfred HA Soons, 'Artificial Islands and Installations in International Law' (1974) 22 Occasional Paper Series University of Rhode Island Law of the Sea Institute 3; Edward D Brown, 'The Significance of a Possible EC EEZ for the Law Relating to Artificial Islands, Installations, and Structures, and to Cables and Pipelines, in the Exclusive Economic Zone' (1992) 23 ODIL 115, 122.

15 There is a number of exceptions, including Oude Elferink (n 11).

purpose, unlike installations and structures, when artificial islands are presumably larger and thus create a greater impediment to other uses of the EEZ."[16] This argument leads to several observations.

Firstly, the notion that artificial islands are presumably larger than installations and structures seems to contradict the other abovementioned argument that all man-made structures qualify as 'artificial islands' and therefore are subject to coastal state jurisdiction. By stating that artificial islands are presumably larger than installations and structures, these commentators apparently assume that there is a distinction between them. Such distinction may prohibit the classification of all man-made objects as artificial islands – and thus two opposing 'camps' can be identified.

Secondly, it can be argued that the view that artificial islands are presumably larger than installations and structures seems to corroborate the interpretation of artificial islands as 'a non-naturally formed area of land that is above water at high tide'. The physical area of the ocean which oil and gas production platforms, and especially wind turbines, cover is relatively small – disregarding their security zones and wake fields. Conversely, examples of artificial islands created through dumping or fill – although currently exclusively within the territorial seas or states' internal waters – may be between five and ten kilometers wide such as the international airports in Hong Kong, Singapore Changi, Kansai in Osaka, Japan, or the palm and world islands in Dubai.

In the context of energy production at sea and plans beyond the territorial sea, the Danish parliament has in 2020 decided to begin preparations for the construction of two energy islands in Denmark – in the North Sea and in the Baltic Sea. Under the nomenclature of the North Sea Wind Power Hub, the electricity TSOs in the Netherlands (TenneT) and Denmark (energienet.dk) have been cooperating to research the options to construct offshore energy islands, and that research shows that possibilities include one or more sand islands, caisson islands or platforms.[17] The initial concept of the North Sea Wind Power Hub featured rock and sand dumping to create an area of land which remains above water at high tide. The various concepts indicate that the island(s) could be relatively small, or could be large and feature a harbour, a landing strip and accommodation, all to allow for the construction of wind farms offshore and for the connection

16 Churchill and Lowe (n 10) 131-132; Kwiatkowska (n 9) 108, also referring to Winston C Extavour, *The Exclusive Economic Zone* (A.W. Sijthoff 1979) 198; L Dolliver M Nelson, 'The Drafting Committee of the Third United Nations Conference on the Law of the Sea: The Implications of Multilingual Texts' (1986) 57 BYIL 169, 178-179, 184.

17 North Sea Wind Power Hub, 'Modular hub-and-spoke specific solution options' (NSWPH 2019) 6 https://northseawindpowerhub.eu/wp-content/uploads/2019/07/Concept_Paper_3-Specific-solution-options.pdf.

of multiple states through electricity interconnectors and/or hydrogen pipelines, as the wind farms may be used to produce hydrogen offshore.[18]

Considering that oil and gas production platforms rarely have a length and width exceeding 120 meters and rarely have a topside elevated higher than one hundred meters above water level, sand-filled islands would most likely cover a larger sea area than oil and gas production platforms.

The observation that artificial islands are presumably much larger than installations and structures is thus supported by practice, when interpreting artificial islands in line with article 121(1) UNCLOS as an area of land above the water at high tide. This interpretation opposes the view that the lack of limitations on artificial islands in article 60 UNCLOS provides coastal states with jurisdiction regarding any type of offshore facility constructed for any purpose. In addition, during the negotiations of UNCLOS, proposals to explicitly make all installations subject to coastal state jurisdiction were rejected, and limitations were purposely introduced to the purposes for which coastal states may regulate installations and structures in article 60(1) UNCLOS under 2 and 3.[19]

5 Conclusion and further questions

Taking into consideration the drafting of article 60 UNCLOS, the more limited purposes for which the coastal state is allowed to construct installations and structures, and the above interpretation of artificial islands, it can be argued that artificial islands do not overlap with the categories of installations and structures listed in article 60.[20]

Undoubtedly to the pleasure of Martha, many additional questions arise in this context. For example, are coastal state rights under article 60(1) UNCLOS relating to artificial islands restricted to certain purposes? Are there clear rules on which types of facilities, ships, cables and pipelines may be regulated by the coastal state? What is the scope and what are the limits of the jurisdiction of the coastal state, which areas of law does it include and what are the other relevant limits? Are there potential jurisdictional conflicts and, if so, how should such conflicts be resolved?

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18 The North Seas Countries' Offshore Grid Initiative (NSCOGI) was established in 2009. The countries bordering the North Sea reaffirmed their commitment in 2016 through the Political Declaration on energy cooperation between the North Seas Countries. Concerning the artificial island, Energienet.dk has expressed interest in cooperating, as has TenneT GmbH, which is the TSO in the German part of the North Sea.

19 Rothwell and Stevens (n 10) 91; Nandan and Rosenne (n 8) 584.

20 In agreement regarding the argument that the categories are not intended to overlap: Churchill and Lowe (n 10) 168.

With regard to floating installations the question arises where the distinction lies between floating installations and structures which are subject to coastal state jurisdiction, and ships which are subject to flag state jurisdiction. In addition to different types of floating installations used in the oil and gas sector, there are many new 'floating beasts' at sea. For example, floating pontoons may be used for an 'energy island', and floating offshore wind turbines are expected to scale-up in the coming decade, while floating electricity production units from the waves and tides are being tested and may be combined with wind energy or hydrogen production or storage. In addition, the world's first floating photovoltaic panels in open seas have been installed in Martha's academic and personal 'backyard' in the Dutch part of the North Sea.[21]

These and other further questions are addressed in both my own and the (PhD) research of others at the Groningen Centre for Energy Law and Sustainability. As Martha would say, "Never a dull moment".

21 See oceansofenergy.blue.

EUROPEAN OUTLOOK

ENERGY AND TAXATION: U.S.-LESSONS FOR CARBON CAPTURE AND STORAGE IN EUROPE

Irene Burgers[1]

Abstract

Energy and taxation is a rich field for research and its societal relevance is high. In this Chapter I provide an overview of the research I did in this field, made enthusiastic on this topic by Martha Roggenkamp. Next, I provide an update of the research my colleague Jan Bouwman and I have done on the question whether tax law will act as a barrier or as a tool for promoting CCS for a project initiated by Martha Roggenkamp and Edwin Woerdman on the capture, transportation and permanent storage of CO2. I conclude that the EU would do well by taking the U.S. experience as example, using a tax credit as a tool for incentivizing investment in carbon capture and sequestration.

1 Introduction

My interest in energy as a subject of study dates back to the mid-seventies of the previous century, when – at the age of 15 – I wrote a thesis for a high school subject "Civil education" on the advantages and disadvantages of wind energy, solar energy and nuclear energy.

1 Professor of International and European Tax Law, Faculty of Law & Professor of Economics of Taxation Faculty of Economics and Business, University of Groningen, The Netherlands.

However, the interest remained latent until I met Martha Roggenkamp in 2005, the year she was appointed as professor in Energy Law. At the time my field of research concentrated on tax treaties to prevent double taxation and tax avoidance, on harmonization of corporate income tax in the European Union and on non-discrimination issues. I had no idea of the richness of the field of studies that concerns tax issues related to energy. I was basically only aware of the tax issues related to the exploration and exploitation of the continental shelf and the existence of environmental charges.

Martha's enthusiasm and initiatives made my latent interest become active in 2007. Ever since that time, I have supervised several theses and spent part of my research time on tax issues concerning energy and taxation.

2 Research in relation to energy and taxation

Research in the field of taxation and energy is of societal relevance due to:
- the climate crisis; and
- societal benefits from resource extraction.

First, taxation may be used as an instrument to stimulate clean energy and/or reduce the use of energy[2]. Second, governments may want to control behavior of investors not only through legislation, but also through financial charges such as a return for the extracted petroleum or mineral[3], and a tax on the profit derived by the investor. Therefore, they need to draft a tax and/or broader fiscal system[4] applying to the extractive industries in such way that it ensures that the government obtains an adequate and appropriate share

2 I.J.J. Burgers, Energiebelastingen: Europa's luchtverfrisser of melkkoe, NTFR 2011/1645; I.J.J. Burgers, Altijd ergens en de vervuiler betaalt genoeg?, NTFR 2016/2594.

3 The United Nations 2017 Handbook (footnote 4) expresses: "The tax and broader fiscal system that applies to the extractive industries should ensure that the government obtains an adequate and appropriate share of the benefits from its resources—taking into account that extractives are assets owned by the country and once extracted, they are gone—while providing a return commensurate with the risks borne and functions carried out by the parties".

4 The terminology "tax and broader fiscal system" is used for the following reason. Historically, rights in oil were granted by means of "concessions" which authorized a company to explore, develop and market petroleum for a specified number of years. The investor – generally a foreign company – is the sole decision maker and bears all the costs and risks of developing the field and exercises ownership rights in the extracted minerals. In return, the foreign company agrees to pay the host government production-based royalties or a combination of royalties and taxes. Regimes that countries presently use for taking a fiscal charge are "tax and royalty regimes" based on public law.

of the benefits from these resources, being assets owned by the country and once extracted, they are gone[5]. Redrafting such legislation may be needed for diverging reasons[6]. There is a wide variety in legal instruments for charging upstream petroleum (oil and gas) and mineral activities. The existing legislation may fit no longer with the present conditions.

I analyzed the Energy Tax Directive 2003/96, legal aspects of the design of a carbon tax (including state aid issues) and – to prevent double taxation – a carbon adjustment tax[7]. I also wrote about issues on preventing double taxation in case of onshore or offshore exploration and exploitation of oil and gas[8]. With two PhD-students, I have been working on instruments regulating the extractive industries through financial instruments. Private law instruments include, amongst others, concessions, production sharing contracts and risk service contracts [9]. Public law instruments include petroleum licenses, a special petroleum tax (levied amongst others by Malaysia and the UK) and a non-tax financial obligation requiring the investor to share its profits with the government by virtue of legislation instead of a contract such as the State's Profit Share (*staatswinstaandeel*) levied by the Netherlands. Which instrument a state uses depends both

5 Examples of regimes used at the time of writing are: 1. Tax regimes such as the UK's petroleum revenue tax and Malaysia's petroleum income tax; 2.non-tax financial obligations such as the State's Profit Share (*staatswinstaandeel)*, surface rental and "cijns" on the holder of a license to explore and/or exploit on its turnover, being the number of units of mineral oil or natural gas produced in the licence area and accruing to the holder levied by the Netherlands, and 3. contract regimes based on private law (production sharing contracts or agreements (used in e.g. Indonesia, Tanzania and Uganda) and risk sharing contracts (e.g. Azerbaijan).

6 For instance, the current system may not provide sufficient certainty for investors. First, the system may not be sufficiently transparent, which is the case if the fiscal charge is regulated by way of production sharing contracts, an instrument often used by developing countries. Second, double taxation may not be (sufficiently) prevented, due to insufficient regulation by means of tax treaties. Third, advancement of new technology makes previously unextractable oil extractable for instance in the deep sea. This might create legislative uncertainty. The International Seabed Authority is working on a new Mining Code, but at the time of writing (May 2022) this new Code has not been adopted. https://www.isa.org.jm/mining-code.

7 Irene Burgers, Stefan E. Weishaar, Designing Carbon Taxes Is Not an Easy Task (WIFO Working Papers 559, 2018). See also: Claudia Kettner, Daniela Kletzan-Slamanig, Stefan E. Weishaar and Irene J.J. Burgers, 'Designing Carbon Taxes: Economic and Legal Considerations', in Marta Villar Ezcurra, Janet E. Milne, Hope Ashiabor and Mikael Skou Andersen (eds.), *Environmental Fiscal Challenges for Cities and Transport* (Edward Elgar, 2019), pp. 213 – 225.

8 I.J.J. Burgers, The Taxation of Permanent Establishments The Netherlands, par. 8.4, Oil and Gas Industry; in I.J.J. Burgers and G. Gallo, Permanent Establishments, IBFD, online publication.

9 For details on these private law instruments, see *United Nations Handbook on Selected Issues for Taxation of the Extractive Industries by Developing Countries* (New York, 2017), pp. 23 – 25.

on legal culture[10] and economic reasons, and thus the instruments used change from time to time[11].

3 Carbon capture and storage and tax law

In 2007 Martha Roggenkamp and Edwin Woerdman initiated the Groningen Centre of Energy Law – nowadays called Groningen Centre of Energy Law and Sustainability – as well as a mutual research project. Sixteen researchers of the Faculty of Law of the University of Groningen who had joined the center analyzed legal issues and policy questions concerning the capture, transportation and permanent storage of CO2 (referred to as 'CCS'). The results were published by Intersentia in 2009[12]. My colleague Jan Bouwman and I answered the question whether tax law will act as a barrier or as a tool for promoting CCS. We concluded that, in the Netherlands, CCS activities have tax implications for wage taxes, value added tax, corporate income tax, property tax levied by municipalities[13], transfer tax and environmental taxes. We also found that none of these taxes contain special regimes for CCS and that the Directive 2009/31/EC on the geological storage of carbon dioxide does not give reference to financial conditions, including tax, concerning CCS.

In their concluding chapter, Martha and Edwin summarized the findings of the group by formulating questions concerning the legal framework for CCS. In respect of tax, they highlighted uncertainty concerning tax treatment of CCS for property tax purposes and the finding that general tax incentives, such as for wage tax purposes the (*WBSO*) R&D-tax credit, are usually more effective than subsidies. The reason being that private firms remain more autonomous in their decisions; are less subject to bureaucracy and uncertainty connected to direct subsidies; and tax credits do not have the welfare-economic disadvantages of subsidies.

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10 See for a legal culture analysis of the character of petroleum licenses M.M. Roggenkamp, Oil and gas licenses – a legal nature perspective: the Netherlands,s' in T. Soliman Hunter, J. Oyrehagen Sunde & E. Nordtveit (eds.), The character of petroleum licenses: A legal culture analysis, Edward Elgar, 2020, pp. 139-158.

11 For an overview of economic considerations see United Nations Handbook on Selected Issues for Taxation of the Extractive Industries by Developing Countries, New York, 2017, p. 237.

12 Martha M. Roggenkamp and Edwin Woerdman, *Legal Design of Carbon Capture and Storage Developments in the Netherlands from an International and EU Perspective* (Intersentia, 2009).

13 In the Netherlands property taxes have been levied only by municipalities (*onroerende zaakbelasting*) since 2001.

In 2020 Martha explored the recent developments in the field of carbon capture and storage in the Netherlands from a legal perspective and concluded that this is a long and winding process. Following opposition to carbon capture and storage onshore, the offshore demonstration projects were not successful amongst others due to lack of finance. Martha observed that due to the increasing price of emissions allowances this may change in the future. Carbon Capture and Storage (CCS) and Carbon Capture Use and Storage (CCUS) may become an essential part of governments policies. Governmental financial support, such as the Dutch national support scheme "*Stimulering Duurzame Productie*" (SDE++), was initially intended to provide support to renewable energy, but has been changed so that as of 2020 support may be granted to other climate-friendly techniques, including CCS and CCUS, which may be an incentive for investment in these techniques[14]. The European Commission approved of the scheme under state aid rules on 14 December 2020[15].

Below I will briefly elaborate on some interesting developments in respect of tax incentives for Carbon Capture and Storage in the EU as of 2011 and of the US as of 2008.

In 2011 the European Commission – without success – proposed to amend the Energy Tax Directive to support the objective of moving to a low-carbon and energy-efficient economy by:

- splitting the tax rate into two components: one based on CO2 content and the other based on energy content;
- introducing a single minimum rate for CO2 emissions (20 €/t CO2) for all sectors not covered by the EU ETS based on the energy content of a fuel (€/GJ) rather than the volume; and
- exempting recoverable energy[16].

14 M.M. Roggenkamp, 'Carbon Capture and Storage in the Netherlands: A Long and Winding Process', in Roggenkamp, M. M. & Banet, C. (eds.). European Energy Law Report (Intersentia, 2020), pp. 405-417.

15 European Commission 14 December 2020, State Aid: European Commision approved € 30 billion Dutch scheme to support projects reducing greenhouse gas emission, https://ec.europa.eu/commission/presscorner/detail/en/ip_20_2410

16 Proposal for a COUNCIL DIRECTIVE amending Directive 2003/96/EC restructuring the Community framework for the taxation of energy products and electricity COM(2011) 169 final.

In this proposal no reference was made to carbon capture and storage.

However, as evidenced by a January 2015 report written at the request of the European Commission by Triple, Ricardo-AEA and TNO, the European Commission did prove to be interested in carbon capture and storage. The European Commission asked these three advisory firms to make an evaluation of the Carbon Capture and Storage (CCS) Directive (2009/31/EC), as well as recommendations for the future of the CCS Directive, and wider CCS-enabling policy for the Commission to consider[17]. The CCS Directive focuses on the health, safety, and environmental risk aspects of CCS, particularly transport and storage. The authors concluded that the overall need for CCS (and European CCS regulation) to decarbonize power production and heavy industry in Europe (in line with the 2050 emission reduction targets) remains genuine and urgent, but that given the lack of practical experience it would – at the time – not be appropriate, and could be counterproductive, to reopen the Directive for significant changes. The authors explicitly mentioned that Governments have a range of funding mechanisms, tax incentives and subsidies at their disposal to stimulate CCS investments[18], but that only the UK has introduced a substantial specific CCS funding program.

The group gave the European Commission the advice to revise non-regulatory Guidance Documents and to consider some issues which affect CCS in other Directives, in particular the EU-ETS Directive. Moreover, the European Commission should examine several issues of potential concern in the CCS Directive in approximately five years' time after publication of their report in 2015. The European Commission followed the advice and in 2019 presented a report on the implementation of the Carbon Capture and Storage Directive. Up till the time of writing of this Chapter (May 2022), the report did not result in a proposal to amend Directive 2009/31/EC on the geological storage of carbon dioxide and not in a proposal for rules at a European level for implementing tax incentives to promote carbon capture and storage.

17 Triple, Ricardo-AEA and TNO, Support to the review of Directive 2009/31/EC on the geological storage of carbon dioxide (CCS Directive), Final deliverable under Contract No 340201/2014/679421SER/CLIMA.C1, http://trinomics.eu › wp-content › uploads › 2015/05lre

18 Also including grant schemes, loan guarantees, green certificates, purchase contracts, emissions performance standard, feed-in-tariffs, certificate schemes.

Contrary to my expectations, the Green Deal[19,20,21] is silent in respect of carbon capture and storage. This might be explained – as Martha observed in her publication mentioned above – by the fact that carbon capture and storage is a long and winding process. In respect of carbon taxes, Douenne and Fabre found that the public overestimate the negative impact of such taxes on their purchasing power, wrongly think it is regressive, and do not perceive it as environmentally effective. However, Douenne and Fabre show that correction of these biases makes carbon taxes socially acceptable[22]. In respect of carbon capture and storage such a correction of perception is also needed. The CCS technology nowadays has a solid scientific foundation, but public awareness of CCS is still very low. A review of 135 articles in the period 2002-2018 on the role of public support during the implementation of CCS projects and a sample of 1520 American residents

19 The Green Deal is a package of proposals by the European Commission on 14 July 2021 to make the EU's climate, energy, land use, transport and taxation policies fit for reducing net greenhouse gas emissions by at least 55% by 2030, compared to 1990 levels. https://ec.europa.eu/commission/presscorner/detail/en/IP_21_3541

20 Taxation policies will be aligned with the European Green Deal objectives. The proposed rules aim at: (a) promoting clean technologies and removing outdated exemptions and reduced rates that currently encourage the use of fossil fuels; (b) reducing the harmful effects of energy tax competition; and (c) helping secure revenues for Member States from green taxes, which are less detrimental to growth than taxes on labor. The proposal is to amend the Energy Directive in such a way that there will be a switch from volume to energy content based taxation; incentives for fossil fuel use will be eliminated; and energy products (used as motor or heating fuels) and electricity into categories and by ranking them according to their environmental performance. Moreover, the current tax structure will be simplified by grouping energy products (used as motor or heating fuels) and electricity into categories and by ranking them according to their environmental performance. Proposal for a Council Directive restructuring the Union framework for the taxation of energy products and electricity (recast) COM(2021) 563 final.

21 The European Commission also proposes a new carbon border adjustment mechanism putting a carbon price on imports of a targeted selection of products to ensure that ambitious climate action in Europe does not lead to 'carbon leakage'. The aim is to ensure that European emission reductions contribute to a global emissions decline and to encourage industry outside the EU and the EU's international partners to take steps in the same direction. Amendment to the Renewable Energy Directive to implement the ambition of the new 2030 climate target, https://ec.europa.eu/info/files/amendment-renewable-energy-directive-implement-ambition-new-2030-climate-target_en, p. 7.

22 Thomas Douenne and Adrien Fabre, *Yellow vests, carbon tax aversion, and biased beliefs*, January 2020, https://www.researchgate.net/publication/333507553_Yellow_Vests_Carbon_Tax_Aversion_and_Biased_Beliefs. These authors also find that people's beliefs are persistent and their revisions biased towards pessimism so that only a small minority can be convinced.

in October 2018[23] found that to make this technology socially acceptable first more social studies are required[24]. Based on social studies, a program can be developed for informing the public about safety aspects and advantages and disadvantages of CCS.

After such acceptance has been ensured, it is time for the amendment of Directive 2009/31/EC on the geological storage of carbon dioxide. Such an amendment might include a European-wide tax incentive. Such a tax incentive might also be included in a common corporate income tax base, but this would only be a proper place if such a common tax base would apply to both corporate tax payers and entrepreneurs paying corporate income tax. Thus far the European Commission's proposals for harmonizing the tax base for taxation of profits only concern corporate income taxpayers[25].

4 U.S. experience

The EU may take the U.S. experience with a tax credit as a tool for incentivizing investment in carbon capture and sequestration as an example. The U.S. introduced such a tax credit in 2008 (Internal Revenue Code [IRC] Section 45Q). As of 2018, the credit can be claimed for all carbon oxides, not just CO2 (carbon dioxide). Geological sequestration of carbon is the process of injecting carbon oxides into underground geological formations, where they are either permanently trapped or transformed. Usually this process involves CO2, although injection and sequestration of other carbon oxides (e.g., carbon monoxide) is also possible. Geological sequestration is the final step in a CCS system. In the U.S. 12 projects capturing and injecting CO2 were operating mid-2021. The tax credit is computed per metric ton of qualified carbon oxide captured and sequestered. The amount of the credit, as well as various features of the credit, depend on when the qual-

23 Pianta, Rinsheid and Weber, 'Carbon Capture and Storage in the United States: perceptions, preferences, and lessons for policy' (2021), Energy Policy 151 https://www.sciencedirect.com/science/article/pii/S0301421521000185?via%3Dihub

24 Pavel Tcvetkov, Alexeqy Cherepovitsyn and Sergey Fedoseev, *Public perception of carbon capture and storage: A state-of-the-art overview*, https://pubmed.ncbi.nlm.nih.gov/31867452/

25 Proposal for a Council Directive for a Common Corporate Tax Base COM(2016) 685 final; Proposal for a Council Directive for a Common Corporate Income Tax Base COM(2016) 683 final applying only to very large companies. On 18 May 2021, the European Commission issued a communication on "Business Taxation for the 21st Century" in which it announced amongst others its plans to replace the 2016 C(C)CTB-proposal by a Business in Europe: Framework for Income Taxation (BEFIT) in 2023 providing for a single corporate tax rulebook for the EU, based on apportionment and a common tax base. https://ec.europa.eu/commission/presscorner/detail/es/qanda_21_2431

ifying capture equipment is placed in service. The EU might well take the U.S. experience with this tax credit as example[26].

5 Conclusion

Carbon capture and storage may be a powerful tool in the fight for climate change. Making the public aware of the safety of CCS is one way to promote CCS. The U.S. experience shows that the introduction of a tax credit may also be a useful instrument.

26 Angela Jones and Molly Sherlock, Congressional Research Service, The Tax Credit for Carbon Sequestration (Section 45Q), 8 June 2021, https://crsreports.congress.gov/product/details?prodscode=IF11455

HYDROGEN NETWORKS: NETWORKS OF THE FUTURE?

Ruven Fleming[1]

Abstract

Hydrogen Networks are expensive and, at times, technically challenging to build. Yet, the regulation of hydrogen networks is in full swing across Europe, as hydrogen is key in energy policy agendas across the European Union. While the technical aspects of hydrogen usage and the transition to a hydrogen economy become increasingly clear, the legal framework that would be required to facilitate this transformation remains underdeveloped. This chapter briefly sketches the current state of the art when it comes to both EU hydrogen policy and the emerging EU's regulatory framework for hydrogen networks. The chapter also includes a brief example on how hydrogen networks are regulated in the EU's biggest Member State, Germany. It finds that, while legal frameworks are increasingly taking account of hydrogen networks, essential parts of the regulatory framework merely exist in draft form and/or require further elaboration in the years to come. Martha Roggenkamp's substantive works on the regulation of natural gas networks will remain an important focal point for the development of a legal framework covering the 'new world' of hydrogen networks.

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1 Introduction

Gas and the regulation of gas networks have been recurring themes in the academic career of Martha Roggenkamp. In fact, oil and gas pipelines have been the topic of her PhD thesis[2] and at the end of her career Martha came back to gas, albeit in a new form: hydrogen.[3] Her interest was intrinsically linked to her overarching interest in the regulation of energy networks, about which she published important pieces.[4] Over the years the author of this piece worked with Martha (and others) on various aspects of hydrogen regulation in the European Union, so this piece is hopefully of interest when it discusses the regulation of hydrogen networks in the EU. It proceeds in three steps. First, a brief overview of EU policy on hydrogen is provided. Second, a closer look at the emerging EU law framework on hydrogen networks is provided. Third, this piece subsequently provides a very brief sketch to the regulation of hydrogen networks in the EU's biggest Member State Germany to see how hydrogen network regulation could look like at the national level. The chapter concludes with some observations on the emergence of the regulatory frame for hydrogen networks.

2 EU Hydrogen Policy

The long-term strategic vision of the EU is to achieve climate neutrality (no net GHG emissions) by 2050.[5] Hydrogen is viewed by the European Commission as a key energy carrier to achieve these climate ambitions.[6] The European Commission issued a EU

2 Martha M Roggenkamp '*Het Juridisch Kader van Pijpleidingen in de Olie- en Gasindustrie*' (Intersentia, Cambridge 1999).

3 For instance when she became part of the Horizon 2020 project 'Store and Go' (www.storeandgo.info).

4 Such as Martha M Roggenkamp, Lila Barrera-Hernández, Donald N. Zillman, and Iñigo del Guayo '*Energy Networks and the Law: Innovative Solutions in Changing Markets*' (OUP, 2012).

5 Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions 'The European Green Deal', COM (2019) 640 final at 2.

6 European Commission 'Clean energy – an EU hydrogen strategy', available at: https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12407-A-EU-hydrogen-strategy (accessed 16 June 2020).

Hydrogen Strategy[7] and the 'Fit for 55'-package,[8] which are both part of the 'European Green Deal'.[9] The Hydrogen Strategy is coupled with an EU strategy on systems integration, which means linking the various energy carriers – electricity, heat, gas, and solid and liquid fuels – with each other and with the end-use sectors, such as industry, transport and energy infrastructure, as well as buildings.[10]

These strategies, taken together, provide a big economic boost for hydrogen in the EU (the Commission estimates that cumulative investments in hydrogen in Europe could be up to €180-470 billion by 2050),[11] but also aims to improve the integration of hydrogen into the EU's legal framework. The EU Hydrogen Strategy focuses, in terms of networks, on bigger pipelines at the transmission level (the distribution level is not really looked at in detail), but ideas on its development will be established by the so-called European Clean Hydrogen Alliance, in which public authorities, industry and civil society will collaborate.[12] In terms of end use, hydrogen is seen as an energy carrier that can help with 'greening' the energy sector, replace petroleum in the transport sector and be used in the heavy industry.[13]

This requires the development of large-scale networks. The idea of the EU Hydrogen Strategy is that existing gas pipelines can be used either to create a mingled stream via admixing of hydrogen into the natural gas grid or to repurpose these existing natural gas pipelines to dedicated hydrogen usage, creating hydrogen networks.[14] Given the focus on transmission pipelines, the Commission wants to influence the repurposing process via the European Network of Transmission System Operators for Gas (ENTSO-G)[15] and

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7 Communication from the Commission, 'A hydrogen strategy for a climate-neutral Europe' COM (2020) 301 final (hereinafter: EU Hydrogen Strategy) at 1 and 10-11.

8 As demonstrated by the attention that has been paid to this topic in the EU Commission's 'Fit for 55'- package proposal, see Communication from the Commission ' 'Fit for 55': delivering the EU's 2030 Climate Target on the way to climate neutrality' COM (2021) 550 final at 1, 8 and 9 (hereinafter: Fit for 55).

9 Communication from the Commission, 'The European Green Deal', COM (2019) 640 final at 6, 8 and 18.

10 European Commission, 'EU strategy on energy system integration', available at: https://ec.europa.eu/energy/topics/energy-system-integration/eu-strategy-energy-system-integration_en (accessed 16 June 2020).

11 EU Hydrogen Strategy 8.

12 Ibid., 8-9.

13 EU Hydrogen Strategy 1, 5 and 10.

14 Ibid., 2-3.

15 Important Europe-wide planning and operation roles are assigned to ENTSO-G. See Hans Vedder et al., 'EU energy law' in Martha M Roggenkamp et al. (eds.), *Energy Law in Europe* (3rd edn, Oxford University Press, 2016) para. 4.45.

its Ten-Year Network Development Plans (TYNDPs).[16] For pure hydrogen pipelines a new body shall be created that shall take over ENTSO-Gs functions in the area of pure hydrogen networks, the European Network of Network Operators for Hydrogen (ENNOH), which will be mentioned in the next section 3.2.

3 The EU Law Framework for Hydrogen Networks

3.1 Primary EU Law

Hydrogen developments are an integral part of the internal (energy and transport) market process. Hence, general principles governing the free movement of goods, services and capital will apply to hydrogen.[17] As in the case of natural gas, it can be assumed that hydrogen will qualify as a good, as hydrogen can be valued in monetary terms and can be the subject of commercial transactions. Similarly, the rules of EU competition law apply as anti-competitive behaviour needs to be avoided.[18] Of further relevance for the development of a hydrogen economy are the rules on State aid.[19]

3.2 Secondary EU Law

The secondary EU law framework for hydrogen networks is currently emerging and in flux. Considerably overhauls of the legal system have been achieved or are currently on their way. Relevant for the regulation of hydrogen networks is EU gas legislation, but, given the production of hydrogen via renewable electricity (e.g. Power-to-Hydrogen) and the possible uses of hydrogen as electricity storage medium (Hydrogen-to-Power), a broader framework consisting of the Renewable Energy Directive and the Electricity Regulation and Directive, etc. would need to be considered. This chapter, however,

16 EU Hydrogen Strategy 15.

17 See Articles 34-36 (free movement of goods), 56 (free movement of services) and 49 TFEU (free movement of capital).

18 See Article 102 TFEU and Merger Regulation (Council Regulation (EC) No 139/2004) and its implementing rules (Commission Regulation (EC) No 802/2004).

19 See Articles 107 and 108 TFEU and European Commission, 'Guidelines on State aid for environmental protection and energy 2014-2020' OJ C 200/01, which remain in force for now. More information can be found in Leigh Hancher, Adrien de Hauteclocque and Francesco Maria Salerno (eds.), *State Aid and the Energy Sector* (Hart Publishing, 2018).

merely focusses on pure hydrogen networks and will, thus, not discuss this further secondary law framework that is also relevant to hydrogen.[20]

On 15 December 2021 the European Commission published its so-called 'Hydrogen and Decarbonized Gas Markets'- package.[21] The package consists of a revised Gas Directive[22] (hereafter: RGD), a revised Gas Regulation (hereafter: RGR)[23] and a Regulation on the Reduction of Methane Emissions in the Energy Sector (hereafter: MER).[24]

The proposal of that package is only the beginning of a longer legislative process, as the package needs to be discussed with and resolved by the Council and the European Parliament. However, it is crucial in setting the tone and the main pillars concerning the future EU law framework for the regulation of hydrogen networks.

The new Gas Directive aims to create an EU-wide internal hydrogen market, for which pure hydrogen networks are of essential importance. National Regulatory Authorities are requested to support the creation of such an internal hydrogen market, inter alia by the promotion of cross-border hydrogen flows.[25] From a legal-technical point of view a crucial change occurs in the definitions of the Directive. Article 2 (1) and (3) RGD now differentiate between natural gas and gases (defined as natural gas and hydrogen). Accordingly, the Directive as well as the Regulation differentiate between rules applicable to natural gas on the one hand and gases more broadly defined on the other hand. This is a positive development, given that the applicability of the 2009 Gas Directive to hydrogen has been discussed controversially in the past.[26]

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20 Further information on the developments concerning these law frameworks can be found at Ruven Fleming 'Clean or renewable – hydrogen and power-to-gas in EU energy law' Vol 39, No 1 (2021) Journal of Energy & Natural Resources Law 43 – 63 (hereinafter: Fleming Clean or renewable) and constantly at www.energyandclimatelaw.blogspot.com [accessed 17/January/2021].

21 European Commission 'Commission proposes new EU framework to decarbonise gas markets, promote hydrogen and reduce methane emissions' available at: https://ec.europa.eu/commission/presscorner/detail/en/ip_21_6682 [accessed 17/January/2021].

22 European Commission '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).

23 European Commission '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).

24 European Commission 'Proposal for a Regulation of the European Parliament and of the Council on methane emissions reduction in the energy sector and amending Regulation (EU) 2019/942' (COM(2021) 805 final).

25 Recital 119 revised Gas Directive RGD.

26 Fleming Clean or renewable at 52/53.

Before zooming in on the future regulation of hydrogen networks it is paramount to briefly say something on the bewildering terminology used for hydrogen throughout the package. In short. the European Commission has not been receptive to previous criticism concerning its hydrogen terminology. Instead of sticking to the usual 'colour-book' of hydrogen ('green' hydrogen, 'blue' hydrogen etc.)[27] the Commission decided some years ago to use fuzzier and blurring terms. Art. 2 (10) RGD uses the terminology 'low-carbon hydrogen' instead of 'green' or 'blue' etc. This is supposed to mean that the hydrogen content is derived from non-renewable sources, but from such non-renewable sources that meet a greenhouse gas emission reduction threshold of 70%. 'Low-carbon hydrogen' is now one form of 'low-carbon gases'.[28] Article 8 (2) and (4) RGD provides for a certification scheme and requires operators to demonstrate to National Regulatory Authorities that the required GHG-emission reductions (70%) have been met under a mass-balancing system. The same rules shall apply to imported low-carbon gases & hydrogen. Further definitions e.g. on 'clean hydrogen', a terminology that has been pushed by the European Commission in the past,[29] are not included in the RGD.

The proposal for a new Gas Directive brings about some key changes to the regulation of hydrogen markets and hydrogen networks. The new proposal is quite ambitious in terms of regulating hydrogen markets. Several Member States, like Germany and France, that already established their own rules for the regulation of hydrogen markets some months or more than a year ago (as will be discussed at section 4 below), will need to change their hydrogen market designs and bring them in line with the new EU gas rules by 1 January 2031.[30]

The core idea underlying the new design of hydrogen markets is to introduce main regulatory principles for hydrogen networks that are inspired by those currently applicable to the natural gas market but adapted to the development stage of hydrogen markets. This shall be done whilst providing guidance on future regulatory developments. What that means in practice for dedicated hydrogen networks is that a *hydrogen network operator* needs to be appointed, for hydrogen storage facilities a *hydrogen storage operator* and for hydrogen terminals a *hydrogen terminal operator*. Unbundling provisions for operators of dedicated hydrogen network operators are contained in articles 62-64 RGD and is mainly modelled on the unbundling options available to vertically integrated natural gas undertakings.[31] However, 1 January 2031 is a key date here, as this marks the

27 For an explanation on the colours see Ruven Fleming, 'Regulating Power-to-Gas in the Energy Union' (2018) 16(4) OGEL 1 at 2/3.

28 Art. 2 (11) RGD.

29 Fleming Clean or renewable 48.

30 Article 72 (1b), (7b) & (9) in conjunction with article 73 (1) RGD.

31 As made clear by recital 9 RGD.

end of the transition period[32] and from that day onwards the unbundling rules of Member States on Hydrogen Networks are supposed to be in line with the newly proposed EU law framework.

Access to hydrogen networks is of course key to third parties, as the networks are very expensive to build and risk becoming natural monopolies. Accordingly, there are provisions on Third Party Access to hydrogen networks, hydrogen terminals and hydrogen storage.[33] There is a completely new Chapter VII RGD on rules applicable to dedicated hydrogen networks which contains detailed provisions. The underlying rationale is to allow for Third Party Access to those networks, while not going as far in that as with Third Party Access to natural gas networks. To provide economic incentives and business cases to build hydrogen infrastructure in the first place, exemptions for hydrogen systems from Third Party Access can be established by national regulatory authorities. These exemptions can concern, to name but a few, closed and/or geographically confined hydrogen networks[34] or pre-existing hydrogen networks.[35]

The legislative proposal is paying special attention to cross-border gas interconnectors, as this piece of the network infrastructure is considered crucial for the functioning of a European gas market.[36] This is considered by the revised Gas Regulation (RGR). There are two types of provisions on interconnectors, some on pure hydrogen interconnectors and some on mingled streams (hydrogen admixture to natural gas streams). While the chapter focuses on pure hydrogen networks, it is worthwhile to spend some words on admixing as well, as this will be of relevance for the functioning of the future decarbonized gas market in Europe as a whole.

But first, pure hydrogen interconnectors will be discussed. Here, the EU Commission shall be empowered to adopt delegated acts in accordance with article 63 RGR with regard to the establishment of network codes concerning, inter alia, interoperability rules for the hydrogen network, including addressing interconnection agreements, units, data exchange, transparency, communication, information provisions and cooperation among relevant market participants as well as hydrogen quality, including common specifications and standardisation, odorization, cost benefit analyses for removing cross-border flow restrictions due to hydrogen quality differences and reporting on hydrogen quality.[37]

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32 See for instance recital 9 in conjunction with article 72 (1b), (7b) & (9), article 73 (1) RGD.

33 Art. 31-33 RGD

34 Article 48 RGD.

35 Article 47 RGD.

36 Article 53 RGD.

37 Article 54 (2) (b) RGR.

With a view to cross-border flow of mingled streams (hydrogen admixed to natural gas streams) that transmissions system operators shall be obliged to accept cross-border mingled gas streams with up to 5% hydrogen content from 1 October 2025 onwards.[38] This might have repercussions on sensitive gas storage facilities down the line, which are not yet able to tolerate that amount of hydrogen. Transmission System Operators must cooperate to avoid restrictions of cross-border flows due to differences in gas qualities.[39]

From a governance perspective, hydrogen networks are taken out of ENTSO-G's competence and a new EU body will be created, the European Network of Network Operators for Hydrogen (ENNOH).[40] It is supposed to, inter alia, establish network codes, adopt Ten Year Network Development Plans, etc., so essentially to serve similar purposes like ENTSO-G, just with a view to pure hydrogen networks.[41]

4 Germany: A Brief Case Study on Member State Practice

The above-described proposals for change of the EU legislative framework on pure hydrogen networks have been long-awaited by the Member States. At some point it was considered by some that the slow speed of the EU legislative procedure and the postponement of the presentation of the proposals by the Commission could have a hampering effect for the development of national hydrogen markets and dedicated hydrogen networks. Therefore Germany and other Member States took unilateral action and established legal frameworks on pure hydrogen networks prior to the EU. In the recent 2021 revision of the German *Energiewirtschaftsgesetz EnWG* (hereinafter: German Energy Act or EnWG), pure hydrogen networks and their regulation took center stage. While the scope of this chapter does not allow for comprehensive explanations on the numerous changes and adjustments that have been brought about by the German Energy Act 2021, at least a rough overview shall be provided here to indicate the direction that revised law has taken.

There used to be unclarity concerning applicability of the German Energy Act to hydrogen. While article 3 (19) EnWG old, featured hydrogen, the application was severely restrained by the fact that only hydrogen produced via electrolysis would fall under the scope of this German Energy Act. However, currently a mere 2-3% of hydrogen is produced via that route and about 97-98% of global hydrogen production is achieved via

38 Article 20 RGR.
39 Article 19 RGR.
40 Article 40 RGR.
41 Article 42 RGR.

different technologies.[42] An alternative seemed to be the classification of hydrogen as 'Biogas' according to article 3 (10) EnWG, but the requirement of production via electrolysis also applies here.

This uncertainty has not entirely been removed in the new German Energy Act of 2021, given that the new article 3 (19a) now also features a definition of gas that merely includes hydrogen produced via electrolysis or synthetic natural gas (SNG). However, by addition of chapter 2 (3b) to the Act the scope of the applicability of rules to hydrogen networks has been clarified. Articles 28j-28q EnWG now establish a completely new legislative framework for pure hydrogen networks in Germany. The first interesting feature of the new system is its design as an 'opt-in'-regulation. According to article 28j (1) in conjunction with (3) EnWG operators of pure hydrogen networks are entitled to select freely whether or not they want to become a regulated activity. Such an 'opt-in' may only be announced once to the National Regulatory Authority (*Bundesnetzagentur*) and there is no turning back.[43]

Articles 28j-28q EnWG contain the core of German Energy Act, but similar to the European legal framework, feature less strict competition law provisions, compared to the regulation of natural gas. The operators of a hydrogen network also need to be unbundled,[44] Third Party Access is provided with a view to both connection and access for third parties to hydrogen networks, etc.[45] However, connection is based on negotiated access.[46] At the same time access to the network is regulated by article 28o EnWG as well as the Hydrogen Networks Tariffs Ordinance.[47] The operators have to present a report on the status of the German hydrogen grid and its expansion every second year.[48]

For operators that decide to not go for the 'opt-in', there is, however, a minimum of regulation that applies to their networks, regardless. These are in particular parts 5, 7 and 8 as well as articles 113a-113c EnWG. These articles concern, inter alia, planning authorizations and trespass rights, certain competences and procedures of authorities that need to be complied with, and legal protection. Articles 113a-c EnWG are concerned with certain transitional provisions, like transition of natural gas pipelines into hydrogen pipelines in the Network Development Plan.

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42 International Energy Agency 'The Future of Hydrogen' (2019) 37, available at: https://www.iea.org/reports/the-future-of-hydrogen (accessed 1/11/2021).

43 Article 28j (3) EnWG.

44 Article 28m EnWG.

45 Article 28n EnWG.

46 Article 28n (1) EnWG.

47 Wasserstoffnetzentgeltverordnung (Verordnung über die Kosten und Entgelte für den Zugang zu Wasserstoffnetzen und zur Änderung der Anreizregulierungsverordnung).

48 Article 28q (1) EnWG.

5 Conclusion

Hydrogen, let alone the regulation of hydrogen networks, is a rather new topic for the EU. Integration into the EU's legal framework, albeit in process, is far from being complete. Overall, it can be assessed from the brief overview provided in this chapter, that the EU's legal framework on hydrogen networks is currently developing. As of today, however, it remains in its infancy and some 'teething'-problems are probably unavoidable. To the extent that a new framework crystallized already, its cornerstones seem to be minimum harmonization and an approach that leaves crucial points to the decision of Member States.

Hydrogen networks will be of fundamental importance to the future of energy systems in Europe and beyond. If this new energy carrier is not able to reach all parts of a country, the usage of hydrogen as a real option to 'decarbonize' our gas will vanish. For many years Martha worked on the regulation of energy networks. As a first, tentative assessment about the direction of hydrogen network regulation in the EU suggests that the mode of regulation will be developed along the lines of current network regulation for natural gas, Martha's work will still be of high relevance for the 'new' world of gas. Whether or not this will include 'strict' ownership unbundling or, considering the immense investment costs ahead that shall be shouldered by private parties, a more 'lenient' approach, remains to be seen.

SINGLE ASSET INTERCONNECTORS: REGULATORY ISSUES AND RECENT CASE LAW

Silke Goldberg[1]

Abstract

Interconnectors are the 'hardware' of the integration of the European electricity markets. Whilst historically developed and operated by national or regional TSOs, there is an increase in single asset interconnectors sponsored, developed and operated by other parties (single asset transmission system operators, "SITSOs"). Yet, EU legislation regarding interconnectors is often not geared towards the specific structural differences and challenges of SITSOs. This article explores some of the regulatory issues encountered by SITSOs in light of two recent judgments by the European Court of Justice and attempts a brief outlook towards the future of such interconnectors in the EU.

1 Introduction

Throughout her career, Martha has focussed on the development of the European energy market and the evolving shape of the same. She has been a sharp and insightful legal com-

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mentator of the liberalisation and simultaneous integration of the European internal energy market over the years.

Even before I met Martha, her writings on the (then beginning) liberalisation of the European energy markets were recommended to me in the early 2000s as an introduction to European energy law. I have known Martha for nearly 20 years, first, as the formidable instigator and organiser of the European Energy Law seminar which I first attended as a then newly qualified solicitor to start my journey into European energy law. Subsequently, Martha kindly agreed to supervise my PhD thesis. Little did she know at the time that this would turn out to be a long-term commitment! Martha is famously demanding of her students, yet she has also been very supportive of my various academic endeavours over the years and had an open ear to talk through any challenges which arose in the context of my research or my attempt to combine work in private practice and academia.

In this chapter, I will outline some issues pertaining to the 'hardware' of European energy market integration, i.e. cross-border infrastructure. In particular, I will consider the role of single asset interconnectors developed by sponsors other than the relevant national or regional transmission system operator ("TSO") and the regulatory challenges associated with such interconnector projects as reflected in recent case law and attempt an outlook towards the future of such interconnectors in the EU.

2 The Role of and Support for Interconnectors in the Internal Energy Market

Electricity interconnectors are key to the completion of the internal energy market, contributing to security of supply, cross-border trade and the development of renewable energy generation. Today, electricity interconnectors are also an increasingly attractive asset class for private sponsors and investors – not only in the United Kingdom, where non-TSO sponsored and developed interconnectors are a common occurrence, but also in jurisdictions such as Germany (Neuconnect)[2] and Italy (Savoia – Piemonte)[3].

However, historically, electricity interconnection capacity has largely relied on development by national or, in jurisdictions with several TSOs, regional, incumbent TSOs (ie, TSOs which operate one of the transmission grids to which an interconnector connects)

2 https://neuconnect-interconnector.com/ This interconnector project is currently in the planning and financing stage of its development.

3 For the somewhat complex arrangement to allow for non-TSO private investors to participate in this interconnection project, see also the relevant exemption decision by the European Commission, available here: https://ec.europa.eu/energy/sites/ener/files/documents/2020_piemonte-savoia_decision_en.pdf. This project is currently in the construction phase.

connecting the territory of their jurisdiction with another. By contrast, there are only a few sub-sea, direct current electricity interconnectors developed by private, non-incumbent developers in Europe that have commenced construction or are in operation as at the time of writing.[4]

Development activity of new interconnection projects by incumbent TSOs is limited by the pool of capital to which the relevant TSOs have access (noting that their interconnector projects are often balance-sheet financed), as well as by the internal resources available (for example in terms of the number of staff and their experience).[5]

So far, the investment made by incumbent TSOs has not been sufficient to meet the EU requirements for the volume of interconnection.[6] Consequently, private investment from non-TSO companies in electricity interconnectors has the potential to benefit EU consumers by bringing innovation, new skills and new sources of capital into a sector that has, for the most part, been dominated by incumbent TSOs and to complement the investments made by the incumbent TSOs in delivering the necessary volume of interconnection in the EU.[7]

According to a study prepared for the Commission,[8] the potential increase in social welfare from fully integrating Europe's electricity markets could be in the range of €16 billion to €43 billion annually by 2030, depending on the extent to which Europe's generation portfolio is optimised; the development of adequate interconnector capacity; and

4 In addition to the Savoia- Piemonte interconnector, the 500MW Moyle Interconnector between Scotland and Northern Ireland, the 1000MW ElecLink interconnector between Great Britain and France and the 350MW EstLink 1 Interconnector between Estonia and Finland fall into this category. See particulars of sub-sea, direct current, cross border, electricity interconnectors in the EU that are either in operation or in construction in Annex A.3. The Baltic Cable interconnector between Sweden and Germany is a special case in that it is ultimately 100% owned by the state-owned Norwegian company Statkraft Asset Holding AS. Due to uncertainties around projects that have not yet commenced construction, such projects have been excluded from this analysis.

5 EWEA, 'Financing cross-border electricity infrastructure – why public money is needed', http://www.ewea.org/fileadmin/files/library/publications/research-notes/120229_EWEA_briefing_on_financing_cross_border_infrastructure.pdf.

6 Bernard Energy, 'ACER's Recent "AQUIND Decision": How it may jeopardize the realization of the internal energy market', http://bernardenergy.com/wp-content/uploads/woocommerce_uploads/2018/10/2018-10-10_ACER%E2%80%99S-RECENT-%E2%80%9CAQUIND-DECISION%E2%80%9D.pdf.

7 Adina Valean, No chance of meeting EU renewable goals if infrastructure neglected, https://euobserver.com/opinion/142922.

8 Booz & Co. (2013). Benefits of an integrated European energy market. Retrieved from the European Commission website: https://ec.europa.eu/energy/sites/ener/files/documents/20130902_energy_integration_benefits.pdf.

the extent to which demand response mechanisms are applied across the electricity system.

Reflecting the importance and potential benefits of electricity interconnectors, the European Council has set targets to achieve 10% electricity interconnection by 2020 and 15% by 2030.[9] In 2016, an electricity interconnector expert group (the "Expert Group") was established to provide the Commission with technical advice on reaching these targets. In its first report, "Towards a sustainable and integrated Europe" published in November 2017,[10] the Expert Group concluded that "the socio-economic value of electricity interconnectors stems from their ability to increase the efficiency of the electricity systems by reducing the costs of meeting electricity demand and in parallel improving security of supply and facilitating […] the cost effective integration of the growing share of renewable energy sources".[11] Interconnectors are therefore a crucial 'hardware' component of Europe's energy transition. The Expert Group also suggested that options for further interconnectors should be urgently investigated in countries where nominal transmission capacity of interconnectors is below 30% of peak load or below 30% of installed renewable generation capacity.[12]

The European legislators have over time recognised that interconnector projects are capital intensive, complex and often high-risk projects to implement and have provided for a number of regulatory support mechanisms for such projects.

These support mechanism include:

1. The award of the status of "Project of Common Interest" ("PCI") pursuant to Regulation 347/2013 (the " TEN-E Regulation)[13] which seeks to ensure the timely develop-

9 (i) Outcome of the October 2014 European Council: https://data.consilium.europa.eu/doc/document/ST-169-2014-INIT/en/pdf; and (ii) COM(2014) 330, Communication from the Commission to the European Parliament and the Council, dated 28.5.2014: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52014DC0330&from=EN

10 Report of the Commission Expert Group on electricity interconnection targets: https://ec.europa.eu/energy/sites/ener/files/documents/report_of_the_commission_expert_group_on_electricity_interconnection_targets.pdf

11 Ibid, footnote 10, page 10

12 Towards a sustainable and integrated Europe Report of the Commission Expert Group on electricity interconnection targets, November 2017, page 7: https://ec.europa.eu/energy/sites/ener/files/documents/report_of_the_commission_expert_group_on_electricity_interconnection_targets.pdf.

13 Regulation (EU) No 347/2013 of 17 April 2013 on guidelines for trans-European energy infrastructure and repealing Decision No 1364/2006/EC and amending Regulations (EC) No 713/2009, (EC) No 714/2009 and (EC) No 715/2009, available here: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32013R0347&from=en

ment and interoperability of trans-European energy networks by promoting the development of PCIs. The award of PCI status enables project promoters to (a) take advantage of a streamlined, coordinated and accelerated permit granting process;[14] (b) submit an investment and cross-border cost allocation request to the relevant national regulatory authorities ("NRAs") to ensure that efficiently incurred investment costs are recoverable from networks users;[15] and (c) apply for funding from the Connecting Europe Facility ("CEF").[16] The PCI list is updated every two years,[17] and, in order to be included on the list, projects at present seem to require the support of the Member States whose grids they are proposing to connect.[18]

2. As mentioned above, PCIs have the opportunity to submit an investment request and cross-border cost allocation ("CBCA") pursuant to Article 12 TEN-E Regulation. If such a request is granted, the relevant decision will allocate the costs of the relevant interconnection projects between the TSOs of the relevant EU- Member State and also designate a regulatory incentive regime for the relevant project.
3. Since the adoption of the Electricity Regulation in 2003,[19] it has been possible for sponsors of new interconnectors to apply for an exemption from various regulatory provisions. Pursuant to the currently applicable version of the Electricity Regulation of 2019 (the "ElReg 2019")[20], it is possible, according to article 63 ElReg 2019, to apply for an exemption from the regulatory provisions pertaining to the treatment of congestion charges, third party access, the unbundling regime, and the need for NRA approved tariffs, provided that a set of six conditions specified pertaining, broadly, to the risk associated with, and the competition and supply security of, the relevant interconnector project, is met.

