

DELAYING ENERGY TRANSITIONS

Energy security, neoliberalism, and the social construction of fossil dependence

Hugo Faber

SÖDERTÖRN DOCTORAL DISSERTATIONS

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Södertörns högskola

Subject: Political Science
Research area: Politics, Economy and the Organisation of Society
School of Social Sciences and the Baltic and East European Graduate School (BEEGS)





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Södertörns högskola
(Södertörn University)
Biblioteket
SE-141 89 Huddinge
www.sh.se/publications

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Cover image: "Balti Elektrijaam," Hugo Faber (2024)
Cover design: Jonathan Robson
Graphic form: Per Lindblom & Jonathan Robson

Printed by E-Print, Stockholm 2026

Södertörn Doctoral Dissertations 262
ISSN 1652–7399
ISBN 978-91-89962-83-5 (print)
ISBN 978-91-89962-84-2 (digital)

Stand still, pause clocks,
We can make the world stop
The Glitch Mob

Abstract
This dissertation explores how the economic decline of fossil and nuclear industries is resisted and delayed through new ways of representing them as necessary. It argues that energy policy is dominated by key experts and decision makers, and studies the discourse within these circles. Using poststructural policy analysis, the thesis studies three cases in three separate research articles through an empirical material consisting of 56 elite interviews and 91 policy documents. The cases consist of political decisions to manage the decline of three fossil and nuclear industries: the peat industry in Finland; the oil shale industry in Estonia; and the nuclear industry in Sweden. The cases are compared in this book. The findings contribute to scholarship on energy security, incumbent decline in energy transitions, and neoliberalism, and the dissertation argues for an increased dialogue between these bodies of literature.

The thesis shows how the representation of fossil and nuclear industries as necessary for a secure supply of energy can legitimize state support to delay their decline. It argues that geopolitics and external crises are neither sufficient nor necessary conditions for such representations to succeed, and always part of a larger picture including domestic interests and the complex reality of managing energy systems. The dissertation also argues that the portrayal of fossil and nuclear industries as necessary for energy security depends on technical assumptions about the reliability and the lack of alternatives to these industries. These assumptions should not be taken at face value as neutral or technical "facts," as they downplay and highlight different technical risks, drawbacks, and advantages, where interests and politics are at play. The thesis argues that such technical assumptions are understudied but often decisive in decision-making and, consequently, that social scientists should pay closer attention to how they are constructed and to the contingent and political nature of expert knowledge.

The thesis also shows that the neoliberal rationality that prevails in the expert-dominated governance of energy can both enable and constrain the representation of fossil and nuclear industries as necessary, depending on the societal dependence on the industry in question. While this rationality precludes state support to uncompetitive industries in theory, it can give industries that control critical infrastructures political leverage in practice. Moreover, by handing over control of the infrastructure upon which energy security depends to commercial actors and the market, neoliberal rationality limits the ability of the state to act strategically and pre-emptively. This, the thesis argues, can result in a state of semi-permanent crisis management where there appear to be no other options than preserving existing fossil capacities.

Keywords: Fossil dependence, energy security, energy transitions, incumbent decline, incumbent resistance, phaseouts, oil shale, nuclear power, peat, geopolitics, neoliberalism, energy dependence, climate politics, governmental rationality, discourse analysis, WPR, poststructural policy analysis, expert knowledge; Estonia; Sweden; Finland.

Sammanfattning (Abstract)
Titel: *Fördröjda energiomställningar: energisäkerhet, nyliberalism och fossilberoende*

Den här avhandlingen undersöker hur den ekonomiska tillbakagången och utfasningen av fossil- och kärnkraftsindustrier motverkas och fördröjs genom nya sätt att framställa dessa industrier som nödvändiga. Avhandlingen argumenterar för att energipolitiken domineras av experter och beslutsfattare, och studerar diskursen inom dessa kretsar. Den använder poststrukturalistisk policyanalys och studerar tre fall, i tre separata forskningsartiklar, genom ett empiriskt material bestående av 56 elitintervjuer och 91 policydokument. Fallen består av politiska beslut som tagits för att hantera tillbakagången och den potentiella utfasningen av fossil- och kärnkraftsindustrier, nämligen torvindustrin i Finland, oljeskifferindustrin i Estland, och kärnkraftsindustrin i Sverige. Fallen jämförs med varandra i den här boken. Resultaten bidrar till forskningen om energisäkerhet, energiomställning, och nyliberalism, och visar på behovet av en utvidgad dialog mellan dessa fält.

Avhandlingen visar hur den ekonomiska tillbakagången och utfasningen av fossil- och kärnkraftsindustrier kan motverkas och fördröjas genom att dessa industrier framställs som nödvändiga för energisäkerhet, vilket kan legitimera statligt stöd. Den argumenterar för att geopolitik och externa kriser varken är nödvändiga eller tillräckliga för att sådana framställningar ska få fäste, och alltid en del av en större helhet som inkluderar inhemska intressen och den komplexa verklighet som styrningen av energisystem innebär. Den argumenterar vidare för att framställningen av fossil- och kärnkraftsindustrier som nödvändiga är beroende av förgivettagna föreställningar om tillförlitligheten och bristen på alternativ till dessa industrier. Dessa föreställningar bör inte betraktas som neutrala tekniska fakta, eftersom de framhäver och tonar ned olika tekniska risker, fördelar, och nackdelar. Avhandlingen vidhåller att sådana ”fakta” ofta är avgörande för konkreta energipolitiska beslut, och att den samhällsvetenskapliga energiforskningen därför bör vara uppmärksam på hur expertkunskap konstrueras.

Avhandlingen visar även att den nyliberala styrningsrationalitet som råder inom den expertdominerade energipolitiska styrningen både kan möjliggöra och förhindra försök att åberopa energisäkerhet för att legitimera statligt stöd, och att detta är avhängigt av samhällets beroende av industrin i fråga. Även fast den nyliberala rationaliteten är svår att förena med statligt stöd till konkurrenssvaga industrier i teorin, så kan den ge industrier som kontrollerar viktig infrastruktur politiskt inflytande i praktiken. Genom att lämna över kontrollen över sådan infrastruktur till kommersiella intressen begränsar den nyliberala rationaliteten statens möjligheter att agera förebyggande. Avhandlingen visar hur detta kan resultera i ett tillstånd av ständig krishantering där åtgärder för att bevara befintlig fossil energiproduktion framstår som det enda alternativet.

Nyckelord: Fossilberoende, energisäkerhet, energiomställning, utfasning, oljeskiffer, kärnkraft, torv, geopolitik, nyliberalism, energiberoende, klimatförändring, styrningsrationalitet, diskursanalys, WPR, poststrukturell policyanalys, expertkunskap, Estland, Finland, Sverige

Acknowledgements

This dissertation could not have been written without all the support and inspiration that I have received over the last few years, and there are many people who deserve acknowledgement for their contribution to it. My interview respondents deserve a special mention for their generous contribution of time, expertise, and insights, as do the Baltic and East European Graduate School (BEEGS) at Södertörn University for hosting me and the Foundation for Baltic and East European Studies (Östersjöstiftelsen) for funding this project.

Above all, this project could not have been completed without my supervisors, Simon Birnbaum and Linda Ekström. I cannot thank you enough for your support, which made the challenges of PhD life so much easier. Simon, thank you for everything from constant encouragement and showing me the tricks of the trade to helping me navigate administration and lending me your theoretical expertise, analytical mind, and incredibly perceptive eyes for reading—and for always being there whenever I needed it. Linda, thank you for invaluable advice on everything from discourse analysis and policy research to answering peer reviewers, for dispelling numerous cases of paralyzing writer's block by seeing right through my texts and helping me rethink their whole structure, and for making me laugh at the hardships and absurdities that are part of academic life. And thank you both for enduring endless follow-up questions and meetings that more often than not ran way past schedule, it helped me more than you know.

I am deeply grateful to Johanna Mannergren Selimovic and Johan Nordensvärd for thoroughly reviewing my manuscript in the final stages of this project, and for insightful and constructive comments that helped me improve it. And to Per-Anders Svärd, who supervised the master's thesis that turned into the idea for this research project many years ago, and who continued to give me crucial feedback on my research at several key moments throughout the PhD process: Your meticulous reading, thoughtful comments, and intellectual generosity have been beyond what anyone could have asked for.

To my fellow energy and climate scholars at Södertörn and nearby institutions: our energy research network, informal seminars, side projects, and conferences have been a source of happiness, inspiration, and critical discussion without which this time would have been much less rewarding. Tatiana Sokolova, Tatiana Kasperski, Florence Fröhlig, Ekaterina Tarasova, Sara Persson, Josefina Marklund, Alessandra Giolo, Alexander Olsson, Achim Klüppelberg, Andrei Stsiapanau and Andrius Kazukauskas—this experience would not have been the same without you.

My fellow PhD students at Södertörn, among others Tony Blomqvist Mickelsson, Agnes Käll, Sofia Beskow, Alexandra Allard, Nina Carlsson, Çağla Demirel, Miranda Thulin, Gustav Lundberg, Alexander Hjelm, and Roman Privalov. It has been a pleasure to share this journey with you.

To the political scientists at Södertörn University: Nick Aylott, Eva Hansson, Wojciech Szrubka, Magnus Jedenheim Edling, Brigitte Pircher, Ann-Cathrine Jungar, Fredrika Björklund, Anastasiia Chupis, Olena Podolian, Inga Brandell, Swapnil Vashishtha, Alyona Hurkivska, Cvetanka Aleksandroska, Joakim Ekman, Sanna Strand, and Emil Edenborg. Thank you for being such good colleagues and for making the seminars in political science come alive, always thought-provoking and something to look forward to. A special thanks to Karin Borevi, for helping me learn how to teach, and to Johan Eriksson, for guiding me through the first steps as a PhD student.

I am also grateful to Lina Lorentz, Liudmila Voronova, Vit Kysilka, Martina Lindberg, Ulrica Lindbäck, Lovisa Uttman, and Lisa Kings for your patience in helping me with all kinds of practical and administrative matters, and to Jonathan Robson for the great cover design and layout of this book. And to Jenny Gunnarsson Payne and David Payne, for an unbelievably ambitious and rewarding course in political discourse theory that I still "think with" very often.

There are many outside of Södertörn that I would like to express my gratitude to as well: To Michael Kalis for inviting me to the IFZO Energy Trilemma conference in Greifswald and for editing the excellent volume that came out of it; to Göran Bergström for a truly enjoyable collaboration with me and Linda on our handbook chapter on discourse analysis; to Kacper Szulecki for meticulous and insightful comments on my research in an early stage; to Per Högselius and Arne Kaijser for inviting me to workshops and seminars at KTH and for great discussions about energy history and politics; to Hanna Lempinen—one of few other scholars interested in Finnish peat politics—for commenting on my paper on that topic; to Markku Lehtonen and Matti Kojo for great workshops and captivating exchanges about all things energy; to Karin Bäckstrand, Elin Lerum Boasson, Naghmeh Nasiritousi, Ayşem Mert, and Lisa Sanderink for being such great colleagues back when I was a research assistant at Stockholm University and for awakening my interest in fossil dependence; to the WPR scholars in Karlstad for arranging a wonderful symposium; to countless other scholars who have arranged workshops, seminars, and conferences; and to numerous editors and anonymous reviewers at *Energy Policy* and *Energy Research and Social Science* for challenging but fair and constructive criticism.

At last, to my friends and family. To my dear ungovernable friends, you know who you are, for midsummer parties, Chinese dinners, skiing trips, "trissar," and nights out that made me forget about work. To my brother Rasmus, for our long phone calls about everything from parenting to AI, and to my sister Sandra, for amazing sailing and archipelago excursions with our kids. Thank you both for being companions in parenthood. And to my brother Samuel, thank you for sharing my interest in every-

thing from Marxism to Märzen, for losing track of time with me in conversations ranging from neoliberalism to psychoanalysis, and for an incredibly sharp and insightful reading of my manuscript that helped me improve it.

To my parents. Mia, I know you would have been happy for me, and Gert, I know you would have been proud.

Malin, thank you for sharing life and family with me, for being there, and for contributing to this work by exploring and sorting out all kinds of conceptual and research-related problems with me during long walks and late evenings. Thank you Kennet and Nilla for being wonderful grandparents to Nils, and Lovisa for being his wonderful aunt. And to Nils, my son. Discovering the world together with you is my greatest privilege and dearest joy. Tack för att du finns.

Skogsön, August 30th 2026
Hugo Faber

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Article I
Faber, Hugo. (2023). How does falling incumbent profitability affect energy policy discourse? The discursive construction of nuclear phaseouts and insufficient capacity as a threat in Sweden. *Energy Policy*, 174, 113432. https://doi.org/10.1016/j.enpol.2023.113432.

Article II
Faber, Hugo. (2024). Free competition, come hell or high water? How neoliberalism prevailed and why Finland allowed peat to decline in the midst of an energy crisis. *Energy Research & Social Science*, 118, 103832. https://doi.org/10.1016/j.erss.2024.103832.

Article III
Faber, Hugo. (2026). In the grip of a dying giant: How neoliberalism and energy security discourse perpetuates Estonia's oil shale dependence. *Energy Research & Social Science*, 134, 104632. https://doi.org/10.1016/j.erss.2026.104632.

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Faber, Hugo, & Birnbaum, Simon. (2024). Market Rationality and Energy Justice. In *The Energy Trilemma in the Baltic Sea Region* (pp. 111–132), edited by Kalis, Michael. Routledge. https://doi.org/10.4324/9781003479178-9.

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Abbreviations

AI	Artificial Intelligence
APERC	Asia Pacific Energy Research Centre
CEO	Chief Executive Officer
EU	European Union
EU ETS	European Union Emissions Trading System
IEA	International Energy Agency
IRENA	International Renewable Energy Agency
kWh	Kilowatt-hour (unit of energy)
LNG	Liquefied natural gas
MLP	Multi-level perspective (theoretical framework)
NESA	The National Emergency Supply Agency (of Finland)
WPR	The What's the Problem Represented to be? Approach (methodological framework)

1. Introduction: The shores of Narva

The Estonian border town of Narva is cut in two by a river carrying the same name. On the eastern side of the stream lies the Russian Federation and Ivangorod, a twin town to Narva that was once part of the same city. Walking the shores of the Narva River is a strange and ominous experience. Two medieval fortresses loom, one on each side of the stream, facing off as if representing the animosity between the rivalling powers that meet here. One fort is defiantly dressed in the colors of Estonia, the European Union, and Ukraine, the other flies the flag of the Russian Federation. The power lines that still cross the river to connect the two countries are about to be dismantled, and anti-tank dragon's teeth litter the "Friendship Bridge," one of few remaining EU–Russia border crossings. Queues at the bridge run long now, as people on their way to visit relatives on the other side have to wait outdoors for hours. It was in this area that the Russian Border Guard unilaterally removed the buoys demarcating the border between the two countries in 2024, and if a conflict were to erupt between them, it is probably here it would start.

If one follows the river a couple of kilometers upstream, it expands into an artificial lake. Two giant oil shale power plants lie on its shores, drawing cooling water from the reservoir. They provide almost all of Estonia's dispatchable power generation capacity, and are clearly visible from the Russian border that cuts through the lake. When construction started in the 1950s, these plants, one of which decorates the cover of this book, epitomized the Soviet vision of progress and modernity. More than half a century later, these polluting giants are hopelessly unprofitable in the face of age, climate policies, and competition from ever-cheaper renewables. Yet they remain operational, as the Estonian state has made them the mainstay of its approach to energy security—the availability of a reliable and not prohibitively expensive supply of energy. Standing on the shoreline, one cannot help but wonder how Estonia ended up relying on these costly and polluting fossil power plants in this borderland, so close to Russia. Add to this the fact that a Ukrainian attack drone on its way to Russia crashed into the chimney of one of the plants in March 2026, and the decision seems outright mysterious. Energy security governance can obviously take strange and counterintuitive forms, one must conclude. And there are clearly forces other than simple geopolitics at play when energy security is governed in practice, despite the overwhelming focus on geopolitics when energy security is discussed in public, political, and scholarly debates.

This dissertation is not about Estonia per se, but about these forces. In the thesis, I show that the Estonian case is only one of many instances where fossil and nuclear

energy industries have been portrayed as necessary for energy security, as a way of legitimizing state support. This is a way of delaying the decline of these industries, which now struggle in the face of climate policies and competition from cheap renewables. The thesis thus reveals that while geopolitics can certainly be important when industries and technologies are represented as necessary for energy security, it is part of a more complex picture that includes the interests of these industries, struggles around their decline, and the intricate technical and economic logics of the experts and decision makers who manage energy systems on a daily basis. How facts are construed within this technical elite, I argue, is often more consequential than public, political, and academic debates, where superficial accounts of geopolitics tend to prevail.

Portraying fossil and nuclear industries and technologies as necessary for energy security, I contend, is not merely to appeal to objective facts, but a contingent and political act of downplaying and highlighting different risks and benefits. And as evident when standing on the shores of Narva, the outcomes in terms of energy policy can be outright contradictory. This dissertation argues that many of these contradictions can be traced back to the neoliberal rationality of government that prevails among energy policy experts and decision makers in the Baltic Sea Region and beyond.[1] Depending on the context, this rationality can both constrain and enable the representation of established energy industries as necessary, often in ways that result in short-sighted and inconsistent energy policies.[2] Besides Estonia, where neoliberal logics facilitated the representation of the Narva plants as necessary, the dissertation reveals how such logics enabled Sweden's nuclear industry to gain support by waving the threat of blackouts, but constrained the influence of Finland's peat industry, which was left to decline in the middle of an energy crisis.

The main contribution of this book, however, lies in comparing these three cases to theorize about how established energy industries are represented as necessary; how this can be enabled or constrained by neoliberalism, external crises, dependence on incumbent industries, and assumptions about the reliability and the lack of alternatives to these industries; as well as in drawing out the wider implications for energy politics and fossil dependence in this time of resurging great power rivalry. By limiting the ability of the state to act strategically and pre-emptively, the thesis argues, neoliberal logics can result in a condition of semi-permanent crisis management that, together with entrenched dependencies and assumptions about established technologies, is naturally geared towards preserving existing fossil capacities. This short-sightedness and incapacity, I argue, cannot be afforded in this time of overlapping

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[1] In this thesis, I define neoliberalism as a "rationality of government"—that is, a way of reasoning that makes certain ways of governing possible (see Section 3.2). For stylistic reasons, I also use "neoliberal rationality" and "neoliberal logics" interchangeably.

[2] Following conventions in the energy transitions literature, I use the adjectives "established" and "incumbent" to refer to conventional fossil and nuclear energy industries and technologies.

crises that constantly remind us of the fragility of the fossil infrastructures on which we all depend.

1.1. Delaying decline

The last decade has seen rapid technological developments in renewable energy with solar and wind power reaching "grid parity" in most of the world, which means that they produce electricity at the same cost or less than the average already existing power plant (Van de Graaf and Sovacool 2020, 153). While the world's energy mix remains heavily dominated by fossil fuels,[3] the annual added capacity of renewable electricity now far exceeds that of fossil power,[4] and the technologies exist to replace fossil energy with renewable fuels or electricity in sectors such as transport, heating, and industry. This has given rise to the notion that we are in the midst of a global "energy transition," from incumbent fossil and nuclear energy sources and technologies to renewables.

Deploying renewables, however, is unlikely to be the most challenging part of the energy transition. Despite conflicts over renewable energy expansion,[5] it offers business opportunities, employment, and economic growth. Thus, it goes hand in hand with the win-win discourse of "ecological modernization," according to which sustainability can be achieved through innovation, without major adjustments, and with economic benefits in tow (Bäckstrand and Lövbrand 2006, 2019). But deploying renewables does not in itself reduce carbon emissions, unless it is followed by the phasing out of fossil energy technologies. The latter is less compatible with win-win narratives, as it entails the destruction of capital, infrastructure, and whole business models—not to mention the powerful interests that it challenges. Yet, most research on energy transitions has focused on deploying renewables, while much less is known about the conflicts that surround the phasing out of fossil energy (Healy and Barry 2017).

The phasing out of established energy industries does not follow swiftly or automatically from increased competition with renewables. Rather, it is a question of politics. As power plants and mines are massive investments that are built to operate for decades, inertia is built into the system and fossil industries have every incentive to keep their assets in operation for as long as possible (Erickson et al. 2015; Malm 2016, 358; Christophers 2022). Moreover, energy markets are permeated with regulations, natural monopolies, externalized costs, subsidies, and taxes, and often dominated by quasi-monopolies and state-owned utilities. Even "liberalized" energy

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[3] The International Energy Agency estimated that around 80 percent of the world's primary energy supply was based on fossil fuels in 2023, using the substitution method (International Energy Agency (IEA) 2024).

[4] Of the global annual added power generation capacity, 86 percent was renewable in 2023 (International Renewable Energy Agency (IRENA) 2024, 69).

[5] Examples include opposition against renewables and sustainable energy innovations by incumbent energy interests (Smink et al. 2015; Hess 2016), conflicts over support measures for renewables (Boasson et al. 2020) and conflicts over wind power siting (Edberg 2018; Tafon et al. 2019).

markets are heavily controlled and dependent on state measures and investments, and energy systems are greatly affected by public policy (Faber and Birnbaum 2024). The corollary is that the transition from one energy source to another is a question of politics (Turnheim and Geels 2012; Boasson 2020, 249).

This dissertation project started with the observation that these politics are in a state of instability. Energy research has shown repeatedly that the central logic in energy politics has revolved around the notion that fossil and nuclear energy technologies are *economically necessary* as the only options that can deliver a sufficiently abundant and affordable supply of energy to power successful industries, national competitiveness, and prosperity (e.g. Rafey and Sovacool 2011; Tarasova 2018; Trencher et al. 2019; Steckel and Jacob 2021).[6] This logic aligns smoothly with the neoliberal market rationality that elevates competition to a governing principle, which has become dominant in many parts of the world since the end of Keynesianism in the 1970s (Harvey 2005; Peck 2010). Established energy industries have essentially been represented as superior in terms of competitiveness, and therefore key to competitive economies. But climate policies and increasingly affordable renewables have started to chip away at the competitiveness of these industries, and industries that themselves struggle to compete are of course hard to portray as vital for national competitiveness. Their status as economically necessary is thus becoming less compelling and increasingly contested. Moreover, as profits fall, these industries must now rely on direct state support, which is hard to reconcile with the neoliberal principle of letting free competition allocate resources and phase out enterprises that cannot compete. Thus, falling profitability constitutes a double shock for established energy interests, both economic and political.

On the other hand, fossil and nuclear industries are short of neither reasons nor resources to respond to this political and economic dislocation. Around half of the entries on *Fortune*'s yearly top ten list of the world's largest corporations by revenue tend to be fossil energy companies (Fortune 2024). Established industries own vital infrastructure for producing and distributing heat and electricity, have access to technological expertise and connections with decision makers (Kern and Markard 2016, 302), and there are numerous documented cases of "revolving doors" between the fossil industry, politics, and administration (Quintanilla and Cummins-Tripodi 2018; Szulecki 2020b, 142-143). Business and industry associations, unions, and political parties often support incumbent energy industries as well (Vögele et al. 2018; Hess and Renner 2019; Brauers and Oei 2020). These industries use such resources routinely to protect their business models and shape governance and institutions to their benefit (Geels 2014; Seto et al. 2016). As there are interests with both the incentive and the resources to intervene in energy discourse and politics, we can expect the falling competitiveness of incumbent technologies to be met with other

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[6] See also Nilsson et al. (2004); Kall (2011, 322); Teräväinen et al. (2011); Bosman et al. (2014); Tarasova (2017); Rosenbloom (2018); Buschmann and Oels (2019); Chester and Elliot (2019); Brauers and Oei (2020); Markard et al. (2021); Szabo et al. (2022).

ways of representing these technologies as practical, desirable, or even necessary. This could be an effective way of delaying the phasing out of fossil fuels, the consequences of which we are all aware. But we know little about these representations, and the ways in which they affect energy politics remain a blind spot in energy social science.

1.2. Purpose, research questions, and contributions

The purpose of this dissertation is thus to shed light on how the increasing incompatibility of declining fossil and nuclear industries with free competition, and the undermining of established representations about their superior competitiveness, are navigated through new ways of representing these industries as necessary. Or to specify and formulate in terms of research questions:

- How is the decline of fossil and nuclear industries resisted and delayed through new ways of representing them as necessary?
- What are the assumptions, rationalities, and conditions that allow new ways of representing these industries as necessary to prevail in energy policy discourse and legitimize state support?
- From a critical perspective, what is highlighted, downplayed, or left unproblematic within these representations and how can their "neutral" and "technical" status be questioned?

Finally, while more of a call for reflection than a research question, the concluding chapter of this dissertation seeks to answer how these representations can be "thought differently" and what doing so can tell us about the wider implications for energy politics, fossil dependence, and sustainable energy transitions in this time of crisis and upheaval.

These questions are answered through three case studies, published as three separate research articles, and a comparative analysis of these cases in Chapter 6 of this book. To sacrifice suspense for clarity, the short answer is that energy industries in decline can be represented as necessary for energy security, as a way of legitimizing state support. Arguing that energy security governance is technically complex and that it tends to be dominated by experts and key decision makers rather than decided through public debates, this dissertation focuses on the discourse within these circles. The study shows that the representation of fossil and nuclear industries as necessary for energy security rests on assumptions about the reliability of these industries, by which different technical and economic risks, drawbacks, and advantages are downplayed and highlighted. These assumptions should not be taken at face value as "neutral" expert knowledge or technical "facts," as power and politics are at play. While energy crises and geopolitical tensions can act as conditions that enable the representation of fossil and nuclear industries as necessary, they are neither sufficient nor necessary for these representations to prevail, and industries on which societies

depend can create their own emergencies by threatening to phase out capacities in ways that energy systems cannot handle. Neoliberal rationality can both constrain and enable the representation of established technologies as necessary, depending on the societal dependence on the industry in question. The dissertation shows that while this rationality precludes state interventions to support uncompetitive industries in theory, and while this does indeed apply to industries that lack leverage, it can empower larger industries upon which society depends, even if these industries are in a state of decline. By handing over control of the infrastructure upon which energy security depends to commercial actors and the rule of the market, neoliberalism limits the ability of the state to act strategically and pre-emptively. This, I argue, can result in a state of semi-permanent crisis management where there appear to be no other options but to support fossil energy industries.