Whilst the above regulatory support mechanisms are in principle and de jure available to interconnector projects (provided always they meet the relevant criteria), promoters

14 See Chapter III of the TEN-E Regulation

15 Article 12 of the TEN-E Regulation

16 For more information on the Connecting Europe Facility, please see also: https://ec.europa.eu/inea/en/connecting-europe-facility/cef-energy/cef-energy-projects-and-actions

17 Article 3(4) of the TEN-E Regulation

18 The question as to whether the PCI list is a matter for the Member States or the Commission to decide is currently the subject of ongoing litigation, see: Aquind Ltd and Others v European Commission, Case T-885/19, available at: https://curia.europa.eu/juris/liste.jsf?lgrec=fr&td=%3BALL&language=en&num=T-885/19&jur=T

19 Article 7 of Regulation (EC) No 1228/2003 of 26 June 2003 on conditions for access to the network for cross-border exchanges in electricity,https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32003R1228&from=EN

20 Regulation (EU) 2019/943 of 5 June 2019 on the internal market for electricity, available here:

(typically non-incumbent TSOs) of single asset interconnectors (ie, interconnectors which are the sole transmission asset of the relevant sponsors and which are developed separately from the relevant national grid TSOs) face more difficulties than established TSOs not only to avail themselves of the relevant incentives and support mechanisms, but also to apply the regulatory regime for TSO-sponsored interconnectors. This is due to the implicitly underlying assumption for both the EU-level and national regulatory regimes for interconnectors that such projects are being developed by incumbent national or regional TSOs and that only such TSOs will benefit from the relevant congestion income.

Such difficulties were evidenced in two recent decisions by the Court of Justice of the European Union (the "Court") in relation to Baltic Cable interconnector as well as the planned Aquind interconnector. In the following section I shall summarise the relevant facts and issues arising from the relevant judgments.

3 Baltic Cable

1. Baltic Cable is a subsea high-voltage direct current interconnector linking Lübeck in Germany and Kruseberg in Sweden which has been in operation since 1994.[21]
2. The case[22] considered by the Court following two decisions concerning Baltic Cable AB by the Swedish national regulatory authority Energimarknadsinspektionen (the Energy Markets Inspectorate, "EMI") in front of the Administrative Court of Linköping (the "ACL"), concerning the use of revenues, resulting from the allocation of capacity on the Baltic cable interconnector pursuant to Article 16(6) of Regulation (EC) No 714/2009 (the "ElReg 2009")[23] since its congestion revenues represent around 70% of its revenues.
3. By way of background, the EMI had, in its decision of 9 June 2016, Article 16(6), requested that Baltic Cable place its congestion revenues (ie revenues resulting from the allocation of capacity on the interconnector) for the periods from 1 July 2013 to

21 For more details about this interconnector, see: https://balticcable.com/

22 C-454/18 Baltic Cable AB v Energimarknadsinspektionen, Judgment of the Court of Justice of the European Union (Third Chamber) of 11 March 2020, available at: https://curia.europa.eu/juris/document/document.jsf;jsessionid=D787FFB71EBEED828F0D5B1698D75D28?text=&docid=224342&pageIndex=0&doclang=en&mode=lst&dir=&occ=first&part=1&cid=1565747

23 Regulation (EC) No 714/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the network for cross-border exchanges in electricity and repealing Regulation (EC) No 1228/2003, available at: https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=celex-%3A32009R0714

30 June 2014 and from 1 July 2014 to 30 June 2015, in a separate internal account line until such time as the company could use the revenues to guarantee the actual availability of the allocated capacity and/or to maintain or increase interconnection capacities through network investments, in particular in new interconnectors.

4. Baltic Cable requested that it be permitted to use its congestion revenues as revenues which should be taken into account by the EMI when approving the method for calculating network access tariffs and/or fixing those network tariffs. On 2 November 2017, the EMI refused Baltic Cable's request.
5. Baltic Cable brought an action against both EMI decisions before the ACL who in turn submitted a request for a preliminary ruling to the Court.

In its claim before the ACL, Baltic Cable argued that Article 16 could not apply to it as it applied only to TSOs within the meaning of Article 2(4) of Directive 2009/72, and entities which merely operate an interconnector. In the alternative, Baltic Cable argued that if Article 16 were to apply to single asset interconnector operators such as Baltic Cable, then Article 16(6) must be construed as meaning that companies merely operating an interconnector are free to dispose of the congestion revenues resulting from the interconnector in which they have invested. Further, Baltic Cable argued that the EMI's decisions failed to take account of the "principle of proportionality by disproportionately impairing Baltic Cable's ability to pursue its business and by undermining the objectives pursued by [ElReg 2009] to effectively maintain interconnection capacity."[24]

By contrast, the EMI argued that (a) Article 16 (6) applied to Baltic Cable and, (b) whilst it recognised that Baltic Cable's position was such that the application might have difficult and disproportionate consequences, it did not have the authority to interpret 16 (6) *contra legem*.

Given that the case raised questions of interpretation and validity of EU law, the ACL referred the question as the applicability of Art 16 (6) to Baltic Cable (and, by implication, single asset interconnectors generally) to the Court for a preliminary ruling. In addition, the ACL requested that the Court clarify whether an undertaking which merely operates an interconnector is a TSO.

In its judgment, the Court held that Article 16(6) must be interpreted as applying to an undertaking which merely operates a cross-border interconnector. It also held that when a transmission company merely operates a single cross-border interconnector, the relevant company is a TSO[25] but that the operation and maintenance costs of the relevant

24 Paragraph 25 of the Baltic Cable Judgment, see footnote 21

25 For ease of reference, I shall refer in the remainder of this article to such TSOs as single interconnector TSO or "SITSO".

interconnector cannot be regarded as network investments to maintain or increase interconnection capacities within the meaning of that provision.

The Court also held that the second subparagraph of Article 16(6) must be interpreted as meaning that, when an NRA applies that provision to a SITSO, it is for that authority to authorise that interconnector to use part of its congestion revenues to make a return as well as for the operation and maintenance of the relevant interconnector, in order to prevent it being discriminated against by comparison with other, classical, TSOs concerned and to ensure that it is in a position in which it is able to carry out its activity in financially acceptable conditions, including making an appropriate profit.

This is effectively a recognition of the structural differences between the classical TSOs which operate a national or regional grid as well as one or more interconnectors and SITSOs.

In recognising this difference, the Court also implicitly acknowledged that the existing European regulatory framework for TSOs is not prima facie suitable for SITSOs as it was designed for incumbent, often State-owned national or regional TSOs and did therefore not recognise the different challenges and needs of SITSO and developers of SITSO, who will often need to project finance their interconnector projects.

4 The Case of Aquind

Aquind is a planned 2GW HVDC subsea electricity interconnector that is being developed between the south coast of England and Normandy in France.

In May 2017, Aquind submitted an application to the national regulatory authorities of France (CRE) and the UK (Ofgem) for an exemption pursuant to Article 17 EIReg 2009 (the "Exemption Request"). As CRE and Ofgem were unable to reach a joint decision regarding the Exemption Request, they referred the decision to ACER in December 2017. By way of further background, and separately to the Exemption Request, Aquind obtained PCI status in April 2018 in the Third PCI List.[26]

ACER refused the application in June 2018, on the basis that the condition laid down in Article 17(1)(b) EIReg 2009 was not met. This condition stipulates that "*the level of risk attached to the investment is such that the investment would not take place unless an exemption is granted*". In its decision, ACER considered that as a PCI, Aquind was entitled to request an investment and cross-border cost allocation ("CBCA") pursuant to Article 12 TEN-E Regulation and that an exemption was therefore not necessary in order for the

26 See https://ec.europa.eu/energy/sites/ener/files/documents/annex_to_pci_list_final_2017_en.pdf for the full list.

investment to take place. ACER emphasised that a regulated regime should be the norm for interconnectors and that exemptions should only be granted in exceptional circumstances.

Aquind appealed this decision to ACER Board of Appeal ("BoA") without success – in October 2018 the BoA upheld the ACER decision and refused the request for an exemption. In December 2018 Aquind appealed the decision of the BoA to the Court.

In November 2020, the Court, in Case T-735/18,[27] annulled the BoA decision finding in favour of Aquind. In its decision, the Court considered both procedural matters pertaining to the scope of the BoA as well as substantive matters pertaining to the relationship between a possible regulated route pursuant to Article 12 TEN-E Regulation and the exempt route pursuant to Article 17 EIReg 2009. For the purposes of this article, I shall summarise the relevant substantive issues in relation to the relationship of hierarchy (if any) between Article 17 EIReg 2009 and Article 12 TEN-E Regulation.

In this regard, the Court held that:

1. while the possibility of funding under Article 12 TEN-E Regulation may be a relevant criterion for determining the level of risk attached to the investment, that criterion cannot constitute a separate condition which must be satisfied in order to obtain an exemption. To that effect, the absence of a prior request for financial support under Article 12 TEN-E Regulation for a PCI cannot, in itself, constitute a ground for concluding that the risk attached to the investment was not demonstrated; and
2. there is no legislative provision which permits the inference that the legislature accorded priority to one scheme over the other.

Furthermore, the Court confirmed that it is apparent from the wording of the relevant Articles that promoters, where a project has PCI status, have the freedom to choose between requesting a CBCA pursuant to Article 12 TEN-E Regulation or to request an exemption pursuant to Article 17 EIReg 2009. The judgment expressly notes that "*the two schemes may be applied in the alternative*" and that "*promoters have the freedom to choose between the applicable procedures*".[28]

Therefore, the BoA had wrongly established an additional condition for an exemption which is not laid down in Article 17(1) EIReg 2009.

The fact that a regulated route pursuant to the TEN-E Regulation is itself a risk was also apparent during the period between Aquind's application to the Court and the

27 Available at https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A62018TJ0735

28 See paragraph 106 of the Aquind Judgment, see footnote 26

judgment being given, as Delegated Regulation (EU) 2020/389[29], did not include Aquind in the PCI list applicable from 2020 – 2022, which meant that Aquind would no longer be eligible for a CBCA. This was further demonstrated by the fact that CRE suspended work on the investment request Aquind had made pursuant to Article 12 TEN-E Regulation in order to mitigate its regulatory situation as soon as Aquind had lost its PCI status.[30]

The Court's judgment as to the relationship between the possibility of a CBCA pursuant to Article 12 of the TEN-E Regulation or an exemption pursuant to Article 17 EIReg 2009 (now Article 63 EIReg 2019) provides clarity to project promoters as to the regulatory support available to them. SITSOs especially will benefit from this clarification as they are more likely than incumbent TSOs to need to rely on an exemption to realise their interconnector projects, given that incumbent TSOs are more likely to be able to rely on their national regulatory regime for support for their interconnector projects.

This is supported by the fact that, with the exception of the BritNed exemption granted in 2007,[31] all exemptions pursuant to 17 ElReg 2009 (or Art 63 ElReg 2019, as the case may be) were granted to planned SITSOs or such interconnectors developed by incumbent TSOs with a significant (part-) ownership or capital contribution by non-TSO companies.[32]

By contrast, there are no examples of planned SITSOs, but multiple examples of TSO-sponsored interconnectors, successfully submitting an investment request and obtaining a cross-border cost allocation pursuant to Article 12 TEN-E Regulation.[33]

ACER has appealed the Court's judgment; at the time of writing, the appeal is pending with a hearing expected in 2022.

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29 Commission Delegated Regulation (EU) 2020/389 of 31 October 2019 amending Regulation (EU) No 347/2013 of the European Parliament and of the Council as regards the Union list of projects of common interest, available here: https://ec.europa.eu/energy/sites/ener/files/c_2019_7772_1_annex.pdf

30 Information relayed by Aquind to the author.

31 Available here: https://ec.europa.eu/energy/sites/ener/files/documents/2007_britned_decision_en.pdf

32 The full list of exemption decisions pursuant to Article 17 ElReg 2009 and Article 63 ElReg 2019 is available here: https://ec.europa.eu/energy/sites/default/files/documents/exemption_decisions2018.pdf

33 See, for instance, https://www.cru.ie/wp-content/uploads/2019/01/CRU18265-Celtic-Interconnector-CRU-assessment-of-the-Celtic-investment-request-Consultation-Paper.pdf

5 Conclusion and Outlook

1. There are structural differences between classical TSOs and SITSOs which mean that the "one size fits all"[34] approach of the current regulatory regime is not suitable for SITSOs.
   In order to unlock the investment potential for SITSOs (and therefore the achievement of the EU interconnection targets), the EU regulatory regime for interconnectors needs to be adapted to reflect these differences appropriately – developers and operators of SITSOs should not need to have to rely – often lengthy- court proceedings to obtain an appropriate regulatory settlement.
2. The recognition of SITSOs as TSOs will be helpful and confer additional rights, such as full membership in ENTSO-E (which in turn will result in SITSOs having a seat at the table when it comes to, for instance, the Ten-Year- Network Development Plan by ENTSO-E or the further development of European network codes).
3. An additional issue that will need to be addressed is the PCI process – at present, it is awarded every two years in a complex decision-making process. As demonstrated in the case of Aquind, the award of PCI status is too precarious and, given the involvement of Member States national governments in the decision-making process, politically charged to serve as foundation for an interconnector's regulatory status.
4. Both the Baltic Cable and the Aquind cases will help strengthen the position of SITSOs which in turn will contribute to enabling a wider pool of possible investors and interconnector sponsors, which in turn will help build out interconnector capacity in Europe and meet the EU's interconnection targets. The willingness of non-TSO companies to invest in interconnectors is certainly strong – as a briefing by the MUFG bank of August 2020 demonstrates.[35]

In short, there is plenty of potential for more SITSOs contributing towards the EU interconnection target – but some adjustments of the regulatory framework to cater for their particular characteristics will be required.

34 On this perspective, see also the podcast commentary by Leigh Hancher of the Florence School of Regulation, available at: https://fsr.eui.eu/the-baltic-cable-case/

35 "Financing Electricity Interconnectors and offshore transmission in the EMEA region", Briefing August 2020, available at: https://www.mufgemea.com/images/mufg/202008_Interconnectors.pdf

ENERGY COMMUNITIES UNDER EUROPEAN UNION LAW: A BRIEF REVIEW OF SOME CONTROVERSIAL ISSUES

Íñigo del Guayo Castiella[1]

Abstract

Some of the Directives of the EU Clean Energy for All Europeans-package (2018-19) provide for the creation of two new entities: «renewable energy communities» (REC), and «citizen energy communities» (CEC), respectively. This contribution underlines a few controversial legal issues surrounding the two new communities, in particular those related to membership (who can be member of a community and what the rights of members are), legal incorporation of energy communities, the local character of energy communities, and the search for profit. Discussing these legal aspects is of relevance to allow energy communities to emerge and to become central subjects of the future electricity system.

1 Introduction

I met Martha Margareta Roggenkamp in August 1990, while at a research period at the *Internationaal Instituut voor Energierecht* of the *Rijksuniversiteit Leiden* (The Netherlands). Since then, we have closely worked together in several projects, particularly on the three

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editions of the book entitled *Energy Law in Europe. National, EU and International Law and Regulation*, and on the periodicals books promoted by the Academic Advisory Group (AAG) of the Section on Energy, Natural Resources, Environment & Infrastructure Law (SEERIL) of the International Bar Association (IBA). It has been a pleasure to cooperate with Martha. I highly value her academic work.

The EU Clean Energy for All Europeans-package (2018-19) included, among other legal norms, two new Directives. On the one hand, Directive no 2018/2001, of the European Parliament and of the Council, of 11 December 2018, on the promotion of the use of energy from renewable sources (2018 RED).[2] On the other hand, Directive no 2019/944, of the European Parliament and of the Council, of 5 June 2019, on common rules for the internal market for electricity and amending Directive 2012/27/EU (2019 ED)[3]. These Directives provide for the creation of two new entities: «renewable energy communities» (REC), and «citizen energy communities» (CEC), respectively.[4] This is a legal reflection of the increasing importance of community energy.[5]

This contribution underlines a few controversial legal issues surrounding the two new communities, in particular those related to membership. The two communities envisaged by the Directives create a remarkable *complexity* of the relations between the community and its members and among members. Both Directives make a choice concerning the term *community*. To have a wider picture of future electricity decentralisation, it is key to stress that there are several other energy communities in Member States, other than the two communities regulated in both Directives.[6] In accordance with the 2019 ED, the provisions on CEC «*do not preclude the existence of other citizen initiatives such as those stemming from private law agreements*».[7] Although that clarification is not included within the 2018 RED, it is obvious that there can be other initiatives in the field of renewable energies, which imply the creation of *communities*. The provisions of the Directives do not aim to homogenize all those initiatives under a uniform legal form. They rather

2 OJ L 328 of 21 December 2018.

3 OJ L 158 of 14 June 2019.

4 Articles 2(16) and 22 of the 2018 RED and Articles 2(11) and 16 of the 2019 ED.

5 See, further, Savaresi, A., *Community Energy and a Just Energy Transition. What We Know and What We Still Need to Find Out*, at Guayo, I. del, Godden, L., Zillman, D. N., Montoya, M.F., and González, J.J. (editors), «Energy Justice and Energy Law», OUP, Oxford 2020, pp. 67-82.

6 For a review of the several meanings of energy communities, see Guayo, I. del, *Regional and Local Energy Communities—A European Union Perspective on Community Benefits*, en Barrera-Hernández, L., Barton B., Godden, L., Lucas, A., and Ronne, A., «Sharing the costs and benefits of energy and resources activity. Legal change and impact on communities», Oxford University Press, Oxford 2016, pp. 41-57.

7 Recital 44 of the 2019 ED.

aim to guarantee that Member States enact the proper legislation to allow REC and CEC, as legal entities, to become capable of enjoying a number of rights and of fulfilling a number of obligations, and, thus, of participating in all electricity markets.

2 Transposing energy communities into national jurisdictions: the need of incorporation?

After so many decades of the setting up of the three European Communities, which are the root of the current EU, it is evident that EU Law is a source of new legal institutions, sometimes unknown in several or in all Member States, but which must be transposed into national law. A remarkable example of that are the provisions of EU law about regulatory authorities in the energy field, which must be independent not only from the industries, but also from governments.[8] That was a remarkable novelty for many Member States, creating also constitutional problems in several of them.[9] This is also the case of the new energy communities envisaged in the 2019 ED and the 2018 RED. According to some commentators, Directives impose the obligation to give legal personality to communities (something that is questionable)[10]. That would be an important novelty to jurisdictions, such as Spain, where communities have not legal personality (although they enjoy rights and are subject to obligations).[11]

Both Directives include the requirement that CEC and REC must be a *legal entity*.[12] Commentators have construed that expression in the sense that the community should have legal personality, or that they must be incorporated.[13] In my view, the Directives are not asking Member States to give legal personality to communities. The only exigency is that the entity is entitled to exercise rights and be subject to obligations in its own name.[14] The Directives do not exclude legal personality, of course, although that may be conven-

8 Article 57 of the 2019 ED.

9 De Somer, S. *Autonomous Public Bodies and the Law – A European Perspective,* Cheltenham, Edward Elgar, 2017.

10 Jasiak, M., *Energy Communities in the EU – Challenges for Implementation of the EU Legal Framework*, at Roggenkamp, M. y Banet, C., «European Energy Law Report XIV», ed. Intersentia, Cambridge 2021, Chapter X, p. 197.

11 The communities of owners or neighbours, for example, do not enjoy legal personality in Spain, in accordance with Ac no 49, of 21 July 1960, on horizontal ownership (Spanish Official Bulletin of 23 July 1960).

12 Article 2 (16) of the 2018 RED and Article 2 (11) of the 2019 ED.

13 González Ríos, I., *Las comunidades energéticas locales: un nuevo desafío para las entidades locales*, en «Revista Vasca de Administración Pública», no 117 (2020), pp. 147-193

14 Recital no 44 of the 2019 ED, and Recital no 71 of the 2018 RED.

ient to achieve the aim of allowing REC and CEC to actively participate in energy markets. What the Directives ask for from Member States is that energy communities exercise rights and are subject to obligations in its own name, which is slightly different.[15] For example, the Spanish legal order regulates some *communities*, which do not enjoy legal personality, but which exercise rights and are subject to obligations in their own names. That is the case of the *communities of owners (or neighbours)*.[16] Although they do not enjoy full legal personality there is a certain degree of *subjectivization*. When the Directives want to award legal personality to a legal entity, they expressly refer to *legal persons* (not merely to *legal entities*). That is the case in several Articles of the 2019 ED. To pick only one example among several other ones, its Article 2(2) defines 'wholesale customer' as a *natural or legal person* who purchases electricity for the purpose of resale inside or outside the system where that person is established. Member States can provide that CEC and REC take any form of entity (association, cooperative, partnership, non-profit organisation, small or medium-sized enterprise, etc.).

3 Members of energy communities

In accordance with the definitions provided by the Directives, members or shareholders of both CEC and REC are i) natural persons, ii) local authorities, including municipalities, or iii) small and medium size enterprises (SMEs, in the case of REC) or small enterprises (in the case of CEC). Consequently, from the wording of the definitions provided by the 2018 RED and the 2019 ED, there seems to be no difference between the two kinds of communities concerning the issue of who can become a member.[17] However, the way in which the 2019 ED and the 2018 RED are written must be criticised, since one does not get a clear idea of which kind of members are accepted in CECs and RECs from reading the definitions and the relevant *Articles*, but only when reading, simultaneously, the *Recitals* of both Directives.

In light of the definitions of REC and CEC, it could be argued that large companies or energy utilities cannot participate in energy communities. However, they can participate in both REC and CEC, since one must read the relevant definitions and articles 22 of the 2018 RED and 16 of the 2019 ED at the light of Recitals of both Directives, which clearly accept large companies or energy utilities as members of communities.[18] The solution to

15 For example, Article 22 (2) (a) of the 2018 RED and Article 16 (2) (b) of the 2019 ED.

16 See footnote no 11.

17 Art. 2 (11) (a) of the 2019 ED, and Article 2 (16) (b) of the 2018 RED.

18 Recitals no 44 of the 2019 ED and 71 of the 2018 RED.

this contradiction is that large companies or energy utilities can participate, but they cannot be involved in the decision-making process of the community. There are no references to large companies or energy utilities as members of REC, neither within the definition of a REC, nor in Article 22 of the 2018 RED. However, they can participate in REC, since they should be capable of remaining autonomous from individual members and *other traditional market actors*, those being undoubtedly large utilities.[19] There is also a lack of reference to large companies or traditional utilities within the definition of CEC and within Article 16 of the 2019 ED. However, the 2019 ED expressly accepts that kind of members or shareholders within CEC. It states that «*membership of citizen energy communities should be open to all categories of entities*», but decision making powers are limited to those «*members or shareholders that are not engaged in large-scale commercial activity and for which the energy sector does not constitute a primary area of economic activity*»[20]).

Together with formal membership or formal participation as shareholders, the 2018 RED foresees the possibility that individual members and other traditional market actors cooperate with REC, «*through other means such as investment*».[21] No specific provision on investors (as something different from members or shareholders) is included with the 2019 ED, but there seems not to be any obstacle for that.

Their members or shareholders must effectively control CECs and RECs.[22] but, simultaneously, both Directives include calls for autonomy of the CEC and REC from its members. Such autonomy is particularly needed when large companies and/or utilities participate in energy communities as members or shareholders, or when they cooperate with the energy communities as investors. In those cases, the design of their governance needs some *caveats*. The 2018 RED states that the REC must be autonomous.[23] In the context that is said, it is clear that it refers to the autonomy of the REC itself in relation with its members. The call for autonomy is to avoid abuse and to ensure broad participation, since REC should be capable of remaining autonomous from individual members and other traditional market actors that participate in the REC as members or shareholders, or who cooperate through other means such as investment.[24] It is also clear that «other traditional market actors» or «investors» are large companies or energy utilities. For its part, the relevant articles devoted to energy communities within the 2019 ED do not make an express call for autonomy of the CEC, but Recital 44 is very clear in that

19 Recital no 71 of the 2018 RED.

20 Recital no 44 of the 2019 ED. See, further, Jasiak (footonote no 10).

21 Recital 71 of the 2019 ED.

22 Art. 2 (11) (a) of the 2019 ED, and Article 2 (16) (a and b) of the 2018 RED.

23 Art. 16 (1) (a) of the 2018 RED.

24 Recital no 71 of the 2018 RED.

respect, in that big companies are banned from any decision making powers. However, governance must be developed in such a way that the interests of existing electricity companies do not prevail over the social, environmental, or economic interest of CEC. That implies that the decision-making powers within a CEC must be limited to those «*that are not engaged in large-scale commercial activity and for which the energy sector does not constitute a primary area of economic activity*».[25] The 2018 RED seems to go further, since it does not only limit the role of private undertakings in the decision-making process, but excludes participation in a REC of private undertakings, when the participation constitutes their primary commercial or professional activity[26]. Therefore, in both the CEC and the REC there is the need to strike a balance between control (exercised by members) and autonomy (of the REC vis-à-vis its members).

Both Directives foresee that members and the CEC of communities are consumers. In the case of REC, particularly household consumers,[27] including those in low-income or vulnerable households (including tenants),[28] and, in the case of CEC, household consumers or active consumers.[29] In the view of the 2018 RED, enabling participation of household consumers in RECs will help fight energy poverty through reduced consumption and lower supply tariffs.[30]

However, participation in both communities is open to members other than consumers. The fact that both Directives mention only consumers as possible members of the communities, within the respective Articles regulating them[31] does not exclude the participation of other members. That is clear in light of the definitions of CEC and REC and that of Recitals. Membership should be open to all categories of entities, and participation is voluntary[32] When the Directives state that members of CEC and REC are natural persons, local authorities and SMEs (or small enterprises), it does not mean that they must be consumers. The view of the Directives is that communities are open to participation, but that the participation of consumers must be guaranteed.

Members or shareholders of a CEC do not lose their rights and obligations as household customers or active customers[33], and members of a REC maintain their rights or

25 Recital no 44 of the 2019 ED.

26 Art. 22 (1) of the 2018 RED.

27 Ibidem

28 Art. 22 (4) (f) of the 2018 RED, and Recital no 67 of the 2018 RED.

29 Art. 16 (1) (c), of the 2019 ED.

30 Recital no 67 of the 2018 RED.

31 Article 22 of the 2018 RED and Article 16 of the 2019 ED.

32 Article 2 (16) (a) and Recital no 70 of the 2018 RED, and Article 2 (11) (a) and Recital no 44 of the 2019 ED.

33 Art. 16 (1) (c) of the 2019 ED.

obligations as final customers.[34] Member States must guarantee that CECs and RECs are entitled to arrange within it the sharing of electricity that is produced by the production units owned by the community, subject to the community members retaining their rights and obligations as final customers.[35] The right to leave either CEC or REC is a specificity of the right to switch supplier, which every single customer enjoys under EU law. Article 12 of the 2019 ED recognises such a right. The provisions of the 2019 ED on CEC provide for rights and obligations, which are possible to deduce from other existing rights and obligations, such as the freedom of contract and the right to switch supplier.[36] Members or shareholders of a CEC must be entitled to leave the community. This right is to be exercised under the general conditions of the right to switch, provided by the 2019 ED.[37] Its Article 16 (1) (b) has, in general, a clear wording in that regard, but it adds that *in which case* Article 12 ED applies. The words *in which case* do not mean in case Member States award to members of a CEC the right to leave. Rather it is to be interpreted that the right to leave is governed by the same conditions as laid out in Article 12 ED, regulating the right to switch. Article 22 of the 2018 RED does not include an express reference to the right to leave, but it can be deduced from the fact that members retain their rights as final consumers.

4 Are energy communities, "local" energy communities?

A remarkable difference between CECs and RECs is that, in the case of RECs members or shareholders must be located in proximity to the renewable energy projects that are owned and developed by that legal entity.[38] This is not an exigency for CECs. However, there are also some signals of a "local" character of some CECs, since its primary purpose is to provide environmental, economic or social community benefits to its members or to the *local areas* where it operates.[39] In several instances, the 2019 ED uses the expression *local* to refer to the members of CECs. For example, we read that CEC are considered a category of cooperation of citizens or *local actors* that should be subject to recognition and protection under EU Law.[40]

34 Art. 22 (1) of the 2018 RED.
35 Art. 16 (3) (e) of the 2019 ED, and Article 22 (2) (b) of the 2018 RED.
36 Recital 45 of the 2019 ED.
37 Art. 16 (1) (b), which refers to Art. 12, both Articles of the 2019 ED.
38 Art. 2 (16) (a) of the 2018 RED.
39 Art. 2 (11) (b) of the 2019 ED.
40 Recital 44 of the 2019 ED.

5 The purpose of energy communities and profit

The primary purpose of CECs and RECs must be to provide environmental, economic or social community benefits to its members or shareholders or for the local areas where it operates rather than to generate financial profits.[41] Among those benefits are the use of renewable energies, the reduction of supply costs, the exchange of energy among members…Neither the 2019 ED nor the 2018 RED exclude profit from the energy communities. First, an economic purpose is not necessarily the consecution of profit. For example, the reduction of costs is also an economic purpose. Second, what the Directives exclude, in any case, is the generation of financial profits, which is something different from the consecution of profits. Third, the generation of financial profits is not excluded, but only as the primary purpose of the community.[42]

6 Conclusion

Despite the centrality of CECs and RECs within the future decentralised electricity paradigm, the provisions of the 2018 RED and of the 2019 ED leave several legal questions open. However, that is an opportunity for Member States to enjoy flexibility and creativity when implementing their provisions, rather than an obstacle. Communities must enjoy a number of rights and be subject to a number of obligations, as a distinct legal subject from its members. There are several requirements within the Directives that aim to create a balance between, on the one hand, the need of allowing communities to compete on equal footing with large-scale players, and, on the other hand, communities not being exempted from relevant costs, charges, levies and taxes that otherwise would be borne by consumers not belonging to any community. In summary, there is the need to align the energy community incentives with electricity system benefits.[43]

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41 Art. 2 (11) (b) of the 2019 ED, and Article 2 (16) (c) of the 2018 RED.

42 See, further, Caramizaru, A, and Uihlein, A., *Energy communities: an overview of energy and social innovation*, «JRC Science for Policy Report», Publications Office of the European Union, Luxembourg 2020.

43 That is, actually, the idea addressed by these two contributions: Robinson, D. and Guayo, I. del, *Energy communities in Spain. Legal and Societal Challenges*, at Roggenkamp, M. and Banet, C., «European Energy Law Report XIV», ed. Intersentia, Cambridge 2021, 219-237; and Robinson, D. and Guayo, I.del, *Alignment of energy community incentives with electricity system benefits in Spain*, at Löbbe, S., Robinson, D., and Sioshansi, F. (editors), F., «Energy Communities: Citizen-centered, market-driven, welfare-enhancing?», Elsevier 2022 (forthcoming). Due to space constraints, there is no room to discuss that further here.

THE NORNED CABLE: CONNECTING TWO ELECTRICITY REGULATORY SYSTEMS

Leigh Hancher & Astrid Brunt[1]

Abstract

Norway and the Netherlands have been engaged in the construction of several interconnectors in Northern Europe and are at the forefront of a new era to develop a North Sea offshore grid. NorNed as the first of these projects, was an important 'test case' from a technical as well as a legal perspective. Even after two decades there is still much to be learned from the history of NorNed and its ongoing operations. NorNed was the first regulated interconnector to be realized in Europe, and the regulatory challenges were considerable. The solutions adopted to address these challenges remain of value today to ensure that cross border network development does not get left behind in the energy transition.

1 Introduction

Since 1988, the European Energy Law Seminar has been organized by the Dutch Energy Law Association (NeVER), in cooperation with the University of Groningen's Centre of Energy Law and Sustainability and the University of Oslo's Scandinavian Institute of Maritime Law. Martha Roggenkamp was instrumental in establishing and organizing the seminar over all these years. At the time Martha worked at the Institute for International and

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European Energy Law in Leiden. Martha had the brilliant idea to foster a co-operation between Dutch and Norwegian energy lawyers. As her colleague at the time in Leiden, Leigh Hancher was privileged to join in the fun.

It was in the first years of this seminar that Astrid Brunt learned to know Martha, and indeed it was at these seminars that the two authors of this contribution first met. The friendships have endured over all these years. Martha was always present with a warm welcome for the participants arriving at Huis Ter Duin in Noordwijk aan Zee, and later in Den Haag. The seminar also provided the first meeting place for some of the lawyers and experts who came to be involved in the realization of the NorNed cable. This short chapter analyses some of the many legal challenges faced in that complex process.

2 NorNed as a regulated interconnector

The focus of this chapter is primarily on the regulatory challenges involved in realizing a cross-border project. NorNed is a so-called 'regulated interconnector': it is subject to the respective national electricity market regulatory frameworks of both the Netherlands and Norway. In contrast, many interconnectors in the EU have been realized under a temporary or partial exemption from some of the principal rules on which these regulatory regimes are based. However, at the time the NorNed cable project was launched, this regulatory framework was not yet fully developed at national and European level. Some basic rules as well as an exemption from the 'regulated interconnector' model was first introduced at European level in 2003.[2] With the reforms introduced by the Treaty of Lisbon, the interconnection of energy networks is now an objective enshrined in Article 194(1) TFEU, and the realisation of this objective has subsequently spawned a dense and highly technical web of regulation.

The NorNed's original technical feasibility study was concluded in 1992.[3] The construction contracts were awarded in 2000[4], but the liberalization and restructuring of the national power sectors in both Norway and the Netherlands led to renegotiations and inevitably, delays. The cable was finally completed on 6 May 2008. When the EU adopted its third energy market package in 2009, the NorNed interconnector was an important facilitator for European day-ahead and intraday electricity market integration.

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2 Regulation 1228/2003 of the European Parliament and of the Council of June 26, 2003, on conditions for access to the network for cross- border exchanges in electricity, Official Journal of the European Union, 2003, L 176/1.

3 Skog, J.E., van Asten, H., Worzyk, T., Andersrød, T., Norned – World's longest power cable, CIGRÉ session, Paris, 2010, paper reference B1-106.

4 Hitacci, ABB power grids references, https://www.hitachienergy.com/fr/fr/references/hvdc/norned

The project was awarded TEN-E status generating 5 M€ TEN-E financial support to be allocated for electrode design and evaluation of reliability and availability, including submarine cable tests. The project was also one of the few to receive extra TEN-E funding (4,215 M€) for the construction costs of the cable.[5]

3 NorNed as a showcase of sustainability and liquidity

NorNed is a 580 km HVDC (High Voltage Direct Current) interconnection between Feda in Norway and Eemshaven in the Netherlands. When it was put into operation on 6 May 2008, it was the longest interconnector in the world, and the first link between the Nordic and continental (Dutch) power systems open to the power market. NorNed consists of two distinct parts, namely the ACDC converter stations at both ends of the route and the cable system. It is a mass-impregnated, non-draining, paper-insulated HVDC cable, with three different cable designs: one for the onshore Dutch costal line to the converter station, another for the shallow waters near the Dutch coastal line, and a third design for the deep waters. The Dutch land fall for the cable was given special attention. The cable had to cross the outer dike which is part of a vital floodwater protection system. The authorities posed very stringent requirements on the reinstatement of the dike after installation. The most problematic part was the trenching of the first 40 km of two-core cable across the protected Wadden Sea.[6]

The advantages of connecting electric power systems have been apparent from the early days of electric systems: in 1906 the International Electrotechnical Committee was established to standardize electric facilities.[7] By interconnecting different systems, the reliability of both systems is improved, as they can support each other in emergency situations. Reserves can be reduced as they can draw on each other's reserve capacities. When the generation mix differs between the systems, and the timing of peak demand varies, interconnections allow producers to meet demand in the most efficient way. Norway is the 'green battery' of Europe: 90% of Norwegian electricity production is hydropower. In 2021 installed capacity was 33 000 MW producing around 136 TWh per year.[8]

5 European Commission (2004), Brochure Trans-European Energy Networks: TEN-E Priority projects, available at: http://europa.eu.int/comm/energy.

6 See Skog J.E. et al., n.3.

7 Ignacio J.Perez-Arriaga; Regulation of the Power Sector, Springer 2013 ISSN 1612-1287.

8 Official homepage on electricity facts about Norway; https://energifaktanorge.no/en/

The Norwegian hydropower system has a high storage capacity which makes 75% of the production capacity flexible: production can rapidly be increased or decreased at low cost. Water inflow and installed capacity determine how much hydropower the Norwegian system can produce. In the period 1990-2019, annual inflow varied by about 65TWh. In very dry years the Norwegian system will benefit from imports. This was the case already in the winters of 2009/2010 and 2010/2011, so that NorNed provided for security of supply in Norway. NorNed has provided the Dutch system – based on conventional thermal power, wind and solar – with peak production and flexibility. As a result, Dutch fossil-run power plants could run more efficiently since the interconnector became operational. NorNed was expected to reduce Dutch carbon dioxide emissions with almost 1.7 tons a year. Such a reduction was worth EUR 49 million a year in savings according to the EU Emission Trading Scheme.[9]

Additionally, NorNed has contributed to linking and enhancing liquidity in both the Dutch and the Norwegian wholesale markets. The Brattle Group predicted that an annual trade revenue of EUR 55 million to EUR 65 million was realistic if the cable was fully utilized with a capacity of 600 MW.[10] Annual revenues were estimated at EUR 64 million[11], and indeed already after only two months of operation NorNed generated revenues of approximately EUR 50 million for its two current owners: Statnett and TenneT.

4 Drivers for the NorNed interconnector

In 1988, a Norwegian report suggested the Norwegian power balance to show a surplus of 9TWh by 1990.[12] In the late eighties, the power producer Statkraft had the exclusive right to import and export electricity in Norway, but the surplus from export had to be shared with other producers who had a production surplus. Instead of planning a gradual transition to market-based solutions, Norway reorganized the market in one step so that it was open to all customers from the start.

In 1991 the Norwegian Electricity Act entered into force, and Norway had a fully liberalized electricity market as one of the first countries in the world. The Norwegian

9 Nordic Investment Bank (NIB) press release 1 October 2007 https://www.nib.int/cases/new-subsea-link-a-sustainability-showcase.

10 Dte Decision on the application by TenneT for permission to finance the NorNed cable in accordance with section 31 (6) of the Electricity Act of 1998, number 01783_2-76.

11 TenneT press release 9 July 2008 https://web.archive.org/web/20080828080208/http://www.tennet.org/english/tennet/news/veelbelovende_start_voor_nornedkabel.aspx

12 Energidata 1988 'Kraftpriser, kraftmarked og kraftbalanse'.

legislation is based on the principle that electricity production and trading should be market-based, while grid operations are unbundled and strictly regulated. The power market ensures effective use of resources and reasonable prices for electricity, whereas electricity transmission remains a natural monopoly. This model is compliant with the market design later developed under the EU's consecutive energy market packages.

Under the Norwegian Electricity Act, import and export was conditional on a license from the Ministry of petroleum and energy, whereas Statnett was given the task to develop, operate and own all interconnectors. In the early days of the liberalized Norwegian power market there was great interest to connect the Norwegian power system with EU member states. Nevertheless, the absence of a clear regulatory framework in Europe prior to the adoption of the second package of liberalization measures in 2003 did not facilitate the fruition of many interconnector projects.

At the time, wholesale trade in Europe was mainly bilateral or 'over the counter'. In some countries there was also the possibility to trade in auctions organised by power exchanges one day before delivery. Without liquid wholesale markets, new entrants have to turn to competing generators on an individual basis when plants go offline or are still being built. Wholesale market opening increases the availability of a sufficient number of adequate counterparties at the right point in time, at the quantity desired and at predictable prices. To stimulate cross-border exchanges, specific transmission charges associated with exchanging electricity across most of the internal borders of the EU were removed, following the adoption of Regulation 1228/2003. However, there was no common set of rules governing how interconnection capacity was to be made available to the wholesale market, with a variety of explicit or implicit auctions being used at the time across Europe.[13]

There were many initiatives to realize interconnectors from the Norwegian side. The first interconnector to be built under the Norwegian liberalized regime was a 500MW interconnector to Jutland in Denmark, operational since 1993 (Skagerrak3). The company EuroKraft Norge AS consisting of 22 power producers and about 30% of the Norwegian production capacity entered a joint venture with Hamburgerische Elektrisitätswerke AG and applied for an import and export license, but in 1993 the Norwegian license was rejected. In 1995 a new license application was filed, and this time the German company RWE was included in the joint venture. The plan was to build a 600MW HVDC link between Norway and Germany to be operational by 2003. The project was never realized as the German parties terminated the agreement in 1999. Statkraft obtained a

13 European Commission (2004), Study by Frontier economics and Consentec, commissioned by DGTREN, Analysis of cross-border congestion management methods for the EU internal electricity market, Final report, available at: http://europa.eu.int/comm/energy.

Norwegian license in 1993 for a power exchange agreement with Preussen Elektra (later E.ON), establishing the company Viking Cable AS with a view to realizing a 600MW interconnector between Norway and Germany, but E.ON terminated that agreement in 2001.[14] In the meantime, in 2001, the European Commission had issued a comfort letter to the parties.[15] The power exchange agreement ensured investment in the project and to secure the viability of the investment in transmission capacity via the new cable, the notifying parties had submitted (a) that it was necessary to have a long-term arrangement over the same lifespan as a normal power plant, i.e. approximately 25 years, and (b) that full transmission capacity on the Viking Cable had to be available to the investors on demand so that it was not possible to make transmission capacity available to third parties, (i.e., no TPA).

An application for a new link between the two countries -NordLink- was submitted to the Norwegian authorities in 2010, and by 31 March 2021 a 623 km interconnector with a capacity of 1400MW was in operation between Norway and Germany. The owners of the project are KfW, Tennet and Statnett.[16]

Meeus et al. contend that there was clearly a socio-economic benefit of the NorNed project for market parties because the social cost of congestion remains high in Europe.[17] However, it is almost impossible to quantify this benefit. In their view this might explain why TenneT's application for national regulatory approval looked more like a commercial application for a merchant cable instead of an application for a regulated cable to facilitate the market.

5 NorNed's many regulatory challenges

In 1994 the Company Norsk Krafteksport obtained a Norwegian import and export license for a power exchange agreement with its Dutch counterpart, N.V. Samenwerkende electriciteitsproductiebedrijven (Sep). Sep was entrusted with exclusive rights to import of electricity at that time. The Dutch – transmission networks including cables were also owned and managed by Sep. Norsk Krafteksport was a consortium consisting of eight Norwegian power producers including Statkraft. The power exchange contract was concluded between Norsk Krafteksport and Sep, as the producers of electricity, and

14 Statkraft was compensated with 1/3 of the shares in the Baltic Cable between Sweden and Germany and an additional settlement of NOK 1725 million.

15 Notice pursuant to Article 19(3) of Council Regulation No 17 concerning case COMP/E-3/37.921 — Viking Cable (Text with EEA relevance) Official Journal C 247, 05/09/2001 P. 0011 – 0012.

16 Statnett information on NordLink https://www.statnett.no/en/search/?q=NordLink

17 Meeus et al., January 2004, NorNed submarine HVDC cable, KULeuven Electrical Engineering.

the NorNed interconnector agreement for its transportation was between Sep and Statnett.

This project was cancelled in 2004. The Dutch Electricity Act was amended to implement the second package of European internal energy market rules (2003) and introduced further changes to the organization of the Dutch electricity market. The NorNed interconnector project was now taken over by the newly formed Dutch TSO TenneT and the Norwegian TSO Statnett. This transfer included licenses, surveys, studies, and procurement contracts. When Tennet and Statnett – the two national TSOs – took over the project, the lack of symmetry between the Dutch and Norwegian side was removed, and the parties could design a balanced project structure on the basis of a 50/50 joint venture. The parties could also step into beneficial procurement contracts for a HVDC cable system with very low transmission losses and solid state-of-the-art converter stations provided by ABB for NorNed. However, the physical agreed border point, where Statnett owns the northern part of the interconnector and Tennet owns the southern part, was maintained in the revised contractual structure between the parties. Dutch regulation thus stops at the border point and here Norwegian regulation begins.

5.1 Environmental issues and a changed cable design

Local acceptance and regulatory environmental licenses and concessions are always a challenge for energy infrastructure projects, especially novel ones with a cross-border dimension. For NorNed a substantial number of governmental and other national public approvals, permits, authorizations and licenses were required in each jurisdiction, including license requirements for the planning, building, and construction of the interconnector, many of which had to address related issues such as fishing rights, defense issues, as well as water pollution, nature conservation, and cultural heritage concerns. When NorNed feasibility studies were initially concluded in 1992, the cost estimate and business case was based on a cable design with one conductor and sea electrodes (a so-called monopole scheme), based on the same concept already in use in the Skagerrak, Fennoskan and Kontek HVDC interconnectors.

However, the 580 km NorNed cable was planned to cross the territories of the Netherlands, Germany, Denmark, and Norway. It also had to cross the Dutch Wadden Sea nature reserve, a Unesco World Heritage site. Regulatory approvals were necessary in all jurisdictions crossed by the cable, and in the early phase of the project public consultations revealed strong concerns related to environmental issues, specifically related to the electrolytic process at the electrodes and magnetic field caused by the current in the cable. Thus, the initial monopolar cable concept was abandoned. The cable solution developed in due course for NorNed was a new bipolar concept, a design of two com-

plete single-core cables having common armoring. This concept has very low magnetic fields due to the cancelling effect of identical and opposite currents.

5.2 Regulatory and procurement challenges

The challenges to deliver the NorNed project were considerable both from a technical, market and a regulatory perspective. On the one hand, forecast prices from (Norwegian) electricity suppliers had to be low enough to make a robust business case, and on the other hand the revenue flow had to be sufficient to finance and guarantee a technical design that would meet all reliability, capacity, environmental and safety standards. Adverse experience in the Netherlands with massive cost overruns on major infrastructure projects[18] meant that the project would need to have a firm investment limit on the total costs for completing the planning, engineering, construction, manufacturing, installation, testing and, finally, its commissioning in order for it to be approved by the Dutch regulator – the DTe (Dienst uitvoering en Toezicht energie).

NorNed is designed with two fully insulated 700 MW (2x 580km) DC cables, a design which minimizes cable losses. This is also a design which reduces total cable costs. The project was eventually set up with 80% lump sum contracts. As noted above, the two converter stations and a major part of the cable system was produced by ABB, and ABB submitted an opinion on the risk of cost overrun to the regulators.[19] Transmission companies typically operate at national level, whereas the main cable suppliers to the industry are few and are global in their reach. In 2014, the EU Commission imposed fines totaling EUR 301 639 000[20] on 11 producers of underground and submarine high voltage power cables. For nearly ten years from 1999 on an almost worldwide scale, these suppliers had shared markets and allocated customers between themselves. One could therefore argue that the close scrutiny imposed by the regulators, and the challenging and lengthy processes to realize the NorNed project, supported by a large number of external studies[21], contributed to a competitive procurement for the cable.

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18 Delays and cost overruns are a typical challenge for major infrastructure projects. This is documented by Mace who in a study in 2019 documented that approximately 80% of large infrastructure projects globally experience cost overruns.

19 ABB (2004), Memorandum HVDC transmission project experiences.

20 European Commission press release 2 April 2014 https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52014XC0917(01)&from=EN

21 DTE decision 31 August 2004, with references to Brattle Group (2004), McKinsey & Company (2004), SKM Energy Consulting (2004), Scandpower (2004), ILEX Energy Consulting (2004) and Tabors Caraminis & associates (2004).

6 The terms of regulatory approval of NorNed in the Netherlands and Norway

Interconnector investments are recognised as highly risky and complex ventures for several reasons. First, in fully liberalised electricity markets, grid and generation investments are decoupled due to the separation of transmission from production and supply ('unbundling'). There is uncertainty on the actual use of the infrastructure; in the worst case, an interconnector can become a stranded asset. Second, cross-border projects are subject to high regulatory uncertainty over time. Changing regulatory frameworks, the introduction of new congestion management mechanisms or the review of regulated tariffs might impact significantly on the return on investment. Third, investors also face uncertainty concerning possibly changing market architectures and energy mixes of the interconnected markets as well as volatile fuel and carbon prices. Finally, potential interconnector investors are further discouraged by the existence of a regulatory gap if there is no single competent authority that decides on cross-border and regional issues. Investors thus face an important risk of project failure when the competent National Regulatory Authorities (NRAs) at each end of the interconnector are unable to agree on key regulatory provisions for a cross-border project, especially if there is no supranational authority to settle the conflict.[22]

TenneT had based its application for approval of its participation in the project on section 31(6) of the then current Electricity Act. Hence TenneT may utilize the proceeds of the auction of transmission capacity on the cross-border grids to eliminate restrictions on the transmission capacity of these grids or for other purposes, to be determined by the Director of DTe. However, that section 31(1)(a) contained no provisions in relation to the use of the proceeds of auctions, nor in relation to extensions to existing interconnector capacity or in relation to the construction of new interconnection capacity.[23]

The Dutch regulator – then known as DTe – challenged the robustness of the business case for NorNed and required not only internal and external qualitative and quantitative assessments of all the associated risks, but also the adoption of adequate measures to

22 ACER – the European Energy Agency – has only limited powers to adjudicate in case the concerned national regulatory authorities request a decision or they cannot agree within the legally specified deadline.

23 The Minister of Economic Affairs is authorised in accordance with section 6 of the Electricity Act to issue general or special instructions with regard to, for instance, the exercise of the powers assigned to DTe in section 31of the Electricity Act. The Minister of Economic Affairs had not exercised this power.

manage those risks.[24] As it was not possible to quantify the contribution of the NorNed cable to security of supply, the regulator set the net contribution to security of supply at *nil* in his assessment.

In its approval of Tennent's application on 23 December 2004, DTe therefore imposed several requirements and incentives; the capacity on the cable had to be increased to 700MW, the annual maintenance and operational costs were capped, and a minimum 95.62% annual availability was required. Finally, a cap on the Dutch part of the capital costs was set at EUR 318 million. The regulator also included incentives to ensure the timely delivery of the project in his decision approving the project.

Thus, the Dutch scheme incentivises TenneT to maximise the available capacity of the interconnector. The TSO receives a bonus if the target is met and pays a penalty if the target is not met. This bonus (or penalty) is paid from (respectively paid to) the amount of congestion revenues.[25] As a result, not all costs and risks of the interconnector are passed on to network users but remain partially with the owners.

Statnett however included NorNed as a normal interconnector or grid asset in its portfolio. That means that Statnett's cost was part of the capital and operational costs to be included into the tariffs paid by the users in the Norwegian market. The congestion income was and is received by Statnett and is to be used for grid expansion and to cover costs in the rest of Statnett's regulated business. Indeed, NorNed was introduced and financed on Statnett's books in the same way as any other grid investment. The important difference in Norway as opposed to the rest of Europe at that time was that interconnectors generated congestion income but the TSO did not levy connection fees or impose tariffs. The same approach applies to power flow between internal bidding/price zones. In Europe, however, explicit auctions and fees and tariffs for long-term capacity reservations were still the rule.

The ACM, DTe's successor, continues to assess TenneT's adherence to the 2004 decision and to calculate the bonus/malus payments due. In its most recent decision on the year 2020, the ACM has approved TenneT's proposal to set the penalty payment at EUR 1.558.255,-. TenneT is required to add this sum to the revenue earned from auctioning the capacity on the cable.

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24 Netherlands Government Gazette of 23 December 2004, No. 248, page 17; DTe decision on the application by TenneT for permission to finance the NorNed cable in accordance with section 31 (6) of the Electricity Act of 1998 Number: 101783_2-76.

25 See Annex A to decision 101783_2-76 for the conditions imposed If the nominal capacity appears to be lower than 700 MW, TenneT will add an amount of EUR 260,000 per megawatt to the proceeds of the auction. If the nominal capacity appears to be higher than 700 MW, TenneT may withdraw an amount of EUR 260,000 per megawatt from the proceeds of the auction and add this amount to its own funds. This will also give TenneT a positive incentive to ensure that the capacity of the cable is as high as possible, in favour of market parties and grid users.

7 Conclusion

With the development of interconnectors as well as offshore electricity islands, the Netherlands is now also an electricity exporting country. Both Norway and the Netherlands are at the forefront of plans to develop an ambitious North Sea offshore grid. NorNed was an important 'test case' interconnector at a time when European market regulation was still in flux. Many but by no means all aspects of electricity market operations across national borders and across bidding zones are highly regulated on the basis of complex and detailed network codes, guidelines and related terms, conditions and methodologies (TCMs). The purposes for which congestion income can be used by TSOs are now codified in European-wide regulations.

Yet the share of cross-border interconnection across the EU has still not achieved the targets set by the Commission in 2014. Regulatory inventiveness may still be necessary to realise complex multi-jurisdictional projects. Even after two decades there is still much to be learned from the history of NorNed and its ongoing operations, and of course, Martha's annual European Energy Law seminars will continue to offer an ideal forum for sharing this knowledge.

DIGITALIZATION OF THE ELECTRICITY SECTOR AND DIGITALIZATION OF SOCIETY: EFFECTS ON THE ENERGY TRANSITION

Adrien de Hauteclocque[1]

Abstract

EU energy and digital transitions are said to go hand in hand, but is it always in the same direction? The two transitions interact with each other through a number of complementarities and, in truth, interferences, which still remain largely unknown. For instance, while the digitalization of the electricity sector itself might be the key enabler to massive renewable energy deployment, the digitalization of our societies as a whole is particularly energy-intensive, in full contradiction with our energy efficiency objectives. This chapter presents a few first thoughts on a debate that is likely to become more and more prominent in the coming years.

1 Introduction

As most of my peers in those days, one of the first academic seminars I attended as a young PhD student was Professor Roggenkamp's Energy Law seminar. Professor Roggenkamp was one of the first leading authorities in this field and meeting her in this beautiful grand hotel

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in front of the beach was an honor, and definitely a good advertisement for academic life. Our generation, which came about some 15 or 20 years after, owes much to the first generation of energy law scholars. Academic rigor, ability to illuminate concrete business developments with theory and the willingness to think forward: these are only some of the qualities they taught us and that a capable energy law researcher must demonstrate.

As a contribution to this *Liber Amicorum*, I will try to say a few words about the intersection of the energy and digital policies of the European Union (EU).

Since 2019, EU climate policy (the so-called *European Green Deal*) and digital policy (*Europe Fit for the Digital Age*) are two of the six main priorities of the von der Leyen Commission,[2] which is also reflected, for example, in the amounts allocated to both policies under the 2021-2027 budget and the NextGenEU Recovery Plan.[3] These priorities have not been called into question by the COVID-19 pandemic – on the contrary. In the words of the Commission, Europe is currently engaged in "*twin transitions*"[4]. This expression is interesting as it rightly points out that these transitions, on the one hand, need to happen at the same time (and as quickly as possible) and, on the other hand, interact with each other through a number of complementarities and, in truth, interferences, which still remain largely unknown.

In the next three decades, two main questions are likely to structure our thinking on the intersection of EU energy and digital policies. First, how can we use the digitalization of the electricity sector as an opportunity to accelerate (and ultimately deliver) the energy transition towards carbon neutrality in 2050? Second, how can we create a truly sustainable digital policy? Indeed, the digitalization of society as a whole creates a risk for the decarbonization of our economies, especially considering the fact that the new digital societies are becoming particularly energy-intensive, in full contradiction with our energy efficiency objectives.

The purpose of this chapter is to quickly address these two questions, thereby uncovering some of the emerging issues at the intersection of EU climate and digital policies. A first part will address the issue of digitalization of the electricity sector as *a quasi*-prerequisite to the success of the energy transition. A second part will then discuss the new 'horizontal' challenges, going beyond energy policy *per se*, created by the digitalization of the electricity sector. A third part will quickly address the issue of (energy) sustainability in EU digital policy.

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2 *Political guidelines for the next European Commission 2019-2024*, 16 July 2019.

3 See, for instance, *The EU's 2021-2027 long-term budget & NextGenerationEU: Facts and figures*.

4 Communication of the Commission, *A New Industrial Strategy for Europe*, 10.03.2020, COM (2020) 102 final.

2 Digitalization of the electricity sector and transition to carbon neutrality in 2050

Achieving carbon neutrality by 2050 will require deep and (hopefully) rapid changes in the way we consume and produce energy.

For both residential and industrial consumers, the limitation of energy consumption will be the key. Major energy efficiency gains will need to occur rapidly, be it through decreasing energy consumption or innovation in many industrial processes. The decarbonization of the energy system will also imply, as top priority, the "electrification" of entire parts of our societies (transport and industry where possible,[5] buildings) in order to put an end to the use of fossil fuels (oil, coal and, *in fine*, gas). As electricity can be generated from non-carbon energy (solar, wind, hydro, heat, biomass and nuclear in particular), its massive use is inevitable, which will create new challenges, in particular intermittency in production. It is, indeed, impossible to predict precisely, for obvious reasons, the availability of certain renewable energy sources (solar and wind in particular), which implies in turn having generation capacity that can be mobilized in the very short term,[6] being able to modulate consumption flexibly or being able to store electricity (batteries), which is currently impossible on a large scale.

In the end, our societies will have to keep control on energy consumption and this energy will have to be essentially electrical and 'green'. The development of the electricity sector in the coming decades will therefore be of crucial importance from the point of view of climate policy.

The digitalization of the electricity sector offers, in this context, a historic opportunity to thoroughly rethink the functioning of this sector, in line with our 2050 objectives.

Concretely, the digitalization of the electricity sector, understood here simply as the use of digital tools to improve the performance of certain processes, not only affects the supply and demand sides of the electricity market but also the operation of the electricity networks themselves.

From a demand side perspective, customers are increasingly empowered through information. Residential and industrial consumers are gradually being put in a position to adapt their consumption to their real needs, thereby reducing their consumption while contributing to the balancing of the system, thanks to reliable real-time information on prices and their own consumption patterns. The Internet of Things offers prom-

5 Where this is not possible, for example for certain categories of transport modes (aviation) and heavy industries, 'green' hydrogen and other biogas could be used.

6 In the current state of technology, these manageable production capacities mainly use hydrocarbons.

ising prospects in this area in the near future, as well as for the monitoring of the energy performance of buildings, which account for 36 % of all EU CO_2 emissions. Digitalization enables industrial consumers to consider targeted and flexible demand responses,[7] which can at times be offered on the market. In this context, consumers tend to require new services, which represent potential sources of profit for their providers.

The digitalization of the sector offers not only an opportunity in terms of active demand management but is coupled with new opportunities for decentralized production (solar and wind in particular) and self-consumption, in terms of direct entry into production for industrial and even residential consumers.

Indeed, while digitalization of the electricity sector is a major trend, decentralization of production is yet another. Very large plants still exist, and are likely to continue to exist, but will increasingly be complemented by many small capacity units connected to the low and medium voltage grid sometimes procured and financed by businesses or consumer groups (or even individual residential consumers for photovoltaics). Public authorities, including local and regional authorities, increasingly implement incentive schemes and grant subsidies when these projects involve renewable energy. It should also be noted that this type of project contributes to energy efficiency by locating production close to consumption and thus by avoiding the significant loss of energy associated with long-distance transport (up to 40 %).[8] With the development of these solutions, equipment costs fall sharply, creating a virtuous circle (and alleviating public finances). In addition, the conditions for producing electricity generally become more transparent for the consumer, allowing companies, for example, to commit themselves to combating climate change (and, of course, to communicate about it).

For traditional electricity generators, as in other sectors of the economy, digital technology naturally allows for better monitoring of generation assets and optimization of maintenance activities (lower costs).[9] However, the key development is fast evolution of

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7 In this context, power-hungry data centers could become an important source of demand-side flexibility. See Koronen, Ahman and Nilsson, 'Data centers in future European energy systems – energy efficiency, integration and policy', *Energy Efficiency* (2020) 13, 129-144.

8 In this context, digitalisation must, in theory, make it possible to facilitate *peer-to-peer* trading at a decentralised level, as consumers and producers ('prosumers') can choose between consuming their production or selling their surpluses. Thus, 'energy communities', understood as spontaneous groupings of consumers and producers with a view to optimising purchase and sale, may gradually become autonomous.

9 As a somehow 'perverse' effect, digital tools have also helped fossil fuel producers optimize their operations and hence resist, for some of them, upswings in commodity prices. Geoffron, "Comment transitions numériques et transition écologique s'interconnectent-elles?", Annales des Mines – *Responsabilité et Environnement* 2017/3 (n° 87).

business models, the arrival of new entrants (GAFA, telecom companies, aggregators, etc.) and the resulting pressure on incumbents. The value chain is evolving, with profitable activities increasingly moving closer to the (empowered) consumer.

The operation of electricity networks is also deeply affected by the combined effect of the digitalization and the decentralization of electricity production. As with electricity generators, the use of digital tools allows the optimization of existing (network) assets through better use, facilitated maintenance and investment support for grid reinforcement. However, the system, which must always ensure a perfect balance between electricity supply and demand, becomes all the more difficult to manage as decentralization occurs and an increasing share of electricity is generated from renewable (and thus intermittent) energy. In this context, network management will necessarily have to become smarter (hence the 'smart grid' concept) by coupling electricity and data flows. Consequently, it is the digitalization of the sector, by increasing the amount of data available on operations in real time and the ability of the system operator to analyze them, including with the help of artificial intelligence, which makes it possible to consider the massive promotion of renewable energy produced at a decentralized level a realistic prospect.

To sum up, the decentralization of the electricity sector, accompanied as much as possible by the digitalization of the sector, could lead to a giant leap forward in renewable energy deployment and, hopefully, energy efficiency. By enabling a dynamic and better optimization of the producer/consumer/network operator interface, digitalization opens new doors. This is most likely to be one of the solutions to the 30 years challenge of carbon neutrality.

3 The digitalization of the electricity sector creates new horizontal challenges going beyond energy policy *per se*

As we have seen, digitalization (of the supply, demand and network sides) allows us to envisage more electrified and decentralized systems, focused on consumer needs and capable of addressing the intermittency of renewable energy sources. However, this implies not only significant R&D and investment efforts, but also brings about new challenges, that are no longer just a matter of energy policy *per se*.

Admittedly, the relevant sectoral legislations contain an increasing number of provisions promoting the digitalization of the system. Indeed, EU energy policy is already in itself a sectoral digital policy.

Without claiming exhaustiveness in this matter (and by far),[10] we can mention the provisions of the internal energy market legislation (electricity and gas), which regulate distribution system operators and encourage them to set up smart grids, or provisions requiring Member States to create market rules that allow decentralized actors to participate in local markets on a non-discriminatory basis. The sectoral Directive on the internal market for electricity (Directive 2019/944[11]) also includes, in general terms, provisions concerning the possibilities for consumers and third parties to access consumption and production data, the promotion of local energy communities and 'dynamic' pricing, and the need to promote the interoperability of systems facilitating such access. It also contains references to Regulation 2016/679 on data protection (GDPR)[12] as well as to the need to assess the risks of cyber-attacks at national, regional and European levels.

The energy efficiency legislation (Directive 2018/2002[13]) contains a number of provisions concerning the development of smart meters and the implementation by Member States of a range of instruments and policies to promote behavioral changes among residential consumers. Similarly, the law for the promotion of renewable energy (Directive 2018/2001[14]) requires Member States to create a favorable environment for self-consumption (and long-term contracts) of renewable energy and for the development of local energy communities.

The legislation addressing the renovation of buildings (Directive 2010/31[15]) is also of particular interest in this regard. The Commission proposal of 14 July 2021 to amend Directive 2010/31, which aims to require Member States to implement a long-term renovation strategy, contains innovative, albeit limited, provisions on electro-mobility

10 For a "mapping" exercise, see the excellent report prepared for the European Commission, "*Assessment and roadmap for the digital transformation of the energy sector towards an innovative energy market*", 2020, available here: Https://ec.europa.eu/energy/studies_main/final_studies/assessment-and-roadmap-digital-transformation-energy-sector-towards-innovative-internal_en.

11 Directive (EU) 2019/944 of the European Parliament and of the Council of 5 June 2019 on common rules for the internal market for electricity and amending Directive 2012/27/EU, OJ L 158, 14.6.2019, p. 125–199.

12 Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation), OJ L 119, 4.5.2016, p. 1–88.

13 Directive (EU) 2018/2002 of the European Parliament and of the Council of 11 December 2018 amending Directive 2012/27/EU on energy efficiency, OJ L 328, 21.12.2018, p. 210–230.

14 Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources, OJ L 328, 21.12.2018, p. 82–209.

15 Directive 2010/31/EU of the European Parliament and of the Council of 19 May 2010 on the energy performance of buildings, OJ L 153, 18.6.2010, p. 13–35.

(mandatory charging stations for electric cars) and on buildings with 'smart' potential, as well as heating and air-conditioning systems.

Another important element for the development of smart grids, decentralized trading, the use of artificial intelligence and Big Data in the electricity sector is of course the *European Strategic Energy Technology Plan* (*Horizon Europe Programme* and *Connecting Europe Facility*).

Finally, in the context of the recent Energy Sector Integration (ESI) strategy, the Commission has announced a set of actions to support the digitalization of energy systems, namely:

- adopt an action plan to develop a competitive market for digital energy services and support investment in relevant infrastructures;
- develop a Network Code on electricity cybersecurity;
- adopt the implementing acts on interoperability requirements and transparent procedures for access to data within the EU;
- publish a new energy research and innovation outlook.

However, it is clear that sectoral legislation remains fragmented and limited as it only provides market rules and defines the rights and duties of certain actors, in particular system operators, all the while setting various general objectives for the Member States. There are also specific references to horizontal legislation, such as the GDPR. This seems at first sight a bit limited in light of the issues at stake. Sectoral legislation, at this stage, does not address many of the emerging issues and needs that could become barriers to the development of the system in the coming years. Five points can be briefly listed here, by way of illustration.

First, as in other industries, the emergence of the Internet of Things and the development of Big Data in the particular context of the electricity sector vastly influences the efficiency of the system. Without data available on the behavior of the various actors, on the production or consumption side, and on the functioning of networks, the decentralization of the system cannot flourish. However, these data must not only be collected but also analyzed. It is in this context that the issues of liability and the protection of personal data are pressing. At this stage, the GDPR and Regulation 2018/1807 on a framework for the free flow of non-personal data in the EU constitute the applicable framework, pending the new Regulation on *e*-Privacy.[16]

Second, on the competition side, access to consumer data, not only by the network operator for the purpose of system balancing, but also by competitors, to allow them to devise alternative and attractive offers, will, as in other sectors, create new antitrust

16 Https://digital-strategy.ec.europa.eu/en/policies/eprivacy-regulation

issues. Certain issues, such as framing consumption data held by incumbents as essential facilities (in competition law terms), will essentially come down to analyzing old issues in a new context, which should therefore not raise insurmountable difficulties for competition authorities. However, the on-going upheaval of business models and the entry of new market players could lead to new anti-competitive behaviors, although difficult to figure out at this stage.

Third, digitalization and decentralization raise the question of standards and interoperability. It is necessary, in particular, to enable various technologies that are used by the various actors in the (increasingly) decentralized system to communicate with each other, while ensuring security and reliability of energy streams. Indeed, all decentralized actors must have access to the local market. The countless initiatives aimed at developing common standards (e.g. SAREF standards) are all positive developments, facilitating the emergence of actors based on new business models.

Fourth, the issue of how to incentivize (in particular) network operators to invest in cybersecurity arises.[17] The proper functioning of the energy infrastructure is a prerequisite for the proper functioning of the economy as a whole. Digitalization of the electricity sector therefore creates an additional risk. Directive 2016/1148 concerning measures to ensure a high common level of security of network and information systems across the Union,[18] the Regulation 2019/881 on ENISA[19] and the *EU wide cyber security certification framework for ICT products* are major initiatives, pending future developments.

Fifth, how are regulatory powers allocated at national level in practice? This is a well-known issue in the energy sector where sectoral regulators, competition authorities and financial authorities have gradually learned how to coordinate. The various authorities responsible for digital technology in the broad sense will therefore have to fit smoothly into an already very busy regulatory landscape.

Overall, sectoral legislation scarcely addresses digital issues, considering their importance for the future of the industry. In any event, a first step will be to apply the rules that already exist. At the same time, certain issues will need to be resolved quickly, for instance the need for cooperation between certain key players (in particular energy

17 See generally Rajavuori and Huhta, Digitalisation of Security in the Energy Sector: Evolution of EU law and policy', *Journal of World Energy Law and Business*, 2020, 13.

18 Directive (EU) 2016/1148 of the European Parliament and of the Council of 6 July 2016 concerning measures for a high common level of security of network and information systems across the Union, OJ L 194, 19.7.2016, p. 1–30.

19 Regulation (EU) 2019/881 of the European Parliament and of the Council of 17 April 2019 on ENISA (the European Union Agency for Cybersecurity) and on information and communications technology cybersecurity certification and repealing Regulation (EU) No 526/2013 (Cybersecurity Act), OJ L 151, 7.6.2019, p. 15–69.

transmission and distribution system operators) and between the regulators involved. A thorough assessment of the state of play will have to be conducted once the many pieces of energy and digital legislation, currently under preparation, have entered into force.

4 The digitalization of our societies as a challenge to the limitation of energy consumption

There is growing awareness that the fast digitalization of our societies increasingly has global effects on CO_2 emissions. At this stage, the digital sector would account for 2% of global GHG emissions, as much as the aviation sector, in constant growth.[20] The digitalization of our societies constitutes a barrier to decarbonization in two main ways.

First, we must take into account the 'carbon footprint' of extracting the necessary raw materials and producing (and constantly replacing) digital devices, both of which require immense energy consumption, not necessarily generated, at least at this stage, from renewable electricity. This is also partly addressed by the measures on *e*-waste management.[21]

Second, increased electricity consumption derived from the creation, use and disposal of digital devices is quickly becoming a major concern. Data centers, digital devices and digital infrastructures (storage, computing, routing, etc.) require great amounts of energy and account for 5 to 10% of total electricity demand if we consider the entire lifecycle, which is not that much compared to certain sectors such as housing or transport. This could, however, potentially increase to 20% by 2030 as the demand for data centers, cloud computing and other energy-intensive technologies (e.g. blockchain, 5G) increases. Data centers alone would then represent 19% of energy consumption (a lot of it for cooling) in the digital sphere. Of course, if data centers must be relocated to Europe due to data sovereignty reasons, there could be a paradox. In this context, it is becoming apparent, for instance, that cryptocurrencies and blockchain technology require significant amounts of electricity to operate. According to Camilo Mora et al. (2018), "[p]rojected Bitcoin usage, should it follow the rate of adoption of the other broadly adopted technologies, could alone produce enough CO_2 emissions to push warming above 2°C

20 Hedberg and Sipka, "The Circular Economy: Going Digital", European Policy Centre, March 2020.

21 The problem of *e*-waste management is mainly addressed in strategies concerning the emergence of a "circular economy", namely the Circular economy action plan and the forthcoming "Circular electronics initiative".

within less than three decades".[22] In the same vein, artificial intelligence, which relies on advanced analytics and large amounts of datasets to function, also consumes worrying amounts of energy.

At this stage, EU law and policies are scarce on these issues, apart from our general policies aiming at promoting renewable energy. We can however mention five interesting (and mostly recent) developments.

First are the policies concerning energy efficiency requirements for data storage products. The EU Ecodesign Directive 2009/125 creates a framework defining minimum ecodesign requirements for energy related products to help limit energy consumption.[23] The Energy Ecolabelling Regulation 2017/1369[24] completes it with mandatory labelling requirements. Business-to-business computers typically found in data centers and server rooms of companies and sold in the EU are subject to rules laid out in the Regulation 2019/424 on ecodesign requirements for servers and data storage products. The objective of this Regulation is to limit the environmental impact of these products with a set of rules on energy efficiency, such as minimum efficiency of the power supply units and minimum server efficiency in active state.[25] In theory, manufacturers will be forced to provide information on the energy performance of equipment. It is worth mentioning that, to our knowledge, the energy efficiency of cloud computing is not directly addressed in EU legislation.[26]

Second is the Commission's Sustainable product initiative, intended to be part of a revised Ecodesign Directive, which essentially foresees the implementation of a 'Digital product passport' which would follow the product through the manufacturing stages, gathering all important environmental (and other) data. This would enhance transparency for the consumer and facilitate, for instance, compliance with new reporting requirements.

Third is the EU's code of conduct on data center energy efficiency and the 2021 best practice guidelines for the implementation of this code. This is a relatively weak volun-

22 'Bitcoin Emissions alone could push global warming above 2°C', *Nature*, 2018. See also, for instance, Gulli, '(Un)sustainable bitcoin mining', *Rutgers Computer and Technology Law Journal*, 2020.

23 Directive 2009/125/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for the setting of ecodesign requirements for energy-related products, OJ L 285, 31.10.2009, p. 10–35.

24 Regulation (EU) 2017/1369 of the European Parliament and of the Council of 4 July 2017 setting a framework for energy labelling and repealing Directive 2010/30/EU, OJ L 198, 28.7.2017, p. 1–23.

25 The regulation also takes into account circular economy aspects.

26 In this regard, see the Commission's report "Energy-efficient Cloud Computing Technologies Policies for an Eco-friendly Cloud Market", November 2020.

tary agreement, which aims to disseminate information and recommendations to data center operators and owners.

Fourth is the Energy Sector Integration (ESI) strategy,[27] which mentions the objective of promoting the reuse of waste heat on industrial sites and data centers in particular, as well as a forthcoming 'Digitalisation of Energy Action Plan'. As regards the latter, the Commission issued a roadmap in July 2021, currently under public consultation, where the fifth area of work would be to support "*the development and uptake of climate neutral solutions for the Information and Communication Technologies sector, as complementing in the European Digital Strategy, focusing on measures that promote cooperation between the energy sector and the digital sector.*"[28]

Fifth is the development of an EU sustainable finance taxonomy,[29] which will guide investments to ensure they are in line with our long-term climate ambitions. In short, the taxonomy aims to create a reference framework providing investors with criteria to assess whether a particular activity can be considered environmentally sustainable and thus avoid so-called "green washing". Most interestingly for the issue at hand, the Commission must develop a Delegated Regulation specifying screening criteria.

In its current form, the projected Delegated Regulation (C(2021) 2800 final) states in its recital 38 that " (…) *Technical screening criteria should be laid down for data processing and hosting activities that emit high volumes of greenhouse gas, and for data-driven solutions that enable reductions in greenhouse gas emissions in other sectors. The technical screening criteria for those activities should be based on the best practices and standards in that sector. They may need to be reviewed and updated in the future to take into account the greenhouse gas reduction potential from increased durability of information and communication technologies hardware solutions and the potential for digital technologies to be deployed in each sector directly to enable greenhouse gas emissions reductions. Moreover, the deployment and operation of electronic communications networks use considerable amounts of energy and have the potential to bring significant reductions of*

27 As regards ESI in practice, see Cambini et al., 'Regulation, Innovation, and Systems Integration: Evidence from the EU, Energies 13(7):1670 (2020), which finds that there is still very low level of investment in ESI-enabling technologies and ESI projects.

28 https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13141-Digitalising-the-energy-sector-EU-action-plan_en

29 Regulation of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation 2019/2088.

greenhouse gas emissions. It may therefore be necessary to assess those activities and establish relevant technical screening criteria, where appropriate."[30]

Overall, it is still hard to assess the environmental and carbon footprint of digitalization. We would therefore need a globally accepted methodology to assess the entire lifecycle of digital devices and infrastructures in terms of energy consumption. Harmonized indicators and standards to assess the environmental impact of artificial intelligence and blockchain solutions would also be necessary. Indicators and reliable data are indeed a pre-requisite for traceability and hence transparency, leading to new possibilities in terms of public enforcement and more informed consumer decisions.

5 Conclusion

The purpose of this short chapter, which does not do justice to the importance and magnitude of the subject, was to present some elements to explain why and *a priori* how EU energy and digital policies could interact in the coming years. The topic is of importance since, at worst, the digital transition could hinder the ecological transition, or at least not provide it with the support it requires to proceed as quickly as we probably need. To set the right incentives, public policy will have to be devised hand in hand with the growing number of actors involved in both transitions, be they greentech startups, incumbents or regulatory authorities. More broadly, this chapter has shown the need and, indeed, the difficulty of properly linking sectoral (energy/climate) and cross-cutting horizontal (digital) policies.

30 Annex 1 to the projected Delegated Regulation proposes technical screening criteria for the Information and Communications Technology sector:
"1. The activity has implemented all relevant practices listed as "expected practices" in the most recent version of the European Code of Conduct on Data Centre Energy Efficiency (…)
The implementation of those practices is verified by an independent third-party and audited at least every three years.
(…)
3. The global warming potential (GWP) of refrigerants used in the data centre cooling system does not exceed 675."

KERNENERGIE: VRIEND OF VIJAND?

Piet Jan Slot[1]

Samenvatting

Het recht van de EU, inclusief dat van het Euratom, geeft geen duidelijke voorkeur voor of tegen kernenergie dat is vastgelegd in artikel 194, lid 2, VWEU. Wel zijn er verschillende waarborgen in het Euratom-verdrag om ervoor te zorgen dat vreedzame kernenergie zo veilig mogelijk wordt geëxploiteerd.

1 Inleiding

Martha trad in dienst bij het Instituut voor energierecht aan de universiteit Leiden in 1986. Zij is daar gebleven tot haar vertrek naar Groningen. Als er een karaktertrek naar uit springt bij Martha dan is dat haar enorme doorzettingsvermogen. Toen ze bij de wintersport een oog verloor, liet ze zich niet uit veld slaan maar ging zij met de haar gebruikelijke energie onverdroten verder met haar werk. Die ijverige energie resulteerde in talloze publicaties op het gebied van energierecht o.a. haar proefschrift over het juridisch regiem van pijpleidingen. Eenmaal in Groningen benoemd als hoogleraar resulteerde die eigenschap in vele publicaties en activiteiten. In het dagelijks leven was Martha altijd te herkennen aan haar hele duidelijke en gulle lach die overal in de dependance van de faculteit op het adres Hugo de Grootstraat 27a waar het Instituut gehuisvest was, hoorbaar was.

Maar dan nu over naar kernenergie. In The Economist van 6 Februari 2021 stond een obituary van generaal Nikolai Antoshkin "At war with the invisible." De generaal was de commandant van de liquidators van Chernobyl op 26 april 1986, als zodanig voerde hij het

1 Emeritus hoogleraar economisch bestuursrecht, Universiteit Leiden.

bevel over de 100 helikopters die ingezet werden om de in brand geraakte kernreactor te blussen. Uiteindelijk bleken er 4000 vluchten nodig te zijn die met behulp van parachutes zand dumpten in de krater van de brand. De helikopters moesten tot ongeveer 200 meter boven de krater vliegen bij temperaturen die opliepen tot 200 graden Celsius. De piloten werden blootgesteld aan het dubbele van een dodelijke dosis röntgenstraling. 28 piloten stierven vrij snel daarna. Nog eens 14 stierven wat later. De ramp in Chernobyl had ook een belangrijk effect op de binnenlandse politieke toestand in de Sovjet Unie. Aanvankelijk negeerde de politieke leiding het incident volkomen op een manier die typerend was voor het land. Na enkele weken gaf Michael Gorbatsjov een toespraak voor televisie. De toespraak was een enorme breuk met het verleden. Gorbatsjov wond er in zijn toespraak geen doekjes om en gaf een heldere uitleg van wat er was gebeurd. Het was het begin van perestrojka en uiteindelijk de ineenstorting van de Sovjet-Unie.[2]

Fukushima 2011. Een aardbeving en een tsunami veroorzaakten een grote ramp met de kernenergiecentrale aldaar. Een aantal reactoren werden zwaar beschadigd waardoor grote hoeveelheden straling vrijkwam. Anno 2021 staan miljoenen liters radioactief water dat vrijkwam bij het blussen, opgeslagen. De Japanse regering wacht op een gunstig moment om dit water te dumpen ergens in de stille oceaan.

De gebeurtenissen in Chernobyl en Fukushima hebben ertoe bijgedragen dat kernrampen geen spookbeeld zijn dat alleen in de literatuur wordt opgeroepen. Het is daarom alleszins gerechtvaardigd te bezien wat er gedaan kan worden om zulke rampen zoveel als mogelijk te voorkomen dan wel de gevolgen ervan te mitigeren.

Een belangrijk onderdeel van de motivatie bij de toetreding van de Oostbloklanden tot de EU, was de overweging dat er in deze landen nogal wat onveilige kerncentrales stonden die met hulp van de EU konden worden opgelapt en zo minder gevaar voor de andere EU-landen zouden opleveren. Een goed overzicht van deze problematiek is te vinden in een memorandum van de EU Commissie uit 2005.[3]

2 Het EU recht

Deze bijdrage kan op geen enkele manier een overzicht dan wel een inzicht geven in het Euratom recht. Daar zijn uitgebreide studies over.[4] In plaats daarvan wordt een samen-

2 Daniel Yergin: The Prize The epic quest for OiL, Money & Power, Free Press, New York, London, Toronto Sydney, p. 761

3 COM (2002) 605 final

4 Zie bijvoorbeeld recentelijk: Rasa Engstedt: "Handbook on European Nuclear Law: Competences of the Euratom Community under the Euratom Treaty" Kluwer Law International 2021.

vatting gegeven van een tweetal markante arresten van het Hof van Justitie. Het eerste 'Cattenom' arrest geeft een kort, schetsmatig, antwoord op de vraag in hoeverre het EU recht kan bijdragen aan het verhogen van de veiligheid in geval van ongelukken met kerncentrales en het vermijden van de nadelige gevolgen die kunnen ontstaan na zulke ongelukken. Het tweede arrest laat zien in hoeverre het EU recht een bijdrage zou kunnen leveren aan een eventuele uitbreiding van kerncentrales.

Het EU recht omvat natuurlijk allereerst het Euratom verdrag. Dit verdrag werd ondertekend op 25 maart 1957. Het draagt duidelijk de sporen van de tijd namelijk het hoofdaccent van het verdrag lag op de bevordering van de kernenergiesector. Deze sector stond destijds nog in haar kinderschoenen en het is daarom niet vreemd dat het verdrag de nadruk legde op het ontwikkelen van de kernenergie als bron van de energievoorziening. Wat ons hier interesseert is de aandacht die in het verdrag wordt geschonken aan het aspect van de veiligheid. Een van de vijf paragrafen van de preambule luidt: "VERLANGENDE, veiligheidsvoorwaarden te scheppen, waardoor de gevaren voor het leven en de gezondheid van de bevolking worden afgewend"

Artikel 2 b) stelt vervolgens als taak van de gemeenschap: "uniforme veiligheidsnormen vaststellen voor de gezondheidsbescherming van de bevolking en de werknemers en ervoor waken dat deze worden toegepast"

Artikel 37 EGA-Verdrag luidt:

"Iedere Lid-Staat is gehouden, aan de Commissie de algemene gegevens te verstrekken van elk plan voor de lozing van radioactieve afvalstoffen, in welke vorm ook, om vast te kunnen stellen of de uitvoering van dat plan een radioactieve besmetting van het water, de bodem of het luchtruim van een andere Lid-Staat ten gevolge zou kunnen hebben.

De Commissie brengt, na raadpleging van de in artikel 31 bedoelde groep van deskundigen, binnen zes maanden haar advies uit."

De uitleg van deze laatste bepaling vormde het onderwerp in zaak 187/87,[5] *Saarland e. a. tegen de Minister van Industrie, P.T.T. en Toerisme en anderen.*

Het betreft een prejudiciële vraag gesteld over de uitlegging van artikel 37 EGA-Verdrag.

Deze vraag was opgeworpen in het kader van een beroep van Saarland, diverse Duitse territoriale overheden, Franse en Luxemburgse verenigingen voor het behoud van de Moeselvallei en van het milieu en enige particulieren tegen de Franse interministeriële besluiten van 21 februari 1986, waarbij vergunning werd verleend voor de lozing van vloeibare radioactieve afvalstoffen en van gasvormige radioactieve afvalstoffen van de

5 ECLI:EU:C:1988:439

vier productie-eenheden van de kerncentrale te Cattenom, in het departement Moselle. Cattenom ligt vlakbij de grens met Duitsland.

Voor het tribunal administratif te Straatsburg voerden verzoekers in het hoofdgeding onder meer als middel aan, dat de Franse regering artikel 37 EGA-Verdrag had geschonden door eerst op 29 april 1986, dus nadat de bestreden besluiten waren vastgesteld, aan de Commissie de algemene gegevens te verstrekken betreffende de lozing van radioactieve afvalstoffen door de kerncentrale te Cattenom, terwijl in dat artikel is bepaald, dat de gegevens aan de Commissie moeten worden verstrekt, vóórdat de bevoegde overheden vergunning voor die lozing verlenen.

De Franse regering beriep zich op de Aanbeveling van de Commissie. Deze aanbeveling, die een handeling van lagere rang is dan het Verdrag, kan evenwel niet de aan artikel 37 EGA-Verdrag te geven uitlegging beheersen.

Het Hof stelde dat gelet op de doelstelling van artikel 37 de aanwijzingen die de Commissie, bijgestaan door groepen zeer gekwalificeerde deskundigen, aan de betrokken Lid-Staat kan geven, uitermate belangrijk zijn, met name omdat alleen de Commissie een algemeen overzicht heeft van de ontwikkelingen in de sector kernenergie op het hele grondgebied van de Gemeenschap.

"Ter voorkoming van het gevaar van radioactieve besmetting is het dus onontbeerlijk dat het advies van de Commissie, …door de betrokken Lid-Staat grondig kan worden bestudeerd, en wel in zodanige omstandigheden dat de suggesties van de Commissie nog door deze Lid-Staat in aanmerking kunnen worden genomen, ook al is hij juridisch niet verplicht dit op te volgen.

Alleen wanneer artikel 37 aldus wordt uitgelegd dat de algemene gegevens betreffende een plan voor de lozing van radioactieve afvalstoffen aan de Commissie moeten worden verstrekt vóórdat de definitieve vergunning voor deze lozing wordt verleend, kan het doel van dit artikel worden verwezenlijkt."

Deze zaak laat zien dat binnen de EU c.q. Euratom rechtsregels situaties beheersen die vroeger licht zouden hebben kunnen leiden tot grote conflicten zeker tussen de aartsvijanden Duitsland en Frankrijk. Het arrest heeft daarom zowel een grote praktische als symbolische betekenis.

Een heel ander Europeesrechtelijk perspectief kwam aan de orde in het arrest van het Hof van 22 september 2020 in de zaak *Oostenrijk tegen Europese Commissie*, zaak C-594/18 P.

In zijn conclusie vatte A.G. Hogan deze zaak samen als de juridische kant van een geschil tussen lidstaten die voorstander zijn van kernenergie en lidstaten die ertegen

zijn.[6] "Beide kanten stellen dat zij hun koers aanhouden om het milieu te beschermen. Centraal in deze zaak staat de fundamentele vraag of de Europese Commissie op grond van artikel 107, lid 3, onder c), VWEU-staatssteun kan goedkeuren voor de bouw van een kerncentrale. Dat is wellicht de hamvraag van deze hogere voorziening, die is ingesteld tegen het arrest van het Gerecht van 12 juli 2018 in de zaak Oostenrijk/Commissie (3)[7].

Bij dat arrest heeft het Gerecht het door de Republiek Oostenrijk ingestelde beroep tot nietigverklaring van besluit (EU) 2015/658 van de Commissie van 8 oktober 2014(4) verworpen. Dit besluit betreft de verstrekking van financiële steun door het Verenigd Koninkrijk voor de bouw van de kerncentrale Hinkley Point C aan de zuidwestkust van Engeland. Zoals te verwachten is, zijn de bijzonderheden van zowel het litigieuze besluit als het bestreden arrest complex: het loutere feit dat het arrest van het Gerecht 736 punten telt, spreekt voor zich. Voor ons doel volstaat en bespreking van de hoofdlijn.

In de onderhavige hogere voorziening van de Republiek Oostenrijk staat de stelling centraal dat aangezien zij (en verschillende andere lidstaten overigens ook) resoluut gekant is tegen de bouw van kerncentrales, de verschillende EU-Verdragen (waaronder het Euratom-Verdrag) er uitdrukkelijk of impliciet aan in de weg staan dat voor dergelijke projecten steun wordt toegekend door andere lidstaten die voorstander zijn van kernenergie. Het Verenigd Koninkrijk (dat heeft geïntervenieerd ter ondersteuning van het litigieuze besluit) houdt daarentegen vast aan het standpunt dat het zijn eigen energiebeleid mag bepalen, met inbegrip van het recht om „tussen verschillende energiebronnen of [...] de algemene structuur van zijn energievoorziening" te kiezen, zoals erkend in artikel 194, lid 2, tweede alinea, VWEU.

Het Hof heeft zelf slechts zelden de gelegenheid gehad om zich uit te spreken over de juiste toepassing van artikel 107, lid 3, onder c), VWEU, een bepaling waarover het Gerecht in de loop der jaren zijn rechtspraak heeft ontwikkeld. In het kader van deze hogere voorziening wordt het Hof verzocht om onder meer te oordelen over de vraag of staatssteun aan specifieke doelstellingen moet voldoen om krachtens artikel 107, lid 3, onder c), VWEU verenigbaar te zijn met de interne markt, en zo ja, aan welke doelstellingen. Voorts zal het de gelegenheid hebben om na te gaan of bij de beoordeling van staatssteun voor een activiteit die onder het Euratom-Verdrag valt, al dan niet rekening moet worden gehouden met andere doelstellingen van de Unie zoals vastgesteld in het VEU en het VWEU (in casu de bescherming van het milieu)."

De volgende Verdragsbepalingen zijn aan de orde in deze zaak;

Artikel 107, lid 3, onder c), artikel 192, lid 2, onder c): "c) steunmaatregelen om de ontwikkeling van bepaalde vormen van economische bedrijvigheid of van bepaalde regi-

6 De hier volgende samenvatting is van de AG

7 Arrest van 12 juli 2018 T-356/15, EU: T :2018 :439.

onale economieën te vergemakkelijken, mits de voorwaarden waaronder het handelsverkeer plaatsvindt daardoor niet zodanig worden veranderd dat het gemeenschappelijk belang wordt geschaad;

Artikel 194, lid 2, VWEU "Zij zijn, onverminderd artikel 192, lid 2, onder c), niet van invloed op het recht van een lidstaat de voorwaarden voor de exploitatie van zijn energiebronnen te bepalen, op zijn keuze tussen verschillende energiebronnen of op de algemene structuur van zijn energievoorziening."[8]

Artikel 1, Euratom, "De Gemeenschap heeft tot taak, door het scheppen van de voorwaarden noodzakelijk voor de snelle totstandkoming en groei van de industrie op het gebied van de kernenergie, bij te dragen tot de verhoging van de levensstandaard in de lidstaten en de ontwikkeling van de betrekkingen met andere landen.

Artikel 106 bis, lid 3, Euratom "De bepalingen van het Verdrag betreffende de Europese Unie en het Verdrag betreffende de werking van de Europese Unie laten de bepalingen van het onderhavige Verdrag onverlet."

> Het Hof[9] heeft er om te beginnen aan herinnerd dat een steunmaatregel aan twee voorwaarden moet voldoen om verenigbaar met de interne markt te kunnen worden verklaard overeenkomstig artikel 107, lid 3, onder c), VWEU: ten eerste moet hij bestemd zijn om de ontwikkeling van bepaalde vormen van economische bedrijvigheid of van bepaalde regionale economieën te vergemakkelijken, en ten tweede mogen de voorwaarden waaronder het handelsverkeer plaatsvindt daardoor niet zodanig worden veranderd dat het gemeenschappelijk belang word geschaad. Deze bepaling verlangt echter niet dat de voorgenomen steun een doel van gemeenschappelijk belang nastreeft. Bijgevolg heeft het Hof de verschillende argumenten van Oostenrijk dat de bouw van een nieuwe kerncentrale geen doelstelling van gemeenschappelijk belang vormt, ongegrond verklaard. Voorts heeft het Hof bevestigd dat de regels van het VWEU inzake staatssteun van toepassing zijn op de kernenergiesector wanneer het Euratom-Verdrag geen specifiekere regels bevat. Anders dan het Gerecht heeft geoordeeld, verzet het Euratom-Verdrag zich er niet tegen dat de Unierechtelijke milieuvoorschriften op deze sector worden toegepast, zodat een steunmaatregel ten behoeve van een economische bedrijvigheid in de kernenergiesector, waarvan na onderzoek blijkt dat zij in strijd is met de milieuvoorschriften, niet verenigbaar met de interne markt kan worden verklaard. De onjuiste rechtsopvatting waarvan het Gerecht aldus blijk heeft gegeven, heeft evenwel geen invloed gehad op de gegrond-

8 Artikel 194 is opgenomen in het VWEU – dus na het 'Cattenom' arrest.

9 Samenvatting uit het Persbericht van het Hof. Persberichten geven in het algemeen een goede en toegankelijke samenvatting in de taalversies van de landen van de EU.

> heid van het bestreden arrest, aangezien het beginsel van bescherming van het milieu, het voorzorgsbeginsel, het beginsel dat de vervuiler betaalt en het duurzaamheidsbeginsel, welke beginselen door de Republiek Oostenrijk waren ingeroepen ter ondersteuning van haar beroep, niet kunnen worden geacht zich in ieder geval ertegen te verzetten dat staatssteun ten behoeve van de bouw of de exploitatie van een kerncentrale wordt toegekend. Het Hof heeft in wezen geoordeeld dat die benadering niet verenigbaar zou zijn met artikel 194, lid 2, tweede alinea, VWEU, waaruit volgt dat een lidstaat de voorwaarden voor de exploitatie van zijn energiebronnen, zijn keuze tussen verschillende energiebronnen en de algemene structuur van zijn energievoorziening vrij kan bepalen, zonder uit te sluiten dat deze keuze betrekking kan hebben op kernenergie."

Dit arrest gaat over een gecompliceerde zaak. Bovendien zijn arresten in een hogere voorziening bijna altijd ingewikkeld. Er zijn in zulke zaken drie lagen: het Commissie besluit dat de steun goedkeurde, het arrest van het Gerecht en het arrest van het Hof door een grote kamer uitgesproken. Het positieve Commissie besluit omvatte 551 paragrafen.[10] Het arrest van het Gerecht besloeg 736 punten.[11]

Het arrest is voorts ingewikkeld omdat de materie zowel het VWEU als het Euratom-Verdrag betreft. In het arrest vlecht het Hof de bepalingen van de twee verdragen als het ware door elkaar. Zo stelt het Hof vast dat het Euratom-Verdrag weliswaar in artikel 37 milieuregels stelt maar dat deze regels niet uitputtend zijn. Dit verdrag verzet zich er daarom niet tegen dat de unierechtelijke milieuvoorschriften worden toegepast.[12]

Het meest opvallende aan deze zaak is het bijzondere politieke karakter ervan. Een lidstaat die een andere lidstaat probeert te dwarsbomen bij het bouwen van een kerncentrale en dat met behulp van de staatssteunregels probeert te doen. De betrokken lidstaten grenzen helemaal niet aan elkaar. In die zin onderscheidt deze zaak zich van de hierboven beschreven Cattenom[13] zaak. Het Duitse belang in die zaak was evident. Het belang van Oostenrijk in deze zaak is op zijn zachts gezegd minder duidelijk. Het lijkt vooral gebaseerd te zijn op binnenlandse politieke overwegingen. Oostenrijk wordt ondersteund door Luxemburg. Het VK door landen die voorstander zijn van kernenergie, Frankrijk, Polen, Tsjechië, Slowakije en Hongarije. De laatste drie zijn zowel "kernenergie landen" als buurlanden van Oostenrijk.

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10 PB 2015, L109.

11 T-356/15, EU : T : 2018;439.

12 Ov. 33,40 en 41.

13 Zaak C-187/87. ECLI:EU:C:1988:439.

Het Hof constateert dat het Euratom-Verdrag geen voorschriften inzake staatssteun bevat, daarom kan artikel 107 VWEU op deze sector worden toegepast, zoals het Gerecht terecht heeft vastgesteld in punt 73 van het bestreden arrest.

Dat neemt niet weg dat de bepalingen van het Euratom-Verdrag relevant kunnen zijn voor de uitleg van bepalingen van het Unierecht zoals artikel 107, lid 3, onder c) VWEU. Daarom stelt het Hof dat de doelstellingen van het Euratom-Verdrag de bouw van kerncentrales omvat. Toekenning van staatssteun daarvoor is dus niet strijdig met de doelstellingen van de Unie.

Artikel 194, lid 2, VWEU bepaalt dat de lidstaten het recht hebben de voorwaarden te bepalen voor de exploitatie van energiebronnen en de keuze tussen de verschillende energiebronnen of de algemene structuur van de energievoorziening. Concreet betekent dit dat het VK vrij is te kiezen voor kernenergie als onderdeel van de mix van energiebronnen en dus ook voor de bouw van kerncentrales. Dit artikel speelt een heel belangrijke rol in het arrest.

Zoals hiervoor aangegeven is de verduidelijking van de verhouding van het Euratom verdrag en het VWEU verdrag van belang. Het Hof heeft nu eenmaal niet zo vaak zaken waarin het Euratom recht een rol speelt.

Oostenrijk voerde aan dat de steun voor de kerncentrale onverenigbare exploitatiesteun vormde. Wat betreft exploitatiesteun stelt het Hof dat deze steun noodzakelijk was om de investering mogelijk te maken. Een dergelijk langlopend project moet immers worden bekostigd door een gegarandeerde bron van inkomsten. Dat is wezenlijk anders dan steun die gericht is op het behoud van bestaande activiteiten. Investeringssteun wordt gegeven aan het begin van een project. Exploitatiesteun wordt gegeven aan een slecht renderend project. Zulke steun is verboden.

De argumenten van Oostenrijk liepen stuk op het beginsel van artikel 194, lid 2, VWEU, dat de autonomie van het VK behelst om de eigen energievoorziening in te richten.

3 Conclusie

Het recht van de EU, inclusief dat van het Euratom, geeft geen duidelijke voorkeur voor of tegen kernenergie dat is vastgelegd in artikel 194, lid 2, VWEU. Wel zijn er verschillende waarborgen in het Euratom verdrag om ervoor te zorgen dat vreedzame kernenergie zo veilig mogelijk wordt geëxploiteerd. En wat Martha betreft: dat zij haar indrukwekkende energie mag blijven omzetten in mooie academische producten!

NATIONAL DEVELOPMENTS

TRANSITIONING TO AN INTEGRATED RENEWABLE ENERGY SYSTEM IN THE DUTCH NORTH SEA

Liv Malin Andreasson & Lisa van Nieuwkoop[1]

Abstract

The North Sea has long been the energetic backbone of the surrounding countries and its hydrocarbon resources have enabled economies to grow. However, faced with an unsustainable level of greenhouse gas emissions, as well as with the depletion of hydrocarbon resources, the North Sea is described as a 'sea in decline'. The coming decades will see two parallel developments in the North Sea: major investments will be needed to decommission disused hydrocarbon assets while at the same time renewable energy projects will be developed. The question that arises is what legal barriers such a transition entails and how the integration of a renewable energy system in the North Sea should be regulated.

1 Introduction: New Offshore Energy Developments and System Integration

In the same spirit as Martha Roggenkamp, we began our academic journey by examining the legal framework pertaining to new energy developments in the North Sea. Having the leading expert in the field as a supervisor during our PhD trajectories is truly rewarding

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and with this contribution, we would like to express our gratitude for her ongoing support in our academic careers.

Maintaining momentum in the reduction of greenhouse gas emissions and transcending into a net-zero carbon economy will require increased efforts in the exploitation of renewable energy sources. Therefore, offshore development of wind energy and other renewable energy sources (such as solar, wave and tidal) and production of carbon-neutral gases (such as hydrogen) play a pivotal role.[2] Currently, existing laws in the Netherlands regulate each category of offshore energy activity specifically. It is, therefore, difficult to ascertain which rules apply to new types of offshore energy activities and their interlinkages.

Given its vast potential to deploy low-carbon energy solutions (such as the generation of wind and solar energy), the North Sea region is destined to become a pioneering region for the European energy transition towards a climate neutral economy by 2050.[3] The parallel occurrence of declining hydrocarbon resources and the need to transition to a low-carbon energy system opens up the possibility of searching for synergies between the different types of energy systems.[4]

System integration entails linking previously separate players, energy carriers and adjacent sectors of the energy value chain through innovative methods into one large energy system.[5] Typical forms of integration that are possible offshore are (i) platform electrification, (ii) hydrogen production and (iii) energy storage.[6] Thus, this chapter provides an overview of some of the most prominent legal barriers to new offshore energy developments and system integration options in the Dutch North Sea.

2 The Current Legal Framework

The development and integration of new types of offshore energy installations and networks requires an enabling legal framework. Without legal certainty, investments will

2 Dutch Climate Agreement of 28 June 2019.

3 Communication from the Commission, 'The European Green Deal', COM (2019) 640 final.

4 Communication from the Commission, 'Powering a climate-neutral economy: An EU Strategy for Energy System Integration', COM/2021/299 final.

5 The EU has defined 'system integration' in a policy document, see Communication from the Commission, 'Powering a climate-neutral economy: an EU Strategy for Energy System Integration', COM/2021/299 final.

6 North Sea Energy Programme, 'Unlocking potential of the North Sea: Towards an inclusive and integrated design of the North Sea energy system with optimal value for society and nature', 2020, p. 7-8.

not be made and novel developments will not take place. This section, therefore, focuses on the current regulation of offshore energy developments.

International and EU Law

The extent to which the Netherlands may regulate offshore energy activities depends on their location, and in particular whether they are taking place in territorial waters or the area beyond territorial waters, *i.e.* the Continental Shelf (CS) or the Exclusive Economic Zone (EEZ). While the territorial sea of the Netherlands is part of its land territory and thus its sovereignty,[7] the Netherlands was given sovereign rights to exploit hydrocarbons on its CS[8] and to produce offshore renewable energy from the water, currents and wind in its EEZ.[9] Additionally, the Netherlands may authorise and regulate offshore drilling,[10] and the construction, operation and use of installations and structures.[11] UNCLOS confirms that the Netherlands has jurisdiction over submarine cables and pipelines constructed and used in connection with exploitation activities on its CS and economic activities in its EEZ.[12] Submarine cables and pipelines that are not linked to any of these activities are covered by the general freedom to lay cables and pipelines.[13]

Since the Netherlands is a Member State of the EU, it is necessary to take into account EU legislation governing the energy sector. Of particular importance are the Natural Gas and Electricity Directives,[14] the Renewable Energy Directive (RED)[15] and the Hydrocarbons Directive.[16] EU law applies where Member States have any degree of national sov-

7 Article 2 United Nations Convention on the Law of the Sea, Montego Bay, 1982 (UNCLOS).
8 Article 77 UNCLOS. See also United Nations Convention on the Continental Shelf, Geneva, 1958.
9 Article 56 UNCLOS.
10 Article 77(1) UNCLOS.
11 Articles 60 and 88 UNCLOS.
12 Article 79(4) UNCLOS.
13 Articles 58(1) and 87(1)(c) UNCLOS.
14 Directive (EU) 2019/692 of the European Parliament and of the Council of 17 April 2019 amending Directive 2009/73/EC concerning common rules for the internal market in natural gas [2019] OJ L 117/1; Directive (EU) 2019/944 of the European Parliament and the Council of 5 June 2019 concerning common rules for the internal market in electricity and repealing Directive 2012/27/EU, [2019] OJ L 158/125.
15 Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources [2018] OJ L328/82.
16 Directive 94/22/EC of the European Parliament and of the Council of 30 May 1994 on the conditions for granting and using authorizations for the prospection, exploration and production of hydrocarbons [1994] OJ L164/3.

ereignty. Consequently, when an offshore activity falls under a coastal Member State's functional jurisdiction – and the coastal Member State's sovereign rights – EU law applies as far as that activity is concerned.[17] Of relevance is also the EU Strategy for System Integration, as its two main pillars are to (i) promote renewable and low-carbon fuels and (ii) create a more integrated energy infrastructure.[18] However, this Strategy is a policy document and, therefore, lacks legal significance.[19] Although no reference has been made to 'system integration' in existing EU laws, it will most likely be enshrined in a (national) binding legal document in the (near) future.[20]

Dutch Law

Taking into account the relevant EU laws pertaining to the offshore energy sector, the question that arises is how the Netherlands has used its powers to regulate offshore installations, cables and pipelines. On the CS and in the EEZ, the following Dutch laws currently apply: the Mining Act,[21] the Wind Energy at Sea Act,[22] the Water Act,[23] and to some extent the Gas Act[24] and the Electricity Act.[25] While the Mining Act and the Wind Energy at Sea Act regulate specific offshore energy activities, *i.e.* exploitation of hydrocarbons and wind energy, the Water Act is more general in scope regulating all offshore activities that are not regulated by sector-specific laws. As for the Gas Act and the Electricity Act, only certain provisions, where explicitly stated, apply offshore. With technological advancements, not only hydrocarbons and wind energy will be exploited as integrating novel offshore energy generation, storage and transport technologies will play a pivotal role, which will be examined below.