Answering these questions contributes to two main interdisciplinary fields of research: on incumbent decline in energy transitions, and on energy security. The increasing representation of declining industries as necessary for energy security in real-life energy politics, I argue, suggests the need for a corresponding convergence between these fields of research. Research on incumbent decline would benefit from paying more attention to how security discourses are used to resist and delay decline. The literature on energy security on the other hand, which has focused on states and geopolitics, has to consider domestic interests such as declining fossil and nuclear industries and their role in securitizing energy politics, and when geopolitics is involved, how it interacts with the complex and nuanced technical reality of managing energy systems on a daily basis.

The dissertation further argues that social scientists who study energy security and incumbent decline must leave their comfort zone of culture and politics and venture into the technical domain of energy experts in order to critically examine the construction of technical "facts" around the reliability and necessity of different energy technologies. Otherwise, even critical research may unwittingly reproduce prevailing technical discourses and overstate the reliability and necessity of established industries. Scrutinizing these "facts," I maintain, is particularly important since they are often decisive when concrete decisions are made in the expert-dominated issue area of energy policy.

Moreover, I argue that energy social science should consider how neoliberal logics limit and enable different ways of managing energy security and incumbent decline, how these logics interact with the societal dependency on fossil and nuclear industries, and how they may prolong dependence on fossil fuels. But rather than assuming that neoliberal rationality is "technologically neutral" or that it promotes "more market and less government," researchers must pay attention to the ways in which it works in practice. Energy security research in particular has tended to conceptualize neoliberal market governance and security-driven state interventionism as two conflicting logics at opposite ends of a spectrum. This, I argue, hides a more complex picture in which these logics are fundamentally compatible and where

neoliberal rationality can legitimize state support by facilitating the representation of incumbent technologies as necessary.

This thesis also contributes to the theoretical literature on neoliberalism, by exploring how neoliberal rationality works in the context of energy governance. Moreover, it highlights how the malleable nature of neoliberal principles and logics makes it possible to resolve the tension between the streamlined neoliberal ideal of the self-regulating market and its messy dependence on state interventions when implemented in practice. Additionally, building on the argument that neoliberal rationality can empower energy industries on which societies depend, I propose that similar dynamics may apply to other sectors that are deemed indispensable for e.g. state security or national competitiveness. The thesis also makes two methodological contributions, on interviewing elites and poststructural policy analysis.

1.3. Outline

The remainder of this introductory chapter sketches out the analytical approach, limitations, and the logic behind selecting and comparing the cases that make up the dissertation. Chapter 2 contextualizes the thesis in relation to previous research on energy transitions, the decline of established energy technologies, and energy security, and presents its contributions to these fields. Chapter 3 is devoted to the theoretical literatures that this dissertation draws on and contributes to, which consist of poststructural policy analysis and theories of neoliberalism as a rationality of government. Chapter 4 presents the methods that were used, focusing mainly on elite interviewing but also on policy documents and the analytical process. A summary of the three articles that make up this dissertation is provided in Chapter 5. The most important chapter of the dissertation is Chapter 6, which ties the threads together by reflecting on the lessons that can be learned by contrasting these cases with each other, and on how doing so contributes to research on energy security and incumbent decline as well as to the theoretical literature on neoliberalism. Chapter 7 provides a summary of the main results, and Chapter 8 concludes with a discussion about the wider implications for energy politics, fossil dependence, and sustainable energy transitions in this time of crisis and upheaval.

1.4. Analytical approach and limitations

The economic decline of fossil and nuclear industries is an uneven and emerging process, but the responses to it and the effects of these responses on energy politics can already be explored by studying a particular type of case. In some contexts, political, technological, and material factors have created a dynamic of falling profitability that is faster and more profound than elsewhere. In some of these settings, political decisions have been made to handle the situation—either by restoring the profits of incumbent industries through measures such as tax exemptions or direct subsidies, or by letting the industries decline and managing their phasing out. By

closely studying the rationales behind these decisions, it is possible to get a premonition of how energy discourse and politics will be affected by the economic decline of fossil industries, which is set to spread and accelerate as the energy transition unfolds. This dissertation treats three such decisions as cases for empirical research. In order to study them, it draws on Carol Bacchi's (2009) approach to policy analysis. The application of this approach is discussed in Articles I, II, and III as well as in Chapter 3, but in short, it stipulates that discourse shapes policy by defining the "problem" that policies are supposed to solve, thereby legitimizing certain measures while ruling out other courses of action. Following this approach, the analytical questions that have guided the empirical research in this dissertation highlight what the problems are represented to be in policies and decisions that manage the economic decline of incumbent energy technologies; what the assumptions, conditions, rationalities, and historical developments are that allow these problem representations to prevail; what the critical perspectives and other ways of problematizing these decisions are that have been sidelined; and how these problem representations legitimize certain policies while ruling out others.

This dissertation focuses on how problems are represented in what I call *energy policy discourse*— that is, the discourse of an exclusive group of energy experts and decision makers that dominate energy politics such as politicians, high-level civil servants, and representatives of utilities, business associations, unions, and other interest groups. Such elites are of course central in all areas of government, but they are particularly influential in the issue area of energy, which is characterized by technical complexity, expert governance, and limited public insight, access, and participation (Miller et al. 2015, 37; Sovacool and Brisbois 2019). This tendency is even more pronounced when it comes to energy *security*, which is perceived as a key state interest, a matter of particular technical difficulty, and an issue where the stakes are simply too high for anything to fail as no government can afford the "lights going out." Thus, in all the cases studied here, the issues and measures were managed by experts and decision makers, with limited prior public insight and engagement. Therefore, this thesis focuses on energy policy discourse rather than, for example, public or media discourse. By focusing on the discourse of elites, it employs a strategy of "studying up" (Goodman and Marshall 2018) and does not cover how the decline of established industries is experienced by communities and individuals affected by lost incomes, opportunities, and livelihoods.[7]

As further explained in Section 3.1.3, this dissertation is concerned with the production of dominant problem representations or the "common sense." In other words, the focus lies on the *widely shared* ways of reasoning and understanding that prevail among experts and decision makers, rather than the standpoints of individual actors. By studying the construction of the "common sense" in this context, the focus

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[7] These issues are, however, thoroughly studied in the literature on "energy justice," see for example Jenkins et al. (2016).

is rather on meaning-making practices and their outcomes, even if actors and their actions are visible to the extent that they appear within dominant problem representations.

1.5. Case selection, context-dependent knowledge, and reflective comparison

This dissertation explores the representation of fossil and nuclear industries as "necessary" in three articles that explore three separate cases, and Chapter 6 reflects on the lessons that can be drawn from comparing them with each other. The purpose of studying and comparing these cases is neither to make generalizations that apply to a wider population, nor to take a first step towards doing so by generating hypotheses for statistical testing. Rather, in line with scholars such as Robert Stake (1995), David Howarth (2000), and Bent Flyvbjerg (2006), I stress that knowledge is context-dependent and that the value of rich case studies—and their ability to help us understand other cases—lies precisely in their situatedness and uniqueness. As Stake writes, "Understanding each [case] requires an understanding of other cases, activities, and events but also an understanding of each one's uniqueness" (Stake 1995, 44). In other words, learning from particular cases is indispensable for developing nuanced and in-depth knowledge and for generating theory that can facilitate a broader understanding of social phenomena while remaining sensitive to their context (Flyvbjerg 2006). Thus, while my ambition is to contribute to the understanding of other cases, I do not aim to do so by generating fixed categories or universal rules, but rather through a context-sensitive and reasoning approach to theory development. As Malin Rönnblom (2012) argues, this is key for studies in which the definitions of categories themselves (e.g. fossil-fuel-based technologies as "reliable") are under scrutiny rather than something that can be settled once and for all. Rather than uncovering universal mechanisms, comparison thus becomes a way of seeing connections and of gaining critical distance from problem representations that are otherwise easily taken for granted. As Rönnblom puts it, "This way of doing comparison is similar to conversation or dialogue where the comparative element creates space for distance from and reflection on the different cases" (Rönnblom 2012, 134).

The cases of this dissertation consist of political decisions to manage the economic decline of incumbent technologies and the problem representations that underpin them. These decisions are listed below:

- Article I: The 2016 decision in Sweden to stop the phasing out of nuclear power by removing a tax to restore its profitability (Faber 2023).
- Article II: The decision to let energy peat decline in Finland between 2022 and 2024 despite a fuel shortage, an energy crisis, and Russia's invasion of Ukraine (Faber 2024).

- Article III: The decision to delay the decline of oil shale power in Estonia. First, in 2019, by simply instructing Eesti Energia to keep it operational (the policy was later prolonged and effective until the end of 2026). Later, in 2022, it was decided to procure oil shale power as a strategic reserve, a policy that was finally implemented in 2026 (Faber 2026).

Because of the prevailing assumption that energy security is primarily a question of geopolitics, as well as the location of these countries where Russia meets "the West," it is worth emphasizing that these are not primarily cases of states or how states navigate geopolitical tensions. In fact, as hinted at in the introduction and further explained in Chapter 6, one of the findings of this dissertation is that geopolitics is only one of many aspects of energy security governance. In terms of the concrete day-to-day management of energy supply, the state in which a case is located is not necessarily any more important than the sector that it concerns (e.g. heating or power) or the specific challenges associated with particular technologies. Thus, and given the purpose of this dissertation, the cases consist of political decisions to manage incumbent decline and their corresponding problem representations, rather than—for example—countries or conflicts.

These political decisions were all chosen as cases because they were made as the result of a severe economic crisis hitting an incumbent industry. As the economic decline of fossil industries is an emerging process, my reasoning was to study cases where this decline had gone particularly far, thus forcing political decisions to manage it. The logic behind this selection is similar to the logic behind studying what Bent Flyvbjerg calls "extreme cases," which are chosen because they "often reveal more information because they activate more actors and more basic mechanisms in the situation studied" (Flyvbjerg 2006, 229). In line with Yin (2003), it could also be argued that those cases where the economic decline of incumbent technologies has been particularly pronounced are "revelatory cases" at this moment in time—that is, cases that enable a study of a phenomenon that has previously been unavailable and therefore understudied (Yin 2003, 42). There are several countries where falling incumbent profitability has resulted in discursive and institutional change, but these cases are still rare, and each case enables this important dynamic to be studied in a new social context. Whether the cases are conceptualized as extreme or revelatory, the primary rationale that underpins the case selection strategy of this dissertation is the same: in contexts where the decline of established energy industries has come the furthest, it will have produced the most tangible effects. A key assumption motivating the inquiry is of course that the economic decline of incumbent technologies will become more common as the energy transition unfolds. If this is correct, these cases will transform from rare "revelatory cases" into "exemplary cases" over time—that is, cases which allow for an exploration of general social and political logics (Howarth 2000, 138).

While all the case studies focus on decisions to manage decline, they differ along other relevant dimensions, what Flyvbjerg (2006) called "maximum variation cases." As follows from the argument above about context-dependent knowledge, the logic is not an experimental one of "isolating variables." Rather, the intent is to highlight the implications of different conditions, thereby opening up for reflection and dialogue with previous research about how different contextual circumstances affect discursive struggles over incumbent decline. Thus, the cases differ in terms of the dependence on the industry in question, its carbon intensity, and the presence of external energy-related and geopolitical crises (see table 1). Importantly, they also differ in terms of whether or not the industry was supported or allowed to decline. While it might be helpful for some readers to interpret this as something akin to a "dependent variable," it is important to remember that the aim is not to uncover universal mechanisms, but to facilitate a more context-sensitive mode of reasoning.

Finally, while the main focus of this thesis lies on fossil energy technologies, one of the cases concerns a nuclear industry. Nuclear power plants are very similar to fossil baseload power plants (such as those firing coal and oil shale) in certain key technical and economic aspects: they are used as baseload power, unpractical to ramp up and down, rely on a large number of continuous hours of operation to recover more or less fixed costs, and have been subject to falling competitiveness in recent years. Moreover, they are both owned by large incumbent (often state-owned) companies, and routinely treated as different examples of the same category— that is, "incumbent industries," in the energy transitions literature. But there are of course important differences as well, and the rationale for comparing (the discourse and politics around) declining fossil and nuclear industries is not to equate them. On the contrary, the differences between these industries are precisely what makes it possible to learn more about each of them through comparison. As they differ in carbon intensity, comparing them highlights how this factor plays into the politics around their decline. Even more importantly, Sweden's nuclear industry faced economic decline already in 2015–2016, which allowed me to include a case from a time when the international environment was perceived as much more stable than in the other cases.

Table 1. Cases.

	Article I, Sweden's nuclear industry	**Article II, Finland's peat industry**	**Article III, Estonia's oil shale industry**
Political decision	Removing the thermal effect tax on nuclear power in Sweden in 2016, thus delaying nuclear phaseouts	Letting peat decline in Finland 2022–2024 despite the invasion of Ukraine and the energy crisis (no measures taken except a marginal stockpiling of peat)	Delaying the phaseout of oil shale power, first by instructing Eesti Energia (effective from 2019 to the end of 2026), later through a strategic reserve (implemented in 2026)
State support to delay decline?	Yes	No	Yes
Societal dependence on industry	High	Low	High
Carbon intensity	Low	High	High
External crises	No	Yes	Yes (after 2022)
Sector	Power	Primarily heating	Power

2. Previous research on energy security and incumbent decline

With the exception of a first wave of social science energy research triggered by the oil crises in the 1970s, energy research has long been dominated by the so-called "hard" disciplines of physics, statistics, economics, mathematics, and engineering, while both social science and qualitative methods have been underrepresented (Sovacool 2014; Van de Graaf et al. 2016, 5–6). This has begun to change, however, and today, energy is studied by a diverse and multi-disciplinary range of scholars. Political scientists have started to pay more attention to energy politics as well (Hughes and Lipscy 2013), focusing mainly on energy security and geopolitics (discussed below), the fragmented and multi-faceted character of global energy and climate governance (Florini and Sovacool 2011; Goldthau 2011; Van de Graaf 2013; Van de Graaf and Colgan 2016; Zelli 2020; Nasiritousi and Faber 2021), and the international political economy of energy (Hancock and Vivoda 2014; Van de Graaf et al. 2016; Brauers and Oei 2020).

This chapter positions the dissertation in relation to the two empirical fields of research to which it contributes: the politics around the decline of incumbent fossil and nuclear industries, and the politics of energy security. The next section in this chapter presents research on the former topic, and draws on it to outline the research problem driving this thesis. It also discusses how the thesis contributes to this literature by complementing existing broad-view studies with a narrower but more detailed investigation into the specific discursive struggles that play out when declining energy industries can no longer be credibly represented as superior in terms of competitiveness and affordability. This investigation reveals that an effective strategy to delay decline can be to invoke energy security and represent these industries as reliable rather than cheap. This, I argue, suggests that the literature needs to start dealing with energy security and competitiveness, which are often bundled together, as two separate issues. I also argue that researchers who do not pay attention to the contingent and political nature of "technical" arguments about reliability run the risk of inadvertently reproducing them.

The second section in this chapter provides an overview of the literature on energy security discourse. The dissertation complements this literature, which has focused on the broad strokes of public and official discourse, with empirical studies on the discourse of experts and practitioners. The latter, I argue, is more important than the former when concrete policy decisions are made. Another contribution of this thesis lies in revealing that an often-assumed dichotomy between neoliberal market

governance and security-driven state interventionism hides a more complex picture where these logics are fundamentally compatible and where neoliberal market rationality can actually facilitate calls for state support to established industries. Finally, I argue that studies on energy security discourse, which tend to focus on states and geopolitics, must consider the domestic interests that benefit from securitization and the complex technical realities of those who operate energy systems on a daily basis.

2.1. Incumbent decline in energy transitions research

This dissertation focuses on the politics and discourse related to the decline of fossil and nuclear industries, and much of the research on this topic has been carried out within the large and growing field of sustainability transitions research (see Köhler et al. 2019 for an overview). Scholars within this transdisciplinary field conceptualize energy systems as "socio-technical," to highlight that such systems consist just as much of social as of technical components (Geels 2005, 1–3). To exemplify, while electricity systems need turbines and power lines to operate, they also require regulations, maintenance networks, organizations, education programs, norms, and established practices. The most common framework used in this field is the "Multi-Level Perspective" (MLP), which explains the transition from one socio-technical system (or "regime") to another. In essence, new innovations initially develop as niche applications, but may be scaled up to challenge and replace existing regimes when these come under pressure from changes in the larger societal landscape (Geels 2002; Geels and Schot 2007). This literature has paid more attention to the emergence of renewable energy innovations than to the decline of established industries and the destabilization of the socio-technical regimes in which these industries are embedded (Healy and Barry 2017). The last decade, however, has seen a proliferation of studies on the latter. They show how incumbent decline can be the result of converging economic, political, or social pressures that can be internal to the industry, caused by developments in the larger landscape, or stem from competition with new technologies (Kungl and Geels 2018).

Other studies focus on the policies and politics around the decline and phasing out of established energy technologies without necessarily using concepts from the sustainability transitions literature. Several reviews define *phaseouts* as policies with the deliberate aim of discontinuing a particular fuel, technology, or industry, and discuss studies on phaseouts as a separate body of knowledge (Rosenbloom and Rinscheid 2020; Rinscheid et al. 2021; Trencher et al. 2022). Another strand of literature uses the concept of *carbon lock-in* to refer to the technological and societal path dependencies that make fossil energy systems resistant to change, and to investigate how and why these lock-ins are broken (Unruh 2000; Seto et al. 2016). Other scholars use political economy frameworks to inquire into the factors that make fossil industries willing and able to resist or delay energy transitions even in the face of

inefficient economics and looming climate change (Baker et al. 2014; Kern and Markard 2016). It is, however, hard to distinguish between these different strands of literature on incumbent decline, since there is considerable cross-referencing between them and articles tend to be published in the same journals, borrow concepts from each other, involve the same scholars, and proceed from similar assumptions. From the perspective of this thesis, the differences between these strands are less important than their common ground, as they together contribute with two key insights that act as starting points for this dissertation.

The first insight that the dissertation draws from this literature is that decline is an inherently conflictual issue that established industries are committed to resist or delay. Power plants and mines have huge up-front capital costs and are built to operate for decades, giving their owners every incentive to keep them in operation for as long as possible (Erickson et al. 2015; Kern and Markard 2016, 302; see also Malm 2016, 358). As Christophers (2022) argues, renewables may be more *competitive*, but are not necessarily more *profitable* for industries already invested in established technologies. Thus, even in the face of climate change and cheap renewable alternatives, these industries "will not simply roll over and destabilise" (Turnheim and Geels 2012, 47).

A second starting point is that politics determine the pace and direction of energy transitions, and that established energy industries tend to have a great political influence. Actually existing energy markets, riddled as they are with natural monopolies and dependent on state infrastructure, institutions, and interventions, quickly put to rest any fantasies of an "invisible hand" optimizing the market and guiding it smoothly towards the most competitive technologies. Furthermore, energy systems are dominated by large companies and vested interests that shape institutions, regulations, and market conditions to their benefit (Geels 2014; Seto et al. 2016). These industries are deeply embedded in societies and policy networks, have contacts with key policymakers, and can often draw on support from governments, industrial associations, political parties, and unions (Baker et al. 2014; Hess and Renner 2019; Ohlendorf et al. 2022). Moreover, high-ranking officials often move during the course of their careers between positions at energy companies, public agencies, and in politics (Quintanilla and Cummins-Tripodi 2018; Szulecki 2020b, 142-143). Because of their influence, incumbent industries tend to receive support when faced with economic problems (Turnheim and Geels 2012; Oei et al. 2020). Even falling economic performance can thus be overcome by political influence, state support, and favorable regulatory conditions (Turnheim and Geels 2013). The corollary, as political economy scholars in particular have shown, is that the political influence of said industries is the key factor that determines whether they manage to resist decline or not (Baker et al. 2014; Brauers and Oei 2020; Ohlendorf et al. 2022).

To summarize, the scholarship that has been presented thus far sheds light on the political and economic conditions that make established energy interests both willing and able to resist decline by influencing energy policy. A sub-category of studies that

are particularly relevant for this thesis picks up this thread by showing how such resistance plays out through the social construction and contestation of meaning. A growing body of research has attended to this question by turning to what are often called "discursive approaches" to energy transitions, in order to analyze how struggles over meaning-making affect energy politics and transitions (Bosman et al. 2014; Geels 2014; Hurtado Munoz et al. 2014; Rosenbloom et al. 2016; Isoaho and Karhunmaa 2019).[8]

A common denominator of studies that use discourse analytical and similar perspectives to study phaseouts and incumbent decline is that they take a broad perspective, typically using a whole socio-technical system as a case and explaining the role of meaning-making in its decline (or resistance to decline). This naturally requires researchers to inquire into the full range of discourses, events, and policies around an industry and its potential decline. Studies thus tend to focus on long time spans that can be measured in decades (Kuchler and Bridge 2018; Buschmann and Oels 2019; Markard et al. 2021; Biddau et al. 2024). Moreover, aims, purposes, and research questions tend to be formulated in a comprehensive rather than detailed manner. For example, Isoaho and Markard (2020, 343) ask "How do struggles over the established technology unfold?," while the aim of Osička et al. (2020, 1) is to "explore media coverage of the future of coal."[9] As socio-technical transitions are massive, drawn-out, and far-reaching processes with implications for multiple interests, issues, and policy areas, such questions inevitably necessitate answers that encompass a wide range of storylines, concerns, and arguments (such as climate, employment, security, justice, local environment, economy, etc.). Accordingly, these studies tend to focus on the broad strokes of public and media discourse rather than more niched (e.g. expert) discourses (Rosenbloom 2018; Lehotský et al. 2019; Isoaho and Markard 2020; Osička et al. 2020; Biddau et al. 2024; Černoch et al. 2024).

Many of these studies show that climate change has been invoked to de-legitimize fossil industries and the policies that promote them (e.g. Leipprand and Flachsland 2018; Isoaho and Markard 2020; Osička et al. 2020). Fossil industry supporters, on the other hand, have countered by representing their technologies as "clean" by comparing them with even more inefficient and polluting technologies in other countries, and by framing carbon capture and storage (CCS) technologies—which are far from practically available at scale—as a feasible option (Kuchler and Bridge 2018; Trencher et al. 2019). Other studies focus on narratives about how the decline of fossil industries is affecting communities around them. Researchers have highlighted local struggles over how to define and use spaces around sites of extraction

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[8] Such approaches have been extensively applied in research about intersecting issues, such as environmental politics (Litfin 1994; Hajer 1995; Epstein 2008; Dryzek 2013; Mert 2019) and climate governance (Bäckstrand and Lövbrand 2006, 2019), but have proliferated in energy research more recently.

[9] Many studies also aim to integrate discourse analysis into the MLP or similar perspectives which are intended to explain all of the relevant factors (discursive and otherwise) behind the de- or re-stabilization of a sociotechnical regime (Leipprand and Flachsland 2018; Rosenbloom 2018; Isoaho and Markard 2020).

(Liersch and Stegmaier 2022; Nygaard 2024), discourses in which fossil industries are framed as vital to local economies, livelihoods, traditions, and cultures (Osička et al. 2020; Curran 2021; Biddau et al. 2024; Lempinen 2025), and narratives about what a "just" transition would entail in fossil-dependent regions (Hermwille et al. 2023).

Numerous studies show that an often-reoccurring rationale that has been key in securing political support and favorable conditions for fossil and nuclear energy technologies has to do with their supposed economic benefits. The most widespread line of reasoning represents fossil and nuclear energy technologies as *economically necessary*, by virtue of being more competitive than their alternatives. In essence, these technologies are represented as superior in terms of cost-efficiency and therefore needed to provide affordable energy to facilitate national and industrial competitiveness (Bosman et al. 2014; Rosenbloom 2018; Buschmann and Oels 2019). Narratives that highlight the importance of fossil fuels as a key export commodity are prevalent as well in exporting countries, such as Australia (Curran 2021). The prevalence in this literature of the finding that fossil and nuclear energy technologies are framed as cost-efficient is puzzling, as these studies after all focus on the decline and phasing out of these technologies, which of course tends to correlate with *falling* competitiveness. On the other hand, long-standing discourses and narratives may linger and be slow to uproot, even if their material underpinnings have started to crumble. The literature also shows that the cases in which energy politics has turned against established technologies tend to be those in which the "affordability" argument has been eroded or even replaced with counter-discourses about the falling economic performance of these energy technologies and the superior competitiveness of renewables (Markard et al. 2021; Černoch et al. 2024). This highlights the historical importance of the discourse of economic necessity, as well as the disruptive potential of its undermining.

To sum up the lessons drawn so far, the literature on phaseouts and incumbent decline suggests that the failing competitiveness of fossil and nuclear incumbents is not only an economic problem but also a political one, as it undermines one of the key logics for supporting them. At the same time, research clearly shows that incumbent industries are committed to resisting or delaying their own decline, and that the resources they can draw upon to shape energy discourse and policy to their benefit are considerable. This begs the question of how discursive struggles play out in the specific context of falling incumbent competitiveness. However, due to the broad scope of studies that use whole sociotechnical transitions as cases, this more specific question remains unanswered. Thus, by zooming in on individual policy decisions related specifically to falling competitiveness, this dissertation complements the existing broad-view studies with a more in-depth investigation of this pivotal topic.

As shown in Articles I, II, and III, this investigation reveals that one strategy to resist or delay decline is to invoke energy security when arguments about competitiveness become untenable. And energy security is indeed identified in the literature

on incumbent decline as another common argument for established technologies, which are represented as "reliable," "stable," and "safe." But security-related arguments are bundled together with the above-mentioned economic arguments in the literature, as two parts of the same representation, and typically mentioned in the same sentence (Bosman et al. 2014; Buschmann and Oels 2019; Markard et al. 2021). For instance, Rosenbloom (2018, 134 [emphasis added]) defines one such representation as "Coal-fired power as part of a *reliable and affordable* electricity system." This is another consequence of the wide scope of previous research, because security and economy can indeed be conceptualized as two sides of the same coin if viewed from afar. At some point, prohibitively high energy prices become an availability issue, and energy supply unreliability does of course cause economic problems.[10] As this thesis shows, however, zooming in on particular policy decisions reveals that competitiveness and security—while mutually influencing and often bundled together in public as well as academic discourse—can be represented as two different kinds of policy "problems," each with their own logic. Thus, as Articles I, II, and III of this thesis show, it is not only possible to represent incumbent technologies as "reliable *and* affordable" but also as "*no longer* affordable *but* reliable." This nuance becomes increasingly important as the competitiveness of established industries declines, which is arguably why it shows up in a thesis focused on the discourse around failing competitiveness. One contribution that this thesis makes to the literature on phaseouts and incumbent decline thus lies in showing that energy security arguments are not necessarily parts of larger affordability discourses but can be invoked precisely because such discourses fail, and in exploring which the assumptions, rationalities, and conditions are that enable the representation of incumbent industries as necessary for energy security. Another contribution lies in showing that these representations entail the downplaying and highlighting of different risks, vulnerabilities, and advantages that should not be taken for granted, as interests and politics are at play. The upshot is that researchers must engage with these complex technical arguments or run the risk of inadvertently reproducing them. These contributions are further discussed in Chapter 6.