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17 See J. Waverijn, C.T. Nieuwenhout, 'Swimming in ECJ case law: The rocky journey to EU law applicability in the continental shelf and Exclusive Economic Zone' (2019) 56 Common Market Law Review 1623.

18 Communication from the Commission, 'Powering a climate-neutral economy: an EU Strategy for Energy System Integration', COM/2021/299 final, p. 17.

19 A. Saurat, *Studies in Law, Politics and Society* (Emerald Group Publishing Limited 2014).

20 Article 6 Regulation (EU) 2018/1999 of the European Parliament and the Council of 11 December 2018 on the Governance of the Energy Union and Climate Action [2018] L328/1.

21 Mining Act (*Mijnbouwwet*) of 31 October 2002.

22 Wind Energy at Sea Act (*Wet windenergie op zee*) of 24 June 2015.

23 Water Act (*Waterwet*) of 29 January 2009.

24 Gas Act (*Gaswet*) of 22 June 2000.

25 Electricity Act (*Elektriciteitswet*) of 2 July 1998.

3 Legal Challenges

In this section we introduce some of the shortcomings in the Dutch legal framework for the North Sea region related to the future offshore developments and system integration options. These developments are still at an early stage of commercialisation and may require a new legal approach.

Platform Electrification and Alternative Cable Connections

Most hydrocarbon platforms nowadays make use of diesel- and gas-fired generators and turbines for power supply. Platform electrification involves linking an external source of power, such as offshore wind, in order to replace those onsite turbines. Electricity generated from offshore wind farms can also be used as an input for hydrogen production on existing offshore hydrocarbon platforms through the decomposition of water molecules by electrolysis, which facilitates green hydrogen production.

The offshore electricity grid operated by TenneT in the Netherlands would play a key role when organising the transport of electricity to offshore gas production platforms. However, the current legal framework hampers this possibility since the Electricity Act only allows for the connection of offshore wind farms to the grid in order to bring the electricity to shore.[26] Therefore, to enable the connection of offshore gas production platforms to the offshore electricity grid, a revision of electricity legislation, clarifying whether it is legally permissible to establish such a connection, would be required.

Proposed amendments to the Wind Energy at Sea Act seem to promote the possibility of connecting offshore wind farms to offshore gas production platforms through the introduction of a new type of connection.[27] Nonetheless, this amendment lacks a clarification on how to legally classify the cable establishing such a connection. Such a cable may be qualified as a 'direct line' pursuant to the Electricity Act. However, the provisions relevant to direct lines are not applicable offshore.[28] Rules on the responsibility for the development, ownership and operation of such cables must, therefore, be adopted to remedy legal uncertainty.

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26 See Articles 15a and 16(2)(n) Electricity Act. The purpose of the offshore electricity grid is not to facilitate offshore electricity supply and consumption, but to bring to shore electricity generated offshore.

27 Kamerstukken II 2018/19, 35092, *Wijziging van de Wet windenergie op zee* (paragraph 2.1.2).

28 Articles 1(1) and 1(5) Electricity Act.

Green Hydrogen Production and Transport

The Dutch Mining Act does not prescribe any specific procedures for the production of hydrogen on existing hydrocarbon platforms, nor any rules for the reuse of such platforms for hydrogen production.[29] Although certain alternative legal arrangements apply in accordance with the Water Act, these arrangements are limited in scope and provide only *ad hoc* solutions.[30] The same applies to the development of new offshore platforms for hydrogen production. None of these legal acts contain provisions for the operation of such platforms or specific safety regulations. To remedy these legal uncertainties, it may be necessary to either introduce general rules that apply to hydrogen when necessary or issue specific rules for the production of hydrogen and the operation of hydrogen platforms offshore.

To accommodate the transport of hydrogen to shore via existing offshore natural gas pipelines, the adaptation of national admixing restrictions in the onshore natural gas network may be required. The same applies to the reuse of disused offshore natural gas pipelines for hydrogen transport.[31] Currently, there is no standardised procedure enshrined in Dutch legislation for the reuse of disused natural gas pipelines, as the applicable laws merely provide *ad hoc* solutions. Thus, they do not contain operational and safety rules for such pipelines, nor for new dedicated offshore hydrogen pipelines. Finally, it remains unclear who is entitled to operate reused natural gas pipelines and new pipelines for hydrogen transport. To remedy these legal uncertainties, it can be argued that rules for hydrogen pipelines should be adopted.

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29 See Articles 1(a) and 6 Mining Act. The Netherlands prepared a bill seeking to amend the rules on the removal of disused hydrocarbon installations, which proposes to grant exemptions from the obligation to remove such installations if they can be reused for *inter alia* hydrogen production or any other offshore energy related activities, see Kamerstukken I 2020/21, 35462, *Wijziging van de Mijnbouwwet (het verwijderen of hergebruiken van mijnbouwwerken en investeringsaftrek*).

30 It is necessary to obtain a permit under the Water Act, which regulates (the development of) activities in onshore and offshore waters unless these activities are governed by sector-specific laws such as the Mining Act, see Article 6(5)(c) Water Act.

31 Operators of offshore natural gas pipelines must ensure that the gas they deliver to the onshore pipeline network complies with the entry specifications (gas quality standards) applicable to that network, see Article 1.1(b) Gas Act and Articles 2(1)-(4) and Annexes 1-4 Ministerial Decree on Gas Quality (*Regeling Gaskwaliteit*) of 11 July 2011.

Floating Solar and Ocean Energy

Floating solar is a relatively new form of power generation and it is currently deployed in landlocked waters.[32] However, with technological advancements it will become commercially viable in both the territorial sea and the EEZ.[33] Although the Dutch House of Representatives accepted a legislative proposal to create a Dutch roadmap for solar on water in 2021, it remains unclear how this type of renewable energy generation will be regulated.[34] A different type of offshore energy production is ocean energy, which refers to all forms of renewable energy derived from the sea, *i.e.* tidal, wave and ocean thermal.[35] In comparison with offshore wind, which is regulated by the Wind Energy at Sea Act, there is no specific regulation for the offshore development of any of these technologies. The RED provides a common framework for the promotion of, among others, these types of renewable energy sources, but there are no specific provisions in Dutch legislation pertaining to the offshore operation and safety of the installations necessary for such generation.[36]

Electricity Storage

The ambition to develop large-scale offshore renewable energy production creates challenges such as how to feed large amounts of intermittent power into the onshore electricity grid and how to cope with mismatches in demand and supply. One alternative to address these challenges is to develop offshore electricity storage installations.[37] The EU recently adopted new legislation on energy storage in the Electricity Directive, which is

32 Offshore energy, 'Floating solar farms could mitigate harmful climate change effects on water', 6 April 2021 <https://www.offshore-energy.biz/floating-solar-farms-could-mitigate-harmful-climate-change-effects-on-water/?web=1&wdLOR=c45DB4D50-9C82-ED4A-AADD-46DE7C456033> accessed 26 September 2021.

33 World Bank Group, *Where Sun Meets Water. Floating Solar Market Report*, 2018; Norton Rose Fulbright, *Floating solar*, 19 August 2020.

34 Kamerstukken II 2020/21, 32813 nr. 665.

35 For an explanation of the technologies, see World Economic Forum, 'Floating solar farms could cool down lakes threatened by climate change', 16 April 2021 <https://www.weforum.org/agenda/2021/04/floating-solar-farms-lakes-threatened-climate-change/> accessed 27 September 2021.

36 The construction of such installations is subject to a water permit, see Article 6(5)(c) Water Act.

37 For an explanation of the technology, see Ocean Grazer, 'Large scale offshore energy storage' <https://oceangrazer.com> accessed 27 September 2021.

relevant to the integration of energy storage in the electricity system.[38] However, the development of offshore electricity storage is a new concept and there is not much legal research conducted on the topic.

The new rules for energy storage in the Electricity Directive have not yet been implemented in the Dutch Electricity Act. Thus, it is difficult to ascertain how such storage will be regulated. However, to create legal certainty for the development of offshore electricity storage, it is not sufficient to just implement the rules on energy storage adopted by the EU. The Netherlands needs to make sure that the relevant provisions on storage also apply to the offshore area. Although the offshore development of electricity storage installations would be subject to the permitting regime of the Water Act, there are no specific rules on the operation and safety of such installations.[39]

4 Assessment

In 2020, the Dutch Energy Act was proposed to stimulate the energy transition by integrating the Dutch Electricity Act and Gas Act.[40] One of the objectives of the proposed Act is to strengthen the regulatory framework for system integration. However, it lacks any specific reference to *offshore* system integration.[41] The lack of such a reference contributes to a plethora of legal acts that must be taken into account when developing and linking new offshore energy activities. Although we could continue with the *status quo* of adopting sector-specific laws for each type of offshore energy activity, we question whether it is not more effective to adopt an overarching offshore legal framework, in line with the concept of offshore system integration. The fact that the aforementioned offshore energy infrastructure is covered by the terms 'installations' and/or 'structures' (as enshrined in Article 60 of UNCLOS) could serve as a starting point to integrate rules applicable to such infrastructure.[42] As previously concluded, the current sector-specific laws regulating offshore energy activities are likely not comprehensive enough to facili-

38 Article 2(59) EU Electricity Directive.

39 Article 6(5)(c) Water Act.

40 Dutch Ministry of Economic Affairs and Climate Policy, *Conceptvoorstel van de Wet houdende regels over energiemarkten en energiesystemen* (*Energiewet*) of 17 November 2021.

41 Dutch Ministry of Economic Affairs and Climate Policy, *Memorie van toelichting wetsvoorstel Energiewet* of 17 December 2020.

42 See, for instance, Barrett, J. & Barnes, R., Law of the Sea. UNCLOS as a Living Treaty (British Institute of International and Comparative Law 2016); Nordquist, M.H., UNCLOS 1982 Commentary (Brill Nijfhoff) 2012; United Nations, United Nations Convention on the Law of the Sea at Thirty: Reflections (United Nations 2013).

tate the proposed developments, as shortcomings in the current sector-specific laws still prevent energy system integration from fully materialising. Given the commonalities of the described energy challenges and opportunities faced by the Netherlands, the government could strive for a common approach and adopt an overarching legal framework governing offshore energy activities.

5 Conclusion

It is clear that several changes are taking place in the near future in the Dutch North Sea, which demonstrates the increased economic significance of this area for new energy developments. The above analysis illustrates that the current legal situation is a normative jigsaw puzzle, which potentially leads to inappropriate or non-existent rules. Therefore, we argue that it is desirable to promote a paradigm shift from a reactive, fragmented legal offshore energy source-based framework to a proactive and coherent regulatory framework pertaining to the offshore energy sector. The energy transition in the North Sea is a pressing matter and legislative changes are required. It remains an area in constant transition, from Martha's dissertation in 1999 to our dissertations in (hopefully) 2024 (and onwards).

ENERGY PLANNING LEGAL REQUIREMENTS AND OFFSHORE WIND IN NORWAY

Catherine Banet[1]

Abstract

Although the Norway energy system should be conceived and implemented as one consistent system, and the offshore and onshore grids need to be developed in coordination, those ambitions currently lack relevant legal provisions to define concrete obligations and processes, while respecting the prerequisite of a liberalized energy market. There are also opposite signals between market actors, Statnett and the Ghar Støre government as to the opportunity to develop hybrid projects and new interconnectors. This argues for a step-by-step approach, including for the development of the legal framework. However, it is difficult to avoid the need for coordination with neighboring countries around the North Sea when developing the offshore grid on the Norwegian continental shelf, with a high share of wind power. Several grid planning and operational coordination processes between countries around the North Sea are already established, where the TSOs appear to be in the driver's seat to develop future offshore wind grid infrastructures.

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1 Introduction

I first met Martha in 2003 when I was studying energy and environmental law as part of the LL.M programme on International and European Environmental and Energy Law at the Katholieke Universiteit Leuven, Belgium. She was a renowned scholar and taught several lectures on EU energy law as part of this programme. After several years in private practice, I met Martha again when working on my PhD thesis at the Scandinavian Institute of Maritime Law, University of Oslo. Martha had a long-lasting work collaboration with Professor Ulf Hammer, my PhD supervisor, and many of the joint projects our universities now have, are based on this original collaboration between Ulf and Martha. When I returned to academia as Associate Professor, I started working more closely with Martha on a series on joint educational and research projects: we are both members of the Advisory Academic Group (AAG) to the International Bar Association (IBA), Section on Energy, Environment and Infrastructure Law (SEERIL) that produces an edited book every two years; our universities, together with two other ones in Aberdeen and Copenhagen, are partners in the North Sea Energy Law Partnership (NSELP) that offers a professional LL.M in Energy Law; our universities are co-organisers, together with the Dutch Energy Law Association, of the annual European Energy Law Seminar (EELS). Martha and I have been collaborating on a series of publications, notably the European Energy Law Report series (Intersentia), that is based on presentations held at the EELS.

In all these years, I have been able to witness Martha's hard working moral, attention to details and critical approach to research. She has also established a strong research center on Energy Law at the University of Groningen, securing the recruitment of young researchers with whom I am also pleased to be working with today. It has been an honour to be associated with so many projects with Martha and contribute to both the development of energy law as an academic discipline, but also the continuous development of the collaboration between the University of Groningen and the University of Oslo. Her personal connection to Norway has directly benefited the development of a close collaboration between Norway and the Netherlands in the field of energy law.

This chapter looks at the legal requirements applicable to energy planning for offshore wind development under Norwegian law. The conclusions from this analysis can help identify improvement potential in the current legislative framework to support the ambitions of both the Norwegian government and the industry's call for visibility. They also stress the well-developed coordination processes that already exist at regional level around the North Sea for the deployment of energy transport infrastructures with a higher share of offshore wind.

At policy level, the Norwegian government has only recently set a higher level of ambition for offshore wind generation along the Norwegian coastline despite the adop-

tion of an enabling legislative framework in 2010 and 2020.[2] Several initiatives structure the government's strategy. First, in June 2020, the Solberg II government opened two offshore areas for renewable energy production licence application at Utsira Nord (maximum capacity of 1500 MW, best suited for floating wind power) and Sørlige Nordsjø II (maximum capacity of 3000 MW, suited for both floating and bottom-fixed wind turbines). The starting date for the launch of the licensing procedure was then set to 1 January 2021, date of the entry into force of the 2020 implementing legislation, within the combined limit for development of 4 500 MW of wind power in the two areas. In June 2021, the Solberg II government published a Report to the Storting (White Paper), entitled 'Putting Energy to Work',[3] that sets out how Norway can use its energy resources to create continued economic growth and new jobs. Offshore wind is one of the growth areas identified in the White Paper, although no new precise capacity target is set. Following the general elections of September 2021, the newly elected coalition government adopted a political declaration (so-called Hurdal platform)[4] in which the Gahr Støre government sets for itself as priority to 'facilitate a large-scale investment in offshore wind through an ambitious national strategy for offshore wind which includes investment in the Norwegian supplier industry, good regulations and development of network infrastructure on the Norwegian shelf.' The government will set targets for how large the production of offshore wind power and solar energy will be within 2030. In February 2022, it launched a consultation on a proposal for allocation of licences in the opened areas: in a first phase, 1500 MW will be licensed in Sørlige Nordsjø II, with connection to the Norwegian shore; the second phase will depend on the conclusions from an assessment of grid connection to be performed by the Norwegian Water Resources and Energy Directorate (NVE).[5]

Concerning the legislative framework, the regulation of offshore wind in Norway is subject to two different regimes based on the distance of the installation from the shore.

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2 For a review of the policy and legislative framework for offshore wind, see Catherine Banet, Legal framework to develop offshore wind in Norway', in Anton Ming-Zhi Gao and Chien-Te Fan (eds), The Development of a Comprehensive Legal Framework for the Promotion of Offshore Wind: The Lessons from Europe and Pacific Asia (Kluwer, 2017), Chapter 5, pp. 103-142.; Karina Kviebakk Mauren, 'Havenergiloven' in Hans Christian Bugge (ed.), *Klimarett – Internasjonal, europeisk og norsk klimarett mot 2030* (Universitetsforlaget, 2021), Chapter 24, pp- 616-632.

3 Storting Melding Meld.St.36 (2021-2021), Energi til arbeid – langsiktig verdiskaping fra norske energuressurser.

4 *Hurdalsplattformen* (2021-2025), available at <https://www.regjeringen.no/no/dokumenter/hurdalsplattformen/id2877252/>

5 The Gahr Støre government has announced that it will publish an additional White Paper that will reflect the key points of the Hurdal Platform.

If the offshore wind farm is to be installed within the baseline, it falls within the scope of application of the Energy Act of June 29, 1990 (section 1-1, Energy Act) which applies to all forms of electricity production. If the project is to be developed outside the baseline and on the Norwegian continental shelf, it falls under the scope of application of the Offshore Renewable Energy Production Act of June 4, 2010 (hereafter OREP Act) (section 1-2, 2010 OREP Act). The OREP Act applies in the Norwegian territorial waters outside the baselines and in the exclusive economic zone (EEZ), but certain provisions of the Act can also apply in the coastal waters inside the baselines – the inner waters (section 1-2, paragraph 7).[6] The Act also applies to all forms of renewable energy production at sea. The 2010 OREP Act regulates the production of offshore renewable energy, the transformation and the transmission of the electricity produced offshore, including the installations related to those operations (section 1-1-2). The Government may decide that the OREP Act shall not be applicable in cases in which the activity is regulated by other legislation (section 1-2). This means, for example, that offshore installations integrated as part of offshore petroleum activities (for the purpose of energy supply) may not be regulated by the OREP Act but instead by the Petroleum Act.

The present chapter focuses on the development of large offshore wind projects, and therefore analyses the regime applicable beyond the baseline. This regime is based on two main pieces of legislation: the OREP Act, also referred to as the Offshore Energy Act; and the Offshore Renewable Energy Production Regulations (hereafter OREP Regulations), also referred to as the Offshore Energy Regulations. To provide further guidance to applicants, the Ministry of Petroleum and Energy (MPE) is preparing a Guidance document for the allocation of areas, the licensing process and applications for offshore wind power (Guidance for license applicants).[7]

2 Energy planning requirements: a short definition

Energy planning is the process of designing and implementing policies regarding the development of the energy system in all its components (generation, storage, conversion, transport and consumption). It can be undertaken at a local, national or regional level.

6 Note that Norway established an EEZ by passing Act of December 17, 1976 relating to the Norwegian exclusive economic zone.

7 *Veileder for arealtildeling, konsesjonsprosess og søknader for vindkraft til havs*.

Energy planning can be short-, mid- or long-term. Importantly, energy planning occurs both at the energy system and the energy infrastructure levels.[8]

While energy modelling is often the basis for energy planning policies and decisions, the need arises quickly to clarify processes, objectives, responsibilities and scope through legislation. Historically, countries have developed their national energy planning framework differently, in terms of both the legally binding nature of the plans (from a simple guidance document to a binding legal framework) and the content (from a few general objectives and targets to full programming law). The examples of comprehensive legal frameworks on energy planning are rare, however, particularly at the national energy system level. Recently, long-term energy planning has become a more common tool supported by specific legislative requirements that may contribute to spreading good practices and harmonisation. One justification for this is the need to define steering mechanisms for the attainment of, notably, renewable energy production targets along climate neutrality goals across sectors.

In practice, in Europe at least, planning requirements are much more developed for energy infrastructures than for the energy system as a whole. A main reason for that is the influence of liberalisation. Indeed, even if the planning requirements are strengthened today, this happens in the context of liberalised energy markets. The intended consequence of liberalisation was to split former incumbents into different entities and to let new competitors enter competitive market segments (while natural monopolies must be regulated). Under pre-liberalisation models, energy planning was conducted internally, within companies, and in addition often combined electricity, gas and heat in their portfolio. The multiplication of market actors, as part of the liberalisation reform, has created new challenges for energy system planning. In many jurisdictions, generation and transport infrastructure planning are conducted individually and separately from each other. This calls for new forms of coordination among a larger number of actors.[9]

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8 For a more detailed definition of energy planning requirements and an analysis under EU law, see: Catherine Banet, 'Planning for resilience: resilience as a criterion in energy, climate, natural resources and spatial planning law', in Catherine Banet, Hanri Mostert, LeRoy Paddock, Milton Fernando Montoya, Iñigo del Guayo (eds.), *Resilience in Energy, Infrastructure and Natural Resources Law: Examining Legal Pathways for Sustainability in Times of Disruption*, Chapter 4, (Oxford University Press, March 2022).

9 This has been described as 'de-integration' of energy planning. See A. Weber et al., 'Long-term Power System Planning in the Context of Changing Policy Objectives', Berlin University of Technology, 2013, 3.

3 Energy system planning requirements with offshore wind

When looking at the legislation on offshore renewable energy, only few provisions contain requirements on energy system planning and wind power. The most relevant one relates to the opening of areas for offshore wind energy production.

Before awarding any licence the licensing areas must be formally opened to the exploitation of renewable energy resources after the completion of an environmental impact assessment (Section 2-2, OREP Act). The decision to open the areas for exploitation officially pertains to the King, by decision of Council of State (section 2-2, OREP Act). The proposal for opening of licensing areas is made public and subject to public consultation. Exceptions may, however, be made from the rules on opening of areas in special cases. Opening an area means that it will become possible to apply for licences for renewable energy production in the area in question.

The first Royal Resolution for the opening of areas to offshore wind was adopted on 12 June 2020.[10] It concerns the opening of two areas, Sørlige Nordssjø II and Utsira Nord. This resolution defines a volume target (with a maximum awarded capacity of 3,000 MW at Sørlige Nordsjø II and 1,500 MW at Utsira Nord). This is the first and only legally defined target for offshore wind in Norwegian legislation which, otherwise, does not yet define a national target for offshore wind.

Even if a volume target is set, many elements surrounding the planning of the energy system in those areas and the development of grid infrastructures is still unknown. Among the elements to be clarified before the award of licences are the award criteria (either auctioning or solely based on qualitative criteria), the weighting given to technology innovation and development, and the criteria related to grid capacity and operating rules. For the further setting of capacity targets in other licensing areas, NVE has conducted in 2012 a strategic impact assessment in accordance with the conditions set out in the Offshore Energy Act for 15 sea areas.[11]

4 Energy infrastructure planning requirements for offshore wind

Concerning the planning of energy infrastructure in relation to offshore wind, there are very few specific requirements as to the planning of an offshore grid in the legislation. The most relevant provision is Section 3-2 of the OREP Act that deals with licences for grid infrastructure in conjunction with a specific production installation. Pursuant to

10 Kgl.res. 12. juni 2020 om åpning av områdene Sørlige Nordssjø II og Utsira Nord.

11 Offshore wind power in Norway – Strategic environmental assessment, NVE report no 47-12.

that provision, laying electricity cables in relation to offshore wind electricity generation installations outside the baseline requires a licence under the OREP Act and a licence under the Energy Act inside the baseline. The applicant must submit a detailed plan for development and operation (detailed PDO) to the MPE for approval. As part of its approval decision, the MPE can set conditions for approval related to, among other things, the connection to other installations or systems (Section 3-4, para 1(4) OREP Act), or consideration of rational energy supply (Section 3-4 (para 1(7) OREP Act). The preparatory works to the OREP Act precise that, through these provisions, the objective is to develop the offshore grid progressively and that the Ministry has the competence and opportunity, through the setting of conditions in individual approval decisions, to ensure that the offshore grid develops in a coordinated and targeted manner (Ot.prp. nr.107(2008-2009), Chapter 14).

There are therefore no provisions related to the planning of an offshore grid for offshore renewable electricity production as a whole from the start, but a step-by-step approach to offshore grid development is favoured. This means that the Ministry can steer the development of the offshore grid in relation to offshore renewable energy production, through the approval of individual detailed PDOfor the production and transport installations. This places the Ministry in the coordination role for the planning of an offshore grid, on an *ad hoc* basis.

Some signals as to how the regime could develop are given in the policy documents referred to above. In the 2021 White Paper, the Solberg government proposed amending the OREP Act to provide a clear legal basis for the further regulation of offshore grid. Notably, the government planned to start working on the regulation of system operator responsibilities for the offshore grid, where the Transmission System Operator (TSO) for the onshore grid, Statnett, is expected to be designated as system operator for the part or activities related to an offshore grid that is not regulated under the Petroleum Act.[12] The draft Guidance for license applicants states that 'it is planned that the grid facilities will be planned, built and financed by the players at sea'. This indicates that the grid solution chosen for each production facility will be planned by the licensee. However, this does not resolve some central issues of coordination for the development of an integrated grid planning in the context of several offshore wind production facilities. The answers to the public consultation on the draft Guidance also show that there is a strong need for clarification of the regime applicable to offshore grid ahead of the award of the

12 Cables for the electrification of offshore petroleum platforms fall under the scope of application of the Act No. 72 of 29 November 1996 relating to petroleum activities (Petroleum Act).

licences.[13] In the Hurdal platform, the Ghar Støre government announces that it will develop 'a good legal framework' for offshore wind and ensure the development of grid infrastructures on the Norwegian continental shelf.

Another common statement made by the to-be TSO-at-sea Statnett, is that the 'the grid on land and at sea is one single, consistent grid system'. In the 2021 White Paper, the Solberg government provided for further nuances, and stated, likewise, that there is a need for a more consistent grid between onshore and offshore developments, but also that 'it is important that the development of offshore wind happens in interaction with the energy system on land.' Similarly, the Hurdal platform refers to the need to develop a consistent and harmonised legal framework for the production, trade and distribution of electricity, both onshore and offshore.

If the legal framework needs to be harmonised and the energy system onshore and offshore is to be made more consistent, it will be necessary to assess the suitability of the current energy planning requirements applicable onshore.

In terms of general requirements related to energy system planning onshore, the Energy Act[14] provides the relevant legal basis. It requires anyone having a licence to operate electrical and district heating facilities to take part in energy planning. The implementing Energy Act Regulations detail the scope of the energy plans that must include electricity production, transmission, distribution and use.[15] Further, the licensees are obliged to coordinate their individual energy plans among themselves, in particular if they pertain to the same planning area. Finally, NVE may require the same licensees to elaborate long-term energy plans. It follows that the Norwegian legislation defines energy planning obligations primarily on licensees, with a duty to cooperate and coordinate their energy plans. The licensees also have a duty to provide information on relevant energy supply to municipalities for the purpose of elaborating local climate and energy plans.[16] In addition to those general energy planning requirements, separate legislation (Regulations on Energy Studies) provides for the elaboration by licensees of 'electricity reports' that, although considering the whole energy system, focus on grid development.

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13 https://www.regjeringen.no/no/dokumenter/horing-veileder-for-arealtildeling-konsesjonsprosess-s-og-soknader-for-vindkraft-til-havs-og-forslag-til-endringer-i-havenergilova-og-havenergilovforskrifta/id2860575/

14 Act relating to the generation, conversion, transmission, trading, distribution and use of energy (Energy Act), Norway, 1990, ch 7.

15 Regulations No. 959 concerning the generation, conversion, transmission, trading, distribution and use of energy (Energy Act Regulations), Section 7.1.

16 Regulations on Energy Studies, Section 3.

In terms of grid planning requirements onshore, the TSO Statnett is the main obligated party ensuring the coordination of the planning requirements between the different actors. The grid planning requirements are structured around the elaboration and submission of three plans: the System Operations and Market Development Plan (*Systemdrifts- og markedsutviklingsplanen*, SMUP), the Grid Development Plan (*Nettutviklingsplanen*, NUP) and the Power System Plan (*Kraftsystemurtredningen*, KSU). Those three documents describe how Statnett, as a TSO, will carry out its mandate in the coming years. Pursuant to the Regulations on energy reports,[17] Statnett has reporting responsibility for the central grid and prepares the KSU every second year. This assessment describes the current power systems in terms of production, consumption, level of security supply and available grid capacity for the input of new production. The plan outlines possible new developments and need for investments in transmission, up to a 20-year horizon. The KSU elaborated by Statnett at the transmission level is supplemented by 17 KSU for the different parts of the regional grid.

At the current stage of the development of offshore wind projects in Norway, it seems difficult to duplicate or extend the application of the energy system and grid planning requirements to offshore wind per se. A step-wise approach seems more appropriate, although the new regime could reproduce obligations related for example to the central role played by Statnett as planner of the transmission grid and the coordination role it also plays in relation to regional projects. Presently, the OREP Act tends to leave the planning and coordination role in the hands of the MPE as part of the approval process for the detailed PDO. By contrast, the latest policy documents seem to indicate that both licensees and Statnett would play a complementary role in offshore grid development and planning. Clearly, there is a need for increased legal certainty.

In addition to energy legislation, the maritime planning legislation offers additional planning tools. During the last fifteen years,[18] the Norwegian government has strengthened its efforts to elaborate a more consistent strategy for the management of the marine areas under its jurisdiction.[19] This move corresponds to a general trend in terms of environmental management, which consists in applying an ecosystem-based management approach to the marine environment. It is also in line with Norway's international and

17 *Forskrift om energiutredninger* no. 1158 of 7 December 2012.

18 *See* in particular, White Paper nr. (2001–2002) *Rent og rikt hav*. Innst. S. nr. 161 (2002–2003) White Paper nr.19 (2004–2005) *Marin næringsutvikling. Den blå åker* (Innst. S. nr. 192 (2004–2005).

19 For an analysis of the Management Plans for Norwegian Sea Areas, *see* H.C. Bugge, "Har vi de rettslige redskapene som trengs for en god forvaltning av våre havområder?", in M. Stub and I. Hjort Kraby (eds.), *Forsker og formidler. Festskrift til Erik Magnus Boe på 70-årsdagen 17. april 2013* (Universitetsforlaget, 2013), pp. 65–87.

EEA commitments, and notably under public international law: the United Nations Convention on the Law of the Sea (UNCLOS Convention) obligation to protect the environment while exploiting sea resources; the Convention on Biological Diversity; the Johannesburg Plan of Implementation (§30); and the UN Sustainable Development Goal 14. Those efforts have resulted in the adoption of management plans for the following three marine areas: the North Sea and Skagerrak; the Norwegian Sea; and the Barents Sea including Lofoten. The purpose of the Norwegian Management Plans for marine areas is to facilitate value creation, the coexistence between industries and the sustainable harvesting of resources.[20] The plans contribute to the implementation of an integrated ecosystem-based management of the marine environment in the Norwegian waters. The management plans have been revised in 2020 and for the first time presented together in one single document.[21] The development of offshore wind is integrated in the assessment and is therefore integrated as part of maritime planning duties.

5 Coordination of planning processes in the North Sea

Despite the fact that the Norwegian legislation does not offer yet a detailed framework on planning requirements for an offshore grid integrating wind projects, many arenas for coordinated grid planning already exist at the regional level, both at TSO and government levels. Statnett is the Norwegian representative at the European Network of Transmission System Operators for Electricity (ENTSO-E), and contributes to the elaboration of the Ten Year Development Plan (TYNDP 2020). Norway is part of two regional planning groups, the Baltic Sea and the North Sea regions. The objective pursued is to achieve coordinated planning, and to ensure consistency with national, Nordic and European power system planning.

Statnett is also collaborating closely with the other Nordic TSOs (Energinett in Denmark, Fingrid in Finland and Svenska kraftnät in Sweden) for the publication of a joint Nordic Grid Development Plan (NGDP) every two years. The NGDP should work as a bridge between the different national grid planning systems and the ENTSO-E TYNDP.

Concerning offshore wind specifically, the Nordic TSOs stress in the Nordic Grid Development Perspective 2021 (NGDP2021) that offshore wind and the development of new hybrid offshore grids will require new methods and cooperation, including for planning (NGDP2021, 4.3.2). Currently, Nordic countries apply different models with differing

20 *See* White Paper nr. 37 (2008–2009).

21 Meld. St. 20 (2019–2020) – Norway's integrated ocean management plans — Barents Sea–Lofoten area; the Norwegian Sea; and the North Sea and Skagerrak — Report to the Storting (white paper).

roles and responsibilities for TSOs and developers. The choice of regime will impact the future development of meshed and integrated offshore grids as the connection regime, including associated costs, and will impact the placement of future wind projects. National regulations have a direct impact on cost for offshore wind power. As of today, differing national approaches are applied, which, according to the Nordic TSOs, 'may lead to a skewed distribution of offshore wind power in a sea basin'. The risk is that 'offshore wind gets built not where it would be most cost-efficient on a Nordic level but where it is nationally subsidized most'. Thus, the Nordic TSOs take the view that the integration of offshore wind to the Nordic power system will 'challenge the current grid planning practices', and that a 'holistic and coordinated development of both on- and offshore grids' is essential to achieve a climate-neutral Nordic electricity system. While planning radial grid connections to shore can be pursued at national level, deploying hybrid solutions with connections to several countries questions the validity of the current principles for grid planning, including dimensioning of the offshore grid, fault withstand, system operation and interoperability. This calls for anticipation and regional coordination. As an example, the TSOs of the Baltic Sea Region established in 2020 the Baltic Sea Offshore Grid Initiative. One of the intended purposes of the cooperation is to develop common planning principles for Baltic Sea offshore energy network. At government level, initiatives have also been established for the development of a more coordinated offshore wind grid in the North Sea basin. In June 2016, the Norwegian government signed a Political Declaration on energy cooperation between the North Seas Countries. The Declaration follows up previous initiatives such as the Memorandum of Understanding of December 3, 2010 on the North Seas Countries' Offshore Grid Initiative (NSCOGI), which resulted in the development of concepts around a possible offshore electricity grid in the North Sea. The June 2016 Declaration targets specifically offshore wind power as a potential to be exploited jointly through regional cooperation. On 2 December 2021, a new political declaration was signed by NSEC countries, focusing primarily on offshore wind (NSEC Political Declaration on energy cooperation between the North Seas Countries and the European Commission on the behalf of the Union). One of the objectives endorsed is to 'cooperate on maritime spatial plans that include offshore wind energy deployment and grid development' and to work towards 'a more coordinated offshore grid planning of the North Sea countries' in line with maritime spatial planning. Support Group 2 to the NSEC will develop concepts for a more coordinated offshore grid planning (Annex I - Work Programme to the Declaration).

Finally, at the European Union (EU) level, in the context of its Offshore Renewable Energy (ORE) strategy and based on high ambitions within offshore wind, the European Commission has announced a 'new approach to infrastructure planning', insisting on the need for a 'more rational grid planning' in terms of hybrid projects and 'integrated

regional grid planning' at sea basin level.[22] The ORE Strategy identifies a series of action priorities with direct or indirect effects on the Norwegian legislation through the EEA Agreement. Notably, the Commission argues that: the development and planning for an offshore grid needs to go beyond national borders and cover the whole sea basin; Member States should set ambitious targets for offshore renewables in each sea basin; these targets could translate into a memorandum of understanding or an intergovernmental agreement between the relevant Member States; these ambitious targets should be taken into account in an 'integrated regional grid planning and development'; a more structured cooperation between Member States, TSOs and regulators is needed to 'formulate more integrated and optimised regional offshore grid planning'; offshore grid planning could eventually become a task with a stronger role carried out by regional coordination centres; structured cooperation could be further enhanced by the establishment of regional offshore independent system operators to operate and develop increasingly meshed offshore grids.

As a first step, the revision of the TEN-E Regulation foresees reinforced cooperation around grid planning within the listed priority offshore grid corridors.[23] In the medium term, the ORE strategy opens for a series of more integrated processes around offshore grid planning, with direct consequences for the development of an offshore wind grid connected to the European market. These proposals must pass the test of the EEA relevance before being incorporated into the EEA Agreement, but several of the legal acts those proposals are based on are already incorporated. Other acts, such as the Marine Strategy Framework Directive, are deemed to fall outside the scope of application of the EEA Agreement, but can lead to de facto collaboration with neighbouring EU countries.[24]

6 Conclusion

In conclusion, the current changes undertaken and planned for the energy system have demonstrated that a higher level of coordination is needed, not least to achieve climate

22 European Commission, An EU Strategy to harness the potential of offshore renewable energy for a climate neutral future, COM(2020)741 final, 19.11.2020, 12-13.

23 Draft revised TEN-E Regulation, Art. 14 and Annex I.2 (Priority Offshore Grid Corridors).

24 Because of the scope of application of the EEA Agreement, some relevant pieces of EU legislation do not apply in Norway, although sometimes followed in practice. An example is the Marine Strategy Framework Directive (2008/56/EC), which requires Member States to draw up marine strategies (management plans) to achieve good environmental status in their marine areas. The Norwegian government is of the opinion that the Directive covers some geographic areas which fall outside the geographical scope of the EEA Agreement.

neutrality objectives and renewable energy generation targets. In light of these objectives, there is a clear need for reinforcing the legal requirements related to planning for the energy system as a whole and for infrastructure development specifically. Concerning offshore wind development in Norway, the licensing process has barely started and the legislation still needs to be supplemented in order to be made operational. There are so far extremely limited references to planning requirements, and different political signals have been given by the previous and current government concerning who will be in charge of planning the offshore grid development. Although the Norway energy system should be conceived and implemented as one consistent system, and the offshore and onshore grids need to be developed in coordination, those ambitions currently lack relevant legal provisions to define concrete obligations and processes, while respecting the prerequisite of a liberalized energy market. There are also opposite signals between market actors, Statnett and the Ghar Støre government as to the opportunity to develop hybrid projects and new interconnectors. This argues for a step-by-step approach, including for the development of the legal framework. However, it is difficult to avoid the need for coordination with neighboring countries around the North Sea when developing the offshore grid on the Norwegian continental shelf, with a high share of wind power. As demonstrated above, several grid planning and operational coordination processes between countries around the North Sea are already established. In all those processes, the TSOs appear to be in the driver's seat to develop future offshore wind grid infrastructures.

REGULATORY CHALLENGES TO THE DUTCH HEAT TRANSITION

Iman Brinkman[1]

Abstract

This chapter explains (a) how heat as an energy source may play an important role in the Dutch energy transition, (b) how that confronts the legislator and the sector with quite a few difficult challenges and (c) how it requires considerable legislative innovation.

1 Introduction

If I were to describe a unique person as Martha in three words, I would have a difficult time. Yet, at gunpoint I would choose: energetic, innovative and kind. Many readers who have known Martha for some time may think of other characteristics and describing Martha in three words by no means does her justice. But these are typically three characteristics that for me have stood out ever since I started as her student at Leiden University in 1999, and later on, when we became colleagues and friends.

Surely, as a professor of energy law, being 'energetic' is of the essence, not only because in such a position you must be imbued with energy, but also, because this field of law is so broad and it develops so incessantly and quickly. And indeed, Martha has always worked tirelessly researching, writing books, reviewing theses and articles and teaching. And she

1 Attorney-at-law (*advocaat*) at Pels Rijcken & Droogleever Fortuijn attorneys and civil-law notaries. With special thanks to Anna Francesca Mancosu who was so kind as to help with preparing this contribution.

does all this with great success, if only measured by the way in which she has put energy law on the map, both nationally and internationally.

Affordable access to energy is a basic requirement in our society, and consequently the legislator has – ever since Napoleon's 1810 Mining Act[2] – shown interest in structuring the energy sector. Energy legislation has gained further importance since the liberalisation of the sector was put on the European agenda in the late 1980s and early 1990s.[3] Since then, many European energy directives and guidelines have been adopted and implemented, respectively, and triggered a surge in national energy legislation, at least in the Netherlands.[4] The threat of climate change and the need to switch to clean energy sources have proven a catalyst of the (by that time already impressive) pile of energy legislation. And Martha did not just monitor these developments, she has always been ahead of developments, put topics on the agenda, initiated debate and started research projects before a proper regulatory framework was being developed. The examples are countless, but to name a few, I refer to Martha's activities in the field of the liberalisation of the energy markets, renewable energy, regulating north sea cables, interconnectors and hubs and very recently: aggregators, energy communities, energy storage and hydrogen.

So, the chair of a professor in energy law is far from comfortable. Despite the pressure that may obviously come with such a challenging position, Martha has always been very kind. She is thoughtful, loyal, has an eye for the human factor and has a good sense of humor – she is renowned for her laughter.

These are a few notes of a more personal nature, but I will not dwell any further here and now like to switch to the more serious content of this contribution – as Martha would – no doubt – expect me to: the future regulatory framework that is to reshape the Dutch heat sector[5]. Thereto, below, I explain how heat as an energy source may play an important role in the Dutch energy transition, how that puts the legislator and the sector for quite a few difficult challenges and how it requires considerable – legislative – innovation.

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2 Martha M. Roggenkamp, 'Regulering van de aardgaswinning in Groningen' (NJB 2015/1247).

3 Martha M. Roggenkamp, *Energieliberalisatie in Nederland* (Intersentia (Lefebvre Sarrut Belgium) 2001).

4 For instance: the "*Wet van 2 juli 1998, houdende regels met betrekking tot de productie, het transport en de levering van elektriciteit (Elektriciteitswet 1998)*" (Electricity Act 1998), the "*Wet van 22 juni 2000, houdende regels omtrent het transport en de levering van gas (Gaswet)*" (Gas Act), and the "*Wet van 31 oktober 2002, houdende regels met betrekking tot het onderzoek naar en het winnen van delfstoffen en met betrekking tot met de mijnbouw verwante activiteiten (Mijnbouwwet)*" (Mining Act).

5 This contribution effects the legal and regulatory situation as per 26 June 2021.

But first, let me explain to you briefly how the heat sector is currently organised and why it may fulfill such a key role in the Dutch energy transition.

2 How the Dutch heat sector is currently organised

European and Dutch rules about metering and invoicing left aside,[6] the regulatory framework structuring the Dutch heat sector is to a large extent concentrated in the Dutch Heat Act.[7] The origins of the Heat Act can be traced back to a private members' bill.[8] Some of the main reasons for the members of parliament concerned to introduce the bill were protecting – dependent – consumers against possible dominance of heat supply companies, fighting excessive heat supply tariffs and unreasonable conditions, as well as increasing transparency in respect of such tariffs.[9] Before its adoption, the Heat Act has been debated for many years in parliament. Once it had been adopted, the then Minister of Economic Affairs, Agriculture and Innovation took the initiative to first have the newly adopted Heat Act amended before having it enter into force.[10] Some years after its entry into force, the Heat Act has again been revised considerably for several reasons, notably to introduce more flexibility into the regulatory framework, as well as to give an impulse to the energy transition.[11]

The Dutch Heat Act's scope currently is – to a considerable extent – limited to the regulation of heat supply to small end users, *i.e.* consumers with a heating grid connection with a capacity of not more than 100 kW.[12] Such end users can either be households

6 EU-Directives on energy end-use efficiency Implementation Act 2011 (*Wet Implementatie EG-richtlijnen energie-efficiëntie 2011*) implementing Directive 2006/32/EC of the European Parliament and of the Council of 5 April 2006 on energy end-use efficiency and energy services and repealing Council Directive 93/76/EEC.

7 *I.e. Warmtewet*; "*Wet van 17 juni 2013, houdende regels omtrent de levering van warmte aan verbruikers*".

8 Legislative Proposal Heat Act (*Voorstel van wet van de leden Ten Hoopen en Samsom tot het stellen van regels omtrent de levering van warmte aan verbruikers (Warmtewet*), Parliamentary documents, file 29048.

9 Explanatory Memorandum to the Legislative Proposal for the Heat Act, parliamentary documents 2002-2003, 29 048, no. 3.

10 Letter of the Minister of Economic Affairs, Agriculture and Innovation (*Brief van de minister van Economische Zaken, Landbouw en Innovatie*), Parliamentary documents, 2010-2011, 32 839, no. 5.

11 Explanatory Memorandum to the Legislative Proposal amending the Heat Act on the grounds of the evaluation thereof (*Memorie van Toelichting*), parliamentary documents, file 34 723 2016-2017, 34 723, no. 3.

12 Heat Act, art. 1.

or companies. The Heat Act *inter alia* stipulates that heat suppliers must apply reasonable terms and conditions towards small end users.[13] Also, the Heat Act provides for the regulation of tariffs in respect of the different aspects of heat supply, such as connection to a heating grid, metering, heat delivery equipment,[14] and actual heat supply.[15] The Dutch Energy Regulator, the Dutch Authority for Consumers and Markets, ACM,[16] is responsible for regulation and supervision of these tariffs.[17] The actual heat supply tariffs are maximum tariffs and any heat supply tariffs in excess thereof are automatically corrected to such maximum.[18]

The Heat Act furthermore forbids heat suppliers to make unjustified distinctions between end users, *i.e.* they may not discriminate.[19] Also a licence – by ACM – is required for heat supply to small end users. Moreover, the Heat Act contains rules to ensure emergency facilities if a heat supplier or producer intends to or must terminate supply or production.[20] Furthermore, the Minister of Economic Affairs may intervene in a heat supplier's activities if necessary.[21]

From case law it follows that the Heat Act covers all types of heat, so not just district heating, but also mid and low temperature heat supply, notably from heat and cold storage systems.[22] In that regard, the Heat Act has a wide scope. Actually, the Heat Act also governs cold supply, albeit to a limited extent, where heat and cold supply are combined for technical reasons, notably in heat and cold storage systems.

A relevant issue which has been heavily debated in the heat sector is whether regulated or negotiated third party access to heating grids should be introduced. So far, the legislator has decided for a system of negotiated third party access.[23] This basically means that heat suppliers and heating grid operators – often the same entity – are required to negotiate with any producer interested in access to their grids. A refusal to grant access must be substantiated. Yet, there is no sanction attached to refusing access following negotiations.

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13 Heat Act, art. 2.
14 *I.e.* 'Afleverset', Heat Act, art. 2(3)(b).
15 Heat Act, art. 5(2)(b).
16 *I.e.* Autoriteit Consument en Markt (ACM).
17 Heat Act, artt. 5 and 15.
18 Heat Act, art. 5(6).
19 Heat Act, art. 2(4).
20 Heat Act, art. 12b.
21 Heat Act, art. 12b.
22 *X a.o. vs ACM and Verantwoord Wonen B.V. h.o.d.n. Vestia Energie* [2016] ECLI:NL:CBB:2016:30.
23 Heat Act, art. 21(1).

The reader probably knows that Dutch Gas Act and Electricity Act 1998 provide for regulated third party access to gas and electricity grids, respectively. Such regulated third party access is consistent with European legislation and case law.[24] A reason given not to introduce regulated third party access to heating grids is that these are of a much smaller scale than gas and electricity grids, simply because heat cannot be carried over the same distances as gas and electricity can. Thereby, from an economical perspective third party access often seems infeasible, even more so, where margins are thin. However, technical developments in the heat sector are going fast and currently heat transmission systems are being developed through which heat can be transported over longer distances. Third party access to such transmission systems – or booking of capacity in such transmission systems by several parties – seems less of an issue. Still, end users tend to want to choose for themselves from which supplier they procure their heat, so that more debate about third party access may well be expected.

3 Why a new regulatory framework is being prepared

Even though the latest major amendment of the Heat Act has resulted in more flexibility in the tariff system with possibility to deviate from certain standardised tariff structures, the system is often considered somewhat rigid. Tariff regulation calls to a certain extent for rigid rules and formats. Yet, the heat sector is much more diverse than, for instance, the gas and electricity sectors. Not only are the heat projects of much smaller scale than gas and electricity grids, the heat sources used to feed these projects are diverse. Whilst district heating traditionally is fed from high temperature heat sources and used for existing building blocks, low temperature heating grids and sources are quite popular for heating newly developed housing. And where high temperature sources are not always sustainable, low temperature sources usually are to a much larger extent.

A wish for more flexibility in the regulatory framework in itself may not justify a new regulatory framework for the heat sector. However, the need to quickly expand and enroll heating projects may. That need may well follow from the energy transition that is also taking much more shape in the Netherlands.

The Netherlands have one of the densest gas distribution systems of Europe and the Dutch energy transition calls for the replacement of gas as a main heating source with more sustainable alternatives. Replacing such a dense and reliable gas infrastructure is quite a challenge and there are various – more sustainable – alternatives, notably biogas,

24 *Citiworks A.G.* [2008] ECLI:EU:C:2008:298 case C-439/06 and *Julius Sabatauskas a.o* [2008] ECLI:EU:C:2008:551 case C-239/07.

hydrogen, all electric and – renewable – heat. Whereas at the time the development of gas grids to connect municipalities and industries all across the Netherlands could more easily be coordinated from a centralised level, the choice for and development of an alternative energy source to replace gas calls for a more decentralised approach. Which energy source is most efficient may vary from district to district and even from street to street. Economics, planning and logistics as well as technical aspects need to be considered. Removal of gas infrastructure and replacement thereof with an alternative may, furthermore, be more complicated for existing building blocks than newly developed ones. Moreover, there is the sociological factor, because the end users' support remains pivotal.

Heat is considered a very important alternative for gas. The current Heat Act, however, is generally considered not effective enough for these challenges and a more detailed regulatory framework seems therefore inevitable. Moreover, the current Heat Act does not provide for a system of regulated third party access for end users, and the other way around, the Heat Act does not require heat suppliers to offer end users connections to their grids, either. In some cases municipalities have tendered concessions for heat projects with additional conditions. Yet, the energy transition from gas to an alternative energy source, calls for a more structured approach, ascertaining end users can switch from connection to a gas grid to connection to a heating grid.

The Dutch Ministry of Economic Affairs and Climate Change[25] is currently preparing the Collective Heat Supply Act.[26] The Collective Heat Supply Act is meant to replace the Heat Act and contains a much more detailed regulatory framework than the latter. The Collective Heat Supply Act would be an important instrument to facilitate the energy transition. Last year, the Ministry has already published the draft bill for consultation, which has resulted in many different opinions from a wide variety of stakeholders and interested parties. Meanwhile, the Minister has announced that he has tried to reconcile certain of these views through amendment of the draft bill.[27] The revised draft bill has not yet been published or introduced to parliament. Since elections for the Dutch Second Chamber of parliament were held in March 2021, introduction of the bill will probably be one of the new government's actions.

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25 Ministerie van Economische Zaken en Klimaat.

26 *I.e.* "*Wet houdende regels omtrent productie, transport en levering van warmte (Wet collectieve warmtevoorziening)*".

27 Letter of the Minister of Economic Affairs of 14 December 2020 (*Kamerbrief over resultaten internetconsultatie Wet Collectieve warmtevoorziening*).

4 Some elements of the Collective Heat Supply Act

The Collective Heat Supply Act *inter alia* aims at ensuring reliable, sustainable heating against reasonable tariffs and conditions. Therefore, municipalities are left with a lot of initiative. Since the choice for a good alternative for gas supply is a rather local affair, the municipalities are to determine 'heat plots'[28] in consultation with neighbouring municipalities and – where appropriate – taking into account directions from provincial authorities. For each heat plot, a municipality will select a 'heating company'[29] through a transparent and nondiscriminatory procedure, likely by means of a type of public procurement. For such a heat plot the heating company is required to develop and operate a collective heating system for a period of twenty to thirty years.

The heating company will be responsible for the entire heating chain, from production to transportation and supply, albeit that it may – for instance – procure heat from a third party.

As a general rule, the heating company will have to connect all buildings located or erected within the boundaries of the heat plot. There are certain exceptions to this rule and end users also have a right to opt-out and connect to an alternative.[30]

Development and operation of collective heating systems are closely monitored by the municipality and ACM, notably with a view to security of supply and costs.[31] Also, ACM will supervise the implementation of the Collective Heat Supply Act and determine tariffs for the various aspects of heat supply.[32] The tariff system still needs to be developed, but it is meant to be a lot more detailed than the current system. Also, the tariff system would allow ACM to opt for another reference fuel than gas to calculate tariffs.

Furthermore, the Collective Heat Supply Act would contain rules on metering, the role of lessors and owners' associations, as well as heat transmission grids.[33] Also, the Collective Heat Supply Act would introduce more flexibility, by allowing for exemptions from the general regulatory framework applicable to heating companies for smaller heating projects.[34] Beyond this, worthwhile mentioning is that the Collective Heat Supply Act would not contain further reaching rules on negotiated third party access to collective heating systems than the current Heat Act does.[35]

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28 *I.e.* '*Warmtekavels*', Collective Heat Supply Act, Artt. 1 and 2.1.
29 *I.e.* '*Warmtebedrijf*', Collective Heat Supply Act, Artt. 1 and 2.3.
30 Collective Heat Supply Act, Art. 2.8 jo. 2.29.
31 Collective Heat Supply Act, notably Chapter 2.
32 Collective Heat Supply Act, Chapters 7 and 9.
33 Collective Heat Supply Act, Artt. 2.24 et seq., 4.1 – 4.6 and 5.1 – 5.19.
34 Collective Heat Supply Act, Artt. 3.1 – 3.4.
35 Collective Heat Supply Act, Art. 2.27.

Like the current Heat Act, the Collective Heat Supply Act would apply to all different types of heat and – thus – has a broad scope.[36] It actually has an even broader scope as it would also extend to heat supply to large customers. Since one of the Collective Heat Supply Act's main objectives would be facilitating the energy transition, it also provides for a 'CO_2 ladder', according to which the percentage heat that a heating company would need to procure from renewable sources would increase annually.[37]

These are just a few elements of this very interesting and important legislation in development. Given the limitations set for this contribution, I will not elaborate on other interesting elements.

5 How does the Collective Heat Supply Act regulate existing heating projects?

The Collective Heat Supply Act would also provide for a transitional regime. Basically, this would entail that current heating projects will be considered as heat plots and the heating companies operating these will be allowed to continue doing so for the remaining duration of the project with a maximum of thirty years. However, the Collective Heat Supply Act would then apply to such projects, so that an obligation to connect end users within the boundaries of its transitory heat plot may apply, even if the heating company would currently not have such an obligation. Also, the new tariff system would then likely apply.

Such a transitional regime may give rise to discussion, because in practice it may be complicated to determine the boundaries of a heating plot. And discussions about such boundaries are far from theoretical, because municipalities are to a considerable extent responsible for realising our 2030 climate goals. Many municipalities feel they cannot await adoption of the Collective Heat Supply Act and have already developed or are developing heating projects of increasing scale. Upon adoption thereof, these projects will have to be fit within the regulatory framework of the Collective Heat Supply Act, and these different projects may then also coincide with the heat plots the municipalities would then have to establish. This may prove to be a complicated jigsaw puzzle to solve.

36 Explanatory Memorandum to the Collective Heat Supply Act (*Memorie van Toelichting Wet collectieve warmtevoorziening*).

37 Collective Heat Supply Act, Art. 2.16.

6 Conclusion

As follows from the foregoing, the heat transition is likely to affect the field of energy law, as the sector may face considerable restructuring. This inevitably will lead to many legal issues and questions. No doubt, a professor in energy law can play an important role in solving these.

Martha is unique, yet someone will have to succeed her as professor of Energy Law at Groningen University. No doubt, Martha's successor will set different accents and focus on different topics. In this, he or she can build on Martha's achievements and I wish he or she will – like Martha – remain innovative in researching and expanding this field of law. In particular, I hope he or she will give the heating sector the attention it deserves.

ALS JURISTEN MET TECHNISCHE BEGRIPPEN GAAN ROMMELEN

Fokke Elskamp[1]

Samenvatting

Aan het eind van de vorige eeuw is, ingegeven door het Europese streven naar liberalisering van de energiemarkten, een tendens ingezet om technische normen bij of krachtens wettelijke grondslag te regelen. Deze juridisering van technische normering van het beheer van elektriciteitsnetten blijkt onbedoelde gevolgen te hebben. Er gebeuren ongelukken wanneer juristen bij de interpretatie ervan zich niet gehinderd weten door een wezenlijk begrip van de werking van het elektriciteitstransmissiesysteem en ondernemersopportunisme ruim baan geeft. In deze bijdrage worden twee nogal desastreuze gevallen behandeld waarbij een foute technische onderbouwing heeft geleid tot ontwijking van enkele voorname principes van energieregulering.

1 Mr. F. Elskamp, werkzaam als adviseur Europese regulering bij TenneT TSO B.V., de landelijk netbeheerder voor elektriciteit, en voorzitter van de Legal & Regulatory Group van ENTSO-E (*European Network of Transmission System Operators for Electricity*). Ik ben verbonden als vaste medewerker bij het Nederlands Tijdschrift voor Energierecht (NTE) en voormalig penningmeester in het bestuur van NEVER, de Nederlandse Vereniging voor Energierecht. Verder ben ik veelvuldig door Martha betrokken als gastdocent bij Energierecht op Locatie (EoL) van het Groningen Centre of Energy Law and Sustainability (University of Groningen), maar ook bij verscheidene NWO-programma's en de organisatie van het European Energy Law Seminar.

1 Inleiding

Het moet een jaar of vijftien geleden zijn geweest dat ik van de redactie de eervolle uitnodiging kreeg om vaste medewerker van het Nederlands Tijdschrift voor Energierecht te worden, met als enige verplichting om eens per jaar een artikel voor het blad te publiceren of een auteur te begeleiden bij diens publicatie. Ten behoeve van een 'Special: Winterpakket' werd ik in 2017 door Martha gevraagd om een artikel te schrijven over het 'Pakket Schone Energie voor alle Europeanen', dat destijds nog het '*Winter Package*' werd genoemd, maar al gauw beter bekend werd als '*Clean Energy Package*' ('CEP'). Mijn eerste concept voor het stuk was eerder journalistiek dan juridisch opgezet. Ik vond het CEP meer politiek-beleidsgericht dan diepgaand juridisch, en het leek mij goed om de toon van het artikel daarop af te stemmen. Dit was een misrekening. De begeleidend redacteur van dienst was namelijk Martha zelf, die mij na een eerste lezing enigszins verontrust opbelde om te informeren hoe zij het concept nu moest begrijpen. Het leek haar 'nogal uit de losse pols opgeschreven'. Het eind van het liedje was uiteraard dat ik opnieuw aan de slag kon. Het artikel is er gekomen, eerlijk gezegd niet mijn *most accomplished piece*…[2] Maar nu ligt er dan een uitnodiging om bij te dragen aan een afscheidsbundel en dat is andere koek.[3] Laat ik daarom van de gelegenheid gebruik maken om een stuk te schrijven dat onder de vleugels van Martha het blad zeker niet gehaald zou hebben.[4] Het zit mij namelijk al langer dwars dat juristen zich in de duistere krochten van rechterlijke en ambtelijke molens vergrijpen aan technische argumenten om de lasten van het energietransport af te wentelen op de kleine tariefbetaler. Hierna zal ik in paragraaf 2 eerst uitleggen wat de juridische oorsprong is van de technische normering waar juristen geregeld aan voorbij gaan. In paragraaf 3 ga ik in op de Nederlandse tariefzaken waarin een al te letterlijke rechterlijke beschouwing van bepaalde aansluitconfiguraties een rechtvaardige toerekening van kosten van systeembeheer heeft ondermijnd.

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2 F. Elskamp en G.W. Rodenhuis, 'De toekomst van transmissie- en distributiesysteembeheerders in de nieuwe Elektriciteitsverordening – een 'New deal'?', *NTE* 2018, nr. 1/2. Met deze uitspraak doe ik onrecht aan de inspanningen van co-auteur George Rodenhuis; hij kon het ook niet helpen dat de redactie uiteindelijk besloot dat onze bijdragen, de mijne over transmissie- en de zijne over distributiesysteembeheerders, gecombineerd zouden worden.

3 Deze uitdrukking herinnert mij met name aan het vaste geschenk als dank voor het verzorgen van een presentatie voor GCELS. Niet alleen werd de originele Grunninger kouk thuis zeer gewaardeerd, verheugend was ook dat het geschenk overeenkomstig de integriteitsregels van mijn werkgever persoonlijk aanvaard mocht worden. Volgens de *compliance officer* vertegenwoordigde de koek "immers geen monetaire waarde" (sic!), in tegenstelling tot bijvoorbeeld een fles wijn.

4 Al was het maar omdat het niet *bon ton* is om over eigen zaken te publiceren.

Vervolgens geef ik in paragraaf 4 nog een – ditmaal politiek ingegeven – voorbeeld van het voorbijgaan aan de technische werkelijkheid om bepaalde partijen te bevoordelen.

2 Grondslagen van technische normering voor de elektriciteitssector

Het Nederlandse energierecht staat sinds een jaar of twintig niet langer op zichzelf. Door de doorwerking van het Europese recht in het Nederlandse energierecht worden de principes van tariefregulering, waaronder de kernbepaling dat gebruikers van het elektriciteitsnet op een niet-discriminerende wijze zullen bijdragen aan de kosten van het gebruik van het net, die moeten zijn gereflecteerd in gereguleerde tarieven, bepaald door Europese wetten. Rechterlijke interpretatie van de begrippen in de Elektriciteitswet 1998 en van de werking van het (tarief)systeem voor elektriciteit moet consistent zijn met (de doelen van) de Europese wetten en daar heeft het in het verleden nogal eens aan ontbroken. Het hierboven genoemde CEP is het vierde pakket van wetswijzigingen van de Europese Unie met betrekking tot de interne energiemarkt. Voor de Europese transmissiesysteembeheerders, waar mijn werkgever TenneT deel van uitmaakt, heeft daarvan met name Verordening (EU) 2019/943 betreffende de interne markt voor elektriciteit, belangrijke gevolgen. Deze verordening wijzigt namelijk de wijze van totstandkoming van Europese netwerk codes en richtsnoeren voor elektriciteit en het wijzigen daarvan. De basis voor de Europese netwerkcodes was tien jaar eerder gelegd in Verordening (EG) 714/2009, de tweede elektriciteitsverordening. Deze 'Europese codes' zijn zelf verordeningen en hebben daarmee directe werking in de lidstaten van de EU.[5] De directe toepasbaarheid van de Europese codes, die heel algemeen gezegd verplichtingen opleggen aan transmissiesysteembeheerders en eisen stellen aan op het elektriciteitsnet aangesloten partijen (distributiesysteembeheerders, interconnectoren, producenten en afnemers), alsmede marktbeheerders en marktdeelnemers, is echter beperkt. De gedetailleerde uitwerking van de netwerkcodes en de totstandkoming van de voorwaarden of methodologieën, die geïmplementeerd moeten worden in de nationale rechtsstelsels, hebben veel tijd gevergd en is nog altijd niet afgerond.[6] Intussen werd het CEP van kracht, waardoor het speelveld onder de voeten van de spelers nogmaals veranderde.

5 Het Verdrag van Lissabon (ingevoerd op 1 december 2009) merkt netwerkcodes aan als gedelegeerde handelingen in de zin van Artikel 290 VWEU, en richtsnoeren als gedelegeerde handelingen dan wel uitvoeringshandelingen in de zin van Artikel 291 VWEU.

6 In Nederland hoofdzakelijk in de zogenaamde 'technische codes', met name de Netcode elektriciteit.

Nu zijn schuivende panelen terwijl sectornormering wordt uitgewerkt niets nieuws. Eind jaren '90 begon in Europa de juridisering van technische eisen al. Op instigatie van de Nederlandse wetgever, die daarvoor een basis creëerde in de Elektriciteitswet 1998, is begonnen met het opnemen van juridisch afdwingbare aansluiteisen in de zogenaamde 'technische codes'. Toen in de eerste helft van het vorige decennium de Europese marktcodes werden ontwikkeld, bleek dat het onmogelijk was om de beoogde normen in al hun gedetailleerde veelomvattendheid op het niveau van een gedelegeerde handeling vast te spijkeren. Tot onvrede van de Europese Commissie stelden de transmissiesysteembeheerders daarom voor om nog een extra delegatieslag aan te brengen door op basis van de betreffende code nadere voorwaarden of methodologieën[7] vast te stellen. De Commissie accepteerde dit weliswaar, maar paste vervolgens een juridische truc toe: de marktcodes zouden voortaan niet op de grondslag van artikel 8 van de toenmalige Elektriciteitsverordening worden vastgesteld, maar als richtsnoeren op basis van artikel 18.[8]

Zo verkreeg ACER de macht om zelf voorwaarden en methodologieën bij besluit vast te stellen, waarmee wezenlijke elementen aan het reguleringsregime van de richtsnoeren konden worden toegevoegd. De technische randvoorwaarden waaronder het elektriciteitssysteem moet functioneren worden dus door de Europese Commissie bepaald en door middel van verordeningen met directe werking opgelegd aan de netbeheerders, netgebruikers en marktpartijen in de lidstaten. Kenmerkend daarbij is dat netbeheerders slechts niet-marktconform mogen ingrijpen – dat wil zeggen: technische maatregelen die de marktwerking opzij zetten nemen om het net overeind te houden als het mis gaat – wanneer de leveringszekerheid in gevaar komt, oftewel wanneer het erg waarschijnlijk wordt dat het licht in Europa daadwerkelijk uitgaat. Kostenbeheersing speelt daar in principe geen rol bij. Anders dan bij de dagelijkse operationele bedrijfsvoering, mogen transmissiesysteembeheerders bij het nemen van remediërende maatregelen voor de markt geen afwegingen van kostenefficiëntie maken, met andere woorden: niet afwegen wat de goedkoopste oplossing is om de werking van de markt te herstellen.

7 Het gebruik van het woord 'methodologie' in het Nederlands berust mijns inziens op een vertaalfout uit het Engels, er is 'methode' bedoeld.

8 Dit zijn de richtsnoeren betreffende capaciteitstoewijzing op de langere termijn (GL FCA), capaciteitstoewijzing en congestiebeheer (GL CACM) en elektriciteitsbalancering (GL EB).

3 Juristen gaan de fout in: de Nederlandse tariefzaken

Wat betreft het primaat van de netbeheerders voor technische normoplegging waren inmiddels ook in Nederland de bordjes verhangen. In 2010 was er de rechter die de weg plaveide voor een lange trits disputen over systeemdiensten- en transporttarieven. Niet langer bepaalden de netbeheerders wat een aansluiting was en wie de tarieven voor het transport dienen op te hoesten. Dat begon allemaal met een nogal eigengereide, rechterlijke interpretatie van de technische definitie van een 'aansluiting' in de zogenoemde Dobbestroom-zaak.[9]

De kern van de zaak was dat een particuliere netbeheerder een geschil had over de vraag of hij als afnemer dan wel de netbeheerder verantwoordelijk was voor de transformator in zijn aansluiting.[10] Na de nodige plichtplegingen bij de Nederlandse Mededingingsautoriteit kwam de zaak voor bij het College van Beroep voor het bedrijfsleven (CBb). Er leek geen vuiltje aan de lucht totdat het College in zijn uitspraak met een juridische analyse kwam van de onderhavige technische configuratie in het licht van de wettelijke definitie van 'aansluiting'. Het College had begrepen dat zich in de aansluiting een stukje middenspanningsnet bevond dat een verbinding vormde met het particuliere net dat ook middenspanning had. Daaruit trok het college echter – volkomen onverwacht voor beide partijen in het geding – de conclusie dat hier sprake was van een aansluiting van net met een ander net van gelijk spanningsniveau. Deze gevallen waren namelijk uitgezonderd in de begripsbepaling.[11] Hierdoor was er geen sprake van een aansluiting in de zin van de wet en kon het wettelijke transporttarief dan ook niet in rekening worden gebracht.[12] De lezing van het CBb veroorzaakte een schok bij de Minister van Economische Zaken, of in ieder geval bij diens juristen. Naar aanleiding van de uitspraak van 30 december 2010 werd er een wetswijziging in gang gezet om de definitie

9 CBb 30 december 2010, ECLI:NL:CBB:2010:BP1763 en CBb 1 februari 2012, ECLI:NL:CBB:2012:BV3169.

10 Eigenlijk was de inzet van geschil te bepalen waar in dit geval het netaansluitpunt lag.

11 De Elektriciteitswet 1998 bevatte destijds de volgende begripsbepalingen:
Art. 1 lid 1, onderdeel b. aansluiting: één of meer verbindingen tussen een net en een onroerende zaak (…), dan wel tussen een net en een ander net op een ander spanningsniveau;
Art. 1 lid 1, onderdeel c. afnemer: een ieder die beschikt over een aansluiting op een net.

12 Het tweede lid van zowel art. 29 (transporttarieven) als destijds art. 30 (systeemdienstentarief) luidt namelijk: "Het tarief, (…), wordt in rekening gebracht bij iedere afnemer die elektriciteit verbruikt en een aansluiting heeft op een net dat wordt beheerd door een netbeheerder. (…)."

van 'aansluiting' in de Elektriciteitswet 1998 zodanig te 'verduidelijken' dat de tarieven ook bij indirect aangeslotenen geïnd konden blijven worden.[13]

In hetzelfde jaar werd bij het CBb een zaak aangebracht over de verschuldigdheid van het systeemdienstentarief, de zogenoemde Dow-zaak.[14] Met ijzeren consistentie oordeelde het college in deze zaak dat er met de Wijzigingswet van 2 december 2010[15] die de zinsnede van artikel 30 lid 2, 'een net dat wordt beheerd door een netbeheerder' wijzigde in: 'het landelijk hoogspanningsnet of een net dat direct of indirect in verbinding staat met dat net', geen sprake was van een verduidelijking, maar van een uitbreiding van de kring van afnemers aan wie een systeemdienstenvergoeding in rekening wordt gebracht. De voordien geldende bepaling bood voor de inning van dit tarief bij indirect aangeslotenen geen grondslag. Deze uitspraak noopte TenneT om in het verleden betaalde systeemdienstentarieven te restitueren aan afnemers met een particulier net. Dit betrof de periode januari 2000 tot 1 juli 2011 en het totale bedrag werd geschat op maximaal 290 miljoen euro.

Voor deskundigen met elektro(systeem)-technische achtergrond bevatten de uitspraken van het CBb nogal verbijsterende conclusies. Ten eerste raakte de juridische uitleg technisch gezien kant noch wal. Iedere elektrotechnicus had juristen kunnen uitleggen dat alle aansluitingen zo in elkaar zitten omdat verschillende spanningsniveaus nu eenmaal niet direct op elkaar aangesloten kunnen worden. Kennelijk had het College zich onvoldoende laten informeren.[16] Ten tweede werden de kosten voor het verrichten van systeemdiensten op goede gronden eenvormig en zonder uitzondering bij alle aangeslotenen op alle netten in rekening gebracht: iedereen betaalde precies dezelfde opslag per kilowattuur.[17] De reden daarvoor is dat de systeemdienst hoofdzakelijk de kosten voor de landelijk netbeheerder voor het leveren van een stabiele frequentie van exact 50 Hz reflecteert, dat zich manifesteert bij alle aangeslotenen. Niet met het net verbonden installaties moeten zelf zorgdragen voor hun eigen frequentiehuishouding, anders

13 De wijziging werd opgenomen in het voorstel voor de Wet van 18 december 2013 tot wijziging van de Elektriciteitswet 1998, de Gaswet en de Warmtewet (wijzigingen samenhangend met het energierapport 2011), *Stb*. 2013, 573. Zie voor de motivering van de minister §2.5 van de memorie van toelichting, *Kamerstukken II* 2012/13, 33493, 3.

14 CBb 23 juli 2012, ECLI:NL:CBB:2012:BX4127.

15 *Stb.* 2010, 810, in werking getreden op 1 juli 2011. In wezen loste deze wetswijziging het probleem van de minister al op doordat het CBb in de Dow-zaak aannam dat de kring van afnemers met de inwerkingtreding van de wijziging van artikel 29 en 30 werd uitgebreid ten aanzien van indirect aangeslotenen.

16 In ieder geval was de partijen tijdens het geding hierover niets gevraagd.

17 Tegenwoordig zijn de kosten voor het verrichten van systeemdiensten inbegrepen in de transporttariefstructuur, dat was destijds niet het geval.

werken die niet. Deze particuliere netten hadden nooit bedreven kunnen worden als zij niet met het openbare net verbonden waren geweest. Door de fysieke verbinding met het openbare net nam de aangeslotene feitelijk dus al die tijd al systeem- en transportdiensten af, of de wet dat nu bepaalde of niet. Nu trapte het CBb in de val van een woordelijke uitleg van de wet, waardoor de realiteit op zijn kop is gezet. Met het woord 'aansluiting' in de artikelen 29 en 30 werd niet het gedefinieerde begrip bedoeld dat door een andere jurist was verzonnen, maar gewoon een feitelijke elektrische verbinding.

Het CBb heeft in een beroep tegen een opvolgend besluit jegens Dobbestroom en bij Dow een betoog over de Europeesrechtelijke grondbeginselen opzij gezet en gepersisteerd in zijn opvatting dat hier volgens de letterlijke uitleg van de definitie geen sprake was van aansluitingen in de zin van de wet. Naar mijn mening is het College daarbij vooral voorbij gegaan aan het profijtbeginsel en het kostenveroorzakingsbeginsel, waarvan de verplichte toepassing reeds in het Europese recht verankerd was. Door de technische realiteit te verwarren met de bedoelingen van de wetgever heeft het College tariefontwijking een kans gegeven. Alle gelijke gevallen konden nu een beroep doen op teruggave van het systeemdienstentarief. Uiteraard, zoals dat Hollandse ondernemers betaamt, hebben zij dat ook volop gedaan.

Deze gevallen illustreren waar een mechanische toepassing van het energierecht toe leidt: niet alleen is de uitkomst van deze procedures ongerechtvaardigd omdat *free riding* aanvaard werd, maar ook de rechtszekerheid is er niet mee gediend. Tariefdervingen van netbeheerders worden gesocialiseerd, als gevolg van de uitspraken is de samenleving opgedraaid voor een herverdeling, waar slechts een klein aantal grote bedrijven van heeft geprofiteerd. Cynisch genoeg is er macro-economisch geen enkel probleem, er vond immers alleen een welvaartsverschuiving plaats van consumenten- naar producentensurplus, en de energierekening steeg slechts tijdelijk met centen.

4 Juristen gaan nogmaals de fout in: volumecorrectie voor grootverbruikers

Voor de politiek was het in paragraaf 3 besproken grootverbruikersdouceurtje ten laste van de eindafnemers nog niet genoeg. Begin van deze eeuw was een Groningse aluminiumsmelter voortdurend in financiële last, uiteraard niet door eigen schuld maar door de hoge energieprijzen in Nederland, en daar moest een politieke oplossing voor komen. Omdat de regering dankzij de Europese energiewetgeving de energieprijzen niet langer kon reguleren, moest de oplossing komen van netbeheerders. De zaak werd als volgt geframed: het bedrijf kon de internationale concurrentie niet meer aan omdat de Nederlandse transporttarieven zo hoog waren. Op het departement greep men vervolgens naar een systeemtechnische rechtvaardiging: grootverbruikers zouden door hun constante grote afname bijdragen aan de stabiliteit van het elektriciteitssysteem zonder daarvoor

beloond te worden via de transporttarieven.[18] In de Elektriciteitswet 1998 werd de volumecorrectie ingevoegd waarbij het voordeel afhankelijk is van de bedrijfstijd: hoe vlakker de afname, hoe hoger de korting. De korting loopt op tot 90%.[19] Deze argumentatie is echter verdacht: technisch gesproken zijn het namelijk niet de verbruikers die het net door hun wijze van stroomafname stabiliseren, maar producenten door de wijze waarop zij stroom invoeden. Grote afnemers kunnen wel bijdragen aan de systeemstabiliteit, maar zij doen dat door bijvoorbeeld hun installatie op en af te regelen op basis van een contract met de landelijk netbeheerder. Wederom ontstonden vele miljoenen aan gederfde transporttariefinkomsten, die vervolgens moeten worden opgebracht door alle andere netgebruikers. Het is namelijk een fictie dat vlakke afname netbeheerders een kostenbesparing oplevert, hierdoor wordt geen cent minder uitgegeven aan inkoop van energie en vermogen voor balancering van het elektriciteitssysteem. Als een transporttarief per kWh nu werkelijk onevenredig bezwarend zou zijn voor de allergrootste verbruikers, dan had de minister de tariefstructuren kunnen herzien en een andere kostenverdelingsmethode toe moeten passen.

Onderzocht is nog of de volumecorrectieregeling door de beugel van staatssteun kan, maar op dat vlak valt juridisch niet veel te halen.[20] Enige hoop voor (terugdraaiing in) de toekomst kan misschien nog worden geput uit de Conclusie van A-G Pitruzzella. In een recente inbreukprocedure betoogt de A-G dat de toekenning door een lidstaat van de bevoegdheid om doorslaggevende elementen voor de berekening van netbeheerderstarieven vast te stellen aan een andere instantie dan de nationale regulerende instantie, neerkomt op niet-nakoming.[21] Al springt de volumecorrectie dan wellicht door het hoepeltje van de staatssteuntoets, het vormt mogelijk een inbreuk op de elektriciteitsrichtlijn indien de korting niet aan de Autoriteit Consument en Markt wordt overgelaten. Misschien komt de juridische nekslag ervan ooit nog eens uit Europa.

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18 De memorie van toelichting verwoordt het zo: '*Het gebruiksprofiel van afnemers met een hoog aantal bedrijfsuren en een relatief groot verbruik biedt het elektriciteitsnet voordelen die thans niet worden meegenomen in de tarieven.*' (*Kamerstukken II* 2013/14, 33777, 3, p. 2).

19 Zie art. 29 lid 7 t/m 11 Elektriciteitswet 1998, ingevoegd bij Wet van 18 december 2013 tot wijziging van de Elektriciteitswet 1998 (volumecorrectie nettarieven voor de energie-intensieve industrie), *Stb.* 2013, 575.

20 P. van Asperen, 'Risico's op staatssteun in de Elektriciteitswet 1998', *NTE* 2017, nr. 5.

21 Zaak C-718/18 *Europese Commissie tegen Bondsrepubliek Duitsland*, Conclusie van A-G Pitruzzella, nr. 124.

5 Conclusie

Juridische ongelukken kunnen en zullen uiteraard gebeuren, maar naar mijn mening is schrijnend dat de afgelopen regeringen – met ongetwijfeld onbedoelde hulp van rechters – hebben gekozen voor het uit de wind houden van de grootste kostenveroorzakers in de Nederlandse energiehuishouding en daarbij ten onrechte technische argumenten hebben gebruikt. Door financieel ingegeven doelredeneringen wordt de werkelijkheid van de werking van het elektriciteitssysteem geweld aangedaan. De enorme uitdaging van de energietransitie voor de deur vraagt om zorgvuldige afweging van inzet van alle beschikbare middelen. Daarbij moet ook de lastenverdeling eerlijk zijn om het draagvlak ervoor te krijgen en te behouden. Opportunistisch economisch beleid heeft echter jammerlijke gevolgen voor de leveringszekerheid. De volumecorrectie ontmoedigt namelijk de grootste verbruikers om de vraag aan te passen op het aanbod. Starre afnames worden beloond, terwijl het aandeel duurzame en niet-regelbare opwek, dat schreeuwt om verbruikersflexibiliteit,[22] zeer sterk groeit. Niet alleen de volumecorrectie, maar vooral ook het feit dat aan de producentenzijde geen transporttarief wordt betaald voor het gebruik van het net heeft een vergaande verstorende werking. Verbruikers zullen de transportkosten zien blijven stijgen en vraagrespons komt niet van de grond als de tariefstructuren niet gewijzigd worden. Zoals het nu geregeld is, leidt immers ieder tandje dat een afnemer erbij zet tot een hogere transportnota.[23]

De slotsom is wat mij betreft dat juristen die zich een weg banen in de nogal (systeem) technisch gefundeerde niche van het energierecht, een multidisciplinaire affiniteit moeten hebben en het oog moeten houden op de reguleringsdoelstellingen. Misschien moeten we wel helemaal niet verlangen dat rechters en wetgevingsjuristen die affiniteit zelf hebben, maar voldoende juridisch specialisten opleiden die hen daarin kunnen bijstaan. Martha was daar een meester in. Martha gaat helaas, maar haar instituut en haar opvolgers zullen hopelijk nieuwe cohorten energierecht-juristen in die traditie opvoeden. Ik hoop dat ik daar een klein steentje aan heb bijgedragen.

22 Met flexibiliteit wordt bedoeld de mogelijkheid om het elektrische verbruik of de productie van een installatie of proces bij te regelen, bijvoorbeeld als respons op een prijssignaal, de netfrequentie, of een activeringssignaal van de netbeheerder.

23 Zie: Sjak Lomme, 'Trilemma: De lessen van "Coal meets Industry"', *Energeia* (6 juli 2020).

REGULATION OF NORWEGIAN RENEWABLE ENERGY FOR ELECTRIFICATION IN THE ENERGY CONVERSION

Per Håkon Høisveen[1]

Abstract

The energy conversion is dependent on a substantial and updated national legal regulation. The regulation of renewable energy development in Norway is reviewed to see whether this regulation is adequate for the further electrification in accordance with Norwegian commitments and measures. The regulation for further development of hydro power resources is considered to be adequate. For onshore wind power the proposals for regulation amendments can legally be described as suitable for further development. It remains to be seen, however, whether the proposed amendments are sufficient due to the subsistent wind power resistance in society. For offshore wind power the present and proposed regulation in Norway so far can be considered as a sufficient starting-point for developments in the next years to come. The final evaluation has to await the decisions for the national regulation of offshore wind.

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1 Introduction

Based on Martha's connection to Norway by family and by speaking Norwegian fluently, her contact for years with the Scandinavian Institute of Maritime Law and with Norwegian energy lawyers, I will assert that Martha's connection to Norway is quite unique.

I met Martha over 30 years ago at a Leiden seminar, and afterwards I took part in most of the European Energy Law seminars convincingly organized each year by Martha in cooperation with the Scandinavian Institute of Maritime Law.

On Martha's request as main editor of the three editions of "Energy Law in Europe", and under her distinct and strict guidance, I each time prepared the chapters about the Norwegian regulation of the renewable energy sector. Martha was leading the Stakeholders Advisory Group concerning a research project for the development of offshore infrastructure for transmission of electricity from North Sea wind power installations established 10 years ago. I joined the Group as the Norwegian representative, and took part in the meetings in Brussels and Amsterdam.

Groningen, Amsterdam, Leiden and Oslo have been centers for our frequent contact professionally and socially for years.

As a background for reviewing the regulation of renewable energy development in Norway, it helps to understand that 90 percent of the Norwegian electricity production in 2021 was based on hydro, and 10 per cent on onshore wind. 75 per cent of the hydro power capacity is linked to reservoirs. Renewable energy accounts for more than half of Norwegian energy consumption.

Further electrification is necessary to meet Norwegian international commitments and national measures for reduction of CO_2 emissions and for carbon neutrality within 2050. Electrification has to come from development of hydro and wind onshore and offshore. Further development of renewables is dependent on sufficient transmission installations to meet the demands.

As part of the energy conversion and the change to an increase of green industry in Norway, several projects are under planning, comprising production of green hydrogen, batteries and Carbon Capture Storage (CCS). Green hydrogen can be stored, is free from emissions and can replace petroleum as fuel in transport. Realization of such projects will increase consumption of electricity and the need for further electricity production and transmission installations.

Interconnectors from Norway to the neighbouring countries utilize the flexibility from hydro and wind power. In 2021 total capacity from interconnectors between Norway and other countries is 8600 MW compared to 5300 MW in 2010. Exchange of power contributes to optimizing the European Energy market with reference to the three first energy packages so far entered into under the EEA Agreement.

2 Regulatory challenges for further development of renewables

Development of Norway's hydro-, onshore and -offshore wind resources and new transmission installations and interconnectors are disputed. Due to environment, landscape and biodiversity an increase of hydro production mainly has to be restricted to refurbishing and upgrading of existing hydro power plants along with development of smaller run of river installations.

Development of onshore wind power and transmissions installations meet increased resistance mainly for environmental and landscape reasons from affected municipalities and the people and other industry in the areas in addition to organizations representing different interests. The Sami reindeer breeding activities can be incompatible with onshore wind power projects. Sami livelihood has additional protection due to international law.

Offshore wind is disputed mainly for the reasons of subsea environment and bird passages along with resistance from fisheries and coastal transportation. An additional complication is the very high costs attached to installation of floating wind and the installations for transport of electricity from the production facilities to the consumers.

The ongoing energy conversion is dependent on a substantial and updated legal regulation. The regulation must be reviewed to see whether adjustments have to be carried out to meet the demands and challenges of further electrification.

3 Regulation of hydro power

The acquisition of rights of waterfalls for development of hydropower require a concession pursuant to the Act of Waterfall Rights[2]. In addition, the owner of a waterfall has to apply for a concession pursuant to the Watercourse Regulation Act[3] regulating the watercourses, the location of dams for storage of water and the electricity generating units.

In addition, a concession is often necessary in accordance with the Water Resources Act[4] applying to all sorts of exploitation of watercourses. A concession is needed if the output of the waterfalls is below the concession limit for acquisition of waterfalls, and the development is based on a run of river hydropower plant without watercourse regulation of any sort and consequently falling outside the scope of the two other above mentioned acts.

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2 The Act for Waterfall Rights of 14 December 1917 Nr. 16 paragraph 5

3 The Watercourse Regulation Act of 14 December 1917 Nr. 17 paragraph 5

4 The Water Resources Act of 24 November 2000 Nr. 82 paragraph 8

The development of hydro power plants as well as the necessary electrical installations are subject to an environmental impact assessment in accordance with the Planning and Building Act[5] and regulations for such assessments.

A concession for hydro power developments can only be granted if the benefits to the society totally are deemed to outweigh the harm or inconvenience to the public and private interests. This has been the legal evaluation theme for over 60 years. The environmental consequences for landscape and biodiversity are essential in the evaluation made by the authorities. All concessions have a set of obligatory conditions for the benefit of nature and the environment. Such conditions are for instance settled due to the landscape, flora, fauna and river fishing. Regulatory measures are also settled for maintaining a specific water level in the reservoirs during the year. Specific conditions for environmental reasons can be subject to a revision after 30 years. Along with other measures such as amendments of the concessions, the revisions comply with the provisions in the EU Water Framework Directive entered into the EEA Agreement.

Regulatory provisions are also set in the concessions to benefit the municipalities where the hydro installations are situated. Such provisions secure compensation both for the area damages and a share of the economic outcome based on concessions fees as well as a right to buy a specific part of the production for production costs.

The Act for Waterfall Rights, the Watercourse Regulation Act and the Water Resources Act had to be revised and amended in 2017 to meet demands from affected municipalities, industry and environmental and local organizations when it comes to future hydropower developments.

A simplification and updating of these two acts from 1917 took place along with a simplification of legal language and structure in the acts. These alterations made the acts more approachable for the local and regional administrations, organizations, landowners and others in the affected area using the acts. At the same time a coordination and simplification took place for all the three acts mentioned above.

The case procedure provisions were simplified and updated. The provisions for concession conditions, standard criteria and mitigation measures were clarified and updated. The legal basis for administrative practice concerning nature management provisions and orders were improved.

The provisions concerning control and sanctions were improved. Orders for coercion fines, corrections and withdrawal of concessions are now based directly in the acts, and not in each concession. The provision for punishment was far more specified.

To conclude, the revisions and amendments of the water resources acts were based on the challenges connected to further hydro power development. The present regulation

5 The Planning and Building Act of 27 June 2008 Nr. 71 Chapter 14

has to be considered as forward looking and sufficient to meet the demands for future development of the hydropower mainly restricted to upgrading and refurbishing of existing hydro power installations. Licensing of new installations in watercourses without existing hydro power installations are strictly limited due to the comprehensive Norwegian Hydropower Protection Plan.

4 Regulation of onshore wind power

Onshore wind power development is regulated by the Energy Act[6]. Installations for the production of electricity may not be built, owned or operated without a license.

Onshore wind installations are subject to an environmental impact assessment in accordance with the act and regulations for such assessments.

An onshore wind power development license is based on the benefits exceeding the drawbacks in total for the public and private interests. The environmental consequences for landscape, biodiversity and cultural heritage are essential in the evaluation made by the authorities along with the consequences for local interests and nearby industry interest.

According to the Energy Act a license is issued for a limited period of up to 30 years, but can be subject to renewals. Regulations and specific conditions can be issued relating to the start-up, construction, design, commissioning, maintenance, operation and shutdown of the electrical installation and to avoid damage to the natural environment and cultural heritage.

Due to changed attitudes and prerequisites and the following disputes over the last years concerning onshore wind power, the Government submitted a white paper to the Norwegian Parliament in June 2020. The consequences for landscape, environment, society and local interests have to be given stronger weight in the licensing procedure. Local and regional intervention are to be strengthened. The government will change the licensing procedure to secure these considerations.

The Government shall provide for a unified and regional processing of new onshore wind power projects. The energy authorities have to consult affected municipalities and counties at an early stage of the planning, and municipalities and counties shall take part in the planning to come.

A tightening of time requirements shall take place. The admittance to give extended deadlines for development must be reduced to prevent unnecessary use of time for the fulfillment of the wind project. Time limits to accomplish environmental impact assess-

6 The Energy Act of 29 June 1990 Nr. 50 Section 3/1

ments and for forwarding of a detailed plan for the development after the given license will be introduced.

The possibilities for the licensee to make changes in the project will be reduced due to more distinct license conditions for natural values, maximum heights for turbines and demands for minimum distance to buildings and other installations along with sharpening of the time requirements for the total licensing procedure.

The coordination of wind power production and increase of power line installations shall be improved. The potential developer has to put forward a plan for power line connections and suggestions for specific demands for investigations. Updating and sharpening of demands to investigate the effects of wind power for the environment, a larger circle of neighbours and other activities in the actual area shall be included in the plan to be prepared.

The Government shall strengthen the decision basis for the licensing procedure in evaluating the socioeconomic profitability for the different wind power projects. Advantages and disadvantages of wind power developments have to be made visible and evaluated as open and distinct as possible.

Exploitation of areas in larger parts of Northern Norway affects Sami reindeer herding. These interests shall take part in the planning and investigation of wind power projects at an early stage. All the effects for reindeer herding have to be evaluated and emphasized in the licensing procedure. The Sami Parliament, the reindeer herding interests and other Sami interests are to be consulted in accordance with the national consulting regime settled in a consulting protocol replaced by a Consultation act from 1 January 2022.

To conclude, the white paper proposals for amendments in the present regulation of onshore wind can legally be described as suitable for further developments as part of the Norwegian measures for electrification. It remains to be seen whether the proposed regulation amendments both concerning procedure and materially are sufficient due to the subsistent resistance against onshore wind in society.

5 Regulation of offshore wind power

The Act for Ocean Energy[7] regulates offshore wind power development. Installations for the production of electricity based on renewable resources cannot be built, owned or operated without a license.

7 The Act for Ocean Energy of 4 June 2010 Nr. 21 Section 3/1

Such production outside the Norwegian baseline cannot take place before the state has opened areas for license applications. Before an opening, the first environmental impact assessment has to be carried out in accordance with the act and the regulations for such assessments.

In June 2020 the King's Council decided to open two areas for offshore wind license applications – Utsira Nord and Sørlige Nordsjø II. At the same time the Council passed the regulations to the Act for Ocean Energy. Regulations were necessary for guidance and to clarify the frames for the sequence and the demands for documentation.

There has been considerable interest from a great number of companies in the energy field to take part in the development of the two opened areas. Other areas can also be opened in the time to come if it is a major interest for development of floating ocean wind.

In June 2021 the Ministry of Petroleum and Energy forwarded for an open hearing a proposal for a guidance for area allocation and procedures for ocean wind power license applications following the opening of the two areas. The different phases are area sectioning, site callouts, area allocation and selection of the originator to carry out an environmental impact assessment and prepare an application for license. The area called out has to be allocated by the Ministry in an area competition. Such a competition is mainly carried through in auction bidding for sections in the opened areas. The model for and the carrying out of the auction have to be described in detail by the Ministry. When the competition is decided, the originator given the area allocation has to follow the procedural steps based on sequences stated in the guidance.

The proposal for the guidance made it necessary for the Ministry at the same time to forward an open hearing for amendments in the Ocean Energy Act and in the regulations to the same Ocean Energy Act.

According to the Act for Ocean Energy a license is issued for a limited period for up to 30 years but can be subject to renewals. Regulations and specific conditions can be issued relating to the start-up, construction, design, commissioning, maintenance, operation, preparedness, security, facilitation for connection to other installations or systems, shut-down of the installation and to avoid damage to the natural environment and cultural heritage.

To conclude, the hearings of the proposal for the guidance and the amendments in the Ocean Act and the regulations are now ended. The unified present and proposed regulation of offshore wind power so far can be described as a suitable starting-point for the developments for the next years. The final evaluation awaits the decisions for the total regulation including the guidance and the amendments of the Act for Ocean Energy and the regulation to the act.

6 Offshore electricity transmission installations

A license in accordance with the Act for Ocean Energy is needed for electricity transmission installations outside the baseline. Installations within the baseline are dependent on a license with reference to the Energy Act. Offshore wind power production installations will at first be connected through radial power transmission cables to Norway, to other countries or to petroleum installations. The involved originators have to pay the costs for transmission. If such transmission through connection onshore in Norway makes it necessary with strengthening of Norwegian onshore transmission installations, provisions for a construction contribution with reference to the Energy Act have to rule.

If a wind power production installation is connected to transmission systems both in Norway and abroad, an additional license is needed for power exchange with reference to the Energy Act. Regulation of hybrid solutions for transmission installation are under further investigation, managed by the energy authorities.

7 Conclusion

The regulation for further development of hydro power resources is considered to be adequate.

For onshore wind power development the proposals for regulation amendments based on the white paper with specific changes in the licensing procedure can legally be described as suitable for further development. It remains to be seen whether the specific proposals for regulation amendments are sufficient due to the subsistent resistance against onshore wind in society.

For offshore wind power and the appurtenant electricity transmission the present and proposed regulation so far can be described as a sufficient starting-point for the developments for the next years to come. The final evaluation has to await the decisions for the entire package of regulation.

THERE AND BACK AGAIN: THE DUTCH ENERGY SECTOR FROM PRIVATISATION TO NEW PUBLIC ENERGY COMPANIES

Ceciel Nieuwenhout[1]

Abstract

The public energy company might experience a serious come-back in the Dutch energy sector. The ideas that drove (local) governments to privatise a few decades ago now seem to have been replaced by the idea that public energy companies could fulfil a role in the energy transition. Public energy companies can take into account social or community interests that commercial companies not always do and they allow local governments the opportunity to exert influence, for instance when developing renewable energy projects or when rolling out heat networks. However, they do not always operate at the lowest societal cost. Therefore, each time when a public energy company is founded or expanded, it should be reflected whether this serves the public interest and how the risks of the project can be mitigated.

1 Dr. C.T. Nieuwenhout, Postdoctoral Researcher at the Groningen Centre for Energy Law and Sustainability, the Netherlands, and City council member in Groningen for GroenLinks. The title of this chapter is based on the subtitle of the book 'The Hobbit' (1937) by J.R.R. Tolkien.

1 Introduction

After decades of policy and legislative efforts towards liberalisation[2] and privatisation[3] in the Netherlands,[4] a variety of new publicly owned companies starts to appear in the energy sector. There are various reasons for (local) governments to develop and own for example electricity production or heat distribution and supply companies. This contribution investigates the reasons for this countermovement from privatisation to new publicly owned energy companies,[5] and analyses to what extent this new movement is compatible with the principles of energy law as developed over the past few decades and currently enshrined in both EU law and Dutch law.

The central research question is 'how can the current appearance of publicly owned energy companies be explained and to what extent is this movement desirable'? The contribution is structured as follows. After a short history of the liberalisation, privatisation and unbundling efforts in the Netherlands (section 2), the diversity of new publicly-owned energy companies is described (section 3). After a reflection is presented on the desirability and risks of this new movement (section 4), an outlook is provided on the development of public energy companies in the future (section 5).

2 History of Liberalisation and Privatisation in the Dutch Energy Sector

Historically, the Netherlands used to have local (regional) utility companies. They were merged into larger companies (for the supply of electricity, gas, heat and sometimes

2 In the context of the energy sector, liberalisation entails introducing competition in the market by separating the regulated parts of energy companies (the network parts) from production and supply, and to allow various players on the production and supply markets.

3 Privatisation entails turning previously state-owned companies into private companies with a shareholding structure, after which the (public) shares in the company are sold (privatised).

4 A clear point of departure is the (European) Commission Working Document 'The Internal Energy Market'(1988), COM(88) 238 final. This was the inspiration for the Dutch Government to draft the 'Derde Energienota' (1995), Tweede Kamer, vergaderjaar 1995–1996, 24 525, nrs. 1–2, in which an explicit choice is made in favour of more competition (even beyond EU action on that point), p. 8. For a general introduction, see M.M. Roggenkamp, 'Chapter 10, Energy Law in the Netherlands' in Roggenkamp, Redgwell, Ronne, Del Guayo (Eds) *Energy Law in Europe* OUP, 2016 (3rd Ed), p. 727.

5 The term 'energy companies' is chosen as a broad term to encompass the various forms of new publicly owned companies, covering both electricity and heat, as well as various parts of the supply chain: production, distribution and supply to consumers.

water) in the 1970s.[6] These companies used to be publicly owned and were cast in the form of shareholding companies in which municipalities and provinces held most shares.[7]

With the 1995 policy paper *Derde Energienota,* liberalisation and unbundling were introduced in the Dutch energy sector, with pillars such as: third party access to electricity and gas networks, separation between network elements and production/supply elements, independent regulatory oversight, and liberalised production, import, export and supply of electricity (except supply to household consumers).[8]

The liberalisation of the electricity and gas sector was based on the ambition to reach an internal energy market in the EU, in which competition was introduced regarding the production and supply of electricity and gas. This would lower the prices for consumers and give them the freedom to switch supplier. In the Netherlands, this was translated into full ownership unbundling, the most far-reaching type of unbundling. This decision was based on the following arguments: unbundling would increase the independence of the TSO; make financing opportunities available for the TSO, as it would obtain economic ownership of the network; facilitate the regulatory supervision of the network (because of increased transparency) and put an end to cross-subsidisation between network elements and commercial elements of the energy sector.[9]

At the same time, after the separation of the regulated (network) parts from the commercial parts, the liberalised elements, namely production and supply could be privatised. At that time, it was discussed whether the regulated (network) elements should be privatised as well, following the privatisation of other elements of the energy sector.[10] There were several counter-arguments against keeping the networks in public hands. First, it was feared that this could lead to mergers between different network companies and to cross-subsidisation between different parts of the network. A second argument was that having the network in public hands would actually not guarantee that the public interest is best served.[11] After all, the railway and telecommunications networks, even though these sectors were both in public hands, had suffered from years of underinvestment in maintenance.[12]

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6 Roggenkamp 2016, p. 730.

7 Roggenkamp 2016, p. 730, 763.

8 Derde Energienota 1995, p. 8.

9 PA Josephus Jitta, HA Schaap, 'Privatiseer, maar met mate…? De privatisering van de Nederlandse energiesector nader beschouwd' *Onderneming en Financiering* [2004, nr 62], p. 3.

10 Jitta, Schaap 2004, p. 7/8.

11 Ibid., p. 7.

12 Ibid., p. 7.

It was already stated in 1995 that liberalisation can lead to privatisation, with a remark that it is the shareholders' competence to decide on privatisation of energy companies, but that it was more logical that production and/or supply companies were privatised, than network companies.[13] The risk that this would lead to private monopolies rather than public monopolies (both undesirable) was already recognised in the same document.[14] It was ultimately decided that the networks are not to be privatised.[15] Regarding production and supply companies, the Electricity Act 1998 and Gas Act 2000 were drafted under the assumption that the privatisation of these companies would have to be regulated only for a limited time, until the energy sector would be fully liberalised.[16] A gradual privatisation process has been going on since then, until 2020, when Eneco, the last large energy company owned by municipalities and provinces, was sold to Mitsubishi.[17]

3 The Current Energy Sector and the Role of Public Energy Companies Therein

This part portrays the variety of new publicly owned energy companies, organised per sector: electricity, gas and heat.

Electricity

Although the production and supply parts of the former vertically integrated companies have been fully privatised, a new development is that there are local governments wishing to take the production of electricity, notably via solar fields and wind farms, in their

13 Derde Energienota 1995, p. 99/101.

14 Ibid., p. 101.

15 Wet van 2 juli 1998, houdende regels met betrekking tot de productie, het transport en de levering van elektriciteit (Elektriciteitswet 1998), art. 93, Wet van 22 juni 2000, houdende regels omtrent het transport en de levering van gas (Gaswet), art. 85.

16 Roggenkamp 2016, p. 731. During this period, privatisation of energy companies was only possible with the consent of the Minister of Economic Affairs.

17 Trouw, 25 March 2020, 'Eneco Definitief Verkocht aan Mitsubishi'.https://www.trouw.nl/nieuws/eneco-definitief-verkocht-aan-mitsubishi~b7af6b22/.

own hands.[18] Local governments mention three reasons for developing and owning renewable energy production installations. First, they wish to invest in renewable energy to attain their climate goals and to reduce the dependency of the municipality on (imported) energy sources. Second, by keeping this development in their own hands, they wish to exert much more influence on the way the projects are realised than when they would use a permitting procedure with a third party. In the conditions of a permit, some requirements can be listed, but project development and ownership gives more direct influence. A third reason is that these municipalities wish to use the profits of these projects within the local community, for example to re-invest in other parts of the energy transition that are more difficult to finance.[19]

Although the *production* of electricity by (subsidiaries of) local governments has increased again, this does not hold for the *supply* of electricity. In the municipalities that are exploiting their own electricity production installation, the electricity is usually supplied by another company.[20] This can be explained in two ways. First, the interest of municipalities lies rather with exerting influence over the way the production installation is realised from the perspective of spatial planning and integration in the landscape, than with the way the electricity is supplied to consumers. Second, the specific legal, administrative and technical requirements for the supply of electricity may pose a high barrier for local governments to supply electricity, especially to household consumers.[21] A notable exception is *TegenStroom,* a company fully owned by the municipality of

18 Examples are *Zonnepark Oosterweilanden*, fully owned by municipality *Twenterand; Zonnepark Leemdijk*, fully owned by municipality *Midden Drenthe*; *Zonnepark Ameland*, owned for 33,3% by the municipality of *Ameland*, 33,3% by a local energy cooperation and 33,3% by *Eneco*. The municipality of *Bergen* (Limburg) has decided to develop an 'energy landscape' with both solar fields and wind turbines, owned and developed by the municipality. The municipality of *Groningen* has decided to develop large renewable energy projects fully owned by the municipality as well. *Bodemzorg Limburg*, an organisation with several municipalities from Limburg as its shareholders, also realised three solar fields in Limburg, on former landfill sites.

19 See for example the Energy Transition Fund proposed in Groningen, College van B&W Groningen, Letter: 'Fonds Energietransitie (ophalen wensen en bedenkingen)' 18-3-2021, p. 2.

20 In the examples provided in footnote 18, these are either specialized companies that supply locally produced electricity to consumers: *EnergieVanOns (Leemdijk; Ameland)* or *VandeBron (Oosterweilanden)*. In the case of *Bodemzorg Limburg*, part of the electricity is supplied directly to the University of Maastricht.

21 In the Netherlands, a license is required for the supply of electricity to household consumers. Elektriciteitswet 1998, art. 95a. The supply of electricity needs to be 'reliable' (betrouwbaar), which entails requirements from an organizational, financial and technical perspective (Elektriciteitswet 1998, art. 95d). Moreover, suppliers of electricity need to adhere to several requirements for grid stability, and consumer protection (Elektriciteitswet 1998, art. 95m).

Haarlemmermeer, which acts as a supply company for its inhabitants, and that buys the electricity and gas it supplies from local energy projects.[22]

Gas

The gas sector has been unbundled and the transmission system company, Gasunie, is 100% state owned. The distribution system owners (DSOs) are owned by local governments. Interestingly, contrary to the electricity sector in which the production of electricity was at some point fully privatised, the Dutch state has kept a specific role in the production of (natural) gas and the marketing of this gas on the wholesale market via the state-owned company EBN. Thus, the Dutch gas sector is liberalised, regarding both the production and supply of gas, but, contrary to the electricity sector, the *production* of gas has not been fully privatised after liberalisation. This may be explained by the high strategic interests in a stable and reliable gas production.

Contrary to the electricity sector, the Dutch gas sector bears no sign of a movement of local governments towards more public ownership. This could be explained by the fact that the natural gas sector is in decline and that it is not yet known how the gas production, transmission, distribution and storage infrastructure will be used in the future. Moreover, since the large-scale production from the Groningen field, gas production was no longer in the hands of local governments but rather of the national government.

Although not powered by local governments but by the state-owned Gasunie, there is still a movement towards more active public companies in the gas sector in the Netherlands. Gasunie is very active in the development of various hydrogen projects,[23] as well as CCUS projects.[24] Thus, it is expanding its role beyond the ownership and operation of the natural gas transmission system into new sectors and economic activities. The expansion of Gasunie's activities in this direction can be explained by the search for new uses of the existing natural gas transmission network in the future.

Finally, as a bridge between gas and heat, EBN, the Dutch state-owned investment company that has a role as a non-operating partner in nearly all gas investments in the

22 https://tegenstroom.nl/over-tegenstroom

23 Hydrogen Backbone, Hystock, NortH2, HyTransPort.RTM, GZI Next and a project related to the Magnum Centrale. All projects are described on https://www.gasunie.nl/projecten.