As this dissertation's focus on the discourse around declining energy technologies has led it towards the invocation of energy security as a way of shaping discourse and policy, the next section investigates a literature that is not concerned with decline per se, but with energy security as a contested discursive construct.

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[10] Another connection between security and economy, explored in a side project to this dissertation, is that established industries can argue that they provide an inexpensive way of increasing supply reliability at a system level, despite high costs per kilowatt hour (kWh) (Faber and Birnbaum 2024).

2.2. Energy security as a discursive construct

The concept of energy security was born in the early 20th century among state actors concerned with the military dependence on oil, while scholarly debates on energy security took off after the oil crises of the 1970s (Cherp and Jewell 2014). Research on energy security has evolved in different silos since then, with political scientists focusing on geopolitics, engineers on the vulnerability of complex energy infrastructures, and economists and systems scientists on how to reduce energy market risks (Cherp and Jewell 2011). Energy security has thus become a "polysemic" concept that refers to different things in different contexts (Chester 2010). As this has made the concept opaque and unwieldy, scholars have recently put the bulk of their efforts into increasing its coherence and practical utility. These efforts include defining the concept of energy security, with prominent definitions including, for example, the "four A's" of availability, accessibility, affordability, and acceptability (Asia Pacific Energy Research Centre 2007; Kruyt et al. 2009), low vulnerability of vital energy systems (Cherp and Jewell 2014), and the continuity of energy supplies relative to demand (Winzer 2012). Other efforts include developing indicators and methods for measuring energy security (Kruyt et al. 2009; Sovacool and Brown 2010; Ang et al. 2015) and calling for the integration of different strands of literature into a coherent and multi-disciplinary field of research (Cherp and Jewell 2011).

While these practical and problem-solving approaches have taken center-stage, less effort has been spent on how energy security is invoked as a political and rhetorical tool, and questions of power and discourse have been left unanswered. As Jewell and Brutschin (2019, 266) put it, "there is far too little research which documents how actors use energy security to advance their own agendas at the national level" (see also Szulecki 2020a). However, a small but growing literature has started to address these questions by approaching energy security as an open and contested discursive construct rather than as an objective state or fact that can be defined in advance. This way of approaching energy security is useful for this dissertation, which does not focus on solving definitional problems, but on how energy security is invoked to represent fossil and nuclear industries as necessary. While any rigid preconceived definition of energy security would be an empirical straitjacket from this perspective, it is worth noting, as a matter of contextual knowledge, that the standard definition among policy experts and decision makers is *the availability of a reliable and not prohibitively expensive supply of energy*. This minimalist and supply-focused definition aligns with that of the International Energy Agency and researchers such as Winzer (2012), and readers should know that this is what energy security typically refers to when it is used "colloquially" in the jargon of energy policy experts.

This section provides an overview of the small yet growing body of literature that treats energy security as a discursive construct. My ambition is not to provide an exhaustive review, but to outline this dissertation's position within, and contribution

to, this literature. Based on this overview as well as observations from my own research and that of other energy scholars, I argue that the point made in previous research that few studies treat energy security as a discursive construct can be confirmed. Moreover, I find that the literature that *does* so has tended to focus on the broad strokes of public and official discourse, thereby omitting the more specialized expert discourse of practitioners who work with the "nuts and bolts" of energy policy, as well as the discourse around specific policy measures. This, I argue, is unfortunate, as the latter two are more important than public and official discourse when decisions about concrete measures are actually made.

2.2.1. The literature on energy security discourse: an overview

To provide an overview, I followed a "mapping" approach (James et al. 2016), in which the aim is not to answer a specific question (as in a regular systematic review), but to describe a body of knowledge. My approach is not exhaustive, but it is systematic and transparent in the sense that explicit search terms and categories were used to find, exclude, and catalogue studies, and that the process of doing so is described in detail below.

First, I searched Scopus[11] for all articles in English that mentioned both "energy security" and at least one term that had to do with meaning-making in the title, abstract, or keywords. These terms were "discourse," "narrative," "frame," "framing," "social construction," "social constructivism," "social constructionism," and "socio-technical imaginary."[12] As energy social science is a multi-disciplinary field of research in which many different kinds of methods are used to approach questions about the social construction of, for example, energy security, these terms were chosen in order to include not only strictly discourse analytical studies, but a wider range of articles concerned with meaning-making. "Narrative," and "frame," for example, capture both studies using narrative or framing analysis, and a wide range of studies using these terms in their ordinary sense. The search was conducted on September 10, 2025, and yielded 344 articles.[13] These studies were then sifted through to exclude a large number of studies that did not focus at all on meaning-making but for example on solving practical problems, (e.g. studies from engineering or natural sciences), as well as a few studies that did not concern energy security (e.g. only mentioning it as a supporting argument for studying something else), and one unintelligible study from a predatory journal. The result was 94 studies that focused on meaning-making in a rather wide sense, and on energy security in one way or another.

Out of these 94 studies, about half (51) did not *focus* on energy security but mentioned it as one of many secondary themes. Typically, they pointed out that energy

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[11] Scopus was used because it is designed to be more comprehensive than other databases, such as Web of Science.

[12] Plural and possessive forms are automatically included in Scopus searches.

[13] The studies that are part of this dissertation were excluded from the results.

security was alluded to without further exploring its meaning or elaborating on how. Examples include studies on climate change (Gverdtsiteli 2023; Zhang et al. 2023), clean cooking (Standal et al. 2024), specific energy technologies (Rajagopalan and Breetz 2022; Trisiah et al. 2022; Vasstrøm and Lysgård 2024); or energy policy in general (Schmidt et al. 2019).

The remaining 43 studies were focused on both meaning making (in a wide sense) and energy security. This fairly small number of studies confirms the point made in previous research that relatively few studies treat energy security as a political and discursive construct (Jewell and Brutschin 2019; Szulecki 2020a). But more importantly, these studies were then read through in order to ascertain the type or "genre" of discourse (e.g. *media* discourse), and the topic that was studied. The categories for genre and topic were developed inductively. They are fairly straightforward and are described in the text below.

In terms of "genre," 32 out of 43 studies – almost three quarters – were either based on previous research and secondary data without a clearly defined empirical research design (6 studies, e.g. Herbstreuth 2014) or focused on public and official discourse. The latter group includes studies of mass media discourse (6 studies, e.g. Kratochvil and Mišík 2020; Libertson 2021), studies on the official discourse of governments and supranational organizations as expressed in overarching plans and strategies in which these organizations attempt to establish and communicate their formal positions publicly (9 studies, e.g. Toke 2013; Dunham and Schlosser 2016),[14] and studies based on a mix of official discourse and statements by politicians aimed at a public audience (11 studies, e.g. Teräväinen et al. 2011; Tichý 2020). Although these studies capture the broad strokes of public and official discourse well, they do not focus on more specialized expert discourse. Only 11 studies focused on the latter, for example by analyzing elite interviews or niched and technical documents to capture the discourse of professionals involved in the governance of practical issues, such as civil servants and professionals at transmission system operators, energy-related agencies and ministries, utilities, and industry associations (e.g. Höysniemi 2022).

This broad focus was also reflected in the topics that were studied, with 35 of 43 studies—more than three quarters—dealing with overarching issues such as (mainly national) discourses on energy security in general (15 studies, e.g. Kuzemko 2014), international relations and the geopolitics of energy security (10 studies, most of them on EU-Russia relations, e.g. Meyer 2025), or the security discourse around a particular energy source or carrier (10 studies, e.g. Sonnsjö 2024). Only 8 studies zoomed in on the discourse around specific policy measures (e.g. Bocse 2020).

Adding the studies on expert discourse to the studies on particular measures resulted in a total of only 12 out of 43 studies that are more niched in the sense of either focusing on a specific policy measure, zooming in on specialized expert discourse, or both. There was considerable overlap between studies on the "genre" of

[14] One of these studies combined official strategies with a survey on citizens' energy security imaginaries.

expert discourse and studies on specific policy measures, with 7 articles studying expert discourse around a specific measure. I will return to these 12 more niched studies below, after arguing for the importance of expert discourse in shaping concrete policy measures and the corresponding need for more studies on these topics and the links between them.

The overlap between studies on expert discourse and those on concrete policy measures, I suggest, reflects something important about energy policy in general and energy security in particular: When push comes to shove and decisions about concrete measures are actually made, what counts as "knowledge" among the experts who run the system is more important than the grand words and visions presented in strategies and public discourses. In other words, when it comes to concrete policy, the real power of discourse lies more in expert judgements about what is *possible* than in public declarations about what would be *desirable*. This point aligns with the well-documented observation that energy policy in general has "tended towards centralized control by states, and national and multinational energy companies" (Sovacool and Brisbois 2019, 1) with "limited access for outsiders to close-knit policy networks" (Geels 2014, 34), and that the energy sector is "relatively closed and technocratic in comparison with other sectors" (Judge and Maltby 2017, 187; see also Kuzemko 2014) and thus characterized by limited public insight, access, and participation (Miller, Richter, and O'Leary 2015, 37). Therefore, the current research focus on public discourse and overarching issues (and the corresponding lack of studies on concrete policy proposals and specialized expert discourse) indicates that energy research runs the risk of omitting discourses that are more consequential for shaping actual energy policy measures.

At the risk of breaking with the review genre, I would like to illustrate this point with an exchange from my own research, with a civil servant who worked directly under the Swedish Minister in charge of energy policy. The background is that Sweden was experiencing a cold winter between 2000 and 2001, shortly after a number of oil-fired power plants had been decommissioned. The civil servant told me that she was called by the director general at Svenska Kraftnät, Sweden's transmission system operator, who did not so much argue as tell her that one of the plants had to be restarted to ensure sufficient generation capacity:

> I remember one Sunday when the director general of Svenska Kraftnät called me and said, "Oh [name], you are not going to like this, but here is the situation. You are going to have to inform the Minister that they have to convene an emergency meeting in Parliament tomorrow to decide that Svenska Kraftnät is allowed to start up the oil-fired power plant in Karlshamn." (Interview at Stockholm University, January 2017).

The certainty of this director general is striking, and it does not come from any official source of power or position. Of course, the head of a public agency has no official mandate to tell the minister in charge of her or him what to do, or to convene the

parliament. This confidence comes from knowing two things. First, that it is very difficult to find a politician in Sweden (and arguably in the entire world) who is willing to risk being responsible for "the lights going out." Second, that in this particular situation, what Svenska Kraftnät says will be accepted as the best available knowledge on the matter, as the organization is responsible for the day-to-day operation of Sweden's transmission grid. In essence, the general director is simply informing the government of the "facts." The point I am making here is that it is at least as important to interrogate these seemingly unquestionable "facts" conveyed by experts as to map public and official discourse. In this case, the general director's call led to a provisional arrangement that later became institutionalized in the form of Sweden's official "effect reserve," keeping no less than 562 MW of oil turbines operational all the way until 2025. The creation of this effect reserve never made it into public debate, and when two managers at Svenska Kraftnät were asked in another interview if it had been discussed in public, for example by political parties, they burst into outright laughter. One of them exclaimed "I don't think anyone is going to win any elections on *that*!," before starting to imitate a journalist asking a politician about this obscure topic, as an obviously absurd joke. The way energy security is problematized in expert circles can clearly have great implications in terms of policy without ever making it into public and official discourse. The main conclusion of this mapping is thus to stress the importance of going beyond political rhetoric to the construction and contestation of these problem representations and the "facts" that underpin them.

2.2.2. Expert discourse and concrete energy security measures

While this mapping indicates both an absolute and a relative lack of studies on expert discourse, concrete policies, and the link between them, there are nevertheless important lessons to be learned from the studies that do exist. Thus, I return here to the 12 studies that deal with expert discourse, concrete measures, or both.

A valuable contribution is made by Höysniemi (2022), who argues that energy expert discourse tends to be de-politicized, market-driven, and ruled by a techno-economic ethos. This ethos is concerned with "securing the functioning of markets and infrastructures" and prioritizes short-term risks such as scarcity and blackouts over broader and more future-oriented questions on topics such as geopolitics and energy transitions (Höysniemi 2022, 6). As Rogers-Hayden et al. (2011) argue, such narrow and status-quo-oriented scopes tend to lead "naturally" to technological fixes that prioritize established technologies rather than policies that promote alternative technologies and pathways, or require broader social change. In a similar vein, Rabiej-Sienicka et al. (2022) argue that the dominant imaginary in Polish policy and science circles prioritizes security, centralized governance, and a status quo built around incumbent fossil-fuel-based technologies that are perceived as more reliable than renewables (see also Delina 2021).

Other studies employ a securitization framework, inspired by the Copenhagen School of International Relations (Buzan et al. 1998, see Szulecki 2018 for an introduction to securitization in the context of energy policy). Securitization entails the social construction of an existential threat against a referent object worthy of protection—such as energy supply and the states and societies that depend on it. These studies tend to focus on how the geopolitical dimension of energy politics affects concrete policies, with threat constructions that revolve around the actions of other (hostile) states (Fischhendler and Nathan 2014; Nyman 2014; Bocse 2020). When successful, securitization enables exceptional measures and a departure from normal procedures. Several studies argue that these measures entail state intervention in an otherwise market-oriented state of affairs (Bocse 2020; Szulecki 2020a). They thus tend to agree, although sometimes implicitly, with scholars such as Höysniemi (2022) who argue that energy governance is market-driven and "techno-economic" under normal circumstances but that this "business-as-usual" can be set aside by securitization. Johnson et al. (2016) do not use securitization theory but elaborates that energy tends to be viewed as a market commodity when security concerns are low, but as a strategic asset and public good when concerns run high, although combinations and hybrids of state and market logics are common. While these studies suggest that securitization can disrupt the status quo of market non-interventionism, they do not suggest that securitization challenges the entrenched position of incumbent industries, as security measures are often geared towards securing access to established energy sources (e.g. Bocse 2020; Szulecki 2020a).

This dissertation does not use the same theoretical frameworks as the studies mentioned above (which themselves draw on a broad range of theories). Nevertheless, it shares their ontological conception of security as a process of social construction rather than an objective state, and their drive to interrogate the power and politics that are involved when energy security is invoked. Thus, this dissertation can engage in a meaningful dialogue with this literature and hopefully make three contributions to it.

First, as argued previously in Section 2.2 and further in Chapters 6 and 8, it confirms and underscores the need to go beyond public and official discourse in order to interrogate and problematize technical "facts" and expert discourses, which remain understudied even though they can be key when concrete decisions are made. Second, this dissertation shows that security discourse can be used to resist or delay the phasing out of declining energy industries, and that geopolitics and international energy crises are not necessarily the driving force behind securitization. Article I illustrates that securitization does not necessarily have to be linked to geopolitics at all. As further argued in Chapter 6, while energy emergencies seem to be important, they can be a fully "internal" result of the phasing out of declining industries or of actions by domestic actors trying to influence politics. Moreover, Articles II and III indicate that even when security discourse is focused on geopolitics, the interests and actions of energy industries and their supporters may still be important driving

forces. The corollary is that studies on energy security discourse, which tend to focus on states and geopolitics, must consider domestic interests that may benefit from securitization and the role of these interests in securitizing energy politics—not least because of the increasing connection between energy security discourse and incumbent decline. Chapter 6 also argues that when geopolitics meets the complex and nuanced technical reality of those who operate energy systems on a daily basis, it can have counterintuitive consequences, such as Estonia's continuous reliance on oil shale plants at the Russian border. It is therefore important to consider the construction of technical facts, including how different industries and technologies are represented as (un)reliable through the downplaying and highlighting of different risks, vulnerabilities, and advantages.

Third, this dissertation argues that the above-mentioned assumed spectrum between market governance on the one hand and security-driven state interventionism on the other obscures the fact these two allegedly opposing logics are in fact fundamentally compatible in contexts where neoliberal rationality prevails. Drawing on insights from scholarship on the messy implementation of "actually existing neoliberalism" in practice (e.g. Brenner and Theodore 2002; Peck 2010), this thesis shows that state interventionism in the form of chronic crisis management is not an exception, but an integral part of neoliberal governance. As argued in Articles II, III and in Chapter 6, neoliberal market rationality limits the scope for proactive state interventions that can create alternatives to fossil dependence, thereby necessitating short-sighted interventions to deal with the crises that arise when fossil industries start to decline in a situation with few viable alternatives. Moreover, Article I shows that this rationality can *facilitate* securitization attempts by powerful industries by stipulating that the state cannot legitimately interfere with their actions, which allows them to threaten to shut down key infrastructures in a way that would grind societies to a halt. However, as illustrated in Article II, neoliberalism does seem to work against securitization attempts by weaker industries. The upshot is that studies on (expert) energy security discourse must transcend the state–market dichotomy and treat neoliberal state–market relations not as an "outcome" in the sense of a status quo that can be disrupted (or not) by securitization, but as a condition of possibility that empowers and constrains different actors, generates fertile soil for securitization by producing crises, and can be combined with securitization to produce a state of semi-permanent crisis management that favors the interests of fossil and nuclear incumbents.

3. Theoretical framework: Poststructural policy analysis and neoliberalism as a rationality of government

This chapter outlines the two strands of theoretical literature that this thesis draws upon: poststructural policy analysis and theories about neoliberalism. The first section discusses how and why poststructural policy analysis fits within the thesis, drawing on poststructural ontology to explain key concepts such as discourse, rationalities of government, and problem representations, and how they affect policy. The section also addresses how the poststructural perspective of governing as dispersed and the relationship between discourse and agency have informed the study. Finally, it addresses the issue of studying a thoroughly "material" issue area such as energy through a poststructural lens. By doing so, it contributes to poststructural research by addressing the common misunderstanding that material conditions cannot be studied through discourse analysis, and by showing how this can be done in practice.

The second section discusses the dissertation's approach to neoliberalism as a rationality of government that elevates competition to a guiding principle, and how this rationality structures state–market relations. The section outlines how neoliberal ideas have been translated in a markedly faithful and explicit way into energy governance within the empirical cases of this dissertation, as well as the contradictory tendency of neoliberal governance to lapse into chronic crisis management and state interventionism to handle its internal contradictions. The section argues that neoliberalism does not result in "less government and more market" when implemented in practice, but in a particular way of governing energy that is short-sighted, crisis-prone, and geared towards preserving existing capacities. Moreover, it identifies the need for more research on how neoliberalism can enable actors that own and operate key infrastructures to translate this control into political influence, and on the malleability and limits of neoliberalism.

3.1. Analyzing energy politics through poststructural policy analysis

Poststructural policy analysis, also called the "What's the Problem Represented to Be?" (WPR) approach, draws on the work of Foucault (1977; 1990 [1978]; 2008; 2020 [1977]) to critically investigate the co-constitutive relationship through which discourse and policy shape and reproduce each other. While the approach can be applied to a variety of research topics and empirical materials, it was developed for

the specific purpose of studying public policy. Introduced in Carol Bacchi's (1999) *Women, Policy and Politics—The Construction of Policy Problems*, the approach has been further developed by scholars such as Bacchi (2009), Bletsas and Beasley (2012), and Bacchi and Goodwin (2016), and used for empirical research in a wide range of issue areas (see for example Ekström 2012; Svärd 2015). The WPR approach was used in all three articles of this dissertation, to make them sufficiently alike for comparative theorizing. The approach is both a method and a theory. It builds on a discourse-theoretical framework from which a set of questions is derived to analyze how the representation of policy problems makes certain policies appear legitimate while others are ruled out, and how policy in turn reproduces particular representations of the problems that they address. This section lays out how the poststructural ontological and theoretical assumptions fit with the purpose of this dissertation, while the application of this approach is discussed in the articles and in Chapter 4.

3.1.1. Problem representations and the discourse-policy interface

A key premise of the WPR approach is that we access reality through socially constructed systems of meaning, known as *discourses*. Defined by Bacchi and Goodwin (2016, p.35, emphasis in original) as "*socially produced forms of knowledge* that set limits upon what it is possible to think, write or speak about," discourses determine what is accepted as reasonable, true, and common-sensical within a given context. In so doing, discourses are fundamentally productive in the sense that they enable particular ways of understanding and acting upon the world (Foucault 2020 [1977], 194). As they do this by excluding alternative ways of making sense of reality, discourses are inherently political and power laden. Instituting a particular understanding of a field such as energy is always a question of discursive struggles in which different interests have competing aims and perspectives, with consequences in terms of power relations, political influence, and policy. Importantly, while discourses may seem almost impossible to question from within, and from the perspective of a particular moment in time, they are ultimately contingent and subject to the possibility of contestation, "always formed in the confluence of encounters and chances, during the course of a precarious and fragile history" (Foucault 1990 [1978], 37). Every discourse must be actively reproduced through constant practice, and the possibility for disruption and challenge by alternative discourses always exists. To study discourse is thus to study discursive practices, struggles, and their outcomes, rather than fixed structural conditions.

The WPR approach adds to this Foucauldian perspective the commonsensical but nevertheless productive insight that policies would not make sense without the assumption that there is a problem to be solved. Within this approach, problems are not viewed as objective facts but as discursive *problem representations* that are constructed rather than discovered. Problem representations can thus be viewed as parts of larger discourses that relate to specific policies. They can be formulated in different ways, with implications for the kinds of solutions that are legitimized. The

point is not, of course, to argue that issues such as blackouts or soaring heating prices are not real or troubling, but simply that the nature, causes, and consequences of these problems can be understood in different ways, and that the ways in which they are understood enable certain ways of governing them while marginalizing others (Bacchi 2009, x–xiv).[15] Because of their immediate connection with policy, problem representations provide a vantage point for studying how dominant discourses are manifested in concrete policy measures. This focus on the discourse–policy interface is what makes the WPR approach useful for the purpose of this thesis. As this dissertation is concerned with urgent profitability crises, where industries must acquire immediate state support or face rapid decline, its focus is on how specific policy measures are legitimized rather than more indirect and long-term attempts to influence discourse and opinions toward industries or technologies in general. Thus, to shed light on how the decline of uncompetitive fossil and nuclear industries is resisted and delayed through energy policy discourse, this thesis asks *what the problem is represented to be* in the policies that either support these industries or let them decline.

A key premise of the WPR approach is that problem representations are underpinned by more-or-less implicit assumptions without which they would not appear as reasonable or even intelligible. These assumptions may be specific to the issue at hand, but they can also be derived from wider "rationalities of government," which refer to ways of reasoning that draw on some kind of expertise, science, or knowledge in order to represent problems in particular ways, to enable certain ways of governing them (Bacchi and Goodwin 2016, 43). The next part of this section discusses neoliberalism as such a rationality. Moreover, drawing on Foucault's concept of genealogy, the WPR approach emphasizes the importance of tracing the historical developments through which certain problem representations come to dominate and are translated into official policy, while others are marginalized. Thus, the articles of this dissertation inquire into the underlying assumptions, rationalities of government, and historical developments that have allowed particular ways of problematizing the decline of fossil and nuclear industries to prevail over others. As contingency and struggle are key aspects of discourse and problematizations, another aim is to show how alternative ways of problematizing the issues at hand have been marginalized and how the problem could be "thought differently." The articles in this thesis do this by consulting critical voices from each context as well as previous research and theory, and by highlighting the inconsistencies, tensions, and contradictions within dominant problem representations.

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[15] WPR studies are typically concerned with the reverse as well—that is, how problem representations are (re)produced through policies and the resulting discursive and lived effects. This is particularly relevant when it comes to studies that focus on policies relating to the categorization of people and social "problems," where the most important effects of a certain policy may be the social identities or "subject positions" that it produces. As this dissertation is more concerned with objects than subjects, however, and as the most important effects are direct financial support to an industry, my focus is on how problem representations legitimize policies.

3.1.2. Governing as dispersed

Another aspect of the WPR approach that makes it useful for studying energy policy is its conceptualization of governance as dispersed and enacted through knowledge production by key experts and decision makers at multiple sites. The point is that discourse and problem representations are not formulated by state actors in isolation, but depend on meaning-making practices in a wider context of policy professionals (Bacchi and Goodwin, 2016, 5). Of particular importance are "the multiple agencies and groups (academics, professionals, experts) which contribute to societal administration" (Bacchi and Goodwin 2016, 42). Academics, think tanks, business associations, and other professions and organizations have a profound influence on how policy makers understand the issues at hand (Bacchi 1999, 11). This is an important insight in the field of energy policy, which is both expert-dominated and highly dependent on knowledge and know-how produced not only by the state, but also by non-state and hybrid organizations such as energy companies, transmission system operators, and business associations. This is reflected in the empirical analysis by the inclusion of utilities, think tanks, business associations, NGOs, academia, unions, and other key knowledge-producing organizations.

3.1.3. Discourse and agency

To analyze problem representations is to study the production of a particular form of "common sense," albeit one that holds sway among experts and decision makers rather than the population at large. Studying how policies are legitimized within this group, and in the official documents in which policies are defined and implemented, allows for an analysis of the problem representations that prevail among experts and decision makers and that inform policy directly and explicitly. This shifts the focus toward the widely shared ways of reasoning and understanding that policies draw legitimacy from, rather than the standpoints of individual actors. This does not mean that actors are wholly absent in this thesis, but rather that when I mention e.g. "supporters of incumbent industries," I (normally) refer to what they *do* rather than what they think or believe. The declining industries in question and their actions are clearly visible in all three cases, from Vattenfall's and Eesti Energia's threats to shut down power plants unless economic conditions were changed, to the failed attempts by the Finnish peat industry to classify peat as a renewable source of energy. Actors and actions such as these feature *to the extent that they appear in discourse*—that is, to the extent that they are important and widely reiterated parts of the "common sense" about the policies in question. But the thesis does not map out in any detail the lines of reasoning of every actor, and their internal intentions and motivations are beside the point. Rather, by focusing on the prevailing discourses and problem representations, it looks at meaning-making practices and their outcomes. Again, problem representations are not viewed as fixed structures, but as constantly reproduced through meaning-making practices (Bacchi 2012, 3–4; 2015a, 4). Focusing on the

"common sense" is thus a matter of perspective, rather than an ontological commitment to, for example, structure over agency.