24 Athos, Carbon Connect Delta, Porthos and smart use of CO2.

Netherlands and the Dutch EEZ is now expanding its role to the production of hydrogen and to becoming a risk-bearing partner in geothermal projects.[25]

Heat

In the Dutch energy transition, heat is an important subject. There is a demand for heat by buildings and some industrial processes. Currently, most heat demand is fulfilled by individual installations, such as gas-fired boilers (*cv-ketels*) or heatpumps. However, due to the transition to low-carbon heating, an increasing amount of buildings is heated via heat networks or other collective systems, such as collective heat/cold storage systems. Unlike the electricity and gas sector, there is no strict division between heat networks and production and supply of heat via these networks. The difference between electricity and gas on the one side and heat on the other can be explained as the structure of the heat market is different. Contrary to the electricity and gas market, separating networks and supply would lead to higher network costs and have a negative effect on security of heat supply, compared to a situation where the heat network and heat supply are in the hands of the same company.[26] Dutch NRA ACM explains that the coordination costs between the network operator and the production and supply of heat increase significantly with an unbundled system, which means that the benefits of an unbundled system will only exceed the costs when the scale of the heat network is much larger than the current size of heat networks in the Netherlands.[27] Thus, with few exceptions,[28] the Dutch heat sector is still characterised by vertically integrated heat companies.[29] Both public and private parties can operate these heat networks.[30]

In this regard, the drafting process of the new Dutch Heat Act[31] sparks an interesting debate between local governments on the one side and the Ministry of Economic Affairs and Climate on the other, on the role of municipalities and public energy companies in

25 https://www.ebn.nl/en/energy-transition/new-energy/

26 M. Dieperink, B. Teulings, 'Doorbraak in Warmtewet vraagt om frisse blik op publieke belangen', *Energeia*, 19 May 2021.

27 ACM, 'ACM-notitie Marktmodellen warmte en rol netwerkbedrijven', 24 June 2021, p. 15.

28 ACM 2021, p. 13/14: Municipality *Zaanstad* has a system with a split between the network company and the heat supplier. Where the transmission/distribution of heat is split from the supply of heat, the networks are often operated by the existing (gas and electricity) DSOs.

29 ACM 2021, p. 12.

30 ACM 2021, p. 6, p. 16.

31 This Act is officially named 'Wet houdende regels omtrent productie, transport en levering van warmte (Wet collectieve warmtevoorziening)' but also referred to as 'Warmtewet 2.0'.

the heat transition. A key question is whether municipalities should have the competence to give binding directions on the ownership of the heat network in a certain area: public, private or a combination.[32] With this competence, municipalities wish to be able to maintain public control. The State Secretary of Energy responded that this competence of municipalities to give binding directions on (public) ownership is not in line with the principle of the legislative proposal that different types of heat companies (public, private, public-private) can participate in the heat market on equal footing.[33] Moreover, the State Secretary brings forward that this competence is also not compatible with EU law, based on the principle of free movement which can only be limited in specific circumstances.[34]

However, upon closer inspection, it seems that this reasoning negates the fact that 'It should be recalled that nothing in this Directive obliges Member States to contract out or externalise the provision of services that they wish to provide themselves or to organise by means other than procurement within the meaning of this Directive. (…).'[35] This recital confirms that governments are free to decide to provide a service themselves rather than contracting a company to do so. The case of semi-public companies is interesting in this regard: whereas purely public companies[36] could provide a service without the government organising a competitive (public procurement) procedure, this is not possible for semi-public companies, including public-private heat companies.[37]

In any case, the difference in approach on the role of municipalities in defining which entities should be able to participate in a heat network is deemed irreconcilable, and the legislative process is halted at the moment.[38] In conclusion, the role of public energy companies in the heat transition is still hotly debated, but will crystallise over the coming years with the introduction of a new Heat Act.

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32 *Kamerbrief 5 juli 2021 Voortgang Wet collectieve warmtevoorziening*, DGKE-WO / 21174776.

33 *Kamerbrief 5 juli 2021 Voortgang Wet collectieve warmtevoorziening*, p. 2.

34 Pels Rijcken, Notitie inzake Europeesrechtelijke analyse Wet collectieve warmtebedrijven, 28 May 2021, available as an appendix to the abovementioned *Kamerbrief,* chapter 5.

35 Directive 2014/25/EC on procurement by entities operating in the water, energy, transport and postal services sectors and repealing Directive 2004/17/EC, OJ L-94/243, recital 7.

36 Defined as a company over which the public authority 'exercises control similar to that which it exercises over its own departments'. CJEU, C-26/03, *Stadt Halle, RPL Recyclingpark Lochau GmbH v Arbeitsgemeinschaft Thermische Restabfall- und Energieverwertungsanlage TREA Leuna,* 11 January 2005, ECLI:EU:C:2005:5, para 49.

37 CJEU, C-26/03, *Stadt Halle,* para 47-52.

38 *Kamerbrief 5 juli 2021 Voortgang Wet collectieve warmtevoorziening,* p. 2.

4 Two Points of Criticism

As shown above, both the electricity and gas sector as well as (controversially) the heat sector show a movement from privatisation to new public energy companies. However, in this part, two critical notes on this movement will be brought forward, namely on the development of the decision-making on this expansion and on the risk of failures.

First, the Netherlands Court of Audit (*Algemene Rekenkamer*) made some critical notes about the role of state-owned companies in the energy transition, namely TenneT, Gasunie and EBN (*staatsdeelnemingen)*. Over the last few years, the role of these companies has increased significantly, as have the investments that are necessary for the performance of these new roles. In the case of TenneT, the development of the Dutch part of an offshore grid will require massive investments.[39] GasUnie has become involved in the development of a heat network, *Warmtelinq*.[40] Another example, although not quoted in the report, is that Gasunie has taken up various roles in the development of hydrogen infrastructure, including the production of hydrogen.[41] Finally, EBN participates with a risk-bearing role in new geothermal energy projects.[42]

The Court of Audit concludes that the State is using its state companies TenneT, Gasunie and EBN to speed up the energy transition. However, it criticizes the fact that the expansion of roles of state companies has not been substantiated well enough.[43] As these extra roles require the investment of millions of euros of public money (that could have been spent on other purposes as well), it should be a well-developed decision when extra roles are granted to state companies. It is justified to use state companies in the energy transition, if this serves public goals. However, it is currently often not clear whether expanding the role of these companies contributes to the public goals that were stated. This should be investigated in more depth and the parliament should be better informed about how these decisions were reached.

The second critical point is about the large risks that public energy companies may run and the question whether (local) governments are able to manage these risks sufficiently and to exercise effective control over the investments that are made with public funds. An example is the assessment report of *Warmtebedrijf Rotterdam*, which has

39 According to a government estimate, EUR 4 billion until 2023, which TenneT can earn back over the coming 20 years. Source: https://windopzee.nl/onderwerpen/wind-zee/kosten/kosten-net-zee/.

40 Algemene Rekenkamer, Rapport 'In publieke handen: nieuwe taken voor staatsdeelnemingen in de energietransitie', 2021, p. 15.

41 See note 23 above.

42 Algemene Rekenkamer 2021, p. 13.

43 Ibid., p. 37 and further.

experienced gigantic cost overruns,[44] as well as several failures in both the risk assessment and the fact that private companies were able to transfer the risk to the public heat company.[45] This example shows that the investments and risks related to energy projects can be significant and require the (local) government to be able to assess and mitigate the risks well – this is not always a given.

5 Conclusion and Future Outlook

As a final reflection and future outlook, it seems that the ideas that drove (local) governments to privatise a few decades ago have now been replaced by the idea that public energy companies could fulfil a role in the energy transition. For example, public energy companies can take into account interests that commercial companies do not always take into account (social/community interests) and they allow local governments the opportunity to exert influence, such as in the case of the development of renewable energy projects as well as the roll-out of heat networks. However, this is not always for the lowest societal cost. It should be reflected each time a public energy company is founded or expanded, whether this serves the public interest and how the risks of the project can be mitigated. However, if these conditions are fulfilled, the public energy company might experience a serious come-back in the Dutch energy sector.

44 *Gemeenteraad Rotterdam, Eindrapport raadsenquete Warmtebedrijf Rotterdam*, 17 September 2020, p. 8: the cost estimation in 2005 was EUR 16 million, but in 2019 it was clear that at least EUR 171 million was necessary. Each time, the argument was that ending the project would be more costly than continuing with it.

45 Ibid. This concerns both the risk that less consumers would contract the heat company than anticipated (*vollooprisico)* as well as the risk that the prices would fluctuate. Finally also a large legal risk was present as the *Warmtebedrijf* had a contractual obligation to deliver heat to Vattenfall, while it was not (and still is not) able to finance the investments necessary to supply this heat.

THE PENDULUM SWINGS IN US ENERGY POLICY: WHERE NOW UNDER THE BIDEN ADMINISTRATION?

LeRoy C. Paddock[1]

Abstract

This contribution highlights the increasing energy policy swings in the U.S. by focusing on some of the political and legislative reasons for it. It also analyzes the policy swings initiated by the Trump Administration after the Obama Administration and by the Biden Administration after the Trump Administration.

1 Introduction

Before discussing the dramatic U-turns on energy and climate policy in the United States over the past decade and President Biden's agenda for energy and climate, I would like to recognize the important role that Professor Martha Roggenkamp has played in the development of energy law over her distinguished career in private practice and in academia. I have had the privilege of working closely with Martha as a member of the International Bar Association, Section on Environment, Energy, Resources and Infrastructure Law's (SEERIL) Academy Advisory Group on Energy (AAG) for most of the past decade. The AAG produces a book on energy law issues biennially that is published by Oxford University Press for

1 Distinguished Professorial Lecturer in Environmental Law at The George Washington University Law School, USA.

SEERIL. As a long-time member of the AAG, Martha has contributed chapters to many of the AAG's 12 books and served as an editor for two of the books. She is seen by the AAG members as one of the leading experts worldwide on energy law and a highly respected colleague.

I have also collaborated with Martha in creating the University of Groningen—The George Washington University Law School Energy Law Program which allowed students from both schools to work together on important EU/US energy law issues. We are proud to have had the chance to partner with Martha and the University of Groningen on this program for several years and look forward to the launch of a new LL.M. dual degree program in Energy Law that will allow students to study at and earn degrees from both Universities. It has been an honor to learn from and work with Martha.

2 The Increasing Energy Policy Swings in the US

Turning now to the topic at hand. While some differences on energy policy have long existed between the Republican and Democratic parties and their leaders in the United States, there has been more common ground on energy policy than on environmental policy. Perhaps because energy policy and environmental policy have become more closely linked in the context of climate change, this situation has changed. It is hard to imagine more dramatic swings of political direction than what has occurred on energy and climate policy over the last decade from the Obama Administration to the Trump Administration and now to the Biden Administration. These changes have been triggered by a growing political divide since 2007 on the role of renewable energy, energy efficiency and climate change in the U.S. The U.S. Congress passed major energy legislation in 2005 and 2007 with support from both political parties, the first major energy legislation in over a decade at that time. The 2005 Energy Policy Act[2] signed by President George W. Bush required increasing use of renewable transportation fuels, provided tax incentives for renewable energy and energy efficiency, and established energy efficiency standards for federal facilities. It also provided new funding support for fossil fuels and incentives for the construction of nuclear power plants.[3]. The Energy Policy Act was followed just two years later by the Energy Independence and Security Act of 2007.[4] The law focused on encouraging more production of renewable fuels; increased energy effi-

2 Energy Policy Act of 2005, Pub. L. 109-58.

3 See http://large.stanford.edu/courses/2016/ph241/gaertner1/docs/rl33302.pdf, accessed 11 January 2022.

4 Energy Independence and Security Act of 2007, Pub. L. 110-140.

ciency for buildings, vehicles, lighting, and appliances; and incentives for research on carbon capture.[5] The two laws provided a legal foundation for new initiatives to advance renewable fuels, wind and solar energy production, and energy efficiency and conservation.

In 2009 during the early years of the Obama Administration, the U.S. House of Representatives, relying on a Democratic Party majority, passed by a vote of 219-212 the American Clean Energy and Security Act[6] which would have created a greenhouse gas cap and trade program for the country. However, the bill never reached a floor vote in the Senate. With Republican majorities in the House of Representatives and the Senate beginning in 2011, no new climate legislation was adopted. Even with a Democratic majority today in the House of Representatives and a Senate with a 50-50 split that can be broken by the vote of Vice-President Harris, no major climate legislation is anticipated because policy legislation must attract a supermajority (60 votes out of 100) under current Senate rules to overcome what is none as a 'filibuster'.[7] Further, Congress has not adopted any major new legislation on energy efficiency since 2007. The partisan stalemate on new energy and climate legislation has meant that significant action on renewable energy and energy efficiency could only result from action taken by the executive branch either through rulemaking by agencies or through Executive Orders, both of which can be reversed by a new Presidential administration. And, in fact, that is what has occurred — President Obama used Executive Orders and new rules to drive renewable energy, energy efficiency and climate initiatives. President Trump's avowed priority was the fossil fuel industry and loosening regulations. He reversed many of the Obama actions both by Executive Order and through new rules. Now President Biden has followed suit by calling for a reexamination of all of the Trump policies on energy and climate.

Rulemaking at the Federal Government level in the United States is governed by the Administrative Procedures Act[8] that requires agencies to develop a detailed justification for a draft rule, publish the rule and the justification in a document known as the Federal Register to facilitate public comment, and take the public comments into account in adopting a final rule. This process can take from several months to a year or more to complete. A rule can be rescinded or replaced by a new rule but only if the recission or

5 See https://www.congress.gov/bill/110th-congress/house-bill/6, accessed 11 January 2022.

6 American Clean Energy and Security Act, HR 2454 (2009).

7 For information on the history and the role of filibusters see https://www.senate.gov/about/powers-procedures/filibusters-cloture.htm, accessed 11 January 2022.

8 5 USCode ch. 5, subch. I § 500 et seq.

replacement rule is justified through the APA process. As a result, rulemaking is somewhat durable but is much more easily changed than Congressional legislation.

Executive Orders[9] are formal orders issued by the President based on authority found in legislation. These orders direct Federal agencies to take or refrain from taking actions specified in the Order. Presidents since Theodore Roosevelt have relied on Executive Orders as an important governance tool.[10] Executive Orders are not durable. Executive Orders can be rescinded by the President who issues the Order or by a subsequent President. Because Congress has not provided legislative direction since 2007 on some of the most important energy and climate issues, Presidents Obama, Trump and Biden have relied heavily on either agency rulemaking or Executive Orders to set the energy agenda for the country. This has resulted in truly dramatic swings in energy and climate policy over the past decade.

3 The Obama Administration

President Obama and his agency heads emphasized the threat of climate change and therefore looked carefully at authority under existing legislation such as the Clean Air Act,[11] and the 2005 and 2007 energy legislation to drive renewable energy and energy efficiency, and deal with climate change. President Obama's signature climate initiative, the Clean Power Plan,[12] would have required states to adopt plans to limit GHG emissions from power plants by requiring the power plants to make operational changes that would result in more efficient operation of the power plant, achieve higher levels of energy conservation among its customers, or utilize more renewable generation. The Clean Power Plan rule was based on an interpretation of the Clean Air Act enacted in 1970 and last amended in 1990 that did not contain specific provisions related to climate change. Not surprisingly, the Clean Power Plan rule was immediately challenged in court with the plaintiffs arguing that the rule was not authorized by the Clean Air Act. Despite an earlier ruling by the Supreme Court that greenhouse gases are 'pollutants' within the definition of the Clean Air Act[13], the Supreme Court with a Trump appointed justice creating a conservative majority, suspended the Clean Power Plan rule pending a deci-

9 See https://www.federalregister.gov/presidential-documents/executive-orders, accessed 11 January 2022.

10 See https://www.presidency.ucsb.edu/statistics/data/executive-orders, accessed 11 January 2022.

11 Clean Air Act, 42 USC sec 7401 et seq.

12 See https://www.nrdc.org/stories/how-clean-power-plan-works-and-why-it-matters, accessed 11 January 2022.

13 Massachusetts v. EPA, 549 US 497 (2007).

sion by the Federal Court of Appeals for the District of Columbia on the legality of the rule. The Supreme Court decision was an unprecedented move by the Court to suspend a rule prior to a ruling by the Court of Appeals. As a result, the Clean Power Plan rule was never implemented. President Trump abandoned the Clean Power Plan for a new rule designated the Affordable Clean Energy rule that significantly softened requirements for power plants related to climate change.[14]

Another cornerstone of the Obama climate policy was enhanced fuel economy standards for automobiles and light trucks. During the early years of the Obama Administration, automobile companies were facing severe economic distress during the 2008 recession. As part of negotiations to provide economic support to some of these companies to avoid bankruptcies, the Obama Administration negotiated more stringent fuel economy standards for automobiles and light trucks that would meet standards proposed by California to reduce greenhouse gas emissions. In the US, California is the only state that can adopt more stringent fuel economy standards than those enacted by the Federal government. The so-called 'California Waiver'[15] was included in the Clean Air Act recognizing both the serious air quality problems California caused by automobile emissions that California has long-experienced and the state's long-standing efforts to reduce these emissions.[16] The negotiations resulted in an agreement that a new Federal vehicle fuel economy standard would satisfy the California requirement avoiding the possibility of separate state and Federal standards. The new emissions rule would eventually result in a corporate average fuel economy of over 54 miles per gallon.[17] The standard became an especially prominent target of the Trump Administration for rollback, no doubt in part because of the Administration's desire to support the fossil fuel industry.

The Obama Administration also emphasized implementation of the 2007 Energy Independence and Security Act's authority to set appliance standards and energy efficiency requirements for lighting. This included setting an efficiency standard for lighting that was stringent enough that it would eliminate most incandescent bulbs in favor of other types of lighting such as LED bulbs.[18] The Obama Administration furthermore

14 See https://www.epa.gov/stationary-sources-air-pollution/proposal-affordable-clean-energy-ace-rule, accessed 11 January 2022.

15 See https://www.epa.gov/state-and-local-transportation/vehicle-emissions-california-waivers-and-authorizations, accessed 11 January 2022.

16 See https://www.epa.gov/state-and-local-transportation/vehicle-emissions-california-waivers-and-authorizations, accessed 12 January 2022.

17 See https://obamawhitehouse.archives.gov/the-press-office/2012/08/28/obama-administration-finalizes-historic-545-mpg-fuel-efficiency-standard, accessed 12 January 2022.

18 See https://www.utilitydive.com/news/trump-administration-finalizes-rejection-obama-lightbulb-efficiency-DOE-standards/569566/, accessed 12 January 2022.

adopted a rule limiting mercury emissions from coal-fired power plants[19] and a rule limiting methane emissions on public lands from oil and gas operations.[20] It also developed guidance on calculating the social cost of carbon and on how greenhouse gas emissions should be considered in environmental impact reviews.[21]

In addition to the rules addressing energy and climate issues, the Obama Administration relied heavily on Executive Orders to direct Federal agency activities. Two of the most prominent are EO 13653 focused on 'Preparing the United States for the Impacts of Climate Change' and EO 13693 'Planning for Federal Sustainability in the Next Decade.'

EO 13653

- directs Federal agencies to provide 'authoritative, easily accessible, usable, and timely data, information, and decision-support tools on climate preparedness and resilience;
- requires all agencies to develop and implement comprehensive plans that integrate consideration of climate change into agency operations and overall mission objectives;
- creates a state, local and tribal task force on climate preparedness and resilience.

EO 13693 focuses on Federal leadership on sustainability and greenhouse gas reduction by requiring agencies to

- improve energy efficiency of data centers;
- use renewable energy for at least 10 percent of their building energy needs by October 2017 and at least 25 percent by October 2025;
- reduce fleet greenhouse gas emission from vehicles by not less than 30 percent by the end of 2025;
- establish greenhouse gas emissions reduction goals for scope 1, 2 and 3 emissions;
- reduce energy intensity for building by at least 2.5 percent each year through 2025
- achieve net zero energy demand for all new Federal buildings by 2030.

4 The Trump Administration

The absence of a specific legislative anchor for the Obama energy and climate rules and Executive Orders (or at least the asserted lack of such legislative authority by the Trump

19 See https://www.nytimes.com/2020/04/16/climate/epa-mercury-coal.html, accessed 12 January 2022.

20 See https://www.edf.org/climate/epa-gutting-rules-protect-you-methane-pollution, accessed 12 January 2022.

21 See https://obamawhitehouse.archives.gov/sites/default/files/omb/inforeg/scc_tsd_final_clean_8_26_16.pdf, accessed 12 January 2022.

Administrative officials) resulted in a dramatic reversal of these policies in early 2017 when President Trump assumed the Presidency. Perhaps the most well-known of these policy reversals was withdrawing from the Paris Climate Agreement. President Obama treated the Paris Agreement as an 'Executive Agreement' that did not have the same binding effect on the United States as a treaty.[22] If it had been considered a treaty, it would require the 'advise and consent' of the U.S. Senate under the Constitution which, given the Republican majority in the Senate at the time, likely could not have been achieved just as was the case with the Kyoto Protocol. Of course, lacking legislative approval, the Paris Agreement could be reversed by President Trump's own executive action as happened within five months of President Trump taking office.

On March 28, 2017, just two months after taking office President Trump issued Executive Order 13783 'Promoting Energy Independence and Economic Growth' which provided that it is 'in the national interest to promote clean and safe development of our Nation's vast energy resources, while at the same time avoiding regulatory burdens that unnecessarily encumber energy production, constrain economic growth, and prevent job creation.' Of course, the energy resources referred to in the Order were primarily oil, gas, and coal. The Order

- required an immediate review by agency heads of existing regulations that 'potentially burden' the development and use of domestically produced energy resources and appropriately suspend, revise, or rescind those that unduly burden the development of domestic energy resources beyond the degree necessary to protect the public interest or otherwise comply with law;
- revoked Obama Executive Order 13653 (Preparing for the Impacts of Climate Change);
- rescinded several climate-related Presidential memoranda and reports;
- withdrew the Council on Environmental Quality guidance on considering climate change in environmental impact reviews;
- mandated a review of the Obama Clean Power Plan;
- required a review of the Social Cost of Carbon guidance document;
- directed reevaluation of rules on emissions from new oil and gas operations.

This EO was followed a year later by EO 13834 focusing on 'Efficient Federal Operations' that revoked Obama EO 13693 (Planning for Federal Sustainability) while committing to

22 The view that the Paris Agreement could be signed as an Executive Agreement was controversial with some commentators arguing it had treaty-like features See E. Kontorovich, 'Exiting Paris: What the Climate Accord Teaches about the Features of Treaties and Executive Agreements', 51 Case Western Reserve J of Int'l Law 102 (2019).

implement statutory energy and other sustainability requirements such as those in the Energy Policy Act and the Energy Independence and Security Act. The limited scope of this EO helps demonstrate the importance of legislation in preserving energy efficiency programs since the EO specifically indicates those programs should proceed while terminating programs established only by EOs or regulation. The notable difference from the Obama EO is that the action forcing timelines are missing from EO 13834.

In 2019 President Trump issued Executive Order 13868 that was designed to expedite infrastructure development oil, natural gas and coal. The Order required agencies to review wetlands dredge and fill permitting processes to ensure they do not unnecessarily slow down infrastructure projects such as pipeline construction and, in a rather unusual move, directed the Department of Labor to review rules covering retirement plans to determine if it is permissible for retirement plans to restrict investment in fossil fuel companies given their fiduciary obligations: a move designed to blunt the growing trend by pension funds to disinvest in fossil fuels.[23]

In addition to the EOs repealing Obama EOs and promoting the fossil fuel industry, the Trump Administration sought to repeal or alter many of the energy efficiency and climate rules and guidance documents adopted during the Obama Administration. These changes included

- weakening the Obama Administration fuel economy standards for automobiles and light trucks;
- revoking California's ability to set stricter tailpipe emissions standards;
- withdrawing the legal justification for the mercury emissions standard for coal-fired power plants;
- changing the cost-benefit analysis formula under the Clean Air Act making justifying new public health and climate protections harder;
- canceling a requirement that oil and gas companies report methane emission;
- weakening and partially repealing a rule limiting methane emissions on public lands;
- limiting a rule that required refineries to monitor pollution in surrounding communities;
- repealing rules designed to reduce leaking and venting of hydrofluorocarbons;
- directing agencies to stop using the Obama social cost of carbon in calculated costs and benefits of agency action;
- withdrawing guidance issued by the Council of Environmental Quality on how to take climate change into account in environmental impact assessment;

23 See https://www.bloombergquint.com/business/trump-s-plan-to-block-pensions-from-esg-won-t-help-fossil-fuels, accessed 12 January 2022.

- abandoning a policy that would have required tighter pollution requirements for offshore oil and gas operations;
- lifting a freeze on new coal mining leases on public lands;
- approving controversial permits for the construction of the Dakota Access and the Keystone pipelines;
- rescinding new water pollution regulations for hydraulic fracturing on public lands;
- withdrawing a requirement that Gulf of Mexico oil rig operators prove they can cover the cost of removing rigs at the end of their productive life;
- loosening offshore drilling safety regulations that were adopted to address the Deepwater Horizon explosion and spill;
- proposing opening most of the country's offshore waters to oil and gas exploration;
- revising rules governing environmental impact assessment in ways that would limit consideration of climate-related issues;
- revoking a rule that prevented coal companies from dumping mine debris into streams;
- repealing energy efficiency rules for new light bulbs;
- weakening energy efficiency standards for new dishwashers, furnaces, water heaters, washing machines and dryers; and
- freezing civil penalties for violations of energy efficiency standards that were set for a significant increase.[24]

Some of the efforts to change rules, especially those pursued early in President Trump's tenure, were invalidated by courts for a variety of reasons including (1) failure to develop an adequate administrative record to justify revoking, modifying or supporting a rule resulting in the decision being invalidated as 'arbitrary and capricious' under the Administrative Procedures Act or (2) the rule as drafted was contrary to a law adopted by Congress. Some other Trump Administrative actions were remanded to the agency when a court found that the environmental impact assessment associated with the action was not adequate.[25] These court decisions indicate that rules can be more durable than Executive Orders since courts will invalidate attempted changes or rescission of rules that are

24 See N. Popovich, L. Albeck-Ripka, and K. Pierre-Louis, 'The Trump Administration Rolled Back More Than 100 Environmental Rules" (N.Y. Times, 20 January 2021) available at https://www.nytimes.com/interactive/2020/climate/trump-environment-rollbacks-list.html, accessed 12 January 2022.

25 For details on court actions on Trump Administration's rules and other decisions related to energy and environment see https://policyintegrity.org/trump-court-roundup, accessed 12 January 2022.

not adequately justified by the subsequent administration. Still, the scope of the Trump Administration changes in policy were dramatic.

The methods for driving change used by the Trump Administration to reverse course on energy policy and the court-imposed limits on those policy changes provide both a roadmap and a cautionary tale for the Biden Administration as it seeks to once again focus on energy efficiency, renewable energy and climate change.

5 The Biden Administration

The sum of all of Trump Administration energy and climate policy changes certainly demonstrate the desire of the Trump Administration to support the fossil fuel industry –its 'energy dominance' agenda—and its willingness to restrict environmental protections, energy efficiency considerations and support for renewable energy to achieve this objective. This is clearly not the policy of the Biden Administration. President Biden issued a series of Executive Orders beginning on his first day in office launching the process of reestablishing an emphasis on energy efficiency, renewable energy and climate change. The Administration is also moving to reverse rule and policy changes adopted during the Trump Administration but will have to be cautious about establishing an adequate record for rule changes and ensuring adequate environmental review is conducted for policy changes that are subject to environmental impact review. Since notice and comment rulemaking and environmental impact reviews can take several months to complete, many of the changes will take time to finalize.

The list of Biden Administration changes is extensive. Executive Order 13990 (Promoting Public Health and the Environment and Restoring Science to Tackle Climate Change) was issued 20 January 2021 (Inauguration Day). It promised to 'listen to the science'; improve public health and protect our environment; ensure access to clear air and water; limit exposure to dangerous chemicals and pesticides; hold polluters accountable, including those who disproportionately harm communities of color and low-income communities; reduce greenhouse emissions; bolster resilience to the impacts of climate change; restore and expand our national treasures and monuments; and prioritize both environmental justice and the creation of well-paying union jobs necessary to deliver these goals.[26]

Executive Order 13990 required the heads of all agencies to 'immediately review all existing regulations, orders, guidance documents, policies, and any other similar agency actions…promulgated, issued, or adopted between January 20, 2017, and January 2021'

26 Executive Order 13990, sec 1.

(the entire period of Trump Administration).The Order specifically targets the following actions:

- The September 2020 rule on methane emissions from oil and gas operations;
- The 2019 and 2020 rules relaxing fuel efficiency standards for cars and light trucks;
- Several rules weakening appliance and building efficiency standards;
- Rules related to hazardous air emissions from coal-fired power plants.[27]

The EO also directed the Secretary of Interior to impose a temporary moratorium on drilling in the Arctic National Wildlife Refuge citing inadequacies in the environmental impact review process;[28] created a working group whose task is to reinstate the social cost of carbon calculations for determining benefits from carbon reduction projects;[29] revoked the permit for construction of the XL pipeline that would have transported Canadian tar sands petroleum to refineries in the US;[30] revoked almost a dozen Trump Executive Orders and Presidential Memorandums related to energy, climate and environmental issues,[31] and required a review of recently adopted changes to the Environmental Impact Assessment rules.[32]

Seven days later, President Biden issued an Executive Order on climate change, an issue that the Trump Administration had essentially removed from consideration during the previous four years. EO 14008 focuses on 'Tackling the Climate Crisis at Home and Abroad,' establishing that it is US policy that 'climate considerations shall be an essential element of United States foreign policy and national security.'[33] The Order reinforced President Biden's commitment to reenter the Paris Agreement and to fully engage in the international process of reducing greenhouse gas emissions.[34] The EO also directs the Secretary of Defense to examine the national security implications of climate change.[35] The Order created a National Climate Task Force made up of the heads of all major Federal agencies[36] and required government procurement policy including for purchasing electricity and vehicles to be aligned with climate policies to the extent allowed under existing law, and to propose legislation to do so if needed. This included a goal of car-

27 Ibid sec 2.
28 Ibid sec 4.
29 Ibid sec 5
30 Ibid sec 6.
31 Ibid sec 7.
32 Ibid.
33 Executive Order 14008 sec 101.
34 Ibid sec 102.
35 Ibid.
36 Ibid sec 203.

bon-free electricity by 2050.[37] In addition, the Order placed a moratorium on new oil and gas leases on public lands and directed the White House Office of Management and Budget to conduct a study of fossil fuel subsidies.[38]

Other key Executive Orders included a 27 January 2021 directive reestablishing the Council on Science and Technology designed to provide the Administration with better scientific information. The Council had been abolished by President Trump.[39] Also, Executive Order 14030 expressed a policy of advancing 'consistent, clear, intelligible, comparable, and accurate disclosure of climate-related financial risk[40] and Executive Order 14037 on Strengthening American Leadership in Clean Cars and Trucks required the Administrator of the Environmental Protection Agency and the Secretary of Transportation to consider rulemaking to establish stronger fuel efficiency and greenhouse gas emissions standards for cars and trucks including heavy-duty trucks. President Biden also announced an aviation action plan on 9 September 2021 designed to result in reduction of aviation greenhouse gas emissions of 20 percent by 2030.[41]

6 Conclusion

While environmental and energy policy in the United States has vacillated depending upon whether the President is a Republican, a party that generally has been more supportive of industrial interests and the fossil-fuel sector, or a Democrat, a party that has typically emphasized energy conservation, renewable energy and climate concerns, the swings in policy have become much more dramatic over the past decade. Some of this volatility can be explained by the failure of Congress to adopt new framework energy and climate legislation over the past 14 years leaving energy and climate policy in the hands of the Executive Branch that must use less durable policy tools including rulemaking and Executive Orders. Part of the pendulum swings may also be explained by the dramatically different views among the electorate and the political parties on the importance (or even the existence) of climate change. Whatever, the driver, the contrast between the Obama, Trump and the Biden administrations could not be more stark. The rapidity of change from the Trump Administration to the Biden Administration has

37 Ibid sec 206

38 Ibid secs 208 and 209.

39 Executive Order 14007.

40 Executive Order 14030 sec 1.

41 See https://www.whitehouse.gov/briefing-room/statements-releases/2021/09/09/fact-sheet-biden-administration-advances-the-future-of-sustainable-fuels-in-american-aviation/, accessed 31 October 2021.

been especially dramatic with President Biden issuing a sweeping Executive Order his first day in Office. While the policy change announced by the Biden Administration has been swift, actual changes in administrative rules will take some time. As discussed above, these changes require formal justification through notice and comment rulemaking that will require perhaps two years to accomplish if the missteps that resulted in the invalidation of several Trump era regulations are to be avoided.

These vacillations in public policy complicate decision making related to the future of many of the country's most important industries including the oil and gas, renewable energy, automobile manufacturing, electric generation, and others. This situation has perhaps shifted more influence and decision making to the private sector which has become increasingly concerned about the impacts of climate change both because of the potential impact on their own operations and because their customers have increasingly demanded they pay more attention to climate change and related energy issues. This increasing private sector concern has resulted in, among other things, a dramatic increase in demand for sourcing energy from wind and solar facilities. States and local governments have also taken the lead on energy efficiency and climate issues in many cases including programs such as the California greenhouse gas law,[42] renewable energy and energy efficiency initiatives enacted by close to half of the states[43] and building code changes such as a ban on using natural gas in new buildings in San Francisco. [44] These state-based or local government-based initiatives help modulate the swings in Federal policy.

While bi-partisan agreement on new legislation related to energy and climate remains elusive (there is little hope of a new national climate law because of Republican opposition in the US Senate), the recently enacted bi-partisan, trillion dollar Congress Infrastructure Investment and Jobs Act[45] provides funding for important expansions of public transportation, creating a national electric vehicle charging network, climate adaptation projects with an emphasis on protecting underserved communities, and building out the electricity transmission grid that is critical to expansion of solar and wind energy production.[46] This legislation provides at least some more durability in energy and climate policy in the context of infrastructure projects. Passage of the legislation was no doubt

42 See AB 32, the California Global Warming Solutions Act of 2006.

43 See https://www.eia.gov/todayinenergy/detail.php?id=32332, accessed 12 January 2022.

44 See https://insideclimatenews.org/news/13112020/san-francisco-natural-gas-ban/, accessed 12 January 2022.

45 See https://www.whitehouse.gov/briefing-room/statements-releases/2021/11/06/fact-sheet-the-bipartisan-infrastructure-deal/, accessed 12 January 2022.

46 See https://thehill.com/policy/energy-environment/566003-five-key-energy-components-of-the-bipartisan-infrastructure-bill, accessed 12 January 2022.

possible because the Act also provides for critically needed improvement in road, bridge, railroad, and airport infrastructure for which there has been bi-partisan support but little progress over the previous 20 years.

One final thought about our honoree is appropriate at this point. In contrast, to the quickly changing approaches to energy policy in the US, in our international energy law academic community there has been a steady voice for decades. That voice, of course, belongs to Martha Roggenkamp. Her work whether at Groningen, in collaborations with other universities, or with the IBA Section on Environment, Energy, Resources and Infrastructure Law's Academic Advisory Group on Energy has been a reliable source of careful analysis and innovative ideas. Thank you, Martha, for being that steady voice.

REGULERING VOOR NIEUWE ENERGIE-INFRASTRUCTUUR

Michelle de Rijke[1]

Samenvatting

De regulering van energie-infrastructuur is na de verschijning van het proefschrift van Martha Roggenkamp in 1999 over de regulering van petroleum pijpleidingen een actueel onderwerp gebleven in het energierecht. Aanvankelijk betrof dit in het kader van de liberalisering van de elektriciteits- en gasmarkt de regulering van de elektriciteits- en gasnetwerken waarvan ik de voornaamste kenmerken in deze bijdrage beschrijf. In het licht van de huidige energietransitie analyseer ik vervolgens de regulering voor infrastructuur in de (beoogde) warmtewetgeving en de aankomende regulering voor waterstofinfrastructuur. In mijn conclusie vat ik de steeds terugkerende thema's in de regulering samen. Met het oog op de gewenste investeringen in nieuwe infrastructuur zullen ten aanzien van deze thema's in de aankomende regulering duidelijke keuzes moeten worden gemaakt.

1 Inleiding

Toen Martha Roggenkamp mij in 2001 benaderde om de Nederlandse Vereniging voor Energierecht (hierna: NEVER) mede op te richten kende ik haar vooral van haar proefschrift over de regulering van petroleumpijpleidingen in de EG, Nederland en de Noordzee. In de jaren daarna bleef de regulering van energie-infrastructuur een rode draad in het energie-

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recht en dus ook een terugkerend thema in de artikelen in het Nederlandse Tijdschrift voor Energierecht (hierna: NTE) waarvoor Martha en ik sinds 2003 samen in de redactie zitten. Tijdens de liberalisering van de energiesector ging het vooral om de regulering van de gas- en elektriciteitsnetten. Het huidige proces van de energietransitie brengt de aanleg van nieuwe energie-infrastructuur mee voor bijvoorbeeld warmte en waterstof, wat aanleiding geeft tot nieuwe regulering. Hoe zal deze regulering worden vormgegeven? In deze bijdrage analyseer ik de regulering voor infrastructuur in de (nieuwe) warmtewetgeving en geef ik een doorkijkje naar toekomstige regulering voor waterstofinfrastructuur.

In het proces om de elektriciteit- en gasmarkten in de Europese Unie te openen en een interne elektriciteits- en gasmarkt tot stand te brengen, het liberaliseringsproces, gold als algemeen aanvaard uitgangspunt dat het aanleggen van nieuwe, parallelle netwerken naast de bestaande netwerken voor het transport van gas en elektriciteit niet efficiënt was. Dit uitgangspunt, gecombineerd met het gegeven dat de bestaande netwerken in handen waren van een beperkt aantal ondernemingen, maakte dat sprake was van zogenaamde natuurlijk monopolies. Om andere marktpartijen gebruik te laten maken van de netwerken van deze natuurlijke monopolisten was het van belang die netwerken onder te brengen in afzonderlijke ondernemingen en voor het netbeheer onafhankelijke netbeheerders aan te wijzen, wat ook wel wordt aangeduid als *unbundling*. Vervolgens is aan de ondernemingen, die als netbeheerders zijn aangewezen de verplichting opgelegd tot het verlenen van derdentoegang, ook wel aangeduid als *third party access*.

Derdentoegang heeft zijn dogmatische wortels in de *essential facilities* doctrine. Deze doctrine houdt in dat een onderneming die een machtspositie heeft met betrekking tot de verrichting van een noodzakelijke dienst en zelf van die dienst gebruik maakt (door een voorziening of infrastructuur zonder welke concurrenten aan hun klanten geen diensten kunnen verlenen), en die andere ondernemingen zonder gegronde redenen de toegang tot die voorziening ontzegt of slechts toegang onder minder gunstige voorwaarden verleent, misbruik maakt van haar economische machtspositie.

Omdat elektriciteit- en gasnetwerken *essential facilities* zijn, moeten de netbeheerders derdentoegang verlenen, maar dit kan niet onbegrensd. Ondernemingen moeten immers in staat worden gesteld om een redelijk rendement uit investeringen in nieuwe energie-infrastructuur te behalen. Om die reden is voor de elektriciteits- en gassector nadere, sectorspecifieke regelgeving voor infrastructuur ontwikkeld, zowel op Europees als op nationaal niveau, die onder meer ten doel heeft om objectieve, transparante, non-discriminatoire toegang tot de energie-infrastructuur te waarborgen. Dit is onder meer uitgewerkt in een systeem van gereguleerde nettoegang door middel van tariefregulering en

geschillenbeslechting[2]. Dit systeem is van toepassing op zowel de regionale als de landelijke netbeheerders.

Na het liberaliseringsproces bevinden wij ons nu in het volgende overgangsproces; de transitie naar een energievoorziening die is gebaseerd op de inzet van hernieuwbare energiebronnen. In Nederland mogen met name warmte en waterstof zich in die energietransitie in grote belangstelling verheugen. Dat roept de vraag op of hier opnieuw sprake zal zijn van energie-infrastructuur die kwalificeert als *essential facilities* en daarmee behoefte zal ontstaan aan de regulering van *unbundling* en derdentoegang. Daarbij springt als belangrijk verschil met gas- en elektriciteit in het oog dat de ontwikkeling van waterstof en van warmte niet overwegend is aangewezen op bestaande energie-infrastructuur, maar veelal op de aanleg van nieuwe energie-infrastructuur. Daarbij is dus eens temeer van belang dat de regulering de investeerders in infrastructuur uitzicht biedt op een *business case* met een redelijk rendement. Bovendien zal de regulering vanwege de voortschrijdende ontwikkelingen (en de opschaling) van nieuwe technologieën, ruimte moeten laten voor innovatie.

De reguleringskaders voor zowel warmte- als waterstofinfrastructuur zijn op dit moment in de maak. Hierna zet ik de contouren van de te verwachten reguleringskaders uiteen, voor zowel warmte (par. 2) als waterstof (par. 3), alsook de keuzes (par. 4) die bij de invulling zijn dan wel zullen moeten worden gemaakt.

2 Warmte-infrastructuur

2.1 Warmtewet

Anders dan de Elektriciteitswet 1998 en de Gaswet bevat de Warmtewet geen uitgebreide regulering van de warmte-infrastructuur. De Warmtewet gaat – impliciet – uit van de meest voorkomende situatie dat de eigenaar van het warmtenet het monopolie heeft op zowel de infrastructuur als de levering. In veel gevallen is daarnaast sprake van één warmteproducent. Er is dus geen sprake van een verplichte *unbundling* zoals hierboven beschreven voor gas en elektriciteit, zij het dat bij de voorlaatste wijziging van de Warmtewet wel de definitie van een netbeheerder is geïntroduceerd: "*Degene die een warmtenet beheert*".[3] Daarmee heeft de wetgever in de Warmtewet bewust het uitgangspunt

2 Zie voor een verdere uitwerking M. de Rijke, 'Energie-infrastructuur en *third party access*', *Onderneming en Financiering* 2004, 62.

3 Art. 1 Warmtewet.

verankerd dat de warmteleverancier niet tevens warmtenetbeheerder behoeft te zijn. Voor zowel de leverancier als de netbeheerder schrijft de Warmtewet voor dat als een warmteproducent daarom verzoekt, zij in overleg moeten treden over toegang tot het warmtenet.[4] Zij zijn gehouden de verzoeker om derdentoegang te voorzien van een schriftelijke en gemotiveerde beslissing over het al dan niet inwilligen van dit verzoek. Deze vorm van regulering wordt wel aangeduid als onderhandelde derdentoegang.

Redenen voor de keuze voor onderhandelde toegang zijn blijkens de ontstaansgeschiedenis van de Warmtewet onder meer dat als meerdere producenten aan het warmtenet gaan leveren, calamiteiten beter kunnen worden opgevangen, dat de leveringszekerheid beter en tegen lagere kosten kan worden gegarandeerd en dat duurzame warmtebronnen beter tot ontwikkeling kunnen worden gebracht. De reden om het verlenen van nettoegang voor nieuwe producenten niet dwingend voor te schrijven aan alle neteigenaren (gereguleerde toegang) is erin gelegen dat dit het functioneren en de uitbreiding van warmtenetten zou kunnen ondermijnen.[5]

In de Warmtewet is niet voorzien in de verlening van derdentoegang aan leveranciers omdat voor het realiseren van effectieve concurrentie tussen leveranciers voldoende marktpartijen aan de productiezijde actief moeten zijn. Door de relatief beperkte omvang van de netten in Nederland is daarvan volgens de wetgever voorlopig onvoldoende sprake.[6]

De regulering van de warmte-infrastructuur is dus vooralsnog beperkt tot onderhandelde derdentoegang voor producenten.

2.2 Wet collectieve warmtevoorziening

Collectieve warmtesystemen

In het ontwerp van de opvolger van de Warmtewet, de Wet collectieve warmtevoorziening (hierna: Ontwerp Wcw) is de (onderhandelde) derdentoegang voor collectieve warmtesystemen niet uitgebreid naar warmteleveranciers.[7] Volgens de toelichting op de

4 Art. 21 Warmtewet.

5 *Kamerstukken II* 2016/17, 34723, 3, p. 32 en 33.

6 *Kamerstukken II* 2016/17, 34723, 3, p. 33 en 34.

7 In deze bijdrage wordt uitgegaan van de wettekst die in 2020 in consultatie is gebracht (zie https://www.internetconsultatie.nl/warmtewet2) en de wijziging daarop die de Minister op 14 december 2020 heeft aangekondigd (zie *Kamerstukken II* 2020/21, 30196, nr. 743). Op 5 juli 2021 heeft de Minister meegedeeld vooralsnog af te zien van indiening van het wetsvoorstel vanwege een politieke heroverweging (zie *Kamerstukken II* 2020/21, 30196, nr. 764) zodat de in deze bijdrage beschreven opzet van de Wcw mogelijk nog wijzigt.

Ontwerp Wcw (hierna: Toelichting) is het toelaten van externe warmtebedrijven om warmte te leveren aan eindgebruikers (nog steeds) onwenselijk gelet op het beperkte aanbod aan concurrerende warmtebronnen in een lokaal warmtesysteem waardoor onwaarschijnlijk is dat een effectieve marktwerking zal ontstaan. Toegang voor warmteproducenten tot het collectief warmtesysteem wordt wel wenselijk geacht omdat het goed is als bronnen worden ingezet die beter presteren ten aanzien van de betaalbaarheid, leveringszekerheid of duurzaamheid.[8] Mede in het licht van de eerder genoemde introductie van de functie van netbeheerder in de Warmtewet had de wetgever hier een andere keuze kunnen maken, temeer nu in de praktijk op dit moment bewust "open" netten worden ontwikkeld (zie hierna).

In de Ontwerp Wcw wordt voor collectieve warmtesystemen in wezen een stap terug gezet. De Ontwerp Wcw heeft namelijk als uitgangspunt dat het verboden is om warmte te leveren zonder te zijn aangewezen als warmtebedrijf door het college van B&W van de gemeente (hierna: gemeente). Het aangewezen warmtebedrijf krijgt een exclusief exploitatierecht voor een door de gemeente vastgesteld warmtekavel voor de duur van 20 tot 30 jaar en is integraal verantwoordelijk voor de realisatie en exploitatie van het collectieve warmtesysteem. Het aangewezen warmtebedrijf mag wel warmte inkopen bij een externe warmteproducent en ook de aanleg van het warmtenet mag bij een externe partij worden belegd. Bovendien mag een aangewezen warmte(leverings)bedrijf samenwerken met een afzonderlijke warmtenetbeheerder, die beschikt over de economische eigendom van het warmtenet.

Deze samenwerkingsmogelijkheid laat echter onverlet dat de regeling voor de collectieve warmtevoorziening is toegesneden op een warmtenet dat volledig ten dienste staat van het aangewezen warmtebedrijf en dus niet van andere externe warmtebedrijven. Deze keuze is specifiek gemaakt voor collectieve warmtesystemen, die in de systematiek van de Ontwerp Wcw moeten worden onderscheiden van regionale warmtetransportnetten.

Regionale warmtetansportnetten

Regionale warmtetansportnetten dienen voor het transport van warmte voor de regionale warmtevoorziening van een warmtebron naar de warmtetransportaansluitingen van afnemers van warmte of de warmtetransportaansluitingen van collectieve warmtesystemen (hierna: warmtetransportnetten). In de situatie dat in een gebied dermate grootschalige en relatief goedkope duurzame warmtebronnen (in potentie) voorhanden zijn, dat deze de lokale warmtebehoefte overstijgen, kan het wenselijk zijn dat deze bronnen beschikbaar worden gemaakt voor meerdere warmtedistributiesystemen en andere

8 Ontwerp Memorie van Toelichting (versie 2), p. 40.

grootschalige afnemers (zoals de glastuinbouw of bedrijven) in de regio. Regionaal warmtetransport is vrijwel altijd een natuurlijk monopolie.

In gevallen waarin een regionale regiefunctie noodzakelijk blijkt kan de Minister van Economische Zaken en Klimaat (hierna: de Minister) een warmtetransportbeheerder voor de regio aanwijzen.[9] De aangewezen warmtetransportbeheerder krijgt het exclusieve recht om daar een regionaal warmtetransportnet aan te leggen en te exploiteren. Hiervoor moet de warmtetransportbeheerder naast de gebruikelijke vereisten betreffende de technische, organisatorische en financiële geschiktheid, ook voldoen aan het vereiste van de onafhankelijkheid van het eigendom. De reden hiervoor is dat de warmtetransportbeheerder keuzes moet maken over bijvoorbeeld het temperatuurregime, de fasering en dimensionering van aanleg en het aansluiten van partijen, waarbij hij zich moet richten op het efficiënt en doelmatig ontsluiten van de beschikbare bronnen aan de regio. Als de warmtetransportbeheerder bijvoorbeeld ook eigenaar zou zijn van een aantal bronnen – dan heeft hij (mogelijk) een inherente prikkel om zijn eigen assets te bevoordelen. Daarnaast is het voor de gebruikers (bronnen en afnemers) van belang dat alle partijen in de regio onder non-discriminatoire voorwaarden gebruik kunnen maken van het warmtetransportnet.[10]

Om te borgen dat de warmtetransportbeheerder naast zijn wettelijke taken geen activiteiten ontplooit die (op termijn) een risico vormen voor deze taken, is in de Ontwerp Wcw een beperking opgenomen op de toegestane nevenactiviteiten van de warmtetransportbeheerder. Nevenactiviteiten moeten in lijn liggen met de gevraagde expertise en een vergelijkbaar risicoprofiel kennen; dat wil zeggen activiteiten gerelateerd aan energie-infrastructuur en -transport. Hieronder vallen ook infrastructuur- en transportactiviteiten voor andere energiedragers, zoals elektriciteit, gas en waterstof. Deze restricties op nevenactiviteiten vertonen sterke gelijkenis met de wettelijke toegestane activiteiten van netbeheerders en netwerkbedrijven voor elektriciteit en gas.[11]

De Ontwerp Wcw schrijft voor dat de aandelen in een warmtetransportbeheerder direct of indirect berusten bij de staat, provincies, gemeenten of andere openbare lichamen.[12] De reden voor dit publiek aandeelhouderschap is dat de taak van de warmtetransportbeheerder ook de rol van marktmeester in een regio omvat en dit vitaal is in het

9 Art. 5.1 Ontwerp Wcw.

10 Ontwerp Memorie van Toelichting (versie 2), p. 41.

11 Art. 17c lid 2 Elektriciteitswet 1998 en art. 10d lid 2 Gaswet.

12 Onder 'indirect berusten' wordt verstaan dat de aandelen berusten bij één of meer rechtspersonen waarvan alle aandelen worden gehouden door de staat, provincies, gemeenten of andere openbare lichamen of bij een rechtspersoon die een volledige dochtermaatschappij is van één of meer rechtspersonen waarvan alle aandelen worden gehouden door de staat, provincies, gemeenten of andere openbare lichamen, zie art. 5.14 Ontwerp Wcw.

realiseren van de warmtetransitie en daarmee ook het borgen van de publieke belangen van de warmtelevering in de regio. Omdat de warmtetransportbeheerder zelf afwegingen zal moeten maken over onder meer waar en wanneer transportleidingen worden aangelegd, ligt volgens de wetgever het publiek eigendom van de warmtetransportbeheerder voor de hand.[13]

Op dit punt is voor regionale warmtenetten dus een andere afweging gemaakt dan voor collectieve warmtesystemen. De reden die hiervoor wordt gegeven is dat bij collectieve warmtesystemen al sprake is van een hybride markt met publieke en private spelers en dat al deze partijen nodig zullen zijn om de groei van collectieve warmtesystemen te realiseren. Het voorschrijven van publiek eigendom voor die systemen zou een ingrijpende maatregel zijn en zou, gegeven de uitgangssituatie en de breedte van de wettelijke verantwoordelijkheid, niet-proportioneel zijn.[14]

Voorts wordt voorgeschreven dat de warmtetransportbeheerder moet beschikken over de economische eigendom van het warmtetransportnet. Het bloot eigendom moet direct of indirect bij de staat, een provincie, een gemeente of een ander openbaar lichaam berusten. Hiermee wordt de mogelijkheid geboden om andere partijen mee te laten investeren in het tot stand laten komen van het warmtetransportnet en (gedeeld) eigenaar te laten zijn van onderdelen van dat net.[15]

Tariefregulering

Voor zowel de collectieve warmtesystemen als de warmtetransportnetten, is in de Wcw een systeem van tariefregulering opgenomen. Voor beide geldt dat de regulering moet waarborgen dat (gebonden) afnemers niet meer betalen dan nodig is en dat de beheerder van het warmtenet de zekerheid heeft dat (efficiënte) kosten redelijkerwijs kunnen worden terugverdiend en dat een redelijk rendement mogelijk is. Echter, bij de collectieve warmtesystemen wordt stapsgewijs toegegroeid naar een kostengebaseerde tariefsystematiek, terwijl de systematiek voor het warmtetransportnet uitgaat van een door de ACM vastgesteld inkomstenplafond en toegestane inkomsten, waarbij de warmtetransportbeheerder de ruimte krijgt deze inkomsten te verdienen in verschillende producten en diensten. De verwachting is dat de warmtetransportbeheerder producten en diensten met bijbehorende tarieven kan ontwikkelen, die leiden tot efficiënter en doelmatiger gebruik van het systeem. Als voorbeeld van differentiatie voor verschillende producten wordt genoemd de producten voor zogenoemde *launching customers*. Dit zijn klanten die commitment afgeven voor het gebruik van nieuw aan te leggen leidingon-

13 Ontwerp Memorie van Toelichting (versie 2), p. 58.
14 Ontwerp Memorie van Toelichting (versie 2), p. 59.
15 Ontwerp Memorie van Toelichting (versie 2), p. 59.

derdelen. Door dit commitment krijgt de aanleg van die leidingdelen een wezenlijk ander risico voor de warmtetransportbeheerder en daarmee andere kosten voor het systeem als geheel.

Open netten

Er bestaan dus diverse verschillen tussen de regulering van collectieve warmtesystemen en regionale warmtetransportnetten. Een verschil dat als gezegd opmerkelijk is te noemen in het licht van de bestaande praktijk is het belemmeren van de ontwikkeling van "open" collectieve warmtenetten. De praktijk wijst namelijk uit dat bij marktpartijen bereidheid bestaat om daarin te investeren. Bovendien staat voor warmtenetten veel innovatie op stapel zoals de zogenoemde 4e en 5e generatie warmtenetten met verschillende warmtebronnen, bufferingsmogelijkheden en combinaties met elektriciteit en/of waterstof. In het licht van deze ontwikkelingen is het dus de moeite waard om ook voor collectieve warmtesystemen de wenselijkheid en haalbaarheid te onderzoeken van een model waarbij een warmtenetbeheerder wordt aangewezen om voor één of meerdere warmtekavels zorg te dragen voor het warmtetransport naar het model van de regionale warmtetransportbeheerder. Voor die warmtenetten zou een systeem van gereguleerde derdentoegang kunnen functioneren.

Op het moment van afronding van dit artikel is de toekomst van de Ontwerp Wcw allerminst zeker. Juist op het punt van de keuze tussen publieke of private warmtevoorziening dan wel de keuze tussen publieke of private warmtenetten nemen lokale overheden uitgesproken standpunten in zodat onzeker is of de Ontwerp Wcw in zijn huidige vorm de eindstreep zal halen.

3 Waterstofinfrastructuur

Europees reguleringskader

Voor waterstof wordt – anders dan bij warmte – een juridisch kader in EU-verband ontwikkeld.[16] Dit valt te verklaren uit het feit dat voor waterstof grensoverschrijdende marktwerking wordt voorzien. De Europese Commissie heeft op 8 juli 2020 een waterstofstrategie gepubliceerd.[17] Daarin voorziet zij een gefaseerde ontwikkeling waarbij in de eerste fase (tot 2025) met name op industriële locaties waterstof wordt geproduceerd met behulp van elektrolyse-installaties ten behoeve van de bedrijven op die locatie en

16 De Europese Gasrichtlijn 2009/73/EC dekt niet de infrastructuur bestemd voor het transport van waterstof.

17 COM (2020) 301, *Waterstofstrategie voor een klimaatneutraal Europa*.

dus een beperkte behoefte bestaat aan transportnetten, gevolgd door een fase waarin waterstof een intrinsiek onderdeel gaat uitmaken van een geïntegreerd energiesysteem (2025-2030) en een derde fase waarin waterstoftechnologieën tot wasdom zijn gekomen en de waterstofinfrastructuur onderdeel zal zijn van geïntegreerde trans-Europese energienetwerken (2030-2050).[18]

In februari 2021 volgde de *White Paper* van de *European Union Agency for the Cooperation of Energy Regulators* (ACER) en de *Council of European Energy Regulators* (CEER) waarin hoofdlijnen voor de regulering voor waterstofnetten zijn geschetst.[19] Hierin wordt gepleit voor een dynamische benadering waarbij regulering wordt toegepast al naar gelang de waterstofnetten zich ontwikkelen als een natuurlijk monopolie en kunnen worden beschouwd als *essential facilities*. Particuliere waterstofnetten die de naastgelegen industrie beleveren zouden (tijdelijk) moeten kunnen worden uitgezonderd van regulering. Bij deze dynamische benadering van de regulering is een rol weggelegd voor de nationale regulerende instantie (NRA), zoals de Nederlandse Autoriteit Consument en Markt. Ter inspiratie voor dit model wordt verwezen naar de bestaande regulering in de telecommunicatiesector, die de NRA's de bevoegdheid geeft flexibel te interveniëren, als reactie op de dynamiek van de markt, op basis van het regelmatig monitoren of een marktpartij een aanmerkelijke marktmacht heeft.

De Europese Commissie heeft die hoofdlijnen deels overgenomen in het in december 2021 gepubliceerde voorstel voor een Richtlijn voor gemeenschappelijke regels voor de interne markt van hernieuwbaar gas, aardgas en waterstof (hierna: Voorstel).[20] Hierin is onder meer opgenomen dat de EU lidstaten moeten voorzien in gereguleerde toegang tot waterstofnetwerken gebaseerd op gepubliceerde, objectieve en non-discriminatoire tarieven. Deze tarieven of de onderliggende berekeningsmethoden moeten vooraf door de NRA zijn goedgekeurd en gepubliceerd. Tot 31 December 2030 kunnen de EU lidstaten hiervan afwijken en een systeem van onderhandelde toegang toestaan.[21] Het Voorstel gaat er voorts van uit dat het beheer van waterstofnetwerken is gescheiden van energieproductie- en leveringsactiviteiten waarbij aan de EU lidstaten de ruimte wordt geboden om tot 2030 het model van een onafhankelijke netbeheerder toe te staan voor bestaande geïntegreerde waterstofnetwerkbedrijven.[22]

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18 Zie *Waterstofstrategie*, p. 19

19 *When and How to Regulate Hydrogen Networks?* European Green Deal Regulatory White Paper series (paper #1), 9 February 2021.

20 COM (2021) 803 final, Proposal for a Directive of the European Parliament and of the Council of common rules for the internal markets in renewable and natural gases and in hydrogen.

21 Art. 31 van het voorstel;

22 Art. 62 en 47 van het Voorstel

Nederlands reguleringskader

In Nederland wordt het belang van de ontwikkeling van waterstof voor het behalen van de klimaatdoelstellingen al geruime tijd onderkend alsook het vereiste dat wordt voorzien in adequate regulering. In de Nederlandse praktijk zien we dat enerzijds lokale waterstofnetten worden ontwikkeld ten behoeve van de naastgelegen industrie en anderzijds het hergebruik van het bestaande gasnetwerk voor waterstoftransport wordt nagestreefd.

De (toenmalige) Staatssecretaris van Economische Zaken en Klimaat (hierna: de Staatssecretaris) heeft in een brief aan de Tweede Kamer van 10 december 2021 het volgend kabinet in overweging gegeven om Gasunie aan te wijzen als landelijk netbeheerder van een waterstoftransportnet en aldus de ontwikkeling van het transportnet voor waterstof op zich te nemen en gasleidingen vrij te spelen voor hergebruik alsook die rol van Gasunie te borgen in wet- en regelgeving.[23] Voor de ontwikkeling van regelgeving voor private commerciële transportnetten voor waterstof verwijst de Staatssecretaris naar het Decarbonisatie wetgevingspakket van de Europese Commissie, waarvan het hiervoor beschreven Voorstel deel uit maakt. De definitieve Europese Richtlijn zal naar verwachting worden geïmplementeerd in de Energiewet. [24]

Anders dan het geval is bij de regulering voor de warmte-infrastructuur wordt de regulering voor de waterstofinfrastructuur in Nederland dus overwegend vorm gegeven door een Europese Richtlijn zoals we dat ook hebben gezien bij de regulering van de elektriciteits- en gasmarkt.

4 Conclusie

De hiervoor beschreven algemene uitgangspunten voor de regulering van energie-infrastructuur die kwalificeert als *essential facility* en de geschetste hoofdlijnen van toekomstige regulering van de warmte-en de waterstofinfrastructuur laten zien dat bij de regulering van nieuwe energie-infrastructuur keuzes moeten worden gemaakt ten aanzien van – in elk geval – de volgende thema's:

- vereisten voor onafhankelijkheid
- onderscheid tussen regulering van lokale versus regionale/landelijke infrastructuur

23 *Kamerstukken II* 2020/21, 32813, nr. 958

24 Met de Energiewet wordt beoogd de Gaswet en Elektriciteitswet 1998 te vervangen en een geactualiseerd ordeningskader te bieden dat de energietransitie ondersteunt en stimuleert. Bij de afronding van deze bijdrage was nog geen wetsvoorstel voorhanden waarin bepalingen voor de regulering van waterstof zijn opgenomen.

- onderhandelde of gereguleerde derdentoegang
- publieke of private eigendom van de infrastructuur en/of van het infrastructuurbedrijf

Voor het realiseren van zowel warmte- als waterstofinfrastructuur is het van het grootste belang dat duidelijkheid wordt geboden over de gemaakte keuzes ten aanzien van deze thema's en de (al dan niet gefaseerde of dynamische) uitwerking daarvan. Dit heeft immers grote invloed op de *business-case* van en de investeringen in deze infrastructuur en daarmee op het welslagen van een essentieel onderdeel van de energietransitie.

5 Tot slot

Bij de start van onze samenwerking in het NeVER-bestuur en de NTE-redactie hebben Martha en ik niet kunnen bevroeden dat de regulering van energie-infrastructuur zo een hoge vlucht zou nemen. Net zomin was te voorzien dat het energierecht – dat destijds als rechtsgebied nog in de kinderschoenen stond – zo cruciaal zou worden voor een globale energietransitie. Martha heeft als hoogleraar met haar enthousiasme, haar brede en kritische benadering en tomeloze energie een onmiskenbaar grote bijdrage geleverd aan de uitwisseling en verdieping van de kennis van het energierecht alsook het uitbouwen van het wetenschappelijk fundament onder het energierecht.

LOCAL PERSPECTIVES

ENERGIETRANSITIE EN VERTROUWEN: DE CASUS WINDPARKEN DDMOM EN N33

Herman Bröring[1]

Samenvatting

In de energietransitie staat het vertrouwen onder druk tussen burgers onderling, tussen burgers en overheid, en tussen overheden onderling. Een analyse van de casus van twee windparken, die als schoolvoorbeeld gelden van hoe het niet moet, maakt duidelijk wat er in termen van vertrouwen mis kan gaan. Inmiddels zijn belangrijke stappen gezet om omwonenden meer tegemoet te komen; denk aan de toegenomen aandacht voor proces- en financiële participatie. Maar daarmee is het vertrouwensprobleem nog niet opgelost.

1 Inleiding

In de door Martha en mij geschreven bijdrage 'Schade ten gevolge van de gaswinning in Groningen' staat een sub-paragraaf met als kopje 'Sociale onrust en wantrouwen.'[2] Er is ook veel sociale onrust en wantrouwen rond de energietransitie. Het recht kan worden beschouwd als een vertrouwensschild. Maar een vertrouwensgarantie is het niet. Dit blijkt ook uit twee casus die ik al ongeveer tien jaar volg: de windparken DDMOM (bij Stadska-

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2 NTE 2016, 2/3, p. 92 (par. 4.1).

naal) en N33 (bij Meeden).[3] In deze bijdrage vertel ik eerst iets over het begrip vertrouwen zoals opgevat in de sociale psychologie. Daarna laat ik zien hoe tijdens de ontwikkeling van beide windparken het vertrouwen is geschonden in de relatie tussen burgers onderling, tussen overheid en burgers en tussen overheden onderling.

2 Het begrip vertrouwen

Heel algemeen wordt 'vertrouwen' omschreven als "de overtuiging dat anderen ons niet met opzet kwaad zullen aandoen, zeker niet als ze dit kunnen vermijden, en dat ze het goede met ons voor hebben en, indien mogelijk, oog zullen hebben voor onze belangen."[4] Er worden verschillende begrippen vertrouwen onderscheiden.

Voor onze casus is het subtiele, Engelstalige onderscheid tussen 'trust' en 'confidence' van belang.[5] Het begrip 'trust' heeft betrekking op intermenselijke verhoudingen. Er zijn een concrete *trustor* en een concrete *trustee*. De mensen maken in hun onderlinge verhouding eigen keuzes. Beschaming van het vertrouwen leidt tot spijt. 'Trust' is relatief gemakkelijk te schenden en te herstellen. Het begrip '*confidence*' betreft een institutie zoals de overheid als zodanig.[6] De *trustee* is een abstracte entiteit. De *trustor* (een burger) staat in een afhankelijkheidsrelatie tot de *trustee*. Beschaming van het vertrouwen leidt tot vervreemding. 'Confidence' is relatief moeilijk te schenden, maar ook moeilijk te herstellen.

Mensen gaan er vanuit dat een ander de beste bedoelingen heeft. Vertrouwen – in andere mensen en doorgaans ook in instituties – is dus het uitgangspunt, maar is gemakkelijker te beschadigen dan te herstellen ("Vertrouwen komt te voet en gaat te paard").

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3 De afkorting DDMOM staat voor De Drentse Monden en Oostermoer. Omdat het niet eenduidig om één park gaat, is het soms zinvol om te onderscheiden tussen DDM en OM. Zie over de casus N33 ook de HUMAN-documentaire *Tegenwind – Het Verdriet van de Veenkoloniën*, https://www.human.nl/tegenwind.html.

4 Piotr Sztompka, *Trust: A sociological theory*, Cambridge: Cambridge University Press, 1999, zoals aangehaald door Kees van den Bos, *Vertrouwen in de overheid: wanneer hebben de burgers het, wanneer hebben ze het niet en wanneer weten ze niet of ze de overheid vertrouwen?*, Den Haag: Ministerie van BZK, 2011, p. 7.

5 Waarover ook mijn publicatie 'Complexe besluitvorming en legitimiteit. Een verhaal over de vestiging van windparken in de Drentse Veenkoloniën', in: Bert Marseille, Lynn van der Velden (red.), *Vertrouwen verdient. Verdiend vertrouwen. Visies op geschilbeslechting door de overheid*, Den Haag: Ministerie van Binnenlandse Zaken en Koninkrijksrelaties 2014, m.n. p. 61-64.

6 Niklas Luhmann heeft het treffend over "system trust". Zie onder andere zijn *Trust and Power*, Hoboken, New Jersey: John Wiley & Sons, 2017 (laatste Engelstalige editie).

De ernst van de beschadiging kan verschillen; zo is scepsis bijvoorbeeld minder erg dan cynisme.

'Vertrouwen' is "a psychological state", waarbij het gaat om gepercipieerde (dus niet de objectieve) kwetsbaarheden en risico's.[7] Evenzo wordt in de sociale psychologie vaak gesproken van 'perceived trustworthiness' (gepercipieerde betrouwbaarheid) van de *trustee*. In de literatuur worden drie dimensies van gepercipieerde betrouwbaarheid onderscheiden.[8] De eerste is '*performance*'. Dan gaat het om slagvaardigheid, het kunnen en doen, het leveren van een resultaat. De tweede dimensie is '*benevolence*'. Dit betreft het rekening houden met de belangen van anderen (de *trustor*). De derde dimensie is '*integrity*'. Daar draait het om eerlijkheid, het nakomen van beloftes, transparantie, procedurele rechtvaardigheid.

Hieronder beschrijf ik drie soorten betrekkingen, die ik label op de hiervoor beschreven (aspecten van) 'performance', 'benevolence' en 'integrity'.

3 Vertrouwen tussen burgers onderling

De energietransitie is naast een klimaatvraagstuk ook een verdelingsvraagstuk: wie verdient eraan en wie krijgt de rekening? Dit vergt een proactieve, regievoerende overheid. Maar het waren in onze casus de initiatiefnemers en hun projectontwikkelaars die het stuur in handen hadden. Vervolgens werd de rijkscoördinatieregeling rap van toepassing verklaard, met de toevoeging dat de initiatiefnemers voor draagvlak dienen te zorgen.[9]

'Integrity' jegens omwonenden was ver te zoeken toen er in de belangrijke fase van de planontwikkeling geen transparantie werd betracht. Omwonenden van het toekomstige

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7 Roderick M. Kramer, 'Trust and Distrust in Organizations: Emerging Perspectives, Enduring Questions', *Annual Review of Psychology* Volume 50, 1999 February, p. 571-572, https://doi.org/10.1146/annurev.psych.50.1.569

8 Veel dank ben ik verschuldigd aan Marielle Bovenhoff, die mij wees op de begrippen 'performance', 'benevolence' en 'integrity' en de publicaties Roger C. Mayer, James H. Davis, F. David Schoorman, 'An Integrative Model Of Organizational Trust', *Academy of Management Review* vol. 20, no. 3, Published Online: 1 Jul 1995, https://doi.org/10.5465/amr.1995.9508080335, Jason A Colquitt, Brent A Scott, Jeffery A LePine, 'Trust, Trustworthiness, and Trust Propensity: A Meta-Analytic Test of Their Unique Relationships With Risk Taking and Job Performance', *Journal of Applied Psychology* 92(4):909-27, https://doi.org/10.1037/0021-9010.92.4.909, en Stephan Grimmelikhuijsen, Eva Knies, 'Validating a scale for citizen trust in government organizations', *International Review of Administrative Sciences* 2015, September 3, https://doi.org/10.1177/0020852315585950.

9 De rijkscoördinatieregeling is geregeld in § 3.6.3 van de Wet ruimtelijke ordening. Zij is van toepassing op windparken met een capaciteit van ten minste 100 MW. Zie art. 9b, eerste lid (a), Elektriciteitswet 1998.

windpark werden zeer laat en mondjesmaat geïnformeerd. Dit werd door hen als niet eerlijk en niet transparant – in gewoon Nederlands: als "achterbaks" – ervaren. Ook 'benevolence' was ver te zoeken. In het oorspronkelijke plan voor DDMOM werd uitgegaan van nota bene > 600 MW: het hele gebied werd vol gepland met windturbines. Dit evident strategisch overvragen wijst op een gebrek aan welwillendheid jegens omwonenden. Een gebrek aan zulke welwillendheid was er ook waar de initiatiefnemers niet bereid waren 'wind' in te leveren tegen 'zon'.[10] Voor N33 komt als belangrijkste aantasting van de 'benevolence' naar voren dat de initiatiefnemers (energiebedrijven) ondanks het klemmende verzoek van inwoners van Meeden niet hebben willen kiezen voor een locatie meer noordwaarts van het dorp, zodat er minder overlast zou zijn.[11] Verworven grondposities waren bepalend. Wie voorjaar 2021 naar het windpark bij Meeden kijkt, kan verder constateren dat het vermijden van overlast door felrode toplichten niet de juiste aandacht heeft gekregen, wat duidt op gebrek aan 'performance' en 'benevolence'.

Voor zowel DDMOM als N33 was en is er evenmin sprake van 'integrity' in zoverre transparantie over de verdiensten en onkosten van het windpark ontbreekt. Voor velen is moeilijk te verteren dat de buurman over hun rug rijk wordt.[12] Het lijkt erop dat er forse overwinsten worden gemaakt.[13] Dat de initiatiefnemers verkondigen dat het ze primair om duurzaamheid en het klimaat is te doen (en niet primair om extra inkomsten), is niet geloofwaardig en getuigt daarom niet van eerlijkheid. Het bewoners niet tegemoetkomen in hun wensen van (deels) 'zon' in plaats van (volledig) 'wind', respectievelijk het iets in noordelijke richting opschuiven van het windpark, bevestigt dat financiële belangen prevaleren. Een gebrek aan zowel 'benevolence' als 'integrity' is ook aan de orde waar de DDM-initiatiefnemers zelf het geld wilden verdelen voor het door hen aan het gebiedsfond te betalen deel, dat bovendien oorspronkelijk subsidiegeld en dus belastinggeld betreft. Dit is in strijd met de gedragscode waaraan ook de initiatiefnemers (hun projectontwikkelaar) zich gecommitteerd zullen (zal) hebben.[14]

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10 In het gebied was veel steun voor 'zon'. Tekenend is dat tegen het (zomer 2021) grootste zonnepark van Nederland, het in het DDMOM-gebied gelegen Vloeivelden Hollandia (120 MW, 300.000 zonnepanelen), geen enkel bezwaar werd aangetekend.

11 In Meeden wordt overlast van het windpark in de vorm van laagfrequent geluid ervaren. Deze vorm van overlast krijgt pas de laatste tijd de nodige aandacht, onder meer van de kant van het RIVM; zie https://www.rivm.nl/windenergie/windmolens-gezondheid.

12 Hier ligt het essentiële verschil met benadeling van omwonenden door de aanleg van bijvoorbeeld een spoorlijn: daar spelen grote financiële voordelen van specifieke particuliere derden niet of amper een rol.

13 Daan Hulshof, *Imperfect Information and Incentives for Renewable Energy* (diss. Groningen), Groningen: University of Groningen, 2021. De initiatiefnemers hebben een ander verhaal, maar zijn op het belangrijke punt van het geld niet transparant.

14 En het hielp niet om een omgevingsadviesraad (OAR) van de grond te krijgen.

Er was in deze tijd sprake van een neoliberale aanpak met gebrek aan gemeenschapszin, waarbij de rijksoverheid meteen partij koos voor de initiatiefnemers en de provincie daarin gemakkelijk meeging.[15]

De reacties waren niet mals, zoals elkaar van de weg rijden, brandstichting en dreigbrieven.[16] Het geeft aan dat de verhoudingen tussen burgers onderling, vaak dorpsgenoten, ernstig verstoord zijn geraakt. De sociale cohesie is door deze energietransitie aanzienlijk afgenomen.

4 Vertrouwen tussen overheid en burgers

Merkwaardig is de provinciale aanwijzing van het Mondengebied en het Oostermoer in de gemeenten Aa en Hunze en Borger-Odoorn als 'zoekgebied' aan het *eind* van een uitgebreide voorbereidingsprocedure (onder invloed van de door de initiatiefnemers ingebrachte zienswijzen). [17] De aanwijzing van deze gebieden was dus niet het voorwerp van de inspraakprocedure, maar de uitkomst ervan. Daargelaten of de gang van zaken in strijd is met de Algemene wet bestuursrecht: bestuurders en bewoners van de betrokken gemeenten voelden zich miskend. In termen van 'integrity', meer in het bijzonder transparantie en procedurele rechtvaardigheid, was de gang van zaken, die als "achterbaks" werd ervaren, ongelukkig. Ze getuigt bovendien van een gebrek aan 'performance' en competentie in de zin van 'kunnen'.

De uitlating van een gedeputeerde dat de (gedeeltelijk in Drenthe gelegen) Veenkoloniën in aanmerking komen omdat – parafraserend – "Drenthe mooi moet blijven", is op zichzelf eerlijk. Incongruentie tussen motieven en motivering doet echter afbreuk aan 'integrity'.

Uit een oogpunt van 'integrity' was het ook ongelukkig dat rijk, provincie en gemeenten niet met één mond spraken. Dientengevolge werd soms uiteenlopende informatie verstrekt. Dat was niet het geval waar over de grootte van het windpark werd gesproken: consequent werd gesproken van 150 MW. De uitlating van een Drentse gedeputeerde dat grotere turbines tot minder turbines zouden leiden omdat je met grotere eerder de 150 MW kunt halen, sloot daarbij aan. Toen het aan het eind van de besluitvorming opeens

15 De plannen voor de windparken DDMOM en N33 vinden hun oorsprong in eind jaren nul van deze eeuw. De markt met de initiatiefnemers nam en kreeg de leiding; de overheid was volgend (de nog in werking te treden Omgevingswet kent daar sporen van).

16 Zie Rb Noord-Nederland 16 april 2021, ECLI:NL:RBNNE:2021:1398.

17 Als het gaat om windparken pleegt men niet ten onrechte te zeggen dat zienswijzen in het algemeen nauwelijks invloed op het eindresultaat van de besluitvorming hebben. In het geval van DDMOM heeft de uov-procedure juist een enorme impact gehad.

om 175 MW bleek te gaan, beschouwden omwonenden dat als het breken van een belofte (aspect van de 'integrity'). Juridisch mocht het kloppen, maar het vertrouwen was er niet mee gediend.

Opvallend is de verruiming van de geluidsnormen voor windturbines, waardoor turbines dichter dan voorheen op huizen mogen staan.[18] Dit is gebeurd op een wijze die in strijd is met Unierecht.[19] Na eerdere ontkenningen heeft ook de Afdeling bestuursrechtspraak erkend dat de geluidsnormen, en andere normen van het Activiteitenbesluit en de Activiteitenregeling, in strijd met de SMB-Richtlijn (2001/42/EG) tot stand zijn gekomen.[20] De wijze van normering (met gemiddelden) draagt niet bij aan de handhaafbaarheid. Een en ander getuigt wederom niet van 'benevolence'.

Opmerkelijk is dat bestuurders en politici om het hardst riepen dat een eerlijke verdeling van de lusten en lasten belangrijk is. Terwijl op voorhand duidelijk was dat zij daar helemaal niet over gingen (en gaan).[21] Ter zake niet bevoegd en verantwoordelijk zijn, maar wel doen alsof, wekt verkeerde verwachtingen en is niet eerlijk, hetgeen afbreuk doet aan 'integrity'.

Of wat dacht u van dit staaltje Drents *naoberschap*: (I) Het provinciebestuur wijst een groot gebied grenzend aan de provincie Groningen aan als geschikt voor een groot windpark, maar de Groningse buurgemeente Stadskanaal en haar inwoners, die er de gevolgen van kunnen ondervinden, werden genegeerd. (II) De provincie Drenthe draagt bij aan het gebiedsfonds, maar inwoners van deze Groningse gemeente mogen daar niet van profiteren.[22]

De rijksoverheid heeft rekening gehouden met de belangen van de bewoners van het DDMOM-gebied door de gevraagde > 600 MW terug te brengen naar 175 MW (wat in de

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18 Besluit van 14 oktober 2010 tot wijziging van het Besluit algemene regels voor inrichtingen milieubeheer en het Besluit omgevingsrecht (wijziging milieuregels windturbines). Je zou graag precies willen weten hoe zou men, mede in het licht van de toenmalige RIVM-advisering, op 41 dB(A) Lnight en 47 dB(A) Lden is uitgekomen. Een doelberekening kan niet worden uitgesloten.

19 Hierover H.E. (Herman) Bröring, A.W. (Albert) Koers, '"Battenoord" op losse schroeven: tijd voor prejudiciële vragen. Is het Activiteitenbesluit wel rechtsgeldig?', TO 2020/4, p. 102-122, doi: 10.5553/TO/156850122020020004004.

20 ABRvS 30 juni 2021, ECLI:NL:RVS:2021:1395 (windpark Delfzijl Zuid Uitbreiding).

21 Zie mijn bijdrage uit 2014, p. 77-78, en vooral Hanna Tolsma en Gert Blekkenhorst, *Bevoegdheden overheden bij procesparticipatie en financiële participatie voor hernieuwbare energieproject* (factsheet), Nationaal Programma RES, 2020, en Dorien Bakker, *Omgevingsfondsen bij wind- en zonneparken: met (wettelijke) waarborgen omgeven? Een juridische masterscriptie over de wenselijkheid van een wettelijke regeling ten aanzien van omgevingsfondsen*, Groningen april 2021.

22 De initiatiefnemers varen op dit punt een andere koers en willen omwonenden aan de andere kant van de grens wel bij de financiële compensatie betrekken.

communicatie 150 MW was). Bij deze 'benevolence' past de aantekening dat de overvraging volstrekt onredelijk en onhaalbaar was.

Procedures tegen de goedkeuring van het type turbines ontbreken bovendien. De minister schrijft in een brief aan omwonenden: "Overigens kan ik in dat verband nog vermelden dat initiatiefnemers conform voorschrift 3.3 van de Omgevingsvergunningen, voor zover thans aan de orde, de benodigde gegevens aan mij hebben aangeleverd en dat ik deze inmiddels heb goedgekeurd."[23] Welke burger is in staat hieruit op te maken dat hij na kennisneming van deze passage als de wiedeweerga, dat wil zeggen binnen twee weken, een rechtsmiddel moet aanwenden? Juridisch is het correct gegaan, maar je kunt hier niet spreken van welwillendheid ('benevolence') en transparantie ('integrity') richting omwonenden.

Verder geeft het bijdragen door de provincie Drenthe en de rijksoverheid aan het DDMOM-gebiedsfond blijk van 'benevolence'. De bijdrage was ingegeven door "de ontstane onrust".[24] De provincie Groningen wil voor N33 echter niet van dergelijke bijdrage weten, en daarom de rijksoverheid evenmin.

5 Vertrouwen tussen overheden onderling

Een medewerker van de gemeente Borger-Odoorn reisde op 30 juni 2010 af naar Zwolle, om daar door EZK-functionarissen te worden geïnformeerd over "een grote ontwikkeling": er komt een groot windpark. "Ik zei: Waarom hebben jullie mij eigenlijk uitgenodigd en niet de wethouder of de burgemeester? Het antwoord was dat ik het wel even kon overbrengen aan de wethouder, ze hadden verder ook weinig tijd, na een half uurtje waren we klaar." Korte tijd later ging op het gemeentehuis de zomervakantie in.[25]

Bij deze gang van zaken is het niet zo gek dat gemeenten Aa en Hunze en Borger-Odoorn later een kort geding tegen de Staat aanspanden over de toepasselijkheid van de rijkscoördinatieregeling en dat gemeentelijke bestuurders burgers aanmoedigden zienswijzen in te dienen. Lang leve de Code Interbestuurlijke verhoudingen.

Opvallend zo niet zorgelijk was de desinteresse van BZK voor de (gebrekkige) kwaliteit van de besluitvorming. Toen op hoog niveau bij dit ministerie erop werd gewezen dat er zorgen over die kwaliteit zijn, ook in termen van interbestuurlijke verhoudingen, was

23 Zie art. 2.22, derde lid (b), Wabo.

24 Of door het bewustzijn dat men er een potje van had gemaakt?

25 Uit de reconstructie door Willem de Haan, 'Hoe de Drentse windparken werden doorgedrukt. "We zijn er vakkundig ingefietst", *Binnenlands Bestuur* 10 mei 2019, p. 10-13. Zie voor zijn reconstructie van de N33-besluitvorming https://www.vpro.nl/argos/media/afleveringen/2019/De-strijd-om-de-wind.html.

het antwoord dat men niet van enig probleem op de hoogte is. Van de kant van BZK was afzijdigheid troef. En de gemeenten hadden ook weinig aan de VNG, waar ongeveer 30 EZK-ambtenaren werkten om de energietransitie te ondersteunen: de VNG als bijkantoor van EZK?

Dit alles overziend getuigt de hele gang van zaken niet van 'benevolence' en 'integrity' jegens gemeenten.

6 Geschonden vertrouwen en juridische procedures

Met de Afdelingsuitspraken DDMOM en N33 lijkt de besluitvorming afgezegend.[26] Naar aanleiding van de onverbindendheid van normen van het Activiteitenbesluit en de Activiteitenregeling zijn evenwel op ruime schaal verzoeken ingediend om terug te komen van rechtens onaantastbaar geworden besluiten. Daar zullen afwijzingen op volgen, waarna opnieuw procedures bij de rechter zullen worden gevoerd.[27]

Het verloren vertrouwen zal moeilijk zijn terug te winnen. Daarbij is van invloed dat het voornamelijk om 'confidence' gaat en niet om 'trust'. Dit geldt voor het vertrouwen van omwonenden in de overheid. Met de aantekening dat de overheid geen eenduidig verschijnsel is. Zo zullen de gemeenten er bij de omwonenden gunstig uitspringen, bij de initiatiefnemers juist niet, en is het voor het vertrouwen in de rijksoverheid juist omgekeerd. Het vertrouwen van omwonenden in de initiatiefnemers laat zich evenmin gemakkelijk herstellen. Want ook daar gaat het in belangrijke mate om 'confidence'. Daarbij is van betekenis dat de initiatiefnemers evenmin een overzichtelijke, homogene categorie vormen, maar een combinatie van boeren, projectontwikkelaars en energiebedrijven. Per saldo is sprake van een complexe verhouding tussen 'de' overheid, 'de' initiatiefnemers en omwonenden waarin verschillende vormen van een gebrek aan vertrouwen zich manifesteren. Er is sprake van bestuur dat schadelijk is voor het vertrouwen in de overheid en ondermijnend voor de energietransitie.

De energietransitie is 'business as usual'. Het lijkt erop dat rijk en provincie inmiddels afstand hebben genomen van het 'over u, zonder u' en van de neoliberale aanpak waarin de initiatiefnemers ruim baan kregen. Geprobeerd wordt meer rekening te houden met

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26 ABRvS 21 februari 2018, ECLI:NL:RVS:2108:616 (DDMOM); ABRvS 29 mei 2019, ECLI:NL:RVS:2019:1781 (N33).

27 Door het vervallen van normen van het Activiteitenbesluit is er ook meer ruimte voor civiele procedures van omwonenden tegen de initiatiefnemers: er zijn geen publiekrechtelijke normen meer die benut kunnen worden bij de invulling van eisen van maatschappelijke zorgvuldigheid (zodat er meer ruimte is dan in de situatie van HR 10 maart 1972, NJ 1972/278, m.nt. G.J. Scholten, ECLI:NL:HR:1972:AC1311 (Vermeulen/Lekkerkerker; Kraaien- en roeken-arrest)).

de belangen van de burger, wat betreft zowel de procedurele rechtvaardigheid (middels onder meer omgevingsdialogen) als de distributieve rechtvaardigheid (zoals de regel van ten minste 50% van de revenuen naar de regio). Maar de omwonenden van DDMOM en N33 kopen daar weinig voor.

De besluitvorming is conflictopwekkend gebreken. Lopende procedures betreffen, naast de verzoeken om terug te komen van rechtens onaantastbaar geworden besluiten, planschadevergoeding en wie tot handhaving bevoegd is: B&W of de minister?[28] Overlast voor inwoners van Meeden leidt tot procedures over normstelling en handhaving in verband met felle toplichten op de windmolens.[29]

De casus DDMOM en N33 zullen het verzet tegen windparken elders hebben versterkt. De ambtenaren die de minister adviseerden om de breed aangenomen Motie Smaling uit te voeren – zoek naar alternatieven voor windparken in de Veenkoloniën – omdat anders verdere achteruitgang van het draagvlak voor de energietransitie en met name wind op land dreigt, hebben het goed gezien.[30]

7 Conclusie en aanbeveling

Het vergt geen "rocket science" (zoals Martha wel eens zegt) om te concluderen dat de besluitvorming in de casus DDMOM en N33 niet goed is gegaan. Tegelijkertijd is duidelijk dat behoud van vertrouwen in het kader van de energietransitie een uiterst weerbarstige opgave is. Weten we trouwens wel wat het *echte* probleem is? Een gebrek aan procesparticipatie, of juist aan financiële participatie? Betreft het probleem overlast of zelfs gezondheidsschade, waartegen participatie niet of nauwelijks helpt?

Ik sluit af met (a) de aanbeveling nader onderzoek te doen naar de gezondheidseffecten van windturbines,[31] (b) de wens dat de ingevolge de SMB-Richtlijn alsnog te verrichten milieurapportage op controleerbare wijze voldoet aan eisen van 'benevolence' en 'integrity',[32] (c) de verwachting dat procesparticipatie geprut blijft en (d) de aanbeveling om financiële participatie wettelijk te regelen.[33]

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28 Rb Noord-Nederland, 3 november 2020, ECLI:NL:RBNNE:2020:3847. Er loopt hoger beroep.

29 Zie ook Rb Noord-Nederland 12 mei 2021, ECLI:NL:RBNNE:2021:1878.

30 Kamerstukken II 2016/17, 31 239, nr. 232. Uit vrees voor schadeclaims heeft de minister de motie naast zich neergelegd.

31 Zie ook https://www.rivm.nl/windenergie/windmolens-gezondheid.

32 Wat impliceert dat het onderzoek ten behoeve van de rapportage onafhankelijk moet zijn.

33 Verder blijft de invloed van (zonne- en) windparken op onder meer natuur en landschap en de regionale economie aandacht vragen. Deze aspecten zijn hier onbesproken gelaten.

IS SHARING CARING? 'ENERGY SHARING' WITHIN ENERGY COMMUNITIES UNDER EU LAW

Lea Diestelmeier & Dirk Kuiken[1]

Abstract

The term 'energy sharing' was introduced for the first time in EU energy legislation under the Clean Energy for All Europeans package. In particular, energy communities need to be allowed to share energy within the community. While it seems that the term has been deliberately introduced as a new activity, the directives provide little guidance about what it exactly entails. On the basis of a brief literature review on the concept 'sharing' and the overall framework and objectives of the directives, this contribution explores what energy sharing could mean and whether and how it could include a 'caring' component for an inclusive energy transition.

1 Introduction

As part of the EU legal framework on 'citizen energy communities' (CEC) and 'renewable energy communities' (REC) the EU Member States have to ensure that, among other activ-

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ities, energy communities can 'share' energy within the community.[2] The term 'sharing' is, however, not further defined or explained in the directives, which raises the question how 'sharing energy' can be legally implemented, especially vis-à-vis the rights and responsibilities concerning the supply of energy. 'Sharing is caring' is a widely known saying and assumption, meaning that we share because we care about each other's well-being. When we embarked our careers in the field of energy law as students of the LLM 'European law with a specialisation in energy law' in 2012, Martha Roggenkamp shared her knowledge with us and as we continued our path in academia, she continued sharing her experience and advice. This contribution explores the concept of 'energy sharing' in the context of EU energy law and discusses the question whether 'sharing energy within energy communities' entails a 'caring' component and whether this should become a new activity in the energy sector.

2 New roles for energy consumers under the 'Clean Energy for All Europeans' package

One of the aims of the 2019 reform of the EU legal framework of the electricity sector is to place the consumer yet again central.[3] As all energy (electricity and gas) consumers can already freely choose their supplier since July 2007,[4] the aim to further place consumers central in the electricity sector requires their 'activation' beyond the choice of supplier. However, in addition to the preceding gradual empowerment of consumers in the market, this time the driving rationale was not only liberalisation of the sector, but also the energy transition.[5] As the energy transition is not only a transition of fuel sources, from fossil to renewable, but also a transition of organisational structures of the sector, where the classical 'top-down' supply chain setting is supplemented with a 'bot-

2 Art. 16(3 e) Directive (EU) 2019/944/ of 5 June 2019 concerning common rules for the internal market for electricity [2019] OJ L158/125 (hereinafter 'Electricity Directive'), art. 22(2 b) Directive (EU) 2018/2001 on the promotion of the use of energy from renewable sources [2018] OJ L328/82 (hereinafter 'Renewable Directive').

3 Commission of the EU, DG Energy (2019) *Clean Energy for All Europeans*, 26 July 2019.

4 Art. 21(1) Directive 2003/54/EC concerning common rules for the internal market in electricity [2003] OJ L 176/ 37; Art. 23(1) Directive 2003/55/EC concerning common rules for the internal market in natural gas [2003] OJ L 176/ 57.

5 Martha M Roggenkamp and Lea Diestelmeier, 'Energy Market Reforms in the EU: A New Focus on Energy Consumers, Energy Poverty and Energy (in)Justice?' in I. Del Guayo, L. Godden, D. D. Zillman, M. F. Montoya, & J. J. González (eds.) *Energy Justice and Energy Law – Distributive, Procedural, Restorative and Social Justice in Energy Law* (Oxford University Press 2020).

tom-up' organisation, new legal concepts and actors were introduced. Most prominently, the Electricity Directive, introduced a new category of consumers, namely 'active customers' who are not only consuming, but also producing, selling, storing or participating in energy efficiency or flexibility schemes, as long as those activities do not constitute their main commercial or professional activity. [6]

Another new actor which was introduced in two directives are 'energy communities'. Notably, the Renewable Directive and the Electricity Directive respectively introduced REC and CEC. While there are some differences, the two definitions are largely overlapping and contain the following main elements:[7] (i) the energy community has to be established by a dedicated legal entity in which participation is 'based on voluntary and open participation and is effectively controlled by members or shareholders that are natural persons, local authorities, including municipalities, or small enterprises' (for REC, medium enterprises may be included too, but members and shareholders need to be located in 'proximity of the renewable energy project' building in an element of 'localness');[8] (ii) The purpose of such a community is to generate 'environmental, economic or social community benefits to its members or shareholders […] rather than to generate financial profits';[9] (iii) The activities that energy communities may carry out include at least production, consumption, storage and selling of energy and are extended for CEC by distribution, supply, 'aggregation', provision of energy efficiency services, charging services for electric vehicles, or 'other energy services', to its members or shareholders.[10] In this context, 'aggregation' means to combine various production and consumption patterns of multiple users/community members.[11] In addition to this broad range of activities, Member States need to ensure that energy communities can 'share energy within the community' which was produced by production units owned by the energy community.[12] What exactly the activity of sharing entails, however, is left unanswered by the directives. As the legal form of energy communities is not specified beyond the requirement that a dedicated legal entity needs to be established and the range of activities is large and seems non-exhaustive, the most important distinctive element of energy communities vis-à-vis 'conventional' companies in the sector seems to be the require-

6 Art. 2(8) Electricity Directive.

7 Mikolaj Jasiak, 'Energy Communities: Challenges for the Implementation of the EU Framework' in Martha M Roggenkamp and C. Banet (eds) *European Energy Law Report XIV* (Intersentia, 2021), 197-2018.

8 Art. 2(11 a) Electricity Directive and art. 2(16 a) Renewable Directive.

9 Art. 2(11 b) Electricity Directive and art. 2(16 c) Renewable Directive.

10 Art. 22(2 a) Renewable Directive and art. 2(11 c) Electricity Directive.

11 Art. 2(18 and 11) Electricity Directive.

12 Art. 16(3 e) Electricity Directive, art. 22(2 b) Renewable Directive.

ment to provide 'environmental, economic, or social community benefits'.[13] As this appears as a central element for energy communities, it needs to be considered when defining the activities of energy communities, including 'sharing of energy within the community'. The following section will explore the concept of sharing more generally, before turning to the application to energy communities in particular.

3 Sharing

Even though we all know the term 'sharing' and we all apply plenty of sharing practices in everyday life, it is yet complex to capture the concept in one universally valid definition, or even legal understanding.[14] For example, sharing could mean to take part in something together, to divide something between two or more people, to give something you have to someone else, or to allow someone else to use something of yours. Sharing can also refer to having similar feelings, ideas, or experiences, or to have equal part or responsibility in something, for example an enterprise, activity, or to, as the authors of this contribution, sharing an office at a law faculty.[15] The practice of sharing is probably as old as humankind, but in recent decades the concept revived with the idea of using existing resources, which are partly left idle, more efficiently in conjunction with the maturing of new technologies, i.e. the internet and (social) digital platforms, which allow extending the circle of the sharing peer community beyond the trusted personal social network.[16] In this context, the term 'sharing economy' emerged, which can by and large be understood as 'consumers granting each other temporary access to under-utilised

13 Lea Diestelmeier, 'The Role of Energy Communities in Facilitating Sustainable Energy Democracy: Legal Challenges' in R. Fleming, K. Huhta and L. Reins (eds) *Sustainable Energy Democracy and the Law* (Brill 'Legal Aspects of Sustainable Development' 2021) 124-143.

14 Yochai Benkler, 'Sharing Nicely: On Shareable Goods and the Emergence of Sharing as a Modality of Economic Production' (2004) 114(2) The Yale Law Journal 273–358.

15 See the online 'Oxford Learners Dictionaries', from which the definitions of the word 'Share' have been used. <https://www.oxfordlearnersdictionaries.com/definition/english/share> (last accessed 18-11-2021).

16 Koen Frenken and Juliet Schor, 'Putting the Sharing Economy into Perspective' in Oksana Mont (ed.) *A research Agenda for Sustainable Consumption Governance* (Edward Elgar Publishing 2019) 121-135.

physical assets ('idle capacity'), possibly for money.'[17] Another understanding adds further attributes, by defining 'sharing economy' as facilitating 'community ownership, localized production, sharing, cooperation, small-scale enterprise, and the regeneration of economic and natural abundance.'[18] Critique levelled against the concept of the sharing economy argues that it narrowly focuses on 'economic transactions of a sharing 'on-demand' economy' while sharing practices entail more and can better be described as '[…] social networks between diverse stakeholders whose main goal is to co-produce, manage, and share, resources, time, services, knowledge, information, and support based on solidarity and reciprocity rather than economic profit.'[19] Accordingly, the goal would be to improve sustainability, innovation, and social interactions by using regional resources for daily needs.[20] 'Sharing culture' is the term describing this extended view on sharing practices.[21]

This very brief overview of terminology and concepts related to sharing and new forms to organise sharing shows that implementing the provisions of the EU directives on 'sharing energy within energy communities' is anything but straightforward. Expectedly, it becomes even more complex when taking into account the physical peculiarities of the energy sector and the individual dependence on reliable and stable access to the resource. The following section focuses on this matter.

4 Sharing energy within energy communities: What could it mean?

Both directives identically mention that Member States have to

17 Koen Frenken et al. (20 May 2015) 'Smarter Regulation for the Sharing Economy' The Guardian <https://www.theguardian.com/science/political-science/2015/may/20/smarter-regulaa tion-for-the-sharing-economy (last accessed 21-11-2021). This definition is close to the one prot vided by the Oxford dictionary which reads as follows: *'An economic system in which assets or services are shared between private individuals, either free or for a fee, typically by means of the internet.'*

18 Janelle Orsi, 'Practicing Law in the Sharing Economy: Helping People Build Cooperatives, Social Enterprise, and Local Sustainable Economies' (2013) American Bar Association.

19 Eleni Katrini, 'Sharing Culture: On Definitions, Values, and Emergence' (2018) 66(2) The Sociological Review 425–446, 426.

20 Eleni Katrini, 'Sharing Culture: On Definitions, Values, and Emergence' (2018) 66(2) The Sociological Review 425–446, 426.

21 Ann Light and Clodagh Miskelly, 'Sharing Economy vs Sharing Cultures? Designing for Social, Economic and Environmental Good' (2015) 24 Interaction Design and Architecture(s) 49–62.

> '[…] ensure that [renewable/citizen] energy communities are entitled to arrange within the [renewable/citizen] energy community the sharing of [renewable energy/electricity] that is produced by the production units owned by the community, subject to other requirements laid down in this Article and subject to the community members retaining their rights and obligations as final customers.'[22]

While this provision (nor any other paragraph of that article) further elucidates on what sharing exactly means, it is clearly stated that it cannot alter rights and obligations of final customers and thus implies what sharing cannot be. A popular common assumption is that energy can be shared in the sense of 'peer-to-peer-supply', meaning that the members of the community (the peers) supplement each other in supply and jointly suffice the demand of the community. This would, however, only be in so far possible as it would not negatively affect the rights of consumers, in particular, the right of household customers (and potentially small and medium-sized enterprises, SMEs) to 'enjoy universal service, namely the right to be supplied with electricity of a specified quality within their territory at competitive, easily and clearly comparable, transparent and non-discriminatory prices',[23] where supply means 'the sale, including the resale, of electricity to customers'.[24] Sharing can thus not be an alternative to 'supply' of energy, at least not for small customers (households and SMEs). Nevertheless, potentially, 'sharing energy' might complement the regular supply of energy.

What else could energy sharing then mean? Considering the central requirement of energy communities to contribute to 'environmental, economic, or social community benefits rather than financial profits', sharing might be closer to the concept of 'sharing culture' than 'sharing economy' and the 'on-demand economy' as outlined in section 3 above. This could include, for example, taking part in something together, dividing something among a group, having similar ideas, or to have an equal part or responsibility in a legal entity or an activity. However, the legal text of the provision seems to suggest that it is not the production activity which is subject to sharing, as the focus seems to be on the resource 'renewable energy/electricity' that is shared. It might then simply mean that energy which has been produced by installations owned by the community is accounted to its members according to specified criteria. Considering the 'community benefit' purpose that energy communities have to fulfil, these criteria could yield different goals and can be defined for example, according to the contribution of the member, 'all get the same' on the basis of solidarity, or according to other principles, such as the

22 Art. 16(3 e) Electricity Directive, art. 22(2 b) Renewable Directive.

23 Art. 27(1) Electricity Directive.

24 Art. 2(12) Electricity Directive.

share of income spent on energy, in order to support 'energy poor' or 'vulnerable customers'.[25] Following on the latter criteria which involve a more social aim seems to be in line with the overall idea of the directives to facilitate an 'inclusive energy transition'. This is for example established in recital 43 of the Electricity Directive and recitals 67 and 71 of the Renewable Directive which stipulate that community energy:

- offers an inclusive option for all consumers to have a direct stake in producing, consuming or sharing energy.
- initiatives focus primarily on providing affordable energy for their members or shareholders rather than on prioritizing profit-making.
- can also advance energy efficiency at household level and help fight energy poverty through reduced consumption and lower supply tariffs.
- enables certain groups of household customers to participate in the electricity markets, who otherwise might not have been able to do so (specifically referring to vulnerable customers and tenants).

Interpreting the term 'sharing energy' following this line, would do justice to the saying mentioned in the title and the introduction that sharing entails a 'caring element'. Nevertheless, this would also strictly imply that other rights and obligations assigned to customers have to be respected and cannot be hampered by the activity of sharing.

5 Conclusion

The term 'sharing' has been introduced for the first time by the Electricity Directive and the Renewable Directive adopted under the 'Clean Energy for All Europeans' package. It seems that the term has been deliberately chosen as opposed to 'supply'. Yet, the directives provide only little guidance of what this term exactly implies. While 'sharing' is indeed a common term, it is a complex term from a legal perspective in general and in particular in the energy sector where many actors have rights and obligations which cannot be hampered by the activity of sharing, whatever it exactly implies. Our brief analysis of the term showed that on a conceptual level, the understanding of 'sharing' is discussed and can either be interpreted in line with economic goals ('sharing economy')

25 The concepts *'vulnerable customer'* and *'energy poverty'* are not defined by EU law. However, the Electricity Directive does require Member States to ensure the adequate protection of vulnerable customers, *inter alia* the prohibition of disconnection. The concepts are interlinked, as the definition of vulnerable customers may relate to energy poverty. *'Energy poverty'* is also not defined, but the Electricity Directive does suggest some criteria, including low income, high expenditure of disposable income on energy and poor energy efficiency. See art. 28 and 29 Electricity Directive.

or wider, as something that complements the conventional economic system ('sharing culture'). As the overall aim of energy communities needs to be to provide 'community benefits rather than financial profits', the former understanding applying the idea of the 'sharing economy' might be too limited. Furthermore, considering the wider context provided in the directives seems to suggest that energy communities should fulfil societal and even social goals which could potentially be implemented via the activity of 'sharing' in form of accounting energy that has been produced by a production installation owned by the community according to criteria incorporating a common social value. In 2022, it has been 10 years since the authors have embarked on the topic of energy law, it seems that since then the field has only expanded and many more questions are emerging. We hope that Martha Roggenkamp will continue sharing knowledge and experiences in the future, both in conversations with us and with the (academic) world.

PARTICIPATIE EN DRAAGVLAK VOOR HERNIEUWBARE ENERGIEPROJECTEN

Kars de Graaf & Hanna Tolsma[1]

Samenvatting

Er is consensus over het belang van proces- en financiële participatie van de omgeving (burgers en bedrijven) bij de besluitvorming over hernieuwbare energieprojecten. In deze bijdrage constateren wij echter dat er sprake lijkt van een mismatch tussen, enerzijds, de wens om (initiatiefnemers voor te schrijven) voldoende participatiemogelijkheden te bieden en draagvlak te realiseren en, anderzijds, de juridische normen die gelden voor rechtmatige besluitvorming. De toekomstige Omgevingswet biedt op dat punt slechts weinig verandering. Is participatie gebaat bij verdere regulering? Of volstaat een goede toepassing in de praktijk op basis van beleid, gedragscodes en richtlijnen?

1 Prof. mr. K.J. de Graaf en prof. mr. H.D. Tolsma zijn als respectievelijk hoogleraar Bestuursrecht en duurzaamheid en hoogleraar Besluitvorming en rechtsbescherming in het omgevingsrecht verbonden aan de vakgroep Staatsrecht, Bestuursrecht en Bestuurskunde van de Rijksuniversiteit Groningen en aan het *Groningen Centre of Energy Law and Sustainability*. Deze bijdrage is gebaseerd op eerdere publicaties van beide auteurs. Zie o.a. H.D. Tolsma & K.J. de Graaf, 'Participatie en draagvlak bij besluitvorming over windparken op land. Een juridische analyse van participatie bij duurzame energieprojecten', *MenR* 2021/119.