3.1.4. Methodological contribution: Studying "the material world" through discourse

A common misunderstanding about poststructural theory is that it denies the importance of material conditions for shaping politics, instead seeing the political world as fully constituted by language and symbols. There are, however, no ontological or theoretical grounds for excluding the material conditions that enable particular problem representations in poststructural research (even though many of its critics seem to believe so). On the contrary, the corollary of assuming that we access all of reality as meaningful is that even material objects appear to us as inseparable parts of discourse (Ekström et al. 2024, 136-137). In practice, however, poststructural research does tend to pay scant attention to how material conditions enable or constrain discursive practices, even if it emphasizes how discourse affects "the material world," or as (Ekström 2012, 31, my translation) puts it, "how discursive constructions and categories must be seen as connected to the material world through the concrete proposals and policies made possible by them." Critics of poststructural research, including of the WPR approach, may in other words have a point in that studies often entail a one-sided focus on language and symbols as the drivers of politics. A contribution to WPR and other forms of poststructural scholarship can therefore be made by highlighting how this dissertation approaches the question of how material conditions can enable or constrain problem representations. In short, I will argue that such scholarship can provide a stronger account of how material conditions enable or constrain problem representations by studying how these conditions appear *within* discourse.

While I claimed above that the corollary of assuming that we access the world as meaningful is that even material objects are parts of discourse, there is at times a lingering tension in WPR— which can be traced back to Foucault's texts—between seeing discourse as constitutive of how we approach the world and referring to material conditions as "non-discursive" objects of study (Bacchi 2009, 11, 37). This, I contend, implies that we could access material reality independently of our own systems of meaning, which is inconsistent with the assumption that we understand the world through discourse. As WPR is a tool for critical thinking rather than an attempt to create a full ontological account of how the world works, this inconsistency could have been excused if the result was a framework that works better for understanding how "material" conditions affect discourse and politics. But, as argued below, that is rarely the case. My suggestion is thus not only that focusing on how the material world appears within discourse (rather than as a separate "non-discursive" object of study) is more consistent, but more importantly, that it is more conducive to studying how factors such as physical infrastructures, distribution of resources, and ownership conditions affect discourse and politics.

The poststructural preoccupation with language is reflected in the six analytical questions that make up the backbone of the WPR approach (see Bacchi 2009 for a full account of these questions). Two of these (questions three and six) open up a possibility for considering material conditions (as "non-discursive"). But this opportunity is toned down in Bacchi's own texts and rarely taken in WPR research, perhaps because of the unwieldiness of including two different objects of study, one defined as "non-discursive" and the other as part of discourse, within the same study (e.g. Bacchi 2009; Bletsas and Beasley 2012; Bacchi and Goodwin 2016). These conditions may also be of less immediate relevance for studies that foreground how social identities are constructed through the representation of problems, for example "alcoholics" and "alcohol problems" (Bacchi 2015b). But they are hard to ignore when studying an issue area such as energy, where policy problems do not revolve around subjects as much as objects (e.g. fuels, transmission lines, and power plants). To borrow an example from Article I in this thesis, Vattenfall's threat to abruptly shut down its nuclear power plants would have been meaningless if Vattenfall did not in fact own a fleet of reactors that constitute a significant share of Sweden's power supply. These conditions cannot, from a poststructuralist perspective, be said to determine anything "in the last instance." It is contingent and political whether or not Vattenfall's threat is taken at face value, questioned, or seen as a reason to rein in Vattenfall and forbid it to shut down its reactors in a way that would risk the power system. But such conditions can act as enabling factors that are important for understanding why certain representations of the "problem" become possible.

The insight that we access the material world through discourse can be put to work in empirical research by assuming that we can say something about how material factors act as conditions of possibility for discursive articulations by studying how they appear *within* discourse. Returning to the example above, it seems unproblematic, barring some very elaborate form of conspiracy, to assume that the dependency on Vattenfall's reactors was a precondition for the energy company's threat to be taken seriously. It is important to remember that the aim is not to provide a full causal explanation or to attribute explanatory power to different "variables," but simply to show how material circumstances act as conditions of possibility. Even so, this requires a willingness to seriously engage with technical questions and statistics in order to understand the different ways in which material conditions are framed, identify inconsistencies, and spot unrealistic claims in the empirical material. Moreover, one should always err on the side of caution and only include those factors that are widely referred to by different actors (and, where applicable, actors with different interests). That said, at least when consulting energy experts and their reports, the most important material aspects are fairly uncontroversial in themselves (e.g., the shortage of fuels for heating in Finland, or the share of Vattenfall's reactors in Sweden's power production), even if they can of course be problematized in different ways (which is what makes poststructural approaches so useful in the first place). As treating the material as discursive rather than non-discursive is more con-

sistent with the ontological assumption that we approach reality as meaningful, doing so does not require any elaborate theoretical work by WPR or other poststructural scholars. The more challenging task is to put this assumption to work in empirical research. My hope is that this dissertation, by studying an object-centered issue such as energy, can serve as an example of how to do so.

3.2. Neoliberalism as a rationality of government

In this thesis, I approach neoliberalism as a *rationality of government*—a way of reasoning that draws on some kind of expertise, science, or knowledge in order to represent problems in particular ways, which enables certain ways of governing them. As such, rationalities guide how human subjects conduct themselves and others, not necessarily by stipulating explicit rules or beliefs, but also by shaping implicit and unquestioned assumptions, routines, expectations, and identities. This taken-for-granted aspect is what allows rationalities to "govern as if they are complete and true" despite their historically contingent nature (Brown 2015, 121). Rationalities are more akin to an unreflected and dispersed common sense than to an ideology or program (Dardot and Laval 2014, 9). Thus, their reproduction and effects are located more in the day-to-day activities of actors such as civil servants and other professionals than in ideological debates. The study of neoliberalism as a rationality is therefore less concerned with neoliberalism as a political theory or ideology than with how it works in everyday "government practices, institutional policies and managerial styles" (Dardot and Laval 2014, 19).[16] Focusing on implicit assumptions and everyday practices is particularly useful for a study that deals with energy security, which, as argued in Section 1.3, tends to be dominated by experts and rarely becomes the focus of public debate. Like energy security, rationalities are more about seemingly unquestionable "facts" than about grand visions of the future. Defining neoliberalism as a rationality thus highlights how it can enable and rule out particular measures by shaping implicit assumptions about how energy systems, markets, and policies work.

This thesis follows a tradition in which neoliberalism is defined as a rationality that elevates *competition* to a guiding principle, not only for markets but also for society at large. This tradition started with the lectures of Foucault in 1978 and 1979 that were later published as *The Birth of Biopolitics* (Foucault 2008), and has inspired works such as those by Dardot and Laval (2014), Davies (2014a), and Brown (2015). Focusing on competition captures the core logic that defines neoliberalism and its generic features in the abstract. This is important since neoliberalism is a rationality that has a global reach but that, naturally, plays out in different ways in different contexts. Focusing on competition provides a sufficiently clean-cut definition to

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[16] Consequently, this thesis does not focus on the political-theoretical arguments of neoliberals or their conception of justice (e.g., Hayek 2007 [1944]; Friedman 1962; Buchanan 1975). See Freeman and Brennan (2025, 63–93) for a discussion about these arguments and their similarities and differences with others in the liberal tradition such as libertarians (e.g., Nozick 2013 [1974]) and egalitarian versions of liberalism (e.g., Rawls 1999 [1971]).

allow me to identify and compare how this global rationality manifests itself in the particular cases studied in this thesis. Moreover, this definition captures very well how state–market relations were actually represented "on the ground" in the expert interviews and documents that constitute my empirical material, which I will return to later in this section.

This abstract definition highlights the text-book version of neoliberalism as it is *supposed* to work, thereby imposing a degree of logic and coherence upon it. Neoliberalism is, however, full of built-in tensions, contradictions, and ambiguities that play out in different ways in different settings. This creates a tension between its ideal form and its real-life effects that gives it a certain dynamic that is more contingent, ad hoc, crisis-ridden, and full of adverse effects – but not necessarily in a way that challenges its dominance as a rationality. The tension between the neoliberal ideal and its messy reality is key to understanding how it affects energy policy. To capture this dynamic, and to avoid taking neoliberalism at face value, I complement the clean-cut definition above with scholarship on the ways in which this global rationality has been developed and implemented in practice in different concrete settings (Brenner and Theodore 2002; Peck and Tickell 2002; Peck 2010; Davies 2014a; Nyberg 2017).

The next part of this section provides a background for the discussion by presenting the historical emergence of neoliberalism. This is followed by an outline of how the abstract logic of competition organizes state–market relations in theory and how this logic informs policy in the concrete cases studied in this dissertation (i.e., energy policy discourse in Sweden, Finland, and Estonia). The final part of this section concludes with a discussion of the tensions and contradictions within neoliberalism and the messy implementation of neoliberalism in practice, as well as the lessons that can be drawn from this thesis on neoliberalism and its relation to energy policy.

3.2.1. The emergence of neoliberalism

As an economic and political theory, neoliberalism can be traced back to the Walter Lippmann Colloquium, the Mont Pelerin Society, German Ordo liberalism, the Austrian and Chicago schools of economic thought, and prominent intellectuals such as Ludwig von Mises, Friedrich von Hayek, and Milton Friedman. It was formulated in direct opposition to the Fordist–Keynesian paradigm of social reforms and active state coordination of the economy that had been instituted in Western countries after the Second World War.[17] The post-war Fordist–Keynesian system, the early neoliberals argued, was an infringement on liberty, an ineffective way of organizing the economy, and a first step toward totalitarian collectivism (Dardot and Laval 2014, 58;

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[17] This paradigm combined the Fordist model of standardized mass production and wage-driven consumption with an active economic policy featuring state-coordinated demand-side economics, counter-cyclical fiscal policies, welfare systems, regulated finance, and state-negotiated exchange rates under the Bretton Woods system.

Davies 2014a, 1, 40). Neoliberalism was also, however, conceived from the outset as an alternative to—rather than a continuation of—classic *laissez faire* liberalism, the failure of which was blamed for the post-war order to begin with. While classic liberalism was concerned with *limiting* the role of the state in order to safeguard the supposedly "natural" state of competition on the market, neoliberalism is less naïve in that it views the competitive market as something that must be actively *constructed* rather than just left alone (Dardot and Laval 2014, 22, 66; Davies 2014a, 41; 2014b; Brown 2015, 62–63). Thus, the neoliberal project is not to rein in the state, but to use it to install and uphold competition as a governing principle. Or as Friedrich von Hayek put it in *The Road to Serfdom*:

> The liberal argument is in favor of making the best possible use of the forces of competition as a means of coordinating human efforts, not an argument for leaving things just as they are. It is based on the conviction that, where effective competition can be created, it is a better way of guiding individual efforts than any other. It does not deny, but even emphasizes, that, in order that competition should work beneficially, a carefully thought-out legal framework is required. (Hayek 2007 [1944], 110).

Neoliberalism entered mainstream politics in the 1970s, (in)famously championed by Margaret Thatcher, Ronald Reagan, and Augusto Pinochet, after the post-war economic order had been undermined by global economic restructuring, falling rates of profit, oil crises, and stagflation. Since then, neoliberalism has been transformed from a theory espoused by intellectuals into a rationality of government that has increasingly come to define state–market relations on a global scale, even if the term itself is rarely used in policy circles. The ascendance of neoliberalism did not follow a coordinated strategy. Rather, it was the product of a diverse range of forces and actors united in opposition to the Fordist–Keynesian paradigm, with neoliberalism taking shape during the course of this struggle (Dardot and Laval 2014, 169). The ideological work of intellectuals and politicians played an important part in the emergence and diffusion of neoliberalism, as did efforts by trade organizations, business associations, and right-wing think tanks (Mikecz 2023). No less important, however, was the crisis of the Fordist–Keynesian order and the growing impetus of neoliberal reforms themselves.[18] In the decades since then, neoliberal rationality has become globalized in the sense that it informs policy in much of the world. Typically not by winning the competition for public support on the "marketplace of ideas," ironically, but because 1) it is a logic that institutes competition between different places (e.g., states, regions, and cities), thus exerting pressure to conform to its norms in order to attract

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[18] Once capital was allowed to move freely after the deregulation of financial sectors, for instance, states found themselves punished through capital flight if they did not adhere to strict neoliberal fiscal and monetary policies. These policies in turn necessitated reforms such as the dismantling of welfare systems and the privatization of public assets (Dardot and Laval 2014, 174).

investment even in contexts where it is not ideologically dominant (Peck and Tickell 2002, 387); 2) it is actively reproduced and disseminated among elites in international networks of states, international organizations, and business interests (Peck 2010); and 3) it is institutionalized in the global architecture of economic governance and its key institutions (Brenner and Theodore 2002, 350).

3.2.2. Neoliberalism in theory: Governing for competition

As alluded to above, the neoliberal project has had an ambivalent relation to the state from the beginning. On the one hand, it stipulates a dichotomous relationship between the state and the competitive market, where less of one necessarily implies more of the other and where there is no question about the hierarchy between the two. Where the former is framed as inefficient, bureaucratic, and potentially authoritarian, the latter is cast in opposite terms as conducive to efficiency, economic growth, and liberty. Competitive markets are not only seen as the fairest way of allocating resources but also, above all, as the most effective way of doing so. Markets in which competition reigns free, the argument goes, create socially optimal outcomes by reflecting the true costs and benefits of commodities and investments in their price signals and by spurring efficiency gains and innovation. Whereas markets benefit the common good, states and politics are seen as vessels of partisanship and particular interests (Nyberg 2017, 194). Increasing the bounds of the state thus implies infringing on the market to the detriment of all, while introducing competition is viewed as doing away with inefficient bureaucracy to the benefit of society at large. In the cases explored in this dissertation, this dichotomy is manifested in the so-called principle of *technological neutrality*—the notion that the state should refrain from "picking winners," instead letting the market decide which technologies to invest in (see also Azar and Sandén 2011). These arguments underpinned the dominant problem representations in Finland (Article II) and in Estonia before 2019 (Article III), often reiterated as if from a textbook on neoliberal theory. In both cases, the supposed social cost and counterproductivity of intervening in the market were explicitly (and effectively) used to argue against providing support both to declining fossil energy technologies and to alternative ways of increasing energy security, often taken so far as to say that it would not even be *possible* for the state to affect the "natural" course of the market.

As explained above, however, neoliberalism was formulated as an alternative to classic *laissez faire* liberalism from the start, criticizing the latter for its naïve conception of the "natural" market and proposing instead that the state take a much more active role in promoting competition. The state is viewed at the same time as fundamentally suspicious *and* key to upholding markets in which competition reigns free. This tension is resolved by subordinating the state to the principle of free competition: "a state under the supervision of the market rather than a market supervised by the state" (Foucault 2008, 116; see also Brown 2015, 63). The state can facilitate competition if it acts according to the supposedly "neutral" principles of the market—

that is, if it simply "upholds the rules of the game, but never intervenes in its outcome" (Nyberg 2017, 194). In this sense, it is not the state so much as *politics* that are viewed with suspicion, which opens up a space for technocratic governance in line with competition. Thus, neoliberalism "transforms political conflicts between different visions of the role of the state, into technical problems of competition" (Nyberg 2017, 196).

Neoliberalism is therefore not necessarily anti-state, as long as the state's interventions are subordinated to the principle of free competition. States are attributed with a legitimate role in upholding property rights and in safeguarding markets from undue distortions. There are also, according to the neoliberal perspective, areas in which the market fails to deliver a socially optimal outcome because of *market failures* such as information asymmetries and monopoly situations. In these cases, state intervention may be legitimate. An important class of market failures from the perspective of this dissertation are *negative externalities*—that is, costs related to an activity that fall upon society at large rather than on the company or individual causing the costs.[19] This, the argument goes, distorts market signals by incentivizing the activity. In energy policy, carbon emissions are of course the prime example (see Castree 2010, 202). As explored in Article II of this dissertation, classifying carbon emissions as a negative externality made it possible to represent even a massive state intervention such as the European Union Emissions Trading System (EU ETS) as a policy that *fixes* market problems rather than distorts competition.

The state is furthermore viewed as necessary for providing certain services that society depends on but that the market, in some cases, fails to deliver for various reasons. This relates to the fact that states themselves are subject to competition from other states for investments by global finance, for which they must provide "common goods of capital" in terms of favorable conditions and infrastructure to facilitate competitive enterprise (Dardot and Laval 2014, 247). In this sense, the state can be viewed as "comparable to a corporation, of which the political leader [is] the CEO" (Davies 2014a, 110). There is a contradiction here between furthering the *competitiveness* of a particular territory (which involves state planning) rather than free *competition* within it. Still, at least in the cases explored in this dissertation, this tension could be covered over as long as the *design* of state measures was "market based" and adhered to logics of competition. This can be achieved by using measures that create pseudo-markets, employing management strategies from the private sector in public administration, designing measures to distort the market as little as possible, and using analytical tools that emulate the price signals of the market (Dardot and Laval 2014, 239–240; Davies 2014a, 38). In Finland (Article II), the state stockpiling of peat could thus be legitimized as addressing the market's failure to deliver the common good of energy security on its own, and by framing it as only a

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[19] Inversely, there are cases where the benefit of an activity befalls all of society. As these positive externalities are not reflected in the gains that can be made from producing them, the argument goes, they will not be available in sufficient amounts to optimize social utility.

minimal distortion of the market. In Estonia (Article III), the implementation of a strategic reserve was legitimized in a similar way by claiming that the reserve was designed to have a minimal impact on the market. Another important argument was that the market was *already* distorted by interventions in other member states. Estonia's reserve could thus be framed as a mere *compensation* for these distortions.

In a similar vein, the logic of free competition does not necessarily rule out state ownership of enterprises, as long as these enterprises are governed like private companies. The principle of governing state-owned energy companies like their private counterparts was institutionalized in Swedish, Finnish, and Estonian energy governance when the power markets in these countries were deregulated between the 1990s and the early 2010s (Högselius and Kaijser 2007; 2010; Ruostetsaari 2010; Kama 2016). This principle is formalized in the status of national energy companies as joint stock companies; in their owner's directives which prioritize commercial success; and in the way that they are conceptualized first and foremost as competitors on a global market and subject to the same conditions as any private company, rather than as instruments of the state. As shown in the cases of Sweden (Article I) and Estonia (Article III), this principle seems particularly difficult to question, and it constrains the ways in which policy problems and solutions can be represented by placing strict limits on the ability of states to interfere with the commercial decisions of these companies. Thus, in Sweden, the option to mitigate the risk of an electricity shortage by ordering Vattenfall to manage a potential nuclear phaseout according to the needs of the power system rather than profit-maximizing was not even seriously considered. In Estonia, this principle was translated into the notion that the state-owned company Eesti Energia was treated "unfairly" by its actual owner when the state tasked it with maintaining unprofitable power plants to ensure the power supply, which led to a change in policy such that the company would be reimbursed. It did not seem to matter that the costs of maintaining the plants ultimately fell on the state anyway as the owner of the company.

As illustrated above, the logic of competition as a guiding principle in service of the general interest, and of the state as subordinated to this principle, was prevalent in all the cases in this dissertation. The problem representations under scrutiny tended to align closely with the ideal-typical version of this logic, assuming a theoretically faithful and unusually overt version of the neoliberal premises that are otherwise often assumed rather than made explicit. It is not possible to say for sure, based on this study, *why* the energy policy discourse aligned so closely and explicitly with the neoliberal ideal in these cases. But it is possible to point in some likely directions for further consideration. First, energy policy is dominated by experts, and since the "de-regulation" of power markets in Finland, Sweden, and Estonia, many key energy experts in these countries have been economists by training (Högselius and Kaijser 2007, 78-79, 100; 2010; Kama 2016) or at least sympathetic to neoliberal ideas in general (Teräväinen 2010). Second, the EU has a major influence on the energy policy discourse in its member states, and many significant EU policies adhere

strictly and faithfully to the neoliberal logic of free competition. These include state aid policy (Nyberg 2017) and common energy policy frameworks that regulate energy security measures.[20] Third, the energy sectors in these cases, as in the rest of the Baltic Sea Region, have recently been "de-regulated" (Faber and Birnbaum 2024). This entailed the artificial creation of competitive markets in a sector where it is very difficult to square the physical realities with market logics. Transmission grids are natural monopolies; it is impossible to choose or even distinguish where the power being consumed is produced; and power prices on the spot exchange must be calculated rather than forming "naturally" on the market. Power "markets" are therefore entirely constructed, with abstract market principles serving both as a blueprint and as an operating system that is actively put to work in their day-to-day management.

To sum up, this section has discussed how neoliberal rationality organizes state–market relations by defining the state as a technocratic and "neutral" facilitator of free competition; how this abstract logic was translated in a markedly faithful and explicit way into governing principles for energy policy within the empirical context of this dissertation; and how this limited and enabled different ways of representing problems and legitimizing policy. But this is not a full account of how neoliberal rationality shapes energy politics. Thus, the next section shifts perspective by looking at the contradictions within neoliberalism and its messy implementation "in practice."

3.2.3. Neoliberalism in practice: Failing and flailing forwards

Commenting on late 19th century economic liberalism and the contemporaneous marketization of society, Karl Polanyi noted as early as in 1944 that markets are neither self-sufficient nor self-regulatory, but rely on non-market institutions within the social order in which they are embedded. Polanyi argued that the expansion of the realm of the market, which happens at the expense of these non-market institutions, produces crises and tensions which in turn result in counter-movements to "re-embed" the market within society. He thus conceived of marketization as part of a "double movement" between market expansion and the re-assertion of non-market institutions (Polanyi, 2001 [1944]). Later observers of neoliberalism have argued along somewhat similar lines that the implementation of neoliberalism works less smoothly than the idea of the market as an optimization machine would suggest, and that it produces its own contradictions and crises which necessitate continuous state intervention.

First, neoliberal policies must manage the social conflicts and antagonisms that permeate capitalism (Brenner and Theodore 2002, 353). These conflicts seem to be aggravated rather than resolved by free-market policies, necessitating constant state

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[20] For example, the calculation of "reliability standards" that express the "socially optimal" level of power supply security, which are used to determine whether or not a member state is allowed to intervene by introducing capacity mechanisms.

involvement in terms of coercion and compromise (Brenner and Theodore 2002, 374; Peck and Tickell 2002, 389). Second, as authors such as Graeber (2015) and Nyberg (2017) have pointed out, the state–market dichotomy does not hold up to scrutiny. Rather than limiting regulation, reforms that aim to increase the scope of the market tend to require new forms of it.[21] Thus, "policies which claim to 'leave things to the market' are not resulting in *less government*, but in a particular *kind of government*" (Nyberg 2017, 17, emphasis in original). "De-regulation" therefore tends to produce new regulatory hurdles that spawn new rounds of "de-regulation." Third, and of particular relevance from an energy perspective, "de-regulation" tends to create new forms of market failures and crises (Peck 2010, 22, 26). The recurring financial crises in the wake of capital market "de-regulation," which have so far always been followed by state interventions to stabilize financial systems, is a case in point (Hathaway 2020). As Peck and Tickell elaborate:

> While it had been ideologically presumed during the 1980s that the spontaneous operation of market forces and disciplines would alone be sufficient to the task of economic regulation as long as government got out of the way, by the 1990s it had become clear that recurrent failures of a quasisystemic nature in areas like transport, food systems, and pollution, and even in financial and labor markets, called for responses outside the narrow repertoire of deregulation and marketization. Hence the deliberate stretching of the neoliberal policy repertoire (and its associated rhetorics) to embrace a range of extramarket forms of governance and regulation (Peck and Tickell 2002, 390).

In essence, "for all its doctrinal certainty, the neoliberal project is paradoxically defined by the very *unattainability* of its fundamental goal—frictionless market rule," and this condemns the neoliberal state to "continued crisis-management of deregulated and privatized sectors" (Peck 2010, 16, 26). Hence, what Peck and Tickell (2002) describe as the de-regulatory "roll-back" phase of neoliberalism tends to be followed by "roll-out" initiatives to re-regulate, albeit in marketized ways, sectors that have previously been "liberalized" (Peck and Tickell 2002). While this Sisyphean reality is hard to square with the neoliberal postulate of the market as an optimization machine, the former does not necessarily challenge the latter's pervasiveness as a governing rationality or its legitimacy among elites. As neoliberalism is embedded in extra-local networks, institutions, and logics of competition, it has an "adaptive capacity" in the face of local or even national crises, which explains why predictions of its end tend to be exaggerated (Peck and Tickell 2002, 401). Rather than declining, the neoliberal project is constantly "failing and flailing forwards" (Peck 2010, 7), torn between pursuing "free" competition and mitigating the crises spawned by unchecked markets and marketized public governance.

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[21] Hence the use of scare quotes around the word "de-regulation" in this thesis.

This dissertation contributes to energy social science by exploring how the contradictions within neoliberalism—as well as its reluctant but persistent reliance on state interventions to manage them—constrain and enable energy politics. These contradictions and interventions appear in all the articles of this dissertation, albeit in different ways. As explored in more detail in Chapter 6, in the case studies within this thesis, neoliberal logics essentially limited the ability of the state to govern the decline of established energy technologies proactively, which resulted in crises. This ultimately made emergency state measures that hardly aligned with "free" competition appear to be necessary. Such measures are naturally geared toward preserving existing infrastructures and capacities, as lead times in the energy sector are long while emergencies require immediate solutions. The upshot for energy social science is that neoliberal rationality limits the ways in which states can govern energy transitions. However, rather than leading to less government and more market, this rationality tends to entail a particular way of governing energy that is short-sighted, crisis-prone, and biased toward existing fossil energy industries when implemented in practice.

In terms of contributing to the literature on neoliberalism, the articles in this thesis suggest that neoliberal rationality empowers industries that own and operate key infrastructures (see Chapter 6). It does so by stipulating that the state cannot interfere with the commercial decisions of these industries, even if they jeopardize key societal functions (e.g., energy supply). If these industries threaten to shut down key infrastructure unless the state grants them support, the state might find itself with few other options. Industries that lack such leverage seem to be less likely to be supported. To paraphrase a common critique against neoliberalism, it seems to entail "state support for the powerful, competition for the rest." This argument points to the need for further research on how similar situations play out in other sectors, with a hypothesis being that neoliberal rationality empowers industries that perform functions considered to be indispensable, and for which the state remains responsible in the last instance. Highlighting how neoliberal rationality affects specific sectors, industries, and companies that are deemed to be in the "national interest" could shed light on the implications of neoliberalism for the distribution of power and political influence in our time of crisis and securitization. Chapter 6 also argues that the cases in this dissertation show that neoliberalism has a degree of ambiguity and malleability to it that allows its internal inconsistencies and its contradictory reliance on state intervention to be glossed over. Nevertheless, the question remains of how far this malleability can stretch and at what point it becomes something else. Further research could approach these questions by looking at cases in which explicit versions of neoliberalism are prevalent but where policies that do not align with market logics have had to be implemented.

4. Methods

While the research methods are described in each article, this section discusses some challenges that the articles had in common and the lessons that can be learned from engaging with these challenges. As elite interviews constitute the main empirical material, most of the section is devoted to the topic of interviewing elites.

4.1. Interviewing elites

Most of the 56 interviews that this dissertation is based on targeted an exclusive group of decision makers and experts.[22] These interviews can thus be categorized as "elite interviews" according to most definitions in the methodological literature. Harvey (2011, 433), for example, defines elite interviews as interviews with subjects that "occupy senior management and Board level positions within organizations." Smith (2006) argues that the distinction between interviewing elites and interviewing others is not clear-cut from a poststructuralist perspective, as power is seen as fluid, context-dependent, and always exercised rather than "belonging" to individuals or organizations. Nevertheless, I have found the terms "elites" and "elite interviews" to be useful despite subscribing to a poststructuralist ontology. First, on a theoretical level, Smith overstates the fluidity of power. While poststructuralism does entail a view of power relations as *ultimately* contingent and in need of constant reproduction, its strength lies precisely in showing how they can be *temporarily* fixed in ways that can appear to be very stable, even hegemonic (Ekström et al. 2024, 140). Second, in terms of methods, the fluidity and ultimate contingency of power are less important than the fact that the respondents of elite interviews—here and now within the particular research context—belong to an elite that routinely produces knowledge and exercises power. While it is certainly true that the "elite" status of such respondents does not necessarily carry over to all contexts in which they may find themselves, these individuals are definitely on their home turf when interviewed in their capacity as professionals. Thus, in practice, there are certain methodological challenges that come with interviewing elites, regardless of ontology. These challenges are discussed in this section.

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[22] The exception being a handful of interviews with representatives of local communities, workers, and NGOs. See the articles of this dissertation for complete lists of interview respondents.

4.1.1. Gaining access

As Aberbach and Rockman (2002) have observed, it can be difficult to gain access to busy elites. Nevertheless, although their strategy of being "politely persistent" (2002, 673) has indeed been important for this dissertation project, I was surprised by how easy it was to schedule interviews even with sought-after decision makers such as chief executive officers (CEOs), general directors, chairmen of boards, and so forth. The key was to undertake thorough research about the interviewees (here, LinkedIn comes in handy) and their organizations, and to use that research to explain exactly why I wanted to talk to the person in question and why their particular expertise was critical. It is also likely that it was easier to schedule interviews with key policymakers in Sweden, Finland, and Estonia than it would have been in larger countries where there are more people competing for the time of such individuals.

I ran into issues and could not get an interview with only two organizations: the National Emergency Supply Agency (NESA) in Finland and Elering in Estonia. My experience with these two organizations was similar. In both cases, my initial candidate rejected the interview. After contacting one other potential interviewee in the case of NESA, and two in the case of Elering, I was contacted by a representative of the organization who informed me that there had been a meeting at the agency, at which they had decided that no one from the organization would participate in my research. After shaking off the eerie feeling of having been cast as suspicious, I concluded that the likely reason had to do with the national security profile of these agencies. Luckily, these organizations had produced many public comments and detailed reports on my topics that I could use as a substitute, in addition to getting hold of a former employee in one case.

Harvey (2011, 436) points out that researchers have to strike a balance between asking for too much time for an elite interview, which may result in respondents declining, and asking for too little, which may limit the quality or range of the material. I always asked for an hour, but in most cases the interviewee offered more time if we needed it, either on the spot or through a follow-up interview. In the few cases where time became an issue, I simply had to prioritize among questions.

4.1.2. Establishing rapport, positionality, and "learning the lingo"

For elite interviews to be as useful as possible, the researcher must establish confidence and rapport. Otherwise, the interview subject may be overly cautious or avoid in-depth answers they believe to be beyond the technical understanding of the researcher. A common piece of advice (e.g. Richards 1996; Harvey 2010; 2011; Natow 2020) is to "do your homework" and arrive well informed at the interview. Reading up on the matters at hand was probably even more important for this dissertation project than usual, as the interviews concerned technical questions about energy systems that lie beyond the scope of my own subject (political science). Countless hours were therefore spent reading technical reports, governmental inquiries,

national and EU legislative documents, annual reports, and so on, to familiarize myself with everything from frequency regulation and capacity mechanisms to spot markets and the difficulties involved in storing different fuels. Previous experience from working with energy and environmental issues in public administration and research was also helpful here.

A related consideration has to do with the researcher's positionality and role, and how these affect the interview situation. As Harvey (2011, 434) notes, it is important to be sensitive and to adjust how you present yourself in each interview. As McDowell further argues, researchers may need to assume different social roles—and even switch between them during the course of a single elite interview (McDowell 1998, 2138). This advice relates in many ways to the poststructural insight that people always participate in meaning-making activities such as research interviews through socially constructed identities or "subject positions," such as "man," "Swede," "researcher," and so on (Ekström et al. 2024, 154-155). A key insight is that we occupy multiple subject positions simultaneously, and that we exercise agency in choosing which position to emphasize. The possibilities that different subject positions open and close within an interview situation are unique to each interview, as they depend on the context (e.g., the interview topic and the subject positions available to researcher and respondent). In research on social identities, for example, the researcher's nationality, language, and ethnicity may be important considerations, the handling of which can shape the interview (see e.g. Carlsson 2021, 62–64; Demirel 2023, 58-62). In the case of this dissertation, whose subject is the construction of technical "facts" rather than identities, the most important subject position was generally that of a "fellow energy policy expert" with a nuanced understanding and a genuine interest in details. My previous professional experience in research and public administration helped me assume this "insider" role, but it is possible to gain a similar advantage without such experience, by "learning the lingo" of the particular elite group that is being interviewed.

A contribution can be made here to the methodological discussion about interviewing elites consisting of this advice: to learn their lingo. By this I mean calibrating one's use of sector-specific jargon, jokes, small talk, topics of the day, acronyms, shorthand, overused expressions, and taken-for-granted perspectives. "Learning the lingo" tends to be omitted in the literature on elite interviews, at least in my experience (I have never seen it discussed). This is unfortunate because there are straightforward ways of learning it that can improve the quality of elite interviews. First, there is a great wealth of niched industry podcasts that provide excellent opportunities to listen to how professionals within different issue areas talk to each other. Moreover, industry and policy seminars are often open for researchers and other enthusiasts to attend or are recorded and available online. Taking part of spoken language was almost as important to me as text-based material in preparing for interviews, and doing so can also inspire questions about issues that are toned down in streamlined policy documents and would otherwise be omitted.

Knowing the lingo allows the researcher to assume the subject position of a "fellow expert." This can be an effective way of presenting oneself as a genuinely interested observer rather than someone with a predetermined agenda looking for controversies, which respondents who often talk to the press might worry about. It also allows you to ask "stupid" questions without losing the interviewees' confidence in you and your project, as you do not come across as someone with strange views or who has not done their homework but rather as someone from a different background (in my case often as a "Swede" trying to understand the Finnish or Estonian context, or as an "academic" trying to get a better sense of the business perspective). This can be an effective way of tackling difficult or sensitive questions that might otherwise be perceived as insinuating or provoking. Being able to ask "stupid" questions without losing rapport is particularly important when doing discourse analysis, which probes into and interrogates deep-seated assumptions and the "common sense," which one can only question at the risk of sounding silly or unserious (Ekström et al. 2024, 140). Finally, knowing the lingo allows the researcher to recognize nuances during the interview that might otherwise become apparent for the first time during transcription, at which point it might be too late to pick up the thread and ask follow-up questions.

4.1.3. Recording interviews

When it comes to recording interviews, my overall experience aligns with that of Aberbach and Rockman (2002, 675), who reported that elite respondents tended to agree to being recorded and were not restrictively inhibited by it. I asked permission from all my interviewees to record the discussion, and only one interviewee declined. It is of course possible that I might otherwise have gained some additional comments that were deemed too sensitive to say "on the record." But as my research questions concern broader discourses and the "common sense," this was acceptable. More importantly, the interviewees did not appear to be uncomfortable or limited by the recording. As experts and decision makers, they were talking about matters where they possess authority and proficiency. Moreover, they were used to talking about these matters in situations where the stakes were much higher than in a research interview—such as before an audience, in exchanges and negotiations with other organizations, and in interviews with news media. This is probably an aspect of interviewing which is less challenging when the respondents consist of elites than when interviewing other subjects.

4.1.4. Avoiding answers and media training

The opposite can be said about another challenge that comes with interviewing elites: namely, that they are trained in strategic communication and are often quite comfortable with answering (or smoothly avoiding) questions in a way that suits their own agenda (Harvey 2011, 438). When an interviewee did not answer a particular question, either deliberately or otherwise, I began by rephrasing it. If the issue was

that the question was sensitive (e.g., a particular policy contradicting some important value), it often helped to communicate an understanding of the fact that there are always trade-offs in energy policy. If I was still unable to get an answer, I continued with the interview and circled back to the issue at the end of the interview (see also Harvey 2011, 438).

4.1.5. Semi-structured interviewing

The interview guides were semi-structured in the sense that they revolved around certain themes, while leaving room for open-ended answers and on-the-spot follow-up questions. Some questions were tailored with great care to each interview (e.g., asking someone who had been involved in a particular process about that process). This was particularly important for answering the genealogical part of the WPR approach, as some of my respondents were able to offer key insights from different perspectives about the historical processes in question. Other questions were asked in similar ways to each respondent. However, as McDowell (1998) explains, every interview situation is unique. This makes it impossible to produce directly comparable data by asking "the same questions in the same way" (McDowell 1998, 2138). Moreover, as a researcher you learn and develop during the process, which also makes each interview inimitable (a development that is key to high-quality research). Analysis and comparison therefore inevitably involve interpretation and qualitative judgement; there are no semi-quantitative shortcuts that can "mechanically" guarantee that the answers obtained will be comparable. I therefore aimed at getting the most out of each interview not by hopelessly trying to eliminate its uniqueness but rather by harnessing it to the fullest by allowing open-ended answers, follow-up questions, and tailored questions to capture key insights.

4.1.6. Ethical considerations

Informed consent is a key ethical consideration when doing research based on interviews. All the interviewees were given information about the research when I first contacted them, which was always done via email. I also made sure to set some time aside at the beginning of each interview to present myself, discuss the research, and ask each respondent if they had any questions before starting the recording. All respondents were asked for consent—first to participate in the interview, and then for it to be recorded. Only one interviewee did not want to be recorded.

When conducting research based on interviews, a balance must always be struck between confidentiality and transparency. I followed the common practice of providing confidentiality by excluding the names of the respondents but naming their organizational affiliations (see e.g., Carlsson 2021). As my research is concerned with the "common sense" and how it is reproduced in expert circles, the interviews did not address the respondents' personal views but focused exclusively on their roles as professionals and representatives of knowledge-producing and decision-making organizations. Their names were thus of less importance than the organizations they

represented. As representatives of their organizations speaking in their capacity as professionals, many interviewees offered to appear with their full names, even though I did not ask them to do so, as representing their organizations was a regular part of their job. I still opted for confidentiality, since the naming of some respondents could offer clues to the identities of others. The exact titles of respondents were also kept deliberately vague, as it would have been easy to identify many of them otherwise due to their positions (there tends to be only one CEO, director general, etc.). Words such as "manager" and "director" were thus used when there would otherwise have been such a risk. This downplayed the elite status of the respondents somewhat, but did not affect the overall conclusions.

4.1.7. Transcription

The artificial intelligence (AI)-based service Sonix.ai was used to transcribe most of the interviews. The service produces fewer errors than human transcribers and is generally better than humans at identifying words that are hard to hear, but a drawback is that it captures fill-in words and disfluencies verbatim, making the texts somewhat cumbersome to read. The transcriptions were checked for errors, and important parts and quotes were listened through to capture them in their full nuance. Each interview was also listened to from start to finish at least once during long walks, as part of preparing for subsequent interviews and analysis.

4.2. Document analysis

As Natow (2020) found in a review of studies based on elite interviews, it is common practice for these studies to "triangulate" by also analyzing policy documents. This strategy was used for the articles in this dissertation as well. Many documents were selected for their obvious relevance to my research questions, such as reports on energy security, technical reports on various scenarios and policy measures, national energy strategies, annual reports from energy companies, instructions to state-owned energy companies, and documents directly relating to the policies I was investigating (e.g., laws and government instructions through which these policies were implemented). Other documents of relevance were identified by tracing the political and legislative process leading up to central decisions, such as official inquiries and reports cited in laws and government bills, consultancy reports commissioned to provide evidence for such inquiries, and expert and political comments on government bills and official inquiries. A few documents were either pointed out to me by interviewees or appeared in previous research. Many of these documents were either available in my native language, Swedish (not only in the Swedish case but also in Finland, where Swedish is a minority language), or in English. Those that were not available in Swedish or English were translated from Finnish or Estonian using the AI-based translation service Deepl.com that keeps the original layout of documents intact. Although nuances are lost in translation, this was acceptable as the analysis

concerned meaning in a broader sense rather than the exact choice of words or grammar.

Policy documents were useful in several ways. First, as the articles did not aim to capture individual beliefs but prevailing problem representations and the "common sense" that informs policy, it was important to confirm that the problem representations expressed by my interviewees were reflected in central policy documents. Policy documents were also useful for studying the relatively recent (i.e., from years to a decade) historical developments preceding the prevailing problem representations.[23] In the case of Estonia, a detailed analysis of the Estonian transmission system operator Elering's annual reports, security of supply reports, forecasts, and scenarios made it possible to analyze the technical knowledge basis that underpinned a shift from trusting capacities in other countries toward emphasizing domestic oil shale capacities. In the case of Finland, policy documents allowed me to trace the turns around classifying peat as a non-renewable energy source; and in Sweden, they made it possible to analyze how the risk of a power shortage was problematized before the events studied in the article. Policy documents were also used to prepare for interviews, provide additional depth and detail, include material from the few organizations with which I failed to schedule an interview, and identify critical counterpoints to the dominant problem representations (e.g., by the International Energy Agency and National Audit Office in Estonia).

4.3. Analysis, interpretation and validity

This section discusses the analysis of the empirical material, the question of validity, and how the research process developed between the articles.

The analysis was based on a set of analytical questions. While these questions vary slightly between the articles, they essentially capture the same thing: what the problem was represented to be in the policies and decisions being studied; how these problem representations were enabled by different assumptions, rationalities, historical developments, and conditions (including material conditions); how these problem representations legitimized certain policies while ruling out others; and other ways of problematizing these decisions that were sidelined.

These questions were originally derived from Bacchi (1999; 2009) but modified to fit with the purpose of the thesis, the context of energy policy, and the decisions under scrutiny. For example, one of the original WPR questions focuses on how problem representations shape social identities, subject positions, and lived experience. This question was replaced with a question about how the problem representations being studied legitimized certain policies. As alluded to in Section 3.1, this was because my cases consisted of policies targeting *objects* rather than *subjects*, and because these policies consisted of single points of intervention (e.g. removing a tax) rather than the

[23] Previous research was used to trace earlier developments (e.g., the de-regulation of the energy sector in Finland and Sweden).

continuous reproduction of social identities. As discussed in Section 3.1, I also complemented the WPR approach with a more explicit focus on how different "material" conditions affected discourse and enabled certain problem representations. In Articles I and II, this took the form of separate questions about conditions, whereas in Article III, it made more sense to include these conditions in the genealogical question under the umbrella of "historical developments." The reason for this was that Article III studied a decision-making process that was drawn out, leading me to structure a large part of the article as a genealogy of the near-term in which changing conditions (e.g. the effects of the invasion of Ukraine and the resulting energy crisis) figured as important events.

Another difference between the articles is that there is a theoretical part about neoliberalism in Articles II and III, whereas the role that this rationality played was an inductive result in Article I. This reflects a development in my research process that was empirically driven at the start of the project, but that I started to explore theoretically during its progression. The consequences of this theoretical development lay not so much in the empirical findings, as the same rationality and logics were discussed in the empirical part already in Article I. But it was important for identifying connections between energy research and theories about neoliberalism and for lifting the results to a higher level of abstraction. This is lacking—with regards to neoliberalism—in Article I.

Analysis and coding was an iterative process of applying the analytical questions, generating inductive categories for their answers, and constantly questioning and modifying these categories to closely fit the empirical material. In lieu of an automated process that produces (a mirage of) standardized data, it was necessary to use reflective judgement when interpreting the material and to read each statement in its own context, carefully considering how it relates to other parts of the material. For example, it would not be appropriate to automatically categorize every line of reasoning that involves the word "competition" as signs of a neoliberal rationality, without critically questioning whether or not this is the best reading given the context (e.g., is the respondent really appealing to free competition as a guiding principle or are there other plausible interpretations?).

Importantly, the articles in this dissertation do not aim to capture individual beliefs or experiences, but collectively reproduced discourses—the "common sense." Moreover, they zoom in on how these discourses legitimize specific policies. Validity, in the sense of actually measuring what one tries to measure, thus becomes a question of capturing how this "common sense" informs these policies and how it is expressed in relation to them. Two main strategies were used. First, only the representations and assumptions that were continuously reproduced by different actors and in different kinds of material were included in the results. In practice, this became a question of cross-checking different sources against each other and only including those problem representations that were reiterated by different respondents, documents, and organizations—and excluding individual statements that were not

representative of the "common sense." Second, I ensured that all major actors were represented in the material, whether through interviews, documents, or both, so that my results would not reflect a skewed selection.

Finally, I put a greater emphasis on interviews as the project developed, and policy documents were more important for Article I than for the other articles. The interviews for Article I were made during another research project in 2016–2017 (Boasson et al. 2020).[24] This project focused on renewable energy policy but had to deal with nuclear policy (the topic of Article I) as well because of its major repercussions for renewable energy policy, even though nuclear policy lay outside of that project's scope. Thus, these interviews included questions about both nuclear and renewable energy policy. The main consequence from the perspective of this dissertation is that the relevant parts of the interviews are shorter for Article I than for Articles II and III, in addition to Article I being based on fewer interviews than the later articles (13 compared to 22 and 21). As policy documents and interviews were both used to capture discursive practices rather than the experiences or opinions of individuals, this does not mean that the articles focus on different objects of study.[25] But as interviews can be a rich empirical material, additional interviews could possibly have provided more nuance—which is why I focused more on interviews as the project progressed.

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[24] I was joined by a colleague from that project for some of the interviews that were used for Article I, and two of them were held without me.

[25] In this sense, as Bacchi and Bonham (2016, 115) put it, interviews can be treated "as texts" for the purpose of poststructural policy analysis.

5. Summary of research articles

5.1. Article I

Article I investigates how Sweden's 2016 decision to improve the profitability of its nuclear industry, by removing a tax on nuclear power, was legitimized. Using the WPR approach, it asks what the problem was represented to be in this policy. It explores the conditions, assumptions, rationalities, and historical developments that allowed this representation of the problem to prevail among experts and decision makers, and highlights marginalized perspectives and alternative ways of problematizing the issue. The empirical material consists of 13 interviews and 31 policy documents that capture the discourse among key experts and decision makers in Swedish energy governance.

The article shows that the problem representation that legitimized the decision was that Sweden's entire fleet of reactors would have been phased out almost immediately unless the tax was repealed, which would have caused a shortage of capacity and a total failure of the power system. The tax was thus represented as an urgent "capacity problem," and decision makers were confronted with an ultimatum: Remove the tax or the lights go out. A key event in the construction of this problem representation was the state-owned incumbent Vattenfall's statement that it would soon shut down every one of its reactors unless the tax was removed, as these reactors were no longer commercially viable. This statement amplified existing narratives about a looming lack of capacity and established a widespread sense of emergency among experts and decision makers. The credibility of Vattenfall's claim was contingent upon the institutionalization of neoliberal market rationality in Swedish energy governance in the 1990s, when the power market was "de-regulated." According to this rationality, Vattenfall is not only allowed but legally required to prioritize its commercial interests rather than the consequences for the power system, for example when deciding if and when to decommission its reactors. Phasing out reactors was thus construed as Vattenfall's internal business decision, which—together with the fact that Vattenfall owns and operates most of Sweden's reactors—gave its statements authority and credibility. This rationality also ruled out the option of commanding Vattenfall to decommission its reactors in a more orderly way that could be managed by the power system, as doing so was viewed as an illegitimate state interference with the market.

The article also shows how nuclear power was put into the same rhetorical category as hydro power, with both being described as "plannable" (similar to "dispatchable" power in English) and contrasted with "weather-dependent" renewables.

Nuclear power was thus often equated with Swedish hydro power, even though it is much less useful for balancing electricity supply and demand as it is technically and economically unsuitable for being ramped up and down. This categorization toned down the fact that nuclear baseload power must be complemented with more flexible assets such as hydro power in a system with large variations in power consumption (as renewables also must be). Moreover, critical voices questioned the "plannability" of nuclear power on account of frequent and unplanned emergency reactor shutdowns and argued that there were more practical solutions for providing reliable capacity such as energy storage, demand-side response, energy efficiency, additional interconnections, and grid upgrades. The article thus argues that the representation of nuclear power as "plannable" simplified the issue and highlighted the advantages of nuclear power while toning down its drawbacks. Furthermore, the article traces the representation of nuclear power as "plannable" to long-standing narratives about nuclear power as vital for Sweden's competitiveness and shows that while previous arguments pertained to efficiency and affordability, it was now represented as reliable rather than cheap.

Article I argues that this nuclear and capacity-focused problem representation was comparatively *unlikely* to prevail and shape policy in this case, for two reasons. First, Sweden is blessed with massive amounts of hydro power which makes the provision of capacity less challenging than in most other systems. Second, most of the emergency situations so far had been caused by unplanned nuclear shutdowns. The fact that the "capacity problem" still prevailed suggests that similar problem representations may prove effective in other contexts as well, especially for promoting fossil-fuel-based power, which may be more useful than nuclear power for balancing power grids. Such problem representations can reinforce carbon lock-in and prolong fossil dependence, which underscores the need to accelerate alternative ways of providing reliable capacity.

Finally, Article I argues that energy research has an important role to play in showing that representations of fossil and nuclear power as "necessary" and "reliable" are not neutral facts but that they actually do more political and discursive "work" than they appear to by downplaying and highlighting different risks, drawbacks, and advantages. Thus, the article cautions that if research fails to acknowledge the politics inherent in such allegedly technical "facts," it runs the risk of overstating the merits of fossil energy technologies and reproducing the dominant discourses that form around them.

5.2. Article II

Article II investigates why energy peat was left to decline in Finland despite a fuel shortage caused by a global energy crisis, Finland's dependence on energy imports from Russia, and the sudden end of these imports after Russia's full-scale invasion of Ukraine. The article studies the discourse among Finnish energy experts and decision

makers through an empirical material consisting of 22 interviews and 33 policy documents. Using the WPR approach, it asks how the fuel shortage and the peat decline were represented as a problem in Finnish energy policy discourse between 2022 and 2024. The article traces the assumptions, rationalities, conditions, and historical developments that allowed this representation to prevail, and sheds light on alternative ways of problematizing the issue that were sidelined.

Article II shows that neoliberal rationality facilitated the representation of the peat decline and the fuel shortage as a "market problem" that did not justify state intervention. It was widely held that the state should stay "technologically neutral" and refrain from "picking winners," as "artificial" interventions to support peat would distort competition and go against the "natural" forces of the market, which would be futile and counterproductive. Measures to stop the decline were thus delegitimized. The one minor measure that was taken to address energy security—a limited stockpiling of peat—was legitimized by representing it both as merely a minor interference with the market and as fully in line with neoliberal market rationality in the sense that it corrected a market failure. Peat supporters problematized the decline as being so abrupt that it threatened energy security during the crisis and called for the removal of a tax on peat to slow it down. But even they tended to accept the market logic, the classification of peat as non-renewable, and the idea that peat would be phased out eventually. The struggle concerned the short term and how the inevitable decline should be managed—a striking resignation considering the intense advocacy for peat during earlier periods.

As Article II shows, this resignation and the dominant problem representation depended on the prevalence of neoliberal logics which can be traced back to a neoliberal turn in Finnish energy governance in the 1980s, as well as on a history of unsuccessful attempts by the peat industry to get peat exempted from the EU ETS. Another important condition was that the possibility of substituting wood for peat, together with efforts to reduce energy consumption, made a physical shortage seem unlikely. Experts and policy makers widely agreed that the effects of the shortage would be limited to price hikes, which were considered to be the kind of problem that markets could and should handle on their own.

The article further argues that neoliberal rationality has received marginal attention in energy research and calls for a research agenda on how this rationality interacts with energy politics and energy transitions. It shows that neoliberal rationality can limit attempts by established industries to invoke energy security to gain state support, even for a domestic source of energy in times of war and energy crisis. But it also argues that the vagueness and flexibility of concepts such as state support and subsidies make it possible for incumbent interests to use them strategically and opportunistically, which suggests that neoliberalism can be leveraged by incumbents to gain political support. This argument implies the need for research on how and why particular versions of what a free energy market entails become accepted, what it is that determines whether neoliberal rationality favors or disadvantages incumbent

technologies in decline, how this rationality interacts with energy security and crises, and how it affects energy politics and transitions.

Finally, the case of Finland shows that neoliberalism can work against incumbents that are already in decline but also that it may favor unsustainable transition pathways, as market actors turn to the cheapest alternatives to maximize profits. In Finland, the increased combustion of wood to replace peat jeopardized both Finland's climate targets and its economically important forest industry. Yet, energy peat was still mainly replaced with wood. Article II argues that this suggests that more active state measures are needed to steer the transition toward sustainable technologies—a point that was also made by critical voices in the material who questioned both the necessity of peat and the neoliberal logics governing its decline. While these logics were taken for granted and rarely questioned in Finnish energy discourse at that particular moment in time, Article II argues that they are increasingly subject to change and contestation elsewhere, and that the research agenda proposed by the article could shed light on their contingent and political nature.