1 Inleiding

Onze bijdrage gaat over participatie, draagvlak en de energietransitie. Met veel plezier hebben wij jarenlang geparticipeerd in een onderzoeksprogramma van de Groningse rechtenfaculteit dat onder meer energierecht met het milieurecht verbond. Het stond onder leiding van Martha Roggenkamp. De wijze waarop zij binnen – en ook buiten – de Groningse rechtenfaculteit draagvlak realiseerde voor kwalitatief hoogstaand energierecht-gerelateerd onderzoek, is bewonderenswaardig. Participatie door vele academici en anderen in het onderzoek naar het energierecht in Groningen leidde niet alleen tot draagvlak, maar ook tot een zekere transitie in de Groningse rechtenfaculteit. Met name ook door de activiteiten van het *Groningen Centre of Energy Law and Sustainability*, dat eveneens onder leiding stond van Martha. Haar pensionering is een gemis voor de rechtenfaculteit.

Participatie, draagvlak en transitie. Deze drie begrippen staan ook centraal in deze bijdrage. Leidt participatie bij de besluitvorming door de overheid over hernieuwbare energieprojecten tot draagvlak voor de energietransitie? Wij bespreken allereerst de maatschappelijke wens om door participatie van omwonenden draagvlak te realiseren voor projecten zoals wind- en zonneparken (op land) en de wijze waarop dat tot uitdrukking komt (par. 2). Vervolgens richten we ons op een aantal geselecteerde recente ontwikkelingen in de jurisprudentie van de hoogste bestuursrechter over de rol van proces- en financiële participatie in het Nederlandse (omgevings)bestuursrecht (par. 3). Daarbij is aandacht voor de vraag of het recht voldoende houvast biedt of dat er sprake is van een *mismatch* tussen de maatschappelijke wens en de geldende juridische normen. We bezien daarna of de inwerkingtreding van de Omgevingswet in de nabije toekomst verandering brengt in de huidige situatie (par. 4). We sluiten in de conclusie af met onze visie op de toekomstige regulering van participatie bij hernieuwbare energieprojecten (par. 5).

2 Participatie: wens en verplichting?

De hernieuwbare energieprojecten waarover deze bijdrage gaat, namelijk grootschalige wind- en zonneparken, vereisen de toestemming van de overheid. Een belangrijk toestemmingsbesluit is het besluit dat de inpassing van het project in de fysieke leefomgeving regelt. Doorgaans gaat het dan om het wijzigen van een bestemmingsplan, een

inpassingsplan of het verlenen van een omgevingsvergunning met hetzelfde resultaat.[2] Voorafgaand daaraan zijn de plannen daarvoor in voorkomend geval te vinden in beleid, bijvoorbeeld omdat zoekgebieden worden aangewezen.[3]

De realisatie van wind- en zonneparken op land is enerzijds vereist om de (internationale, Europese en nationale) klimaatdoelen te behalen, maar leidt anderzijds frequent tot hevige protesten van omwonenden. In dat spanningsveld wordt volop ingezet op (verschillende vormen van) participatie en het creëren van draagvlak en acceptatie. Onderscheid wordt gemaakt tussen procesparticipatie in de vorm van inspraak en betrokkenheid bij de besluitvorming rondom het project en financiële participatie waarbij de omgeving op een of andere manier meedeelt in de lusten die het project oplevert.[4] Met name het Klimaatakkoord,[5] een pakket van afspraken tussen bedrijven, maatschappelijke organisaties en overheden om de klimaatdoelen van 2030 te behalen, is een belangrijke stimulans geweest voor overheden en initiatiefnemers om in te zetten op participatie. Beide partijen hebben ook een verantwoordelijkheid. Volgens het Klimaatakkoord moeten omgeving en marktpartijen gelijkwaardig samenwerken in de ontwikkeling, bouw en exploitatie van deze projecten. Inzet is een eerlijke verdeling van lusten en lasten en een situatie in een gebied waarbij 50% van de productie eigendom is van de lokale omgeving (burgers en bedrijven).[6] In dat kader hebben Nederlandse regio's op 1 juli 2021 hun Regionale Energiestrategieën (RES 1.0) ingediend, welke strategieën uitgewerkt moeten worden in de omgevingsrechtelijke instrumenten. Initiatiefnemers van wind- en zonneparken en aan de overheid gerelateerde instanties hebben niet stilgezeten; er zijn richtlijnen en gedragscodes opgesteld om participatie vorm te geven.[7] Hoewel provincies en het Rijk een belangrijke rol hebben in het ontwikkelen van windparken, staan doorgaans gemeenten als eerste aan de lat als het gaat om zonneparken. In

2 Besluiten op grond van de art. 3.1, 3.26 of 3.28 Wet ruimtelijke ordening (Wro) en art. 2.1 lid 1 sub c (juncto art. 2:12 lid 1 sub a onder 3) Wet algemene bepalingen omgevingsrecht (Wabo), al dan niet genomen in de provinciale of rijkscoördinatieprocedure o.g.v. afd. 3.6 Wro.

3 Steeds vaker neergelegd in wettelijk geregelde beleidsdocumenten als structuurvisies (hfdst. 2 Wro), maar ook in andere beleidsdocumenten, zoals de Regionale Energiestrategie.

4 Zie voor een uitleg van deze begrippen uitgebreid de 'Participatiewaaier', https://www.klimaatakkoord.nl/documenten/publicaties/2019/11/18/participatiewaaier.

5 www.klimaatakkoord.nl. Zie overigens ook al het *Energieakkoord voor duurzame groei*, 2013, p. 69, te vinden op: www.ser.nl/nl/thema/energie-en-duurzaamheid/energieakkoord.

6 Hier ligt ook een verband met de wens het ontstaan van energiegemeenschappen te stimuleren, zie daarover L. Diestelmeier, 'Energiegemeenschappen' – een decentrale oplossing voor de energietransitie?', *NTE* 2021, afl. 3, p. 106 e.v.

7 Gedragscode voor Acceptatie en Participatie Windenergie op Land; Gedragscode Zon op Land. Daarnaast kan ook gewezen worden op de Participatiewijzer van de Ombudsman en het Handboek burgerparticipatie bij windenergie op land.

verschillende gemeenten is daarom beleid ontwikkeld over participatie bij hernieuwbare energieprojecten.[8]

Kort en goed is er een toestemmingsbesluit nodig van het terzake bevoegde gezag en is er een politiek-bestuurlijke wens om daarbij de omgeving (burgers en bedrijven) van de hernieuwbare energieprojecten te laten participeren teneinde acceptatie (draagvlak) te realiseren. Is het bieden van participatiemogelijkheden juridisch verplicht? Kan de overheid op dit punt actie van initiatiefnemers afdwingen?

Er zijn ten minste twee relevante normeringskaders die relevant zijn voor de beantwoording van deze vragen. Relevant is zonder meer het Verdrag van Aarhus op het internationale en Europese niveau, maar ook de in de Algemene wet bestuursrecht (Awb) opgenomen regels – onder meer ter implementatie van dat verdrag – over de voorbereiding van besluiten. Het verdrag regelt onder meer de verplichting om inspraak mogelijk te maken bij besluitvorming, zowel voor aangewezen activiteiten als voor activiteiten die een aanzienlijk effect op het milieu kunnen hebben.[9] Daartoe behoren in elk geval besluiten waarvoor een milieueffectrapportage moet worden opgesteld, zoals een grootschalig windmolenpark. Art. 6 lid 4 Verdrag van Aarhus verlangt dat het betrokken publiek[10] vroegtijdige inspraak wordt geboden op een moment waarop alle opties nog open zijn en inspraak doeltreffend kan plaatsvinden. Ook voor plannen, programma's en beleid betrekking hebbende op het milieu hebben partijen zich in art. 7 van het verdrag verplicht passende praktische en/of andere voorzieningen te treffen voor inspraak voor het publiek gedurende de voorbereiding.[11] De Awb kent in afd. 3.4 de uniforme openbare voorbereidingsprocedure voor besluiten. Daarin hebben belanghebbenden (en veelal ook aan anderen) gedurende zes weken de gelegenheid een zienswijze in te dienen over een ontwerpbesluit waarvan openbaar kennis wordt gegeven. De Nederlandse wetgever is vooralsnog van oordeel dat toepassing van afd. 3.4 Awb een juiste implementatie vormt van deze verplichtingen van het Verdrag van Aarhus. Soms wordt wel openlijk in twijfel getrokken of deze procedure voldoet aan het vereiste dat alle opties nog open liggen.[12] In de praktijk wordt overigens door zowel het bestuur (participatiebeleid en

8 Kijk voor voorbeelden op www.energieparticipatie.nl.

9 Art. 6 lid 1 juncto Bijlage 1 Verdrag van Aarhus.

10 Zie Hof van Justitie 14 januari 2021, C-826/18, ECLI:EU:C:2021:7.

11 Omdat in Nederland doorgaans geen beroep openstaat op de bestuursrechter tegen plannen en programma's, is onduidelijk welk effect het onvoldoende nakomen van deze verplichting heeft.

12 Zie bv A.W. Koers & H.E. Bröring, 'Burgerparticipatie en omgevingsprojecten: hoe zorgen we voor kwaliteit?', *TO* 2017, afl. 4.

participatie- en inspraakverordeningen)[13] als door initiatiefnemers (gedragscodes) ook vaak inspraak georganiseerd voorafgaand aan de terinzagelegging van een ontwerpbesluit op grond van afd. 3.4 Awb.

3 *Mismatch* tussen wens en verplichting?

In deze paragraaf bespreken wij in vogelvlucht enkele relevante uitspraken van de hoogste bestuursrechter met effecten voor procedures over toestemmingsbesluiten voor hernieuwbare energieprojecten. De centrale vraag is welke juridische consequenties de breed gedragen wens om de omgeving te betrekken bij de besluitvorming over en ook financieel te laten participeren in hernieuwbare energieprojecten, heeft voor de beoordeling door de bestuursrechter van de besluitvorming.

Als eerste is er de vraag of de toepassing van afd. 3.4 Awb wel een voldoende implementatie is van de vereisten in art. 6 (en 7) in het Verdrag van Aarhus en de implementatie daarvan in het EU-recht. Met name de vraag of alle opties nog open staan op het moment dat er inspraak wordt geboden over een ontwerpbesluit, kan worden opgeworpen. Wij zijn daar kort over. De jurisprudentie van de Afdeling bestuursrechtspraak laat zien dat toepassing van afd. 3.4 Awb door bestuursorganen bij het voorbereiden van besluiten waarop het verdrag van toepassing is, volstaat. Dat blijkt bijvoorbeeld duidelijk uit een recente uitspraak van de Afdeling.[14] Daarin concludeert de rechter allereerst dat de – op het Verdrag van Aarhus en de Europese Habitatrichtlijn gebaseerde – verplichting tot het bieden van inspraak bij vergunningverlening op grond van de Wet natuurbescherming, onvoldoende in de wet is gewaarborgd. Vervolgens wordt duidelijk dat bestuursorganen toch aan die internationale en Europese verplichting kunnen voldoen door afd. 3.4 Awb toe te passen. Het op de correcte wijze toepassen van die voorbereidingsprocedure is dus relevant voor de vraag naar de rechtmatigheid van de besluitvor-

13 Er wordt gewerkt aan een wetsvoorstel dat ertoe zal leiden dat decentrale inspraakverordeningen omgevormd worden tot participatieverordeningen, waarover G.H. Addink, 'Het participatiebeginsel in het bestuursrecht. Opmerkingen bij het voorontwerp Wet versterking participatie op decentraal niveau', *NTB* 2020/172, p. 374-385.

14 ABRvS 14 juli 2021, ECLI:NL:RVS:2021:1507.

mingsprocedure.[15] Keerzijde is dat andere vormen van (wettelijk) georganiseerde inspraak en participatie voorafgaand aan de aanvang van de procedure van afd. 3.4 Awb, zoals op grond van het Klimaatakkoord wordt gestimuleerd, irrelevant is voor de vraag of de besluitvorming op zorgvuldige wijze tot stand is gekomen.[16]

Ten tweede is er een vraag in welke mate beleid over participatie en draagvlak invloed kan hebben op de rechtmatigheid van de inhoudelijke besluitvorming. Dat bevoegde gezagen beleid omarmen waarin is neergelegd dat een bepaalde mate van draagvlak gewenst of vereist is alvorens de planologische toestemming kan worden verleend, blijkt veel belanghebbenden op het verkeerde been te zetten. Geregeld wordt in beroep tegen de wijziging van het planologische regime aangevoerd dat er geen draagvlak is voor een wind- of zonnepark en dat het bestreden besluit daarom onrechtmatig is. Vaste jurisprudentie houdt evenwel in dat het bestaan van draagvlak niet beslissend is voor de rechtmatigheid van de aan het besluit ten grondslag liggende belangenafweging.[17] De vraag naar een aanvaardbaar woon- en leefklimaat voor omwonenden speelt daarin uiteraard wel een grote rol, maar draagvlak niet. De enkele omstandigheid dat geen maatschappelijk draagvlak bestaat, betekent immers niet dat een bestemmingsplan niet in overeenstemming is met een goede ruimtelijke ordening in de zin van art. 3.1 Wro.

Opmerkelijk genoeg lijkt het bestaan van beleid over proces- en/of financiële participatie toch invloed te hebben op de toetsing door de bestuursrechter. Deze ziet het beleid – hoe definitief dat ook is opgeschreven – als een inspanningsverplichting voor (doorgaans: primair) de initiatiefnemer en voor de overheid om voldoende participatiemogelijkheden te organiseren teneinde maatschappelijk draagvlak te verkrijgen. De Afdeling overweegt weliswaar dat het niet behoorlijk nakomen van een dergelijke verplichting een reden kan zijn voor het bestuursorgaan om de gewenste planologische medewerking niet te verlenen,[18] maar aangenomen wordt dat voor de weigering van die medewerking

15 Overigens is recent duidelijk geworden dat de in Nederland geldende verplichting voor belanghebbenden om daadwerkelijk deel te nemen aan die voorbereidingsprocedure (door een zienswijze in te dienen) als zij daarna in beroep willen komen (art. 6:13 Awb), voor omgevingsrechtelijke besluiten (die vallen onder de werking van het Verdrag van Aarhus), in strijd is met het in art. 9 Verdrag van Aarhus neergelegde recht voor het betrokken publiek op toegang tot de rechter, zie ABRvS 14 april 2021, ECLI:NL:RVS:2021:786.

16 ABRvS 9 december 2015, ECLI:NL:RVS:2015:3770; ABRvS 21 februari 2018, ECLI:NL:RVS:2018:616, r.o. 28.4; ABRvS 29 mei 2019, ECLI:NL:RVS:2019:1781, r.o. 34.1. Dat vroegtijdige participatie heeft plaatsgevonden, zal doorgaans wel terug moeten komen in de motivering van de besluitvorming, zie art. 3.1.6 lid 1 onder e Bro.

17 ABRvS 29 mei 2019, ECLI:NL:RVS:2019:1781, r.o. 45.1; ABRvS 3 april 2019, ECLI:NL:RVS:2019:1064, r.o. 24.1.

18 Zie ABRvS 18 december 2019, ECLI:NL:RVS:2019:4209 en ABRvS 23 oktober 2019, ECLI:NL:RVS:2019:3580.

– gelet op het legaliteits- en specialiteitsbeginsel – toch echt een ruimtelijk relevant argument moet worden gebruikt (of: gevonden).[19] De enkele afwezigheid van draagvlak is derhalve onvoldoende voor weigering.

Voor financiële participatie, waarbij de omgeving investeert in en/of de voordelen ervaart van de opbrengsten van het hernieuwbare energieproject,[20] lijkt een en ander nog duidelijker te liggen. Vrijwillig is uiteraard veel mogelijk tussen initiatiefnemer en omwonenden, maar het bevoegde gezag kan moeilijk als ruimtelijk relevante voorwaarde stellen voor het verlenen van (ruimtelijke) toestemming voor het project, dat er sprake is van financiële participatie door omwonenden. Het begrip 'goede ruimtelijke ordening' biedt naar de huidige stand van de jurisprudentie (vooralsnog) geen grondslag om financiële participatie van de omgeving bij een energieproject te eisen van de initiatiefnemer.[21] Met geen van de vormen van financiële participatie is een ruimtelijk relevant belang gemoeid. De privaatrechtelijke constructie van een energieproject (mede-eigenaarschap of financiële deelneming) of het meeprofiteren van het energieproject door de omgeving (omgevingsfonds of omwonendenregeling), heeft geen betrekking op de ruimtelijke gevolgen van het energieproject en is dus niet relevant voor de inhoudelijke rechtmatigheid van het toestemmingsbesluit.

Uit het bovenstaande volgt de conclusie dat de wens om voldoende participatie en draagvlak te creëren voor de energietransitie in de vorm van hernieuwbare energieprojecten, zoals die onder meer in het Klimaatakkoord tot uitdrukking komt, in veel gevallen geen invloed heeft op de (on)rechtmatigheid van de (ruimtelijke) toestemmingsbesluiten die vereist zijn voor dergelijke projecten. Dat verklaart de titel van deze paragraaf en roept de vraag op of verandering op dit punt gewenst is, bijvoorbeeld door wetswijziging. In de volgende paragraaf bespreken we de insteek van de toekomstige Omgevingswet. Wetswijziging is overigens niet de enige mogelijkheid om de maatschappelijke wens om participatiemogelijkheden te bieden en draagvlak te realiseren handen en voeten te geven. Het is duidelijk dat de praktijk – in de vorm van overheidsbeleid, vrij-

19 Vgl. H.D. Tolsma, 'Procesparticipatie en financiële participatie bij wind- en zonneparken', *JBplus* 2021/6, p. 76-77.

20 Bv. door mede-eigenaarschap (energiecoöperatie), via aandelen of obligaties, door een omgevingsfonds of een omwonendenregeling, waardoor omwonenden kunnen delen in opbrengsten.

21 Een financiële bijdrage aan een ruimtelijke ontwikkeling door de initiatiefnemer is onder voorwaarden mogelijk gemaakt in art. 6.24 Wro, maar zogenoemde betaalplanologie acht men verboden, zie daarover R.J. Lucassen, 'Quid pro quo? Over planologische verslechtering en financiële compensatie', *Gst.* 2020/46; ABRvS 29 augustus 2019, ECLI:NL:RVS:2019:2950, *AB* 2020/41 m.nt. Tolsma; A.G. Bregman & J.J. Karens, 'Financiële participatie en omgevingsbijdragen bij zonneparken – Van bestuurlijke wens tot afdwingbare eis', *TBR* 2020/118.

willige gedragscodes en richtlijnen[22] – ook zonder wettelijke normen aan die wens tegemoet kan komen.

4 De Omgevingswet: *closing the gap*?

Bij de totstandkoming van de toekomstige Omgevingswet (Ow) blijkt participatie voor de regering een belangrijk onderwerp. In de parlementaire geschiedenis van de Omgevingswet wordt frequent het belang van participatie benadrukt. Onder participatie wordt verstaan het in een vroegtijdig stadium betrekken van belanghebbenden (burgers, bedrijven, maatschappelijke organisaties en andere overheden) bij het proces van de besluitvorming over een project of activiteit.[23] De daarop gerichte bepalingen in de Omgevingswet en de daarop gebaseerde amvb's beogen verantwoordelijkheid te leggen bij en meer te vertrouwen te hebben in de activiteiten van de initiatiefnemer om belanghebbenden te betrekken bij de besluitvorming met gevolgen voor de fysieke leefomgeving en draagvlak te realiseren voor het project.[24] Het bevoegd gezag blijft (eind)verantwoordelijk.

Welke veranderingen treden op ten opzichte van de huidige regelgeving? Allereerst moet benadrukt worden dat rondom de voorziene inwerkingtreding van de Omgevingswet veel aandacht bestaat voor de mogelijkheden om participatie vorm te geven bij de totstandkoming van besluitvorming, zowel bij beleidsinstrumenten zoals de omgevingsvisie als bij instrumenten van de Omgevingswet met bindende werking voor burgers. Bij die laatste categorie moet gedacht worden aan het omgevingsplan (dat het bestemmingsplan vervangt en in reikwijdte verbreedt), het projectbesluit (voor projecten met een publiek belang op bovengemeentelijk niveau) en de omgevingsvergunning.

Bij alle voor de ontwikkeling van wind- en zonneparken relevante instrumenten van de Omgevingswet, zijn normen opgenomen over procesparticipatie. In veel gevallen gaat het om een plicht om te motiveren op welke wijze uitvoering is gegeven aan vroegtijdige publieksparticipatie. Dat houdt in dat wordt aangegeven hoe burgers, bedrijven, maatschappelijke organisaties en bestuursorganen bij de voorbereiding zijn betrokken en wat

22 Zie voetnoot 7.

23 Zie *Kamerstukken II* 2013/14, 33962, 3, p. 389, waarover M.N. Boeve & F.A.G. Groothuijse, 'Burgerparticipatie onder de Omgevingswet: niet omdat het moet, maar omdat het kan?! De juridische waarborging van burgerparticipatie in de Omgevingswet', *Recht der Werkelijkheid* 2019 (40) 2, p. 22 e.v.

24 Kritisch: R.J.N. Schlössels, 'De bestuursrechtelijke omgeving van de Omgevingswet', in: S. Hillegers, T.E.P.A. Lam & A.G.A. Nijmeijer, *Vertrouwen in de Omgevingswet*, Deventer: Wolters Kluwer 2021, par. 4.3.

de resultaten daarvan zijn. Daarbij moet ook ingegaan worden op de wijze waarop invulling is gegeven aan het (decentrale) participatiebeleid.[25] Een iets verderstrekkende verplichting geldt voor het voorbereiden van een omgevingsplan, omdat is bepaald dat in de kennisgeving dat een omgevingsplan wordt voorbereid (met toepassing van afd. 3.4 Awb), geregeld in art. 16.29 Ow, moet worden aangegeven hoe de omgeving daarbij zal worden betrokken. Veruit het meest interessant en – gelet op het onderwerp van deze bijdrage – ook het meest relevant, is de regeling over participatie bij de instrumenten projectbesluit en omgevingsvergunning. Voor het projectbesluit geldt dat daarvoor te rade is gegaan bij de – op de 'snelle-en-beter-aanpak' gebaseerde – huidige regeling in de Tracéwet en nadrukkelijk aandacht is voor participatie.[26] De eerder genoemde motiveringsplicht geldt zowel voor een voorkeursbeslissing als het projectbesluit zelf.[27] Er dient bij de voorbereiding van een voorkeursbeslissing informatie te worden geven over wie bij de besluitvorming zal worden betrokken, waarover, wanneer, wat rolverdeling daarbij is tussen bevoegd gezag en initiatiefnemer en ook waar meer informatie beschikbaar komt. Weliswaar zijn de expliciete bepalingen over participatie nieuw, maar zij lijken weinig toe te voegen aan hetgeen onder het huidige recht al verlangd wordt van bevoegde gezagen.

Bijzonder en vermeldenswaard is nog wel de regeling die ziet op participatie bij de voorbereiding van een omgevingsvergunning. Op basis van art. 16.55 lid 1 Ow zal in art. 7.4 Omgevingsregeling de eerdergenoemde motiveringsplicht ook terug te vinden zijn voor de omgevingsvergunning. Opmerkelijke vernieuwing is echter dat art. 16.55 lid 7 Ow de gemeenteraad de bevoegdheid geeft activiteiten aan te wijzen waarvoor geldt dat participatie van en overleg met derden verplicht is voordat een aanvraag om een omgevingsvergunning kan worden ingediend. Deze bij amendement ingevoerde regeling is enkel relevant voor – door het college van burgemeester en wethouders verleende – omgevingsvergunning voor een buitenplanse omgevingsplanactiviteit,[28] waarmee wordt bedoeld de vergunning die ontwikkelingen mogelijk maakt die afwijken van de regels van het omgevingsplan. Als de initiatiefnemer niet voldoet aan de verplichting, *kan* het bevoegd gezag beslissen de aanvraag buiten behandeling te laten op grond van art. 4:5 Awb, hoewel de participatieverplichting niet als indieningsvereiste geldt. Deze regeling

25 Voor de omgevingsvisie en het programma is deze verplichting opgenomen in art. 10.7 en 10.8 Omgevingsbesluit (Ob). Eenzelfde verplichting geldt voor het gemeentelijke omgevingsplan (art. 10.2 lid 2 Ob), de provinciale omgevingsverordening (art. 10.3a Ob) en de waterschapsverordening (art. 10.3b Ob).

26 Zie *Kamerstukken II* 2013/14, 33 962, nr. 3, p. 176.

27 Zie art. 5.47 lid 4 Ow juncto 5.3 en 5.5 Ob voor het voorkeursbesluit. Zie ook art. 5.51 Ow voor het projectbesluit.

28 Zie *Kamerstukken II* 2018/19, 34986, 56.

lijkt verder te gaan dan de situatie onder het huidige recht en daarmee de in paragraaf 2 besproken *mismatch* te verkleinen (oftewel: *closing the gap*), maar in de praktijk is daarmee (uiteraard) nog niet gewerkt.

Tot slot een korte opmerkingen over de vraag of er een regeling is over financiële participatie van omwonenden in hernieuwbare energieprojecten. Vergelijkbaar met het huidige art. 6.24 Wro biedt art. 13.22 Ow de mogelijkheid om op vrijwillige basis privaatrechtelijk te contracteren met initiatiefnemers van aangewezen bouwactiviteiten over financiële bijdragen ter verbetering van de ruimtelijke kwaliteit van een gebied op basis van een omgevingsvisie of programma. Deze financiële bijdrage is evenwel niet bedoeld om de omgeving (financieel) te laten profiteren van de opbrengsten van het energieproject. De Omgevingswet voorziet niet expliciet in een wettelijke grondslag voor het afdwingen van de mogelijkheid van financiële participatie van omwonenden in projecten. Op dat punt lijkt dus weinig te veranderen en kan niet gesproken worden van *closing the gap*.

5 Conclusie

Martha Roggenkamp bewerkstelligde binnen de Groningse rechtenfaculteit breed draagvlak voor kwalitatief hoogstaand energierecht-gerelateerd onderzoek en stimuleerde participatie in dat onderzoek door velen. Daarvan hebben wij geprofiteerd. Ook de energietransitie zal kunnen profiteren van draagvlak onder omwonenden van hernieuwbare energieprojecten zoals wind- en zonneparken. In het bovenstaande komt echter naar voren dat het juridische kader praktisch geen grondslag kent voor proces- of financiële participatie die verder gaat dan de toepassing van afd. 3.4 Awb. Met name is er voor de overheid nauwelijks ruimte om initiatiefnemers verdergaande verplichtingen op te leggen. Zonder die grondslag verzetten kernwaarden van de democratische rechtsstaat als het legaliteits- en het specialiteitsbeginsel zich tegen een dergelijke verplichting. Het van overheidswege verplichten van initiatiefnemers tot het bieden van de mogelijkheid van financiële participatie aan omwonenden vergt derhalve nadere actie van de wetgever; de wenselijkheid is wat ons betreft een politieke vraag. Als het gaat om procesparticipatie biedt de toekomstige Omgevingswet wel vernieuwing maar naar wij inschatten weinig verandering. De wens om samen met initiatiefnemers zorg te dragen voor procesparticipatie, zal voorlopig dan ook in de praktijk gerealiseerd moeten worden aan de hand van beleid, gedragscodes en richtlijnen die zijn gebaseerd op *best practices* en maatwerk. De vraag is of omwonenden en initiatiefnemers gebaat zijn bij verdere juridisering. Wij vragen ons af in hoeverre Martha wil participeren in deze discussie en of we bij haar kunnen rekenen op draagvlak voor deze analyse. We hopen dat zij in de toekomst de tijd zal vinden om haar visie op deze problematiek met ons te delen.

EARTHQUAKE DAMAGE IN GRONINGEN: BILLING BEYOND LIABILITY LAW?

Gerrit Vriezen[1]

Abstract

The large onshore Groningen gas field, located in the north of the Netherlands, has been producing since the early 1960's. In recent years, earthquakes induced by production from the field have led to a significant number of claims relating to damage to buildings in the area. The government has assumed responsibility for the handling of such claims; the operator of the Groningen field (NAM) reimburses the amounts paid out by the government to claimants to the extent that NAM is liable. However, disputes between NAM and the government are pending about the size of the amounts payable by NAM to the government. Parliament has urged the responsible Ministers to examine the possibility of imposing an additional levy on NAM or its shareholders, in order to force them to pay the disputed amounts. This chapter discusses the issue and the chances of the government successfully recovering additional amounts from NAM by means of a new levy.

1 Introduction

From 2005 until 2015, I have had the great pleasure of working with Martha Roggenkamp, as a member of the board of the Dutch Energy Law Association *NeVER* and, later, as con-

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tributing editor and editor of the Dutch Energy Law Review *NTE*. Another thing that Martha Roggenkamp and I have in common is that we were both born and raised in the province of Groningen, on top of the Groningen gas field. Consequently, I could not think of a more appropriate contribution to this *liber amicorum* than one dealing with the Groningen gas field and the consequences of the earthquakes caused by production from that field.

The Groningen field is an onshore gas field that was discovered in 1959. In 1963, a production license was issued to Nederlandse Aardolie Maatschappij (NAM), a 50/50 joint venture between Shell and ExxonMobil. NAM exploits the Groningen field for the account of the *Maatschap Groningen*, a partnership between NAM and Energie Beheer Nederland (EBN), which is wholly owned by the Dutch government. Since the start of the development of the Groningen field, almost all households in the Netherlands and many large industrial users have been provided with Groningen gas and long-term sales agreements have been concluded with buyers in Belgium, France, Germany and other European countries. These contracts and the construction of the pipeline grid necessary for the delivery of the gas constitute the basis for the European gas market as it is today[2]. The Groningen field is one of the world's largest gas fields, with 2,800 billion cubic metres (BCM) of gas originally in place, of which some 2,238 BCM has been produced to date[3].

The first earthquake above the Groningen field, which was induced by gas production, took place in 1991 near the village of Middelstum and had a magnitude of 2.4[4]. In the years thereafter, the frequency of earthquakes steadily increased. A turning point was the earthquake in Huizinge that took place on 16 August 2012, with a magnitude of 3,6, which led to a significant number of claims relating to damage to buildings. This also resulted in feelings of considerable anxiety amongst the local population. Consequently, the government decided to limit the level of production from the Groningen field and to set up a program for the reinforcement of buildings and infrastructure in the region. In 2018, another earthquake struck near the village of Zeerijp, with a magnitude of 3.4. This was the catalyst for the government's decision to have the Groningen field shut down entirely, as soon as possible, as communicated to Parliament on 29 March 2018[5].

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2 Prof. mr. M.M. Roggenkamp et.al., *Juridische aspecten van gaswinning* (Mon. Pr. Nr. 18) 2019, pp. 8-9.

3 Source: www.nam.nl

4 *Aardbevingsrisico's in Groningen*, report by the Dutch Safety Board, February 2015, https://www.onderzoeksraad.nl/nl/page/3190/aardbevingsrisico-s-in-groningen, p. 37

5 Kamerstukken II 2017/18, 33 529, nr. 457.

The government's current expectation is that, if certain conditions are met, the Groningen gas field will be shut down in 2023 or 2024[6].

2 Arrangements and legislation relating to damage compensation

By letter dated 13 April 2017[7], the Minister of Economic Affairs and Climate Policy ("MEAC") informed Parliament that NAM would retreat from the handling of earthquake-related damage claims and that the government would assume responsibility for the handling of such claims. According to MEAC, the reason for this change was that the manner in which NAM had been handling claims was insufficiently expeditious and that the results were perceived not to be equitable. On 31 January 2018, the Mining Damage Groningen Decree (*Besluit mijnbouwschade Groningen*[8]; "BmG") entered into force. This decree provided for a Temporary commission mining damage (*Tijdelijke commissie mijnbouwschade Groningen*; "TCMG"), which was tasked to handle physical damage claims instead of NAM, in accordance with the rules of liability law. In an agreement between NAM and MEAC[9], it was stipulated that all damages awarded by the TCMG to claimants would be for the account of NAM.

On 25 June 2018, MEAC informed Parliament that Heads of Agreement ("HoA") had been concluded with NAM's shareholders Shell and ExxonMobil regarding the future of the Groningen field[10]. The HoA provided, among other things, that a public law entity was to be set up, which would replace the TCMG and which would handle damage claims, again in accordance with the rules of liability law. Again, NAM would bear the costs of all damages awarded by the public law entity. This was implemented by means of the Temporary Act Groningen (*Tijdelijke wet Groningen*; "TwG"), which established the

6 Letter to Parliament dated 7 February 2022, Kamerstukken II, 2021/22, 33 529, nr. 948.

7 Kamerstukken II 2016/17, 33 529, nr. 330.

8 Staatscourant 2018, 6398.

9 Tijdelijke Overeenkomst Schadeafhandeling Groningen dated 7 February 2018, Kamerstukken II 2017/18, 33 529, nr. 428. This agreement was supplemented later by the Tijdelijke overeenkomst inzake betaling voor schadeafhandeling Groningen (appendix to Letter from Minister of Economic Affairs and Climate to Parliament dated 30 September 2019, Kamerstukken II 2018/19, 33 529, nr. 680).

10 Kamerstukken II 2017/18, 33 529, nr. 493. The HoA was followed by other implementation agreements, including an Interim Agreement dated 9 September 2019 (appendix to Letter from Minister of Economic Affairs and Climate to Parliament dated 17 September 2019, Kamerstukken II 2018/19, 33 529, nr. 678).

public law entity in the form of the Institute Mining Damage Groningen (*Instituut mijnbouwschade Groningen*; "IMG") effective 1 July 2020.

The TwG provides that the IMG's tasks include establishing the entitlement to compensation for all earthquake-related damage (not only physical damage, but also value loss and immaterial damage), assessing the amount of the damage and awarding compensation to claimants[11]. The IMG performs its tasks in accordance with the provisions of the Dutch Civil Code[12], which means that it should apply the rules of civil liability law in assessing claims and awarding compensation. The amounts awarded to claimants are recouped from NAM by means of a levy[13].

A bill for the amendment of the TwG has been submitted and is currently being dealt with in Parliament[14]. Whilst the main purpose of the bill is to incorporate provisions relating to preventive reinforcement of buildings and infrastructure in the TwG, it was amended by Parliament to also include a further provision relating to the compensation of damage[15]. Pursuant to the amended bill, the IMG will be authorized to provide a reasonable compensation for the costs of reasonable measures necessary to repair damage in a sustainable manner, also in the event that NAM is not liable for the compensation of such costs under the rules of liability law. The Minister of the Interior has stated in response to this amendment that these costs cannot be recovered from NAM[16].

In addition to NAM's liability for damage under the Civil Code, under the Mining Law NAM was initially also under an obligation to reinforce buildings and infrastructure that were at risk of being severely damaged, or even of collapse. The government has assumed NAM's duty of care, including the responsibility for this reinforcement program, and in return, NAM has undertaken to bear the costs of the reinforcement program to the extent that certain conditions are met.

3 Charges to NAM to date and potential disputes

As stated above, the TCMG was tasked to award damages in accordance with the rules of civil liability and damages law, but it was also expected to handle claims in a "generous"

11 Section 2 par. 3.

12 With the exception of section 178 under c Dutch Civil Code; see section 2 par. 6 TwG.

13 Section 15 TwG.

14 Wijziging van de Tijdelijke wet Groningen in verband met de versterking van gebouwen in de provincie Groningen, Kamerstukken 35 603.

15 Amendment-Agnes Mulder, Kamerstukken II 2020/21, 35 603, nr. 43.

16 Kamerstukken II 2020/21, 35 603, nr. 72, pp. 12-13.

manner[17]. These two requirements may not necessarily be compatible at all times and may have created dilemmas for the TCMG in performing its tasks. Any decision by the TCMG to award an amount to a claimant for reasons of "generosity" had to be construed as also being due under the rules of liability law, in order for the TCMG not to act *ultra vires*. This legislative flaw was repeated in the TwG, where the IMG's authority to award damages is also reined in by the rules of liability law. NAM has taken the position that the TCMG has overstepped the boundaries of liability law and on this ground NAM has objected against some of the costs the TCMG has charged to NAM in the period 2018-2020. Similarly, NAM has objected against the levy imposed for expenditure incurred by the IMG in the second half of 2020[18]. NAM has initiated arbitration under the relevant agreements against the government with respect to a part of the costs charged by the TCMG; the objections against the levy may lead to a procedure before the administrative courts[19].

From the moment of its establishment, the TCMG struggled to deal with a considerable backlog of claims, which only increased. This caused MEAC to introduce the so-called "*stuwmeerregeling*", an arrangement that was designed to deal with this backlog, on 13 June 2019[20]. The gist of this arrangement was that all claimants who had submitted their claims before 1 January 2019 could opt either for a fixed compensation amount of € 5,000, or for compensation of actual costs incurred (with a maximum of € 11,000), in either case without the TCMG having to demonstrate that they had actually incurred damage as a result of earthquakes. As liability was not established in this process, the government was not entitled to claim reimbursement of these amounts by NAM. Eventually, over 10,000 claimants have made use of this arrangement and the total expenditure under this arrangement has amounted to € 55.6 million. After issuing the arrangement, MEAC entered into consultations with NAM, which eventually resulted in NAM agreeing to bear a share of € 40.4 million in the total expenditure, the remainder of € 15.2 million being borne by the government[21]. MEAC has stated that NAM does not owe any amount to the Dutch state regarding the *stuwmeerregeling*, suggesting that the govern-

17 Explanatory note to Besluit mijnbouwschade Groningen, Kamerstukken 2017/18 II, 33 529, nr. 423, p. 9.

18 Letter to Parliament dated 31 March 2021, Kamerstukken II, 2020/21, 33 529, nr. 866, p.4.

19 Letter to Parliament dated 4 February 2022, Kamerstukken II, 2021/22, 33 529, nr. 947.

20 Kamerstukken II, 2018/19, 33529, nr. 639 and nr. 644. "Stuwmeerregeling" means "water reservoir arrangement"; a metaphor for the backlog of claims that were waiting to be assessed.

21 Letter MEAC to Parliament dated 28 January 2021, Kamerstukken 2020/21, 33529, nr. 842.

ment does not intend to take action against NAM in order to recoup the remaining amount of € 15.2 million[22].

On 10 March 2021, Parliament adopted the motion-Nijboer[23], which requests the government, among other things, to examine the possibility of a levy on "the oil companies" for costs that they are unwilling to reimburse, such as those incurred under the *stuwmeerregeling*. MEAC has responded by letter dated 23 November 2021[24], in which he states that he will not introduce an additional, general levy as called for in the motion-Nijboer. According to MEAC, the government is entitled to charge costs to NAM if these costs are incurred for the purpose of remedying the adverse effect of gas production from the Groningen field, provided that such costs are closely related to the responsibility, or the acts, of NAM. With respect to a levy for the purpose of recovering costs that do not meet these criteria, MEAC states that it is improbable that the introduction of such levy would be feasible from a legal perspective.

4 Can NAM be forced to pay amounts for which it is not liable?

The motion-Nijboer relates to costs of damage and reinforcement which NAM is unwilling to bear. It is remarkable that MEAC's response to the motion-Nijboer does not specifically address these costs, but instead focuses on costs *unrelated* to damage and reinforcement and, subsequently, concludes that those costs cannot be recovered by means of a levy. With respect to costs of damage handling and reinforcement, MEAC states that such costs are *almost* entirely charged to NAM, without explaining clearly why such costs are not charged to NAM in their entirety. The question whether NAM can be forced, by means of a levy, to bear costs related to earthquake damage for which it is not liable, is not addressed in MEAC's letter. This is a fundamental question, which I believe is worthwhile to reflect upon. It appears that NAM does not dispute that it is under an obligation to reimburse the government for costs of compensation of damage, for which NAM otherwise would have been liable. The first question to be addressed is whether under the legislation currently in force or in preparation, NAM can be forced to pay anything that goes beyond this, if NAM has not explicitly committed to making such payment. This could include, e.g., reimbursements for payments made in respect of claims where it has not even been established that the claimant has incurred any damage at all, such as

22 Letter MEAC to Parliamnet dated 29 April 2021, Kamerstukken II 2020/21, nr. 2551, published 3 May 2021.

23 Kamerstukken II 2020/21, 35603, nr. 76.

24 Published on 16 December 2021; Kamerstukken II 2021/22, 33 529, nr. 916.

claims made under the *stuwmeerregeling*. I believe that it is fairly obvious that NAM cannot be forced to make such payments under the legislation currently in force or in preparation.

As stated before, with respect to damage claims handled by the TCMG (before 1 July 2020), the BmG provided that damages should be awarded in accordance with the rules of civil liability and damages law[25]. The relating agreement between NAM and MEAC, pursuant to which NAM has committed to reimbursing the government for damages awarded by the TCMG, provided that this agreement only related to decisions issued by the TCMG within the boundaries of the BmG and the relating protocol[26]. Any decision of the TCMG to the effect of awarding more than would be due under the rules of liability law would be outside the boundaries of the BmG and, consequently, NAM would not be under an obligation to reimburse the related amounts. With respect to damage claims handled by the IMG (as from 1 July 2020), section 15 of the TwG provides that a levy is imposed on NAM for the reimbursement of all costs incurred by the IMG in relation to the execution of its tasks under (to the extent relevant) section 2, par. 3, i.e. the assessment and compensation of damage. Since the IMG is under an obligation to execute these tasks with observance of the rules of civil liability law, any damages awarded for which no liability existed cannot be included in the levy.

The bill that has been proposed for the amendment of the TwG (as discussed in section 2 above) will authorize the IMG to also award compensation for certain damage for which no liability exists. As the Minister of the Interior has pointed out (also discussed in section 2 above), the government will not be entitled to recover the relating costs from NAM. In my view this is a helpful amendment, as it provides the IMG with the possibility in some cases to make awards for reasons of "generosity", without having to dress these up as being due under the rules of liability law. However, it might have been preferable to have an "escape clause" with a wider scope, allowing the IMG to make an award in all cases of "hardship" and not just for reasonable measures to repair damage in a sustainable manner.

The second question to be addressed is whether NAM can be forced by means of new legislation (beyond what is currently in preparation) to reimburse any amounts in excess of what it would have been liable for under the rules of liability law. Theoretically, this could include a levy for "hardship" compensation payments made by the IMG that are not based on liability. If such new legislation were to take the form of an act of Parliament, this would mean that it could only be successfully challenged if it contravened a rule of supranational law that has direct effect.

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25 Section 3 par. 2 BmG.

26 Section 1 of the Tijdelijke Overeenkomst Schadeafhandeling Groningen, see footnote 9.

A levy that would apply to one entity (NAM) only and not to, e.g., all operators of hydrocarbon production licenses in the Netherlands, could potentially be discriminatory in nature. Discrimination is prohibited by, inter alia, Article 14 of the European Convention on Human Rights ("ECHR"). For the purpose of Article 14 ECHR, a difference in treatment is discriminatory if it has no objective or reasonable justification, that is if it does not pursue a "legitimate aim" or if there is not a "reasonable relationship of proportionality between the means employed and the aim sought to be realized"[27]. In the field of taxation, the legislator enjoys a wide margin of appreciation in assessing whether and to what extent differences in other similar situations justify a different treatment[28]; this margin of appreciation is deemed to be exceeded only if the legislator's assessment is "devoid of any reasonable foundation"[29]. Consequently, Dutch courts tend to be reluctant to find that taxes are discriminatory within the meaning of Article 14. In my view, it would not be immediately obvious that the introduction of an additional levy as referred to above would be in breach of Article 14 ECHR.

Another potential ground for unenforceability of a future additional levy could be breach of legitimate expectations of NAM or its shareholders. If a levy were to be challenged on this basis, the most likely basis would probably be Article 1 of the First Protocol to the European Court of Human Rights (ECtHR)[30]. Based on the case law of the ECtHR, the levying of taxes must be regarded as an interference in an individual's property rights; in order to be legitimate, such interference must strike a "fair balance" between the demands of the general interest of the community and the requirements of the protection of the individual's fundamental rights[31]. If a new levy is imposed that breaches legitimate expectations of the individual on whom the tax is imposed, such "fair balance" must be assumed not to have been struck, unless there are specific and compelling justifications for the breach of the legitimate expectations[32]. In particular in cases where taxes were imposed with retroactive effect, it has been held occasionally that the "fair balance" was absent and that, consequently, the tax was incompatible with Article 1 of the First Protocol. It appears to me that the introduction of a new levy, that would contravene existing (or expired) contractual arrangements between NAM or its share-

27 E.g. ECHR 16 September 1996, case 19371/90 RJ&D (Gaygusuz), ECHR Reports 1996-IV, p. 1192, NJ 1998, 738.

28 ECHR 22 June 1999, case 46757/99 (Della Ciaja), BNB 2002/398, annotation R.H. Happé.

29 ECHR 27 May 2014, case 18485/14 (Berkvens), BNB 2014/237, annotation R.H. Happé.

30 A challenge based on the Energy Charter Treaty would appear to have limited chances of success for a variety of reasons, which will not be discussed here.

31 ECHR 14 May 2013, case 66529/11 (N.K.M. v. Hungary), ECLI:CE:ECHR:2013:0514JUD006652911

32 Dutch Supreme Court 29 January 2016, ECLI:NL:HR:2016:121, BNB 2016/163, annotation R.H. Happé.

holders on the one hand and the government on the other, could well be regarded as a breach of legitimate expectations and I would struggle to see a compelling justification for disregarding such contractual arrangements[33].

Another question would be whether in case of a levy that was not anticipated in the HoA, NAM's shareholders Shell and ExxonMobil could reopen the financial and other arrangements made between them and the government, on the basis of section 1.5 of the HoA and, in particular, article 3.1 of the Interim Agreement that has been concluded between the government, Shell and ExxonMobil[34]. I believe that it is likely that this would in principle be possible, which would mean that introducing a new levy could possibly open up a can of worms.

5 Conclusion

The Groningen earthquake issues have caused enormous anxiety, grief and – understandable – anger on the part of the victims, the inhabitants of the earthquake area. Ironically, these issues have also turned out to be a gold mine for the legal profession, given the number of court cases and legal publications about this topic. This chapter has dealt with only one element, and even then it feels like I have barely been able to scratch the surface. It is therefore a comforting thought that Martha, with her widely known unstoppable energy and enthusiasm, will undoubtedly continue to follow this topic, even after her retirement, in addition to the many other energy law-related topics that have her interest and about which she has displayed such an impressive knowledge in the course of her long and distinguished career.

33 The opinion of the State Attorney, which is attached to MEAC's letter to Parliament dated 23 November 2021 (Kamerstukken II 2021/22, 33 529, nr. 916), acknowledges that the fact that a levy is imposed with retroactive effect may increase the risk that such levy should be regarded as disproportional (para. 6.3). The State Attorney's opinion does not address the issue that NAM and its shareholders may have legitimate expectations based on the contractual arrangements with the government.

34 See footnote 10.

EPILOGUE

HOW TO MAKE THE ENERGY MARKET COMPLEX AND INEXPLICABLE TO ORDINARY PEOPLE

Helma Kip[1]

In human history energy is an important necessity of life. Heat, light and power are basic needs. The sources to fulfil those needs changed enormously over the last century. From wood and horse power to oil, coal and natural gas (wind power and solar heat are of all times).

After some centuries of coal mining all over the world, the first 'modern' oil digging started in North America almost 100 years before Martha and I were born. Almost in the same year that we were born, far away from Oil Springs, on the fields of farmer Boon at the village of Kolham near Groningen, 2.600 meter under sea level, the Dutch oil company NAM found natural gas.

A quarter of a century later an international institute for energy law was established at the University of Leiden. Both of our careers 'in energy' started in the eighties: Martha's as an academic, mine as a policy advisor in the Dutch energy sector (generators of electricity and distributors and suppliers of electricity, gas and heat). Now, 40 years later, the world leaders agreed to phase out the use of fossil fuels. So, we were in the middle of the rise and fall of the empire of fossil fuels.

In the Netherlands the legislation of mining activities, electricity and gas markets and heat supply developed in a few decades towards an inextricable tangle of rules. For both of us this meant a lot of work to do. We became experts in energy law.

Our country faced several 'waves' regarding the preferred energy sources and the desired structure of the energy market.

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1 Werkzaam geweest bij KEMA, Energie-Nederland, Essent en Ennatuurlijk tussen 1980 en 2021 en met Martha regelmatig in contact geweest vanaf haar tijd bij het instituut voor internationaal energierecht te Leiden tot en met haar hoogleraarschap te Groningen.

'Waves' in relation to energy sources:

- From coal to nuclear and natural gas.
  First a political rejection of nuclear and now a rejection of coal and natural gas.
- From natural gas to renewable sources.
  Level of renewable sources in the Netherlands: 11 % (40% biomass; 60% wind and solar).
  A political rejection of biomass is growing.
- We cannot source all our Dutch energy needs with wind, geothermal/aqua energy and solar energy; hydrogen is the source in the near future if nuclear and biomass are rejected?

'Waves' in relation to the governance of energy markets:

- Full ownership separation between energy market and network activities (2008).
- Provinces and municipalities sold their energy (gas, electricity and heat) companies to commercial market parties between 2009 (NUON and Essent) and 2017 (Eneco).
- Municipalities restart the establishment of energy (heat) companies (Rotterdam, Groningen, Hengelo et cetera).
- State-owned companies (EBN, Gasunie, TenneT) become players in the market, including in neighbouring countries.
- Publicly owned network companies (gas and electricity) tend to enter the energy market?

In sum, we have seen a lot of national political discussions about ownership and governance.

In particular, we have witnessed a lot of complex legislation on separation and ownership of energy-related activities and market rules (Elektriciteitswet, Gaswet, Warmtewet, Mijnwet).

In the meantime, the world is still using a lot of fossil fuels (see Figure 1).

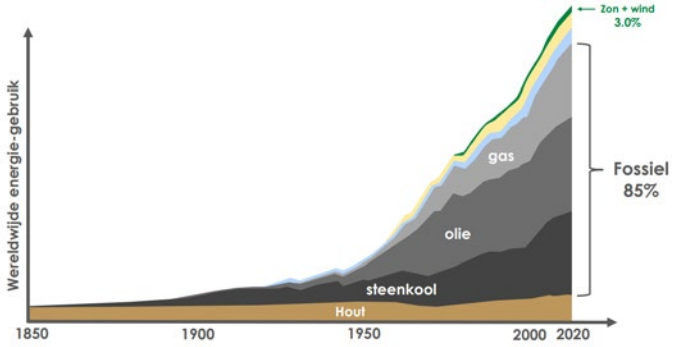

Figure 1

Source (public): <www.duurzaammbo.nl/planet-2/57-kennisbank/planet/3166-energie>

And also the Dutch are using a lot of fossil fuels (almost 90%, see Figure 2).

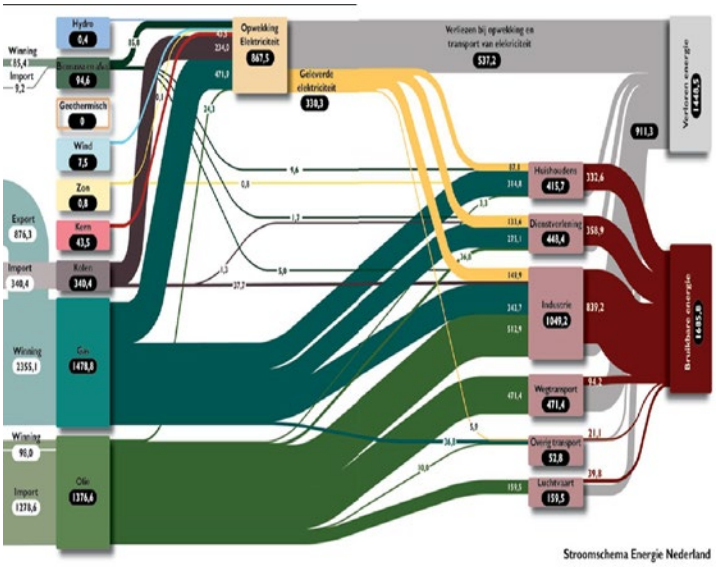

Figure 2

Source (public): <www.duurzaammbo.nl/planet-2/57-kennisbank/planet/3166-energie>

Our legislation has become an inextricable tangle of rules. Martha and I were players in the exercises of the Dutch legislators, creating all those rules. Is it then partly our fault that we are now tangled in those rules? I would say yes. But if we were not an energy expert, other experts would have been as wrong as we were. It is the 'Zeitgeist' that caused this. The unbridled desire for regulation to find a solution for every possible problem that may arise.

This book is a *Liber Amicorum* for Martha Roggenkamp, Professor of Energy Law at the University of Groningen, the Netherlands. The chapters in this book celebrate her unique contribution to energy law. Martha Roggenkamp is a true force of energy, both personally and professionally. Her chair in energy law at the University of Groningen was the first in the Netherlands. She co-established the Dutch Energy Law Association and co-founded the Groningen Centre of Energy Law and Sustainability. With a formidable range of seminal publications, building on a large number of externally funded research projects, and of course her hearty laugh, she is one of the leading women in energy law in the Netherlands, in Europe and beyond. The chapters in this book showcase the diversity of the subject matter, the high academic standards as well as the connections that Martha Roggenkamp has nurtured across decades and continents.

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