5.3. Article III

Estonia has reacted to energy security concerns related to an increasingly adversarial Russia by delaying the decline of the uncompetitive Narva oil shale power plants, which are located only *2 kilometers* from the Russian border. Article III explains how this counter-intuitive policy came to appear as necessary and legitimate. The article is based on an empirical material consisting of 21 interviews and 27 policy documents that capture the discourse among key experts and decision makers in Estonian energy governance. Using the WPR approach, it asks what the problem was represented to be in the policy of delaying the phaseout. Moreover, it traces the assumptions, rationalities, conditions, and historical developments that allowed this representation to prevail and highlights alternative ways of problematizing the issue that were sidelined.

The article reveals that the problem representation that legitimized the decision to delay the decline was that Estonia needed 1000 MW of dispatchable power generation within its borders, and that it was stuck with oil shale for a perceived lack of viable alternatives, at least in the short term. It traces a shift in Estonian energy policy discourse that unfolded between 2015 and 2024, from placing faith in a market-based approach centered on interconnections, power imports, and common EU policies, toward legitimizing state interventions to support domestic fossil-fuel-based capacities. During this period, geopolitical tensions, Covid-19, the prospect of an oil shale phaseout, the 2021–2023 energy crisis, and the upcoming desynchronization from the Russian power grid made foreign capacities and interconnections appear increasingly unreliable. Domestic alternatives to oil shale were considered insufficient for replacing it at the necessary scale, even though critical voices pointed out that this was an effect of the neoliberal aversion to supporting these alternatives. In lieu of

other options, the failing competitiveness of oil shale power was turned into an argument for supporting it rather than phasing it out. This was viewed as unfortunate because of the costs, inflexibility, and emissions of oil shale, but still necessary. The tension between state support and neoliberal non-interventionism was resolved by claiming that Estonia's interventions only compensated for market-distorting policies in other EU states, and by arguing that the effects of the interventions were minor. A temporary solution was used at first in which the state-owned company Eesti Energia was simply ordered to maintain 1000 MW of shale-fired power. But the neoliberal notion that state-owned enterprises should be managed like private companies made the costs that this imposed on Eesti Energia appear "untenable" and "unfair," and the company spread this message successfully among decision makers and experts. The decision was therefore made to implement a strategic reserve, so that the company would be reimbursed. As a strategic reserve was considered to have the least market-distorting effects of all capacity mechanisms, this approach made it possible to reconcile the perceived need for domestic dispatchable capacity with both the neoliberal rationality and Eesti Energia's interests.

Article III also discusses what the case of Estonia can teach us about the wider implications of neoliberalism for energy politics and transitions in a time of geopolitical tensions. It argues that although neoliberal logics work against measures to support declining incumbent industries in theory, they can align with incumbent interests in three ways in practice. First, neoliberalism restricts the ways in which states can legitimately interfere with energy companies and their business decisions, even if these companies own and operate vital infrastructures that societies depend upon. Second, neoliberal rationality stipulates that states must treat commercial corporations "fairly." As shown by Eesti Energia's success in getting reimbursed for keeping the Narva plants operational, fossil industries can leverage this notion to gain support. Third, the logic of free competition can rule out efforts to promote alternative measures and technologies that increase energy security.

By thus restricting states from advancing strategic and proactive policies to ensure energy security, neoliberal logics can lead to situations in which subsidizing fossil industries through capacity mechanisms appears to be the only option when a crisis hits. Despite the neoliberal aversion to subsidies in theory, Article III argues that the tendency of the neoliberal rationality to fall into a state of semi-permanent crisis management can lead to a lingering dependence on state-backed fossil industries in practice. As illustrated by the shifting discourse around supporting oil shale (first as market-distorting and later as compatible with market logics), neoliberalism has a degree of ambiguity and malleability to it that allows these contradictions to be glossed over. In the case of Estonia, the result was a paradoxical situation in which inflexible power plants built to provide baseload power were used to balance the grid, and where concerns over a hostile Russia led to continued reliance on oil shale plants concentrated at the Russian border. Finally, Article III emphasizes that whether there

really are no alternatives to existing technologies depends on the political willingness to implement effective policies to support them.

6. Comparative analysis and discussion

This chapter discusses the differences and similarities between the three cases studied in this dissertation, and the conclusions that can be drawn from comparing them. The purpose of this comparative discussion is twofold.

First, it answers the research questions posed in the introduction. This dissertation asks how the decline of fossil and nuclear industries is resisted and delayed through new ways of representing them as necessary. In short, this chapter shows how fossil and nuclear industries can be represented as necessary for energy security, which can legitimize state interventions to support them. Moreover, the dissertation asks what the assumptions, rationalities, and conditions are that allow such representations to prevail in energy policy discourse and legitimize state support. The chapter argues that neoliberal logics can both constrain and enable such representations, depending in large part on the societal dependence on the energy source in question. Geopolitical tensions or crises, it argues, are neither necessary nor sufficient conditions for the representation of fossil and nuclear industries as necessary for energy security to prevail. Carbon intensity also seems to be of less importance in the short term when security is at stake. These representations are, however, underpinned by assumptions about the reliability of fossil and nuclear technologies. Finally, this dissertation asks what is highlighted, downplayed, or left unproblematic within these representations and how their "neutral" and "technical" status can be questioned. In short, this chapter argues that assumptions about the reliability and the lack of alternatives to fossil and nuclear energy technologies highlight and downplay different technical and economic risks, drawbacks, and advantages between different energy technologies. Moreover, it highlights the contingent and political nature of these assumptions, expert knowledge, and neoliberal logics. These answers are explored in detail below.

The second but no less important purpose of this chapter is to show how answering these research questions contributes to research about energy security and incumbent decline as well as to the theoretical literature on neoliberalism. This is discussed in each of the sections below and summarized in Chapter 7.

6.1. From competitiveness to energy security

In the three cases studied in this dissertation, the economic decline of established energy industries was resisted by portraying these industries as necessary for energy security, to legitimize state support. Arguments about their reliability had thus

replaced previous representations of these industries as superior in terms of competitiveness, which dominated in earlier periods.

This convergence between the decline of established energy industries and the representation of these industries as necessary for energy security in real-life politics suggests the need for a similar convergence between the literature on energy security and the literature on incumbent decline. As further argued below, energy security research can be advanced by broadening its traditional focus on geopolitics as a driving factor behind securitization and including the ways in which incumbent industries and other domestic actors use security discourse to resist decline. The literature on incumbent decline, on the other hand, would benefit from paying more attention to how security discourses are used to resist and delay decline rather than bundling such discourses together with arguments pertaining to the superior affordability of incumbent technologies, as has often been done in previous research (see Section 2.1). This is important since energy security can be invoked precisely because affordability arguments fail, which is becoming increasingly common as competition from cheap renewables increases. In essence, framings of incumbent industries as "reliable *and* affordable" may be replaced with the representation of these industries as "*no longer* affordable *but* reliable." Both fields can also be furthered by paying increased attention to the conditions, rationalities, and assumptions that enable and constrain the representation of established industries as necessary for security as well as how different risks and techno-economic drawbacks and advantages are downplayed and highlighted in the technical discourse of experts and practitioners. I will return to these points below.

6.2. Leveraging energy dependence

In Sweden and Estonia (Articles I and III), it was decided to support the incumbent industry, whereas in Finland (Article II), the industry in question was left to decline. In the first two, the dominant problem representations took the form of an ultimatum: Support the industry or face a situation with insufficient capacity, which would lead to system failures and blackouts. In Sweden, a key assumption underpinning the problem representation was that all of Vattenfall's reactors would be phased out within just a few years unless economic conditions were improved—a timeline that would be too abrupt for the market to replace them. In Estonia, the corresponding assumption was that oil shale would be phased out rapidly due to its failing competitiveness unless the state intervened, and that there were no viable alternatives available in the short term. Finland's peat decline was expected to be rapid as well, but it was not perceived as nearly as threatening. Thus, the peat decline was represented as a problem that could be left to the market.

The three problem representations under scrutiny and their outcomes in terms of policy align quite closely with the degree of societal dependence on the energy source in question, suggesting that societal dependence is an important condition that

enables and constrains the representation of incumbent industries as necessary for security. Although peat was a significant part of Finland's energy mix, its share was not as large as that of oil shale in Estonia or nuclear power in Sweden. Moreover, oil shale and nuclear power were mainly used to produce electricity, and they made up such a large share of the power supply that the system could not manage without them unless they were replaced. Doing so would necessitate building a large amount of new generation capacity, which would take time, planning, and enormous investments on a national scale. Peat, on the other hand, was primarily used for heating and could be replaced with other fuels or heat pumps. Most boilers were already co-firing peat with biomass and could be upgraded to fire biomass only. While this would entail major investments from the perspective of a small municipal heating company, for example, it does not compare to building hundreds of megawatts of electricity production. The massive societal dependence on oil shale and nuclear power made it possible to represent the phasing out of existing capacities as a systemic threat in Estonia and Sweden, but not in Finland.

The sector in which these industries operate mattered as well. Balancing electricity systems in real-time is a technically complex task, where even disruptions lasting no longer than a few seconds can cascade with severe consequences—"the lights going out." In other words, "[n]o part of modern energy systems is as vulnerable to even short-term disruptions as electricity generation and transmissions" (Cherp and Jewell 2011, 205). Matching supply and demand for heating is much less of a balancing act. In contrast with Sweden and Estonia, the consequences of a fuel shortage in Finland were not assumed to be detrimental but limited to increased costs for heating and more expensive inputs to the forest industry. In the end, this was considered to be the kind of problem that the market could resolve on its own.

Despite the dependence on nuclear power in Sweden and oil shale in Estonia, it is important to note that whether the only options really were to either support the incumbent technology or see the power system fail were not given facts, but contested and political representations. As critical voices in Sweden pointed out, it would not have been commercially sound for Vattenfall to phase out *all* of its reactors, even if economic conditions remained unchanged, as the phasing out of a few reactors would decrease supply, increase power prices, and make the remaining fleet more profitable. This implies that the situation was less urgent than Vattenfall claimed. In Estonia, the assumption that there were no alternatives to oil shale was linked to a political unwillingness (both past and present) to support alternative ways of providing energy security. These ultimatums were thus contingent upon contested and political assumptions that should not be taken at face value.

One of the main contributions that this thesis makes to research on energy security and incumbent decline lies in showing how the societal dependence on declining industries can interact with the neoliberal rationality that dominates energy policy discourse in many contexts. But to get there, it is first necessary to take a closer look at how the neoliberal rationality of government, and its tendency to lapse into chronic

crisis-management, was manifested in the studied cases. This thread is picked up in the next section.

6.3. Neoliberal rationality and chronic crisis management

The contradictions within neoliberalism, and its tendency to lapse into a condition of semi-permanent crisis management when implemented in practice despite its aversion to state intervention in theory, were manifested in different ways in the three cases studied in this dissertation. But a common denominator was that the logic of free competition that prevailed among experts and decision makers set limits on how the issues at hand could be problematized and governed. This restricted the states' ability to manage the decline of established industries proactively, thereby making ad-hoc emergency interventions appear as necessary solutions to pressing energy policy problems.

In both Finland (Article II) and Estonia (Article III), policies to promote alternative ways of providing energy security[26] were ruled out due to their supposedly market-distorting effects. This made ad-hoc state interventions in the market such as delaying the oil shale phaseout and stockpiling peat appear as necessary when the external environment became perceived as more uncertain. In Estonia, the oil shale phaseout was delayed despite widespread consensus on the uncompetitiveness, technical unsuitability, and carbon-intensity of the oil shale plants in question. The Finnish stockpiling of peat was less of an intrusion in the market as it did not prolong the lifetime of the uncompetitive peat industry to any significant extent. However, the lack of policies to support sustainable alternatives contributed to the substitution of high-quality wood for peat. While logical from a market perspective as the least costly option, this approach is incompatible with reaching Finland's climate targets and detrimental to the forest industry upon which the country depends, sowing the seeds for further interventions in the future. In Sweden (Article I), it was the designation of national energy companies as primarily commercial entities that limited the options available to the state. This designation ruled out the option of instructing Vattenfall to phase out reactors at a manageable pace in line with the needs of the power system rather than abruptly to suit its (alleged) commercial interests. This facilitated the construction of an ultimatum: improve the economic conditions for nuclear power or face an abrupt phaseout that would disrupt the power system. In Estonia, the ways in which the state could manage state-owned companies were limited in similar ways. There, the conceptualization of Eesti Energia as primarily a commercial actor de-legitimized the option of using it as a state instrument to ensure capacity adequacy, instead necessitating the complicated implementation of a strategic reserve that essentially entails "buying" this service from the company.

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[26] In Finland, these alternatives included heat pumps, insulation, and energy sector integration (storing power as heat). In Estonia, dependence on oil shale could have been reduced through battery storage, energy efficiency, demand-side response, wind power, grid upgrades, and gas-fired peaking plants.

What can be learned about neoliberalism and how it affects energy governance from these cases? On the one hand, Chapter 3 showed that neoliberal principles were translated into the expert-dominated field of energy governance in a markedly faithful way, and that they were actively and explicitly reproduced and drawn upon to construct energy policy problems. But on the other hand, by limiting the ability of the state to act proactively, neoliberal rationality facilitated ad-hoc state interventions and stopgap measures that did not align with free competition on undistorted markets. The perceived need for such emergency measures can be the result of unpreparedness for external events such as geopolitical emergencies and energy crises, as in Finland and Estonia. But as the Swedish case shows, it does not have to be. The perceived need for such interventions can also be the result simply of falling competitiveness leading to (the prospect of) phaseouts—an integral and even celebrated part of the free market, according to neoliberalism.

There is a notable difference between the three studied cases in the sense that neoliberal rationality facilitated policies to support the oil shale industry in Estonia and the nuclear industry in Sweden, whereas the emphasis on technological neutrality and free competition ruled out supporting the Finnish peat industry, despite an ongoing energy crisis. As explained above, this difference relates to the fact that energy supply in Sweden and Estonia is much more dependent on nuclear and oil shale power, respectively, than Finland's supply is on peat. In essence, the neoliberal precept that the state cannot legitimately interfere with the decisions of "commercial" entities, even if these decisions jeopardize something as crucial as the power system, empowers industries that own and operate indispensable infrastructure. If these industries claim that they have to phase out key power generation capacities that have become unprofitable, the state is forced to intervene on their behalf. As letting the power system fail is not an alternative, the only remaining option is to increase the competitiveness of these capacities through state action, despite the neoliberal aversion to subsidies. As illustrated in Article II, industries that are not as vital do not have the same weight to throw around. Their threats are easier to ignore, and it is harder for them to overcome the neoliberal aversion to subsidies. The theoretical proposition that can be surmised is thus that neoliberal rationality enables actors that own and operate key infrastructures to translate this control into political influence, whereas it works against industries who do not. In this sense, it seems to entail "state support for the powerful, competition for the rest." This stems from the fact that the state continues to be responsible for energy security under neoliberalism, while the ownership and control over the infrastructure upon which energy security depends are handed over to commercial actors and the logic of the market. A question for further research on neoliberalism is the extent to which similar dynamics apply to other sectors and industries, with my hypothesis being that they apply to industries that perform core functions in areas where the state remains responsible, such as state security or national competitiveness.

As the Estonian case shows, neoliberal rationality is sufficiently malleable to accommodate this power-sensitive dynamic. Before 2019, market-distorting capacity mechanisms were branded as detrimental to Estonia's competitiveness and counter-productive from an energy security perspective. But after the discourse shifted toward securing domestic capacities, capacity mechanisms were defended as mere compensation for other market distortions. As it is always an open question what a "level playing field" would look like in the heavily regulated energy sector, interventions can easily be framed as restoring a state of free competition. As further explored in a side-project to this dissertation (Faber and Birnbaum 2024), this vagueness can allow opposite advocacy coalitions to simultaneously represent even diametrically opposed policies as upholding free competition. While it would be an overstatement to attribute the adaptive capacity and resilience of neoliberalism to its malleability, given the well-documented extra-local factors underpinning it (see Section 3.2), this malleability does offer clues as to how this adaptation plays out discursively among elites. The cases studied in this dissertation show that neoliberalism is sufficiently malleable to accommodate state interventions geared to crisis management and the preservation of existing infrastructures upon which energy security depends. But the question remains of how far this malleability can stretch. To paraphrase an anonymous reviewer to whom I remain indebted, where are the limits of neoliberalism, and at what point does it become something else? Further research could answer this question by looking at how policies that are difficult to align with the principle of free competition are legitimized in fields where neoliberal rationality is entrenched in the discourse of experts.

Finally, the measures that are taken in a crisis tend to be geared toward preserving existing capacities, as lead times in the energy sector are counted in either years or decades. The state of semi-permanent crisis management that neoliberalism generates is thus naturally biased toward existing fossil and nuclear energy infrastructures and the socio-technical regimes in which they are embedded. Far from the neoliberal ideal of a self-regulating market, the state has never "left" energy markets to their own devices, "de-regulated" or not. And despite its claim to neutrality, neoliberal rationality is sensitive to power and incumbent interests. In this sense, neoliberal rationality does not entail more market and less government when implemented in practice, but a particular way of governing energy that is short-sighted, crisis-prone, and biased toward existing capacities. These insights are important for research both on incumbent decline and on energy security, as they suggest that these bodies of literature should consider how neoliberal logics limit and enable different ways of managing energy security and incumbent decline, and how this may prolong fossil-fuel dependence. Importantly, neoliberal energy governance should not be assumed to be "technologically neutral." Neither should it be conceptualized as the opposite of security-driven state interventionism, as has often been done in research on energy security discourse (see Section 2.2). Rather, scholars should focus on the ways in which neoliberal rationality affects energy governance in practice. To this end,

inspiration can be drawn from the literature on neoliberalism as a rationality and its messy implementation in real settings, which—as laid out in Section 3.2—has produced useful insights into how neoliberalism works in actual politics.

6.4. Geopolitics, external energy crises, and other emergencies

The cases in this dissertation show that external energy crises and geopolitical uncertainty are neither necessary nor sufficient conditions for security-centered problem representations to prevail in energy policy discourse. Sweden's nuclear industry was after all supported at a time when international relations were perceived as stable and power prices were at a historic low (Article I), while Finland's peat industry was left to decline during a serious energy crisis and at a moment when Russia's war of aggression eclipsed everything else on the political agenda (Article II). These cases suggest that external energy crises linked to geopolitics are easily exaggerated as a political factor in energy security research. Such crises gain intense but often short-lived public interest, while experts and decision makers know that energy systems react slowly and that price hikes tend to be temporary. This is not to say that *emergencies* are not important, but rather that experts and policy makers define them somewhat differently than they are represented in public. The sense of urgency was actually greatest in the Swedish case, where the emergency was a fully *internal* consequence of the domestic industry's threat to abruptly decommission its reactors. This emergency never made it anywhere near the top of the public agenda. External energy crises and geopolitical uncertainty can still be important factors, of course, as illustrated in the Estonian case (Article III). But they are not necessarily so, and it should not be assumed that those who manage energy systems on a day-to-day basis perceive external crises or geopolitical uncertainty as more serious than internal emergencies.

Moreover, even when geopolitics *is* important, it is never the only consideration. Thus, when geopolitics meets the more nuanced technical reality of those who actually manage energy systems on a daily basis, the consequences can be difficult to understand from a superficial geopolitical perspective. This is illustrated by Estonia's continued reliance on power plants within rifle range from Russia for almost all its dispatchable capacity, and by Finland letting peat decline in times of war and energy crisis. The upshot for energy security research—which as shown in Section 2.2 has focused on states and geopolitics—is that it must consider the domestic interests that benefit from security discourses and the role of these interests in securitizing energy politics. Moreover, research must pay more attention to internal emergencies that are not linked to geopolitics; and when geopolitics is involved, to how it interacts with the complex technical realities that are constructed by those who manage energy systems on a daily basis. Here, an important consideration is the ways in which different industries and technologies are represented as safe and reliable through the

downplaying and highlighting of different risks, vulnerabilities, and advantages. This is the topic of the next section.

6.5. The "reliability" of fossil and nuclear energy

An important assumption behind the representation of established industries as necessary has to do with the reliability of these industries. Swedish nuclear power and Estonian oil shale capacities were represented as reliable primarily by virtue of being *dispatchable,* or "plannable," to translate the Swedish term directly. That is, their output can be controlled, unlike that of wind or solar power, for example. As explored in more detail in Article I, this simplistic dichotomy between dispatchable and weather-dependent technologies downplays significant differences between different dispatchable technologies. In short, oil shale power in Estonia and nuclear power in Sweden are generated by *baseload* power plants that are built for constant operation and unsuitable for *load following*—the real-time balancing of supply and demand. The reasons that they are unsuitable for load following are both technical (i.e., ramping these baseload plants up and down is slow and increases wear and maintenance) and economic (i.e., they must operate constantly to recover high fixed costs). Terms such as "plannable" place oil shale and nuclear power in the same category as technologies like hydro and gas-fired power, which are far more useful for load-following. In Sweden (Article I), this dichotomy was widely and uncritically reproduced and central to the dominant representation, whereas the drawbacks of oil shale and the need to replace it with technologies more suited for load-following were widely acknowledged in Estonia (Article III). There, the problem was represented in terms of Estonia being "stuck" with oil shale, despite its drawbacks. In Estonia, the portrayal of oil shale as reliable also involved downplaying the location of the oil shale plants, which were well within sight of the Russian border. This precarious situation was downplayed even though the risk of Russian sabotage of Estonian energy infrastructure was a key argument for the necessity of dispatchable power within the country. These cases show that the reliability of different technologies should not be taken at face value, but rests on the downplaying and highlighting of different risks and techno-economic drawbacks and advantages, where interests and politics are at play.

For research both on incumbent decline and on energy security, this suggests the need to go beyond the mere identification of representations of established technologies as reliable, which feature in both these literatures (see Chapter 2). Close attention must be paid to the properties that are ascribed to different technologies when they are represented as reliable. This is particularly important when baseload power capacities are contrasted with renewables, as such dichotomies may do more discursive "work" in terms of highlighting and downplaying different risks, advantages, and drawbacks than apparent at first glance. If representations of these technologies as "reliable" are simply reported on but left unquestioned, research runs the risk of uncritically reproducing dominant discourses and overstating the necessity

of established industries. While critically examining these technical "facts" requires social scientists to leave their comfort zone of culture and politics and venture into the technical domain of energy experts, the alternative is to leave unquestioned the seemingly "unpolitical" but actually status-quo-oriented techno-economic ethos that, as argued in Section 2.2, prevails among technical experts and is often decisive when concrete decisions are made.

6.6. Climate change

Climate change was not a central part of the problem representations under scrutiny, as they concerned more immediate energy security issues. In Finland and Estonia, carbon intensity was often conceptualized as an economic rather than climate-related issue since the EU ETS, which puts a price on carbon emissions, was a major factor behind the decline of peat and oil shale. The Estonian case shows that even highly polluting energy sources such as oil shale can be supported when they are perceived as necessary for "keeping the lights on." This is not to say that climate change is not a key concern in energy politics, but rather that it is easily brushed aside *in the short term* when energy security is at stake and when there is a perceived lack of secure alternatives. The long term is a different story. It was widely assumed in both Finland and Estonia that peat and oil shale would have to be phased out eventually, both for the economic burden imposed on these industries by the EU ETS and because of a widely shared concern for climate change. But short-term decisions can of course add up and shape the long term, and without a proactive strategy for alternative ways of providing energy security, it is easy to see how the short term will continue to be dominated by energy security emergencies. This underscores the risks associated with the short-sighted state of semi-permanent crisis management that can be the result when neoliberal logics prevail, as argued in Articles II and III and in Section 6.3.

6.7. The politics of expert knowledge

Finally, the decisions explored in this dissertation were not subject to much public debate, and the problem representations that legitimized them were formulated in terms of expert knowledge and allegedly technical "facts." The "capacity problem" in Sweden (Article I), the peat decline as a "market problem" in Finland (Article II), and the representation of Estonia as "stuck with oil shale" and lacking alternatives (Article III) all appeared to be questions of expert judgement about what was possible, practical, or necessary, rather than normative or political issues. Nevertheless, as I have argued in this chapter, these "facts" rested on contingent assumptions with implications in terms of power and interests.[27] Expert governance was never "objective," even if it is part of its nature to present itself as such. My argument is not that experts had

[27] These include the limits to government set by neoliberalism; the highlighting and downplaying of different risks, advantages, and drawbacks when fossil and nuclear energy were represented as reliable; and the notion that there were no alternatives to established fossil and nuclear industries.

a particular common agenda, that they should be viewed as a uniform actor, or that there was any form of misconduct. It is simply that their job is to understand, maintain, and manage energy systems according to the existing state of affairs, but rarely to question it. Thus, the production of expert knowledge took place within the limits set by the existing rationalities, assumptions, institutions, and the very organization of energy systems themselves (e.g., the concentrated ownership of key assets that society depends on). And these limits are thoroughly political, as they both depend on and reproduce power, interests, and different visions about how to organize energy and society.

At least when it comes to energy policy and energy security, but arguably in other issue areas as well, the politics of expert knowledge hides in the "objective" language of technical terms, calculations, and scenarios. To illustrate this point, Figure 1 depicts one of countless similar graphs from Elering, the Estonian transmission system operator, that were studied for Article III of this dissertation.

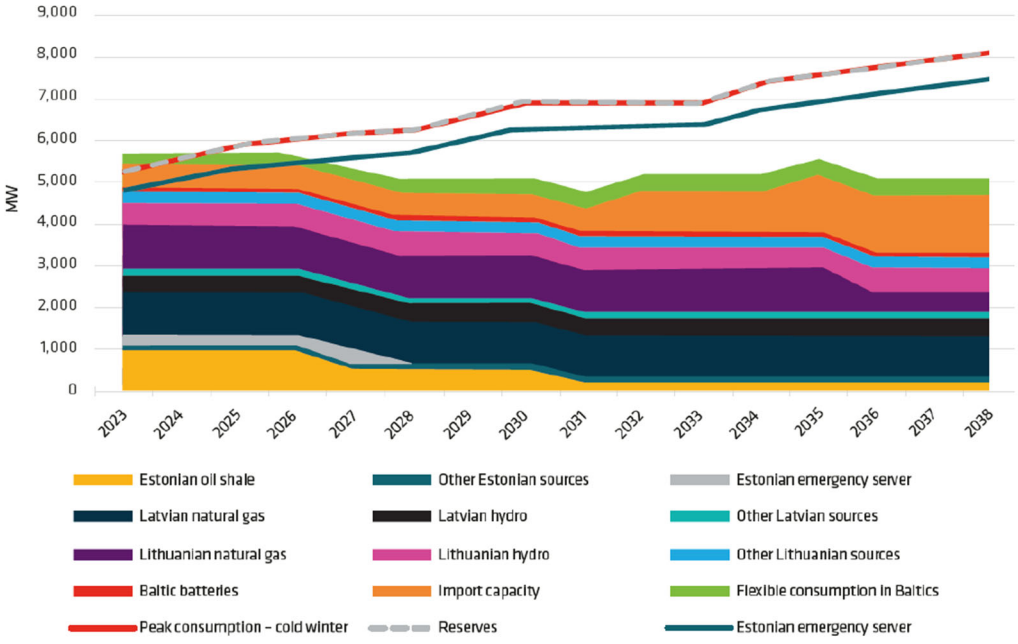


Figure 1. Baltic island-mode N-1 scenario. Published with permission by Elering AS. Originally published in Elering (2023).

This graph describes a so-called "deterministic scenario" that simulates a situation in which the Baltic states have been disconnected from both the Russian and the European grids and must operate as a separate synchronous area—or an electricity "island." The scenario is riddled with assumptions about the high reliability of power sources based on fossil fuels such as natural gas from abroad and oil shale power

plants at the Russian border. Moreover, it makes assumptions about the future energy system, envisioning only a minor uptake of storage technologies, flexibility, and measures to increase energy efficiency and energy sector integration (the latter two encapsulated in the growing demand projections). My point here is not to argue that these assumptions are incorrect, but rather that they reflect a particular view of the future reliability, availability, and practicality of different technologies. And moreover, that they reflect neoliberal logics and a political status quo in which state interventions are generally rejected except for emergency support to dispatchable fossil-fuel-based capacities (the island-mode scenario was actually used to legitimize oil shale support through a capacity mechanism). These assumptions were left implicit, but they were nevertheless drawn upon to produce a particular way of predicting and problematizing the future—one that "naturally" led to the need for an emergency reserve of oil shale power.

The implications are twofold. First, expert governance should not be construed as merely the "apolitical" management of technical issues, as it reflects certain political assumptions and interests while having consequences that affect us all. Questions about energy security and fossil dependence should not then be "left to the experts," but subject to public deliberation and democratic participation. Second, this places a responsibility on social scientists to highlight the questions of power and politics that reside within expert governance and technical "facts," and to translate them in such a way that they can be subject to democratic deliberation. While the scope for technical experts to question power and politics is limited, social scientists are actually paid and trained to do so. But if we fail to see the politics within these "facts," we will neither be able to fully understand the politics of energy security, nor to translate technical questions into issues for democratic deliberation. This requires researchers to pay attention to technical reports, calculations, and scenarios and to bridge the silos between technical knowledge and social science.

7. Summary of main contributions

This dissertation explores how the decline of fossil and nuclear industries is resisted and delayed through new ways of representing them as necessary; what the assumptions, rationalities, and conditions are that allow these representations to prevail in energy policy discourse and legitimize state support; and from a critical perspective, what these representations highlight, downplay, or leave unproblematic as well as how their "neutral" and "technical" status can be questioned. It shows how the economic decline of fossil and nuclear industries can be delayed by representing these industries as necessary for energy security, which can legitimize state interventions to support them. In terms of assumptions, rationalities, and conditions, this dissertation argues that neoliberal rationality can both enable and constrain such representations, and that this depends on the degree of societal dependence on the industry in question. In essence, while neoliberal rationality works against support to declining industries in theory, this rationality can enable actors that control infrastructures on which society depends to translate this control into political influence in practice. By letting commercial actors control the infrastructure upon which energy security depends and by limiting the ability of the state to act strategically and preemptively, neoliberalism can produce a state of semi-permanent crisis management where preserving existing capacities appears to be the only option. While geopolitics and external crises can be important, the thesis shows that their effect on policy is easily exaggerated and that they are neither necessary nor sufficient for the representation of fossil and nuclear industries as necessary for energy security. Moreover, while other kinds of emergencies may gain less attention in public, they may be considered equally urgent by energy professionals. The carbon intensity of the energy source appears to be of low priority in the short term when energy security is on the line, even in cases where climate mitigation is considered important. Representations of established industries as necessary are, however, underpinned by assumptions about the reliability and the lack of alternatives to these technologies. From a critical perspective, this dissertation argues that such assumptions highlight and downplay different technical and economic risks, drawbacks, and advantages. Moreover, it underscores the contingent and political nature of these assumptions as well as of expert knowledge and neoliberal state–market relations.

Aside from the context-specific understanding of energy politics in Estonia, Finland, and Sweden that the case studies provide, this dissertation contributes to two main research fields: energy security research and research on incumbent decline in energy transitions. It also makes a lesser contribution to the theoretical literature on

neoliberalism. This chapter summarizes the thesis' contributions to these bodies of literature. Finally, it summarizes two methodological contributions, on poststructural policy analysis and interviewing elites.

Because of the increasing convergence between energy security and incumbent decline, some of the contributions of this thesis are equally relevant to research on both topics. As argued in Chapter 6, the representation of incumbent technologies as necessary for energy security is likely to become increasingly important as previous representations about their affordability become untenable. This development suggests a growing overlap between energy security and incumbent decline in real-life energy politics, and consequently the need for a convergence between research on these issues. The literature on incumbent decline would benefit from paying more attention to how security discourse is used to resist and delay decline. This thesis contributes to that effort by showing that security framings are not necessarily parts of larger narratives that bundle together energy security and affordability to represent established technologies as "reliable and affordable," even though they have often been treated as such in the literature because of broad research questions, long periods of study, and the use of whole sociotechnical transitions as cases (as argued in Section 2.1). On the contrary, by zooming in on specific policy decisions, this thesis shows that while competitiveness and security remain connected, they can be represented as two different kinds of policy "problems," each with their own logic. Security, I argue, is even likely to be invoked precisely because affordability narratives fail. In a time of cheap renewables, ageing inherited infrastructure, and climate policies, framings of established energy industries as "reliable *and* affordable" are increasingly replaced with the representation of these industries as "*no longer* affordable *but* reliable."

Another contribution to these literatures lies in arguing that if assumptions about the reliability of baseload technologies are simply reported on rather than critically interrogated, researchers may unwittingly reproduce them and overstate the necessity of established technologies. Thus, social scientists who study energy security and incumbent decline cannot stay within their comfort zone of politics and culture but must also pay attention to how the construction of expert knowledge and technical "facts" affects energy politics. As argued in Chapter 2 and 6, this is particularly important considering the expert-dominated nature of energy politics in general and energy security in particular.

This thesis also shows how neoliberal rationality can constrain the governance of both energy security and incumbent decline, enable the representation of fossil and nuclear industries as necessary, and prolong fossil dependence. As argued in Section 3.2, a markedly explicit and theoretically faithful version of the neoliberal free-market rationality was drawn upon to construct the dominant problem representations within the empirical cases of this dissertation. In practice, however, this rationality limited the ability of the state to manage energy security and incumbent decline proactively, making emergency state interventions that are hard to square with undistorted

markets appear necessary. As argued in Chapter 6, such short-term measures are naturally geared towards preserving existing fossil and nuclear capacities. Thus, the dissertation argues, neoliberal energy governance does not entail non-interventionism, despite the neoliberal ideal of a self-regulating market. Rather, it entails a particular way of managing energy security and incumbent decline—one that is short-sighted, crisis-prone, and biased towards incumbent industries. Thus, rather than assuming that neoliberal rationality is "technologically neutral" or that it promotes more market and less government, researchers must consider the ways in which it works in practice. As illustrated in this thesis, there is much to be gained on this point from engaging with the literature on neoliberalism as a rationality and its messy implementation in real settings, which, as laid out in Section 3.2, has produced useful insights into how neoliberalism works in actual politics.

A related contribution to research on energy security and incumbent decline lies in showing how the societal dependency on energy industries interacts with neoliberal rationality. Chapter 6 argues that neoliberal logics can empower industries that own and operate infrastructure upon which society depends, particularly in complex and sensitive sectors where even minor disruptions can have serious consequences, such as the power sector. In essence, the principle that the state cannot legitimately interfere with the decisions of "commercial" entities, even if these decisions jeopardize something as crucial as the power system, can be leveraged by those industries that own and operate capacities that societies rely upon. If these industries announce their intention to phase out such capacities for commercial reasons, the state is left with few options other than restoring profitability through state interventions. In these situations, I argue, the principle of technological neutrality cedes to the terrifying prospect of a blackout. As argued in Chapter 6, industries that lack such leverage may not overcome the neoliberal aversion toward subsidies.

This thesis also makes a contribution that is more specific to the literature on energy security, which as Section 2.2 argues has focused on the broad strokes of public and official discourse, by investigating the more specialized discourse of *experts and decision makers* and the discourse around *specific policy measures*. These, I argue, are often more important than public and official discourse when decisions about concrete measures are actually made. The thesis shows that securitization is not necessarily linked to geopolitics at this level of discourse, despite a tendency for energy security research to focus on geopolitics and to either identify or assume its role as a driving force behind the securitization of energy politics. Moreover, this dissertation argues that even when there is such a link, the interests and actions of energy industries and their supporters may still be important—not least because of the above-mentioned increasing connection between energy security discourse and incumbent decline. The corollary is that energy security research must pay more attention to the role of declining industries and other domestic interests in securitizing energy politics; to emergencies that are not linked to geopolitics; and when geopolitics *is* involved, to how it interacts with the complex technical reality of

managing energy systems on a daily basis. As illustrated by the cases explored in this dissertation, energy governance may otherwise appear counterintuitive or outright paradoxical, if approached from a narrow geopolitical perspective.

Another contribution to energy security research lies in showing that the conceptualization of market governance and security-driven state interventionism as opposite ends of a spectrum, which is often assumed in energy security research (see Section 2.2), can obscure the fundamental compatibility between these two logics in the neoliberal age of competition. The tendency of neoliberal energy governance to lapse into chronic crisis management by the state suggests that studies on energy security discourse must transcend the state–market dichotomy and stop treating neoliberal state–market relations as an "outcome" in the sense of a status quo to be disrupted (or not) by securitization. Rather, neoliberal market governance must be approached as a condition of possibility that empowers and constrains different actors, generates fertile soil for securitization by producing crises, and can be combined with security discourse to produce a state of semi-permanent crisis management that favors the interests of fossil and nuclear incumbents.

In terms of contributing to the theoretical literature on neoliberalism, the dissertation proposes that neoliberal logics empower energy industries that control key infrastructures, while they work against declining industries that do not. Further research could explore whether similar dynamics apply to other sectors, with a hypothesis being that they apply to industries that perform critical functions for which the state remains ultimately responsible. The dissertation also highlights how the malleable nature of neoliberal principles and logics makes it possible to downplay the tension between the neoliberal ideal of the self-regulating market and its messy reality. Further research could explore how far this malleability can stretch by looking at how policies that are particularly difficult to align with the principle of free competition are legitimized in neoliberal contexts.

Finally, this dissertation makes two methodological contributions. On the topic of interviewing elites, it highlights the benefits of "learning the lingo" of elites, gives concrete advice on how to do so, and explains how knowledge of the "lingo" can be used to play on different roles to improve the quality of elite interviews (see Section 4.1.2). In terms of contributing to WPR and other forms of poststructural scholarship, the dissertation argues that such scholarship could provide a better account of how "material" conditions affect discourse and politics. Section 3.1.4 argues that studying how the material world appears within discourse rather than treating it as "non-discursive" is not only more consistent with poststructural premises, but more importantly, more conducive to studying how, for example, physical infrastructures and ownership conditions limit and enable discourse and politics. The main contribution to poststructural scholarship, however, lies in showing how this insight can be put to work in empirical research by studying how material conditions appear within discourse.

8. Epilogue: Fossil dependence in times of trouble

If there were any remaining doubts about the perils of depending on fossil fuels after the global energy crisis of 2021–2023 and the imminent failure to meet the 1.5 °C target of the Paris Agreement, the US–Israeli war of aggression against Iran and the closure of the Strait of Hormuz should have dispelled them once and for all. Together with the unpredictability of the US administration and the uprooting of the so-called "rules-based" international order, however obvious a misnomer, these events have made it clear that relying on imported fossil fuels is unwise at best. Calls have thus been made by international institutions and governments in the Baltic Sea Region, Europe, and elsewhere for strategic autonomy and energy independence. However, Europe in particular has reacted to previous crises in ways that might make economic sense from the short-term perspective of the market but offer little in the way of breaking its dependence on fossil fuels. After Covid-19, Russia's invasion of Ukraine, and the ensuing energy crisis of 2021–2023, European countries responded not only by continuing the development of renewable energy, but also by doubling down on liquefied natural gas (LNG) infrastructure to replace Russian pipeline gas. This choice has not only made the continent more dependent on choke points such as the Strait of Hormuz but also on the whims of a declining superpower gone increasingly rogue, as much of the LNG is imported from the United States.

It would be unfair to say that European states and the EU have not implemented policies to phase out fossil fuels and promote renewable energy. As illustrated in Article II and III of this dissertation, the European Union Emissions Trading System has indeed decreased the use of carbon-intensive fuels in the heating and power sector, albeit belatedly. In addition, measures to support renewable energy have contributed to a rapid increase in solar and land-based wind power across Europe. But these policies have been designed according to the market logic that dominates European energy governance. The overriding priority is to find the most cost-effective and "socially optimal" ways of decreasing carbon emissions and expanding renewable energy production. These policies have thus mainly been effective for expanding those technologies that are the most profitable from the perspective of commercial actors looking for the cheapest, most efficient ways of generating power.

Energy security is not part of this equation, as the incentives that these policies create do not reflect the operational needs of the energy system. And while cheap wind and solar power are necessary for reducing dependence on fossil fuels, they are not sufficient, as they cannot provide continuous power on their own or replace fossil fuels for heating, industry, and transport unless major efforts are made to electrify

those sectors. The issue is not a lack of alternatives or technology, as non-fossil ways of solving these problems abound.[28] But most of these alternatives and technologies are less profitable than building cheap solar and land-based wind power. Thus, despite the renewable energy expansion, security of supply continues to rely on domestic fossil fuels and foreign oil and natural gas, increasingly in the form of LNG. With the rising costs and inefficiency of domestic fossil industries, the increasingly obvious risks of relying on imported fossil fuels, and the detrimental climate impacts of both, Europe finds itself at an impasse.

If Europe is to get out of this predicament, it needs a long-term strategy that goes beyond short-sighted market incentives. As the cases in this dissertation illustrate, the neoliberal market logics that prevail in the expert-dominated governance of energy in the EU limit the options available to the state by handing over the infrastructures upon which energy security depends to commercial actors and by constraining proactive measures to support alternative ways of providing energy security. And as I have argued in this thesis, the result is not less state involvement but a particular way of governing energy security that is short-sighted, crisis-prone, and geared toward preserving existing capacities. Instead of proactive policies to create sustainable alternatives and manage fossil-fuel phaseouts in a controlled way according to the needs of the energy system, the result is a mix of preserving existing capacities through emergency measures and letting the market replace them with alternatives that are cheap in the short term but unsustainable or unreliable in the long run, such as high-quality wood in Finland or LNG in Estonia. While this situation has never been viable from an environmental point of view, Europe was able to afford this complacency from a narrow security-of-supply perspective as long as imported fossil fuels appeared to be a comparatively cheap and reliable alternative. But in this time of overlapping crises, that is no longer the case. History is back, and if Europe wants energy security and strategic autonomy, it needs a politics of fossil-fuel independence.

Rethinking energy policy without the constraints imposed by neoliberalism opens up the possibility for such a politics. If state-owned energy companies such as those that figure in this dissertation were not organized as commercial entities on a market but as strategic instruments for energy independence, they would become formidable tools for breaking fossil-fuel dependence, rather than advocates for incumbent technologies. And if it dawned on policy makers that short-term market "optimi-

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[28] Off-shore wind power generates electricity more consistently than its land-based counterpart, power storage is growing rapidly and is already handling large parts of the intraday balancing in many energy systems, energy sector integration is excellent for storing cheap renewable power as heat for cold winter days, and energy-efficiency measures are both proven and effective. Even if gas would remain as a backup in the power system for the time being, for example for long dark cold spells with little wind, these measures could dramatically reduce Europe's use of and dependence on gas (and it remains to be seen if and when biogas and hydrogen could replace it). In terms of heating and transport, electrical heat pumps are now by far the most efficient heating technology, electrical vehicles are a viable alternative to cars and trucks based on the internal combustion engine, and much can be done to improve the affordability and accessibility of public transport, walking, and cycling, which are the most effective modes of transportation by far. In the industrial sector, it has become possible to electrify many processes that currently rely on fossil fuels.

zation" is insufficient as a guiding principle, Europe would not be limited to installing wind turbines and photovoltaic cells, the bulk of which are produced in countries that have long since moved on from this distraction. Instead, it could bring the full range of alternatives and technologies for breaking fossil-fuel dependence to bear, and build the infrastructures, industries, and supply chains to produce them itself. This could turn strategic autonomy from an empty policy buzzword into a practical reality and make Europe less dependent both on fossil fuels and on the aggressive states from which they tend to be imported.

Finally, the decisions that this thesis has explored were essentially made at the level of experts, and the problem representations that underpinned them revolved around technical "facts" about the necessity of established energy technologies and the notion that there are no alternatives to these technologies. As I have argued throughout this thesis, these "facts" are not neutral but based on contingent and political assumptions about the sanctity of the market and the lack of alternatives to legacy fossil energy infrastructures and industries. The scope for experts and practitioners to question these assumptions is of course limited, as their task is to manage the day-to-day operation of energy systems within the constraints set by existing institutions, interests, and infrastructures. To reconfigure these limits is a question of politics. In the end, whether there really are no alternatives is not a question that can be left to the experts, but a matter of politics and our willingness to challenge both fossil interests and the rule of the market. If we do not, chances are that we will continue to stumble aimlessly from crisis to crisis, and that supporting inefficient and polluting fossil industries will continue to appear as our only option.

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Article I

DOI: https://doi.org/10.1016/j.enpol.2023.113432

Energy Policy 174 (2023) 113432

Contents lists available at ScienceDirect

Energy Policy

journal homepage: www.elsevier.com/locate/enpol

How does falling incumbent profitability affect energy policy discourse? The discursive construction of nuclear phaseouts and insufficient capacity as a threat in Sweden

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ARTICLE INFO

Keywords:
Discourse
Nuclear power phaseout
Regime resistance
Renewable energy intermittency
Baseload capacity adequacy narratives
Carol Bacchi's WPR approach

ABSTRACT

What happens to energy policy discourse when falling profitability makes it difficult to frame incumbent technologies as necessary for providing affordable energy? And how does this affect energy policy? This article investigates how Swedish energy policy discourse responded to a profitability crisis that struck its incumbent nuclear regime in 2016, and how a political decision to support nuclear power was legitimized. It uses Carol Bacchi's Foucault-inspired policy analysis to analyse 13 interviews and 31 policy documents, and shows how the crisis was met with the framing of nuclear power as a "plannable" energy source (in contrast with intermittent renewables) that was necessary for ensuring capacity adequacy, and with the construction of an ultimatum: to remove a tax on nuclear power or to see nuclear power phased out so abruptly that the power system would be jeopardized. It explores the discursive and institutional conditions that enabled this framing, argues that similar discourses are likely to be constructed in other contexts where capacity adequacy is a more pressing impediment to energy transitions than in Sweden, and points out that energy research risks reproducing dominant discourses by overstating the merits of incumbent baseload technologies.

1. Introduction

The last decade has seen a proliferation of studies on energy policy discourse, which aim to uncover how struggles over knowledge and meaning-making affect energy policy and energy transitions (Scrase and Ockwell, 2010; Geels, 2014; Rosenbloom et al., 2016; Rosenbloom, 2018; Isoaho and Karhunmaa, 2019). Discursive approaches have been extensively applied in research about intersecting issues, such as environmental politics (Hajer, 1995) and climate change mitigation (Bäckstrand and Lövbrand, 2006, 2019) but have proliferated in energy research more recently. Many recent studies have shown that policies that support incumbent power technologies (fossil and nuclear power) have been legitimized through what could be called a "discourse of economic necessity". In short, incumbent technologies have been presented as the only options for delivering a sufficiently abundant and cost-effective supply of electricity, thus keeping power prices low enough to enable industrial competitiveness, economic prosperity, and welfare (e.g. Bosman et al., 2014; Rosenbloom, 2018; Tarasova, 2018; Chester and Elliot, 2019; Brauers and Oei, 2020). This discourse can be traced back at least to the oil crises in the 1970s, after which affordable energy prices became considered a central part of energy security (Cherp nd Jewell, 2014).[1] More recently, the discourse of economic necessity has been coupled with arguments about climate change. Nuclear power has of course been promoted through the highlighting of its low-carbon profile (Teräväinen et al., 2011; Edberg and Tarasova, 2016; Tarasova, 2017), but even coal power has been promoted as a climate solution, either by depicting domestic coal power technology as efficient and clean in contrast with foreign technology (Trencher et al., 2019), or by placing coal in a broader context as a part of larger environmental strategies (Rafey and Sovacool, 2011). This coupling reinforces the rgument about the necessity of traditional energy sources, by presenting them as the only realistic alternatives for reconciling economic objectives with climate change mitigation.

But the progress of renewable energy technologies challenges the discourse of economic necessity. Not only does it introduce a competitive low-carbon alternative to incumbent technologies, but in many cases, the profitability of these technologies has started to fall due to increased competition from renewables. Arguably, falling profits would

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[1] The energy intensive industry's need for *stable* and *predictable* energy markets and policies have also been emphasized in energy policy discourse (Kaarhunmaa 2019).

https://doi.org/10.1016/j.enpol.2023.113432
Received 30 March 2022; Received in revised form 1 December 2022; Accepted 11 January 2023
Available online 3 February 2023
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make the discourse of economic necessity harder to maintain by eroding its central premise: the affordability of incumbent energy technologies. As this discursive undermining is caused by falling profits, it tends to coincide with moments of crisis in which the continued operation of traditional energy assets depends on the ability of established energy interests to secure political support, making their influence over energy policy discourse all the more important at the very moment in which it is disrupted.

However, the vested interests of the established energy order are neither short of reasons, nor resources, to respond to this challenge (Geels, 2014; Hess, 2014; Seto et al., 2016; Christophers, 2022). Thus, we can expect that the discursive challenge that falling incumbent profitability poses will be met with other ways of representing incumbent energy technologies as practical or necessary, to legitimize energy policy decisions that support them. These discursive responses will become increasingly important as the competitive pressure on traditional energy sources increase with further renewable energy expansion. They can be used to resist phaseouts and have the potential to delay the transition to sustainable energy by influencing energy policy, especially if they gain traction among energy experts and decision-makers. Yet few studies have focused on how the discourse of energy policy experts and decision-makers responds to falling incumbent profitability, or how these responses are used to legitimize energy policy decisions, even though some studies have identified narratives about the increasing economic viability of replacing established technologies with renewables (Isoaho and Markard, 2020). Addressing this gap in the literature on energy policy discourse would contribute to our understanding of how power and politics shape decisions about whether or not to phase out incumbent energy technologies. This contribution is important, not least because energy research has paid more attention to the politics of supporting new renewable energy sources (e.g. Kitzing et al., 2012) than to the decline of incumbent technologies, or what Turnheim and Geels (2012) called the "flipside" of energy transitions. As Healy and Barry (2017) put it, "most analysis of low-carbon transitions focus on green energy niche innovations". But the power and politics of phasing out (or prolonging) incumbent technologies is an equally important part of sustainable energy transitions that warrants more research (Rentier et al., 2019).

To explore how energy policy discourse responds to falling incumbent profitability, this article investigates a case where a particularly severe profitability crisis struck an incumbent nuclear regime, and where a political decision was made with the explicit purpose to manage this crisis: the removal of the "effect tax" on nuclear power in Sweden through the 2016 Energy Agreement. The article shows how the profitability crisis was met with the framing of nuclear power as a "plannable" energy source (in contrast with intermittent renewables) that was necessary for ensuring capacity adequacy, and with the construction of an ultimatum: to remove the effect tax or to see almost all of Sweden's nuclear reactors shut down at a pace that would endanger the power system. It sheds light on how these discursive responses were used to legitimize the decision to support nuclear power by removing the effect tax, explores the discursive and institutional conditions that enabled them, and uses insights from this case to theorize about possible developments in other contexts.

Thus, to explore how energy policy discourse responds to falling incumbent profitability, and how these responses are used to legitimize energy policy decisions, this article turns to the case of the removal of the effect tax in Sweden. Drawing upon Carol Bacchi's Foucault-inspired policy analysis, it asks:

- How was the removal of the effect tax legitimized in the discourse of energy experts and decision-makers?
- Which discursive and institutional conditions enabled this way of legitimizing the decision?

The next section provides a background to Swedish energy politics. Section three is devoted to the theoretical and methodological framework, and section four to the empirical material. Section five presents the main results. Section six concludes by discussing how these findings can be used to increase our theoretical understanding of the broader issue of discursive responses to falling incumbent profitability, and the implications for energy policy.

2. Background: Vattenfall, nuclear politics, and the 2016 energy agreement

The Swedish state-owned utility Vattenfall was created in 1909 to produce affordable hydro power for Sweden's growing industry (Vattenfall, 2022). It became the largest power producer in the country, and in 1947, it was made the monopoly owner of Sweden's transmission grid as well, which made it a cornerstone of Sweden's power system (Högselius and Kaijser, 2010). When the Swedish power market was deregulated in 1992, Vattenfall was transformed into a joint-stock company, and the task of running the transmission grid was transferred to an independent TSO. But the utility, which was still fully state-owned, continued to be the largest power producer, an important source of revenue for the state, and a key actor in Swedish energy governance.

After the development of hydro, state and private actors turned to nuclear power. There were two main reasons for this turn: Sweden was running out of unprotected free-flowing rivers that could be exploited for hydro, and commercial nuclear power enabled a secret project to construct nuclear weapons (Kaijser, 1992).[2] Twelve large reactors were built between 1972 and 1985. This gave the Swedish power mix a second pillar, besides hydro power. Thus, in 2016, nuclear and hydro each provided around 40 percent of Sweden's electricity, while wind and cogeneration provided an additional 10 percent each (Swedenergy, 2018).[3]

Nuclear power was considered a hallmark of modernity in post-war Sweden, but it became deeply contentious during the 1970s, and a referendum was held in 1980 to determine its future. The referendum landed in the ambiguous decision to phase out nuclear power, but only at a pace that did not harm welfare and employment. A subsequent parliamentary decision set 2010 as the deadline for the phaseout (Kall, 2011, p.80). In the decades following the referendum, however, nuclear power became considered as the only option for providing affordable energy at scale without increasing Sweden's dependency on imported energy and its greenhouse gas emissions (Kall, 2011; Tarasova, 2017). An important reason behind this shift was that a powerful coalition had formed, consisting of actors with an economic interest in nuclear power. It included power companies, energy-intensive industry, electrical equipment industry, and the trade unions associated with these sectors. This coalition was quite successful in promoting the idea of nuclear power as necessary, while the anti-nuclear campaign had lost momentum after the referendum (Kaijser, 1992).

As the 2010 deadline for nuclear phaseout drew closer, only two reactors had been shut down, and the end-date was finally abandoned in 2009, when the parties of the liberal-conservative government made an energy agreement that allowed for the construction of new reactors at existing power plants (Swedish Government, 2009). By then, climate arguments had been added to the pro-nuclear narrative (Tarasova, 2017).

In the years that followed the 2009 energy agreement, nuclear power became less profitable. Swedens fleet of NPPs was ageing, safety requirements were increased after the Fukushima Daiichi disaster, and rapid wind power deployment, spurred by Sweden's renewable

[2] The aim of producing nuclear weapons was never realized, and Sweden signed the non-proliferation treaty in 1968 (Kåberger and Swahn, 2015).

[3] In 2021, the share of nuclear power in the Swedish power mix had been reduced to around 31 percent (Swedenergy, 2022).

electricity certificate scheme, caused power prices to fall (Boasson et al., 2021). In 2015, this led both the private power company OKG and the state-owned utility Vattenfall to decide to phase out two reactors each, so that the four least commercially viable out of Sweden's ten operating reactors would be shut down before the end of 2020. Another important factor, albeit one that had been around for many years, was the effect tax, a targeted tax on nuclear power that was originally introduced in 1984 as a tax on each kWh of electricity produced in nuclear reactors. In 2000, the tax was reformed into a fixed tax based on the thermal capacity of each reactor, regardless of its output. It amounted to roughly 30 percent of the operating costs of NPPs in 2016 (The Energy Commission, 2017, p.110).

A parliamentary Energy Commission was set up in 2015 with the aim of creating a broad energy agreement between the government (now consisting of the Social Democrats and the Green Party) and the opposition. But on the 7th of January 2016, almost a year before the Energy Commission were to present its results, Vattenfall went public with a warning in the prominent financial newspaper *Dagens Industri*, claiming that *all* of its reactors might have to be shut down immediately due to negative returns, mainly because of the effect tax (Lundin, 2016a). This would leave Sweden with only one operating reactor, owned by OKG. A significant part of the Swedish power production would be wiped out in one blow, and the whole electricity system would be jeopardized. Frantic negotiations ensued, and the government parties and most of the opposition made an agreement already on the 10th of June, half a year before the Energy Commission would present its report – an eyebrow-raising deviation from business as usual in the Swedish political context. Among other things, the agreement included the removal of the effect tax, which restored profitability and led Vattenfall to announce that the shutdowns would be postponed at least until the 2040s (Lundin, 2016b).

3. Theoretical and methodological approach: What's the problem represented to be?

This article is inspired by Carol Bacchi's "What's the Problem Represented to be?" approach to policy analysis which draws upon the work of Foucault (1977, 1978, 2008) to critically investigate how societies are governed (Bacchi, 2009; Bacchi and Goodwin, 2016). The point of departure is the assumption that all objects appears to us as meaningful, and that their meaning is socially produced rather than fixed by an inherent essence (Bacchi and Goodwin, 2016, p.33). This implies that the meaning of concepts depends on their position in systems of meaning, or *discourses*, which can be defined as "socially produced forms of knowledge that set limits upon what it is possible to think, write or speak about" (Bacchi and Goodwin, 2016, p.35). In other words, they establish what is considered to be true, reasonable, and common sense in a given social context. This entails the exclusion of alternative ways in which to make sense of the world, and therefore meaning-making and knowledge production are inherently political practices, saturated with power.

Bacchi's approach combines this perspective with the commonsensical but useful insight that policies are supposed to solve problems, and that consequently, policies gain legitimacy from a more or less implicit assumption that there is a problem to be solved. For instance, commissioning a standby power plant as an insurance against blackouts would not make sense unless there was a perceived problem of potential power shortages. These problems are not taken to be naturally given, but contingent discursive constructions that are subject to contestation and change (Bacchi and Goodwin, 2016, p.30).

Accordingly, this article is not concerned with unveiling the "real" or "objective" problems that face the Swedish energy system, or to find optimal solutions to them. Instead, the aim is to shift our attention to how particular *problem representations* came to be considered as real and objective in the first place, and how they were used to legitimize the removal of the effect tax. This interest in problem representations is motivated by the assumption that the ways in which policy problems are represented have consequences for how an issue can be understood and acted upon. By virtue of this immediate connection to political decisions and policies with very tangible effects, problem representations "have effects *in the real* by materially affecting our lives" (Bacchi, 2009, p18). Thus, the ways in which energy policy problems are represented affect energy policy decisions, which in turn shape sustainable energy transitions and the future of incumbent energy technologies. This makes it important to interrogate the knowledges and power relations that energy policy problem representations draw upon and reproduce.

Bacchi's approach highlights the discursive and institutional conditions that enable certain ways of constructing problems (Bacchi, 2009, p.11,19). These conditions include deep-seated assumptions and rationalities that are taken for granted and that problem representations draw upon and reproduce, but also the ways in which these rationalities and assumptions have been embodied in laws, regulations, and organizations, and the power relations that shape the discursive weight that is attributed to different statements. This analysis requires a foray into the context and history of problem representations and the concepts, rationalities, rules, and institutions that underlie them. Another important aim of the analysis is to highlight marginalized ways of problematizing the decision to remove the effect tax, which entails an attention to critical voices in the empirical material.

Following Bacchi's interpretation of Foucault, this article views governing as dispersed, enacted through discursive practices at multiple sites. While discourse at the level of the state is privileged due to its immediate connection with public policy, it is not isolated from discursive practices in other contexts (Bacchi and Goodwin, 2016, p.5). This insight is important when it comes to issue areas such as energy, in which governing is particularly dependent on expert knowledges that are produced by non-state actors such as utilities and business organizations. Consequently, this article is concerned with the problem representations of experts and decision-makers in a broad sense, including not only the views of central decision-makers in the Government and public administration, but also the perspectives of non-state actors such as business organizations, utilities, think tanks, NGOs, and labour unions.

To analyse the problem representations that legitimized the decision to remove the effect tax, this article draws on Bacchi's analytical framework which originally consists of six analytical questions (Bacchi, 2009). Question 6 has been slightly modified to clarify the focus on discursive and institutional conditions, and question 4 has been added as a separate question. These questions probe into the knowledges that are constructed, drawn upon, or marginalized in a particular problem representation (question 1, 2, 3 and 4), how this particular representation of the problem came about and the conditions that enabled it (question 5 and 6), and how it affects policy (question 7).

1 What is the problem represented to be in the decision to remove the effect tax?
2 What assumptions underlie these problem representations?
3 Are there any alternative ways of representing problems that are side-lined? What is toned down, silenced, or left unproblematized?
4 What are the contradictions and ambivalences within this problem representation?
5 How has this representation of the problem come about?
6 What discursive and institutional conditions in the social context made it possible to produce and disseminate this problem representation?
7 What discursive effects are produced by this representation of the "problem"? How does it affect policy?

The first step of the analysis consisted of a careful reading of the material with the first four questions in mind. One problem representation (the effect tax as a "capacity problem") was reiterated explicitly by most of the interviewees and in the most important official texts, and was consequently taken to be the dominant problem representation.

Statements in the material were then colour-coded, with coding categories representing three broad themes of assumptions that underlied this problem representation (question two) and critical counterpoints and contradictions (questions three and four) that related to these themes.[4] As question three entails a close attention to critical voices, they were included in the study even though they were sometimes only expressed in a few interviews or texts. I also noted the (limited) extent to which other problem representations identified in earlier research were reiterated. After this initial coding, the statements were compiled according to their code into three separate documents with separate sections for the different analytical questions. This entailed a process of re-reading and going back and forth between the empirical material and my compiled documents. Many of the questions had to be posed again, e.g. probing for assumptions underlying other assumptions. Question five and six were then posed to the empirical material, which led me to analyse previous research about earlier periods, in addition to the empirical material. Finally, question seven called for critical reflection about how the dominant problem representation made the removal of the effect tax appear as necessary and legitimate.

4. Material

Two types of empirical material were analysed. First, semi-structured interviews were conducted with 13 high-ranking experts and decision-makers in Swedish energy governance. All interviews were recorded and transcribed. They were held between October 2016 and January 2017. The respondents consented that the interviews would be recorded, analysed, and cited in published research, but their names have been left out for reasons of confidentiality. To offer the reader some transparency as to the positions of these respondents, their organizational affiliations and roles are disclosed in Appendix A.

The interviews were complemented with an analysis of 31 policy documents. These include central policy texts such as 2016 Energy Agreement itself, the Energy Commission's report, governmental propositions, and parliamentary material such as proposals by members of parliament, committee statements, and instructions to Vattenfall. They provide an excellent opportunity to study how the effect tax was represented as a problem by political parties. As usual in Sweden, the Energy Commission's report was sent out for comments by various stakeholders. Thirteen of these commentaries and two articles with statements from Vattenfall were analysed to capture how the most central energy-related agencies, industrial organizations, utilities, labour unions, and NGOs problematized the effect tax. See Appendix B for the commentaries and parliamentary proposals. As the other policy texts are referenced in the text, they are included in the reference list instead.

The interviews and texts were selected with the aim of covering the most central actors in Swedish energy governance. The different actors behind the material have different interests and opinions. They include actors that are firmly supportive of nuclear power, firmly against it, and actors that do not have a clear opinion on the matter. It is not possible, nor the purpose of this article, to make statistical generalizations to larger populations. But as the interviews and policy documents together cover the most influential actors involved in Swedish energy policy, they do allow for a mapping of the most commonly reiterated and influential ways of legitimizing (and criticizing) the removal of the effect tax among key experts and decision-makers in Swedish energy governance. Such a mapping also makes it possible to use the Swedish case to make theoretical propositions about discursive responses to falling incumbent profitability in other settings.

[4] These themes were: capacity inadequacy as a threat; immediate nuclear phaseout; and "plannable" versus "intermittent" power.

5. Results: The capacity "problem"

A striking feature of the energy policy discourse around the 2016 energy agreement and the effect tax is that the most central theme identified in earlier research on Sweden, the concern for low electricity prices linked to industrial competitiveness, was no longer the overriding concern (Tarasova, 2017; Wang, 2006; Anshelm, 2000). The discursive struggle about the climate and sustainability aspects of nuclear power was also toned down compared to research on earlier periods (Edberg and Tarasova, 2016; Tarasova, 2017; Kall, 2011).[5]

Instead, the most important problem representation was centred around what in Swedish energy governance was referred to as *effektproblemet*, or the "capacity problem". It was expressed in most of the documents and interviews, except by actors that held firm anti-nuclear views. In this context, "capacity" refers to the capacity to produce or import enough electricity to match demand every hour of the day, to avoid blackouts and system failures. According to this representation of the problem, the whole fleet of NPPs would have had to be shut down immediately unless the effect tax was removed, which would have led to a drop in capacity and a total failure of the Swedish power system. Moreover, nuclear power was framed as a "plannable" power source in contrast with "intermittent" or "weather-dependent" wind power, which made it appear as necessary for ensuring capacity adequacy.

Most of the actors considered this supposedly imminent lack of capacity as an immediate threat to Swedish industry, and by extension to employment, prosperity, and welfare. Capacity inadequacy was also described as a threat to the *future* of Swedish industry and enterprise, imagined as highly digitalized, automated, and increasingly powered by electricity. This made the capacity "problem"[6] more pressing – the future was at stake. Capacity adequacy was formulated as a necessary condition for a wide range of other critical societal functions as well, such as healthcare, infrastructure, information technology, defence, and disaster management. Invoking all these elements, a secure power supply was described as a precondition for the "functioning of modern society" (The Energy Commission, 2017, p.37). The term is vague but powerful – it is not entirely clear exactly what the "modern society" entails, but it would certainly mean trouble if it would cease to function. A respondent from Vattenfall summarized this line of argument succinctly by saying that it would not have been possible to phase out nuclear power rapidly if a precondition was to "keep the lights on". In short, the functioning of Sweden as a modern society was (allegedly) at stake, which of course created a sense of urgency.

This sense of urgency among energy policy experts and decision-makers made it possible and legitimate – even necessary – to act, and to do so in a hasty and irregular way by commencing negotiations before the Energy Commission could present its final report. But this does not explain why the course of action that was taken was to support nuclear power, nor why the specific measure to remove the effect tax was chosen. In a choice between removing the effect tax and jeopardizing modernity, it is fairly obvious what any decision-maker would do. But how did these two alternatives come to appear as the only options that policy makers could choose between? To shed some light on this issue, the next section looks at the construction of this ultimatum.

[5] As earlier, opponents of nuclear power categorized it as a "non-renewable" power source and an impediment to a transition to sustainable energy, while nuclear advocates categorized it as a "low-carbon power source" and highlighted the possibility of replacing fossil power abroad by exporting "clean" Swedish nuclear power. But this theme was much less emphasized than before.

[6] The capacity "problem" will be placed in scare quotes from now on, not to indicate that capacity is not a serious issue, but as a reminder that the problem representation that is analysed here is only one out of many possible ways of problematizing the issue.

5.1. Total and immediate nuclear phaseout

The representation of the effect tax as a capacity "problem", entailed the construction of an ultimatum. The narrative, in short, was that almost all of Sweden's reactors would be shut down in just a few years unless the tax was removed, and that no other measures would or should be taken to stop this. As a respondent from the Moderate party expressed it, "if we had not [removed the tax], then all of Sweden's nuclear power would have been shut down before 2020. And it would be directly harmful for Sweden if a third of all power production would be closed in just five years from now". This section traces the construction of this ultimatum and the conditions that made it possible to articulate it.

Most of the interviews give the impression that Vattenfall's statement in *Dagens Industri* in January 2016, in which it warned that it might close all its reactors, was the key event in the construction of the ultimatum and the immediate cause that led to negotiations over a new energy agreement. To understand the importance of this event, it is useful to get a sense of the sentiment among politicians just before it. This can be achieved by looking at the energy policy proposals to the Swedish Parliament in 2015, the year before Vattenfall's announcement (see Appendix B), and the report from the Parliamentary Committee on Industry and Trade in which these proposals were considered (Swedish Parliament, 2016). The governing parties did not problematize the effect tax, but most opposition parties did so, and there were calls to have it removed. However, the sense of urgency that took hold after Vattenfall's statement in January 2016 was lacking. Concerns about capacity inadequacy were voiced, but it was considered as a problem in the long run rather than as an immediate threat, and not as a more serious or urgent problem than concerns about free competition on the power market, social costs, or climate change. Crucially, none of the proposals described the tax as a threat to the whole fleet of NPPs, only to the four oldest and least profitable reactors for which decisions to cease production were taken already in 2015.

This cautious sentiment changed into acute after Vattenfall's statement, and the narrative was picked up in official texts and echoed among all types of actors except those that were strongly opposed to nuclear power. Thus, it seems that the article and the debate that followed it amplified the narratives that were already in place and turned them into a perceived choice between a total and immediate nuclear phaseout and a removal of the effect tax. But how could this intervention have such an impact on energy policy discourse?

First, it was widely accepted in Swedish energy governance that it is up to Vattenfall to decide on commercial grounds if and when to phase out its reactors. This has been the case ever since the Swedish electricity market was deregulated in the 1990s, when Vattenfall was transformed from a public agency into a state-owned limited company, local power monopolies were abolished, and customers were given the possibility to choose their own power supplier. The market logic of free competition provided the rationality for the deregulation and was institutionalized as the guiding principle for the power sector, imagined as a way of increasing efficiency and keeping costs low (Högselius and Kaijser, 2010). Vattenfall's transformation into a joint-stock company made its first and foremost duty commercial. Just like private companies, its purpose is to maximize profits for its shareholders in a competitive market. Hence, the owner's directive to Vattenfall that was effective in 2016 established that the main purpose of the utility is to "generate a market-based return by conducting commercial energy operations" (Swedish Parliament, 2010). Thus, the utility is not only free, but even obliged, to act on commercial grounds, even if this would put the Swedish power system in danger. As Vattenfall was legally bound to operate according to commercial principles, its warning that it would close all of its remaining reactors due to failing profits, regardless of the needs of the power system, had a degree of legitimacy to it that can be traced back to the market rationality, the deregulation of the electricity market, and the utility's owner's directive.

Second, as it was widely accepted in Swedish energy governance that it is up to Vattenfall to decide on commercial grounds if and when to close its reactors, another possible way of problematizing and managing phaseouts was ruled out. As Vattenfall is fully owned by the Swedish state, it would have been entirely possible to instruct Vattenfall to prioritize the stability of the Swedish power system over its own profits and to close the reactors at a pace that would not endanger the power system. All that would have been required was to alter Vattenfall's owner's directive through an ordinary parliamentary decision. This would, however, require a political interference in the power market that would run contrary to the rationality that was established during the deregulation in the 1990s, according to which anything that distorts free competition is harmful by definition (Högselius and Kaijser, 2010). As the transformation of Vattenfall from a state agency into a state-owned joint-stock company was driven by the endeavour to make competition the guiding principle in the power market, it would run against the logic of Vattenfall's very purpose and its creation as a commercial entity to give it such a task. In line with this rationality, the Government parties (Swedish Parliament, 2016) and several interviewees described Vattenfall's commercial decisions as external factors that lie outside the realm of politics, which the Government needed to follow closely and be ready to adapt to.

Third, as the interviews make clear, Vattenfall's position as the majority owner and operator of five out of Sweden's six remaining reactors made it impossible to ignore its warning, as it would not have been possible to compensate for the massive amount of power generation that was supposedly at stake. Or as the Energy Commission put it: "Large capacity volumes could be shut down in such a short time that the power system and the electricity market is unable to adapt" (The Energy Commission, 2017, p.228). This gave its statements a certain discursive weight. Vattenfall's role as the owner and operator of this critical infrastructure also made it hard to question its judgement that it would indeed have been commercially sound to phase out the reactors immediately unless the effect tax was removed. A few respondents challenge this claim, for example one from the Energy Agency: "It is not the case that all of the reactors would have been phased out immediately if the tax had remained, but they would have been phased out sooner than they are now going to be". Since the phasing out of a few reactors would have resulted in a reduced supply, which would translate into higher marginal prices and a higher return on the remaining reactors, it is not certain that phasing them all out immediately would have been a necessary or even correct decision from a commercial point of view, even if the tax had remained. However, this has been Vattenfall's internal decision since the deregulation and the utility's reconstruction as a commercial entity. The utility itself is the organization that produces the information on which such decisions are based, which makes it hard to question its assessments. Therefore, when the manager of the utility's nuclear power division was quoted in *Dagens Industry* saying that he could not, as the person responsible, "see that it would be economically defensible" (Lundin2016a) to make any of the investments that the plants needed to continue operation unless the effect tax was removed, he appeared both as the person that was ultimately in charge of making that decision and as the conveyor of an expert assessment which was hard to challenge. This explains why Vattenfall's claim that all the remaining NPPs would have been closed immediately on commercial grounds unless the tax was removed was taken at face value.

In sum, while the effect tax was problematized before 2016, it seems that Vattenfall's warning amplified the narratives that were already in place and turned them into an ultimatum: to remove the effect tax or to see five of the remaining six reactors shut down in just a few years. This was due to the utility's position as the owner and operator of the majority of Sweden's reactors, and the institutionalization of a market rationality that can be traced back to the deregulation of the power market. These conditions made it possible to construct an ultimatum that was considered to be credible, even legitimate.

The main reason that it appeared as necessary to remove the effect tax was the abrupt pace of the supposed phaseout. But this was not the

only reason. Thus, the next section delves deeper into the question of why nuclear power was considered as a necessary part of the Swedish power mix.

5.2. "Plannable" and "weather-dependent" power

The representation of the effect tax as a capacity "problem" involved a dichotomy where power sources were split into two juxtaposed categories: "plannable" power on the one hand, and "weather-dependent" or "intermittent" power on the other. In Sweden, "plannable" power refers mainly (but not exclusively) to hydro and nuclear, and intermittent power mainly to wind.[7] According to this view, "plannable" technologies can be controlled, and their production adjusted to balance the power grid, while the increased share of intermittent power in the years leading up to the agreement was depicted as a strain on the power system due to their weather-dependency. As a representative of Swedenergy, Sweden's main energy interest organization, put it, "we are successively reducing the share of plannable power while increasing the share of non-plannable power. And that creates a system that is hard to manage". This section clarifies how this dichotomy was used to construct nuclear power as a necessary component of the power system by portraying it as a means of balancing the grid and by shifting the focus of attention from variations in power demand to intermittent energy sources.

The concept of plannable power blurs the distinction between baseload and load-following power. Baseload power plants can be operated constantly, regardless of for example the weather. But that does not necessarily make them suitable for load-following. Load-following power plants are flexible assets whose output can be adjusted in an economically and technically feasible manner to follow variations in supply and demand, so that the two can be balanced every hour of the day. Despite this important difference, "plannable" power refers both to baseload and load-following power.[8]

The main load-following resource in Sweden is hydro power, with a large share of total generation and a flexible output that can easily be tailored to the needs of the power system.[9] The concept of plannable power rhetorically places nuclear in the same category as hydro power. Thus, nuclear was often framed as a power source that can be used to balance the grid, both by nuclear advocates and others. But as critical voices in the interviews pointed out, while nuclear power can be used as a baseload, it is not fit for load-following. Even though it is *technically* possible, to some extent, to run NPPs in load-following mode, this would mean that they would not be run at full capacity, as power plants that are operated at full capacity of course are unable to ramp up production in times of need. Running a capital-intensive technology such as nuclear power at reduced capacity is not a realistic option in *economic* terms, particularly when it comes to Sweden's NPPs, which were already struggling with diminishing returns. An interviewee from the Swedish Energy Agency summarized this point: "Nuclear power is not that good from a capacity perspective. It can be used as a baseload if that will be interesting in the future, but it is by no means useful as load-following power". This critique was sometimes connected to the argument that nuclear power itself is unreliable, as there have been several unplanned stops of nuclear reactors due to technical malfunctions.

The plannable – weather-dependent dichotomy both draws upon and reproduces the notion that the intermittency of wind power is the root of Sweden's capacity "problem". This emphasis on intermittency obscures the larger challenge of balancing variations in demand that Sweden's power system has to handle, with seasonal variations in power demand driven by dark and cold winters in combination with electric heating, on top of the usual short term variations. Peak demand can be as high as 27000 MW, more than three times the minimum load of 8000 MW (The Energy Commission, 2017, p.122). Since nuclear power is operated at close to full capacity and cannot be adjusted upwards, it does not contribute to following variations in demand. But when the intermittency of wind power, rather than variations in demand, is described as the main balancing issue, "plannable" nuclear power appears as a solution for balancing the grid, rather than as an energy source that – just like wind power – needs to be complemented by more flexible assets.

To understand how the categorization of nuclear power as "plannable" came about, it is useful to trace the discourse around nuclear and renewable energy in earlier periods. Since the intense conflicts around nuclear power in the 1970s, a power system based on renewables has typically been framed in Swedish energy discourse as a desirable but utopian vision that was unrealistic in the foreseeable future, as renewables were considered as small-scale and insufficient. Nuclear power, on the other hand, was framed by its advocates as the only option efficient and scalable enough to deliver an abundant and stable supply of affordable electricity that could ensure the international competitiveness of Sweden's small and export-oriented economy. This narrative gained considerable traction in the 1980s and 1990s, aided by the memory of the oil crises in the 1970s (Anshelm, 2000, p.479–480; Wang, 2006; Kall, 2011, p.134–137). Since then, the framing of nuclear power as an economic necessity has become entangled with the idea of nuclear power as a scalable way of mitigating climate change, which reinforces the idea that there is no alternative to nuclear power (Tarasova, 2017, p.176).

This discourse of economic necessity had been reconfigured in relation to the 2016 Energy Agreement. After the rapid expansion of wind power, it was no longer possible to discard renewables as small-scale. However, nuclear power was still represented as necessary for enabling Sweden's competitiveness and welfare. But in 2016, following several years of exceptionally low power prices, capacity adequacy had replaced affordability as the first and foremost energy security issue. Nuclear power was not framed as necessary because of its ability to produce cheap and abundant power, but because of its "plannability". *Competitive* power prices were still considered as important, as expressed for example in the Energy Agreement (Swedish Government, 2016). But as clarified in the government proposition in which the agreement was implemented, competitive prices were no longer necessarily defined by affordability. Instead, competitive prices meant "that price varies according to supply and demand" (Swedish Government, 2017, p.16). The central concern was that high prices, when they occurred, were effective in the sense that they resulted in investments in additional capacity. Low prices were sometimes even described as a potential risk factor, as they could exacerbate the capacity "problem" by curtailing "plannable" power production. The costs that could befall Swedish industry due to capacity inadequacy were emphasized to make this point, for example in an interview with a representative of the Confederation of Swedish Enterprise:

> There is a limit to how low power prices can get, because in the long run, if power prices become too low, it will affect the system. Security of supply is at least as important, and as low power prices risk crowding out plannable power production, they can affect security of supply (…). Already a short blackout can cause unbelievable costs. For instance, one of the chemical industries on the west coast, Borealis, had a blackout for just one second, and it cost them a total of 100 million Swedish crowns.

While Sweden has never had a blackout relating to insufficient power production capacity, but only due to grid malfunctions and weather events, examples such as these were used to illustrate the importance of

[7] Cogeneration is also categorized as "plannable" in Sweden, and solar PV as "intermittent", but their comparably low share of the power mix made them less salient in the energy policy discourse of 2016.

[8] There are some similarities between the Swedish term "plannable power" and "dispatchable power" in English, as both terms can refer to both baseload and load-following power, thus blurring the distinction.

[9] Hydro power provided around 40 percent of Sweden's electricity in 2016 (Swedenergy, 2018).

"plannable" power. Representing nuclear power as "plannable" made it possible to replace the representation of nuclear power as affordable, which had become increasingly untenable in Sweden at the time, thus reviving the long-standing narrative of nuclear power as a safeguard for competitiveness and welfare. This narrative, which carries a well-established meaning in Sweden, was both drawn upon and reproduced when nuclear power was represented as "plannable".

Even though new renewable energy technologies were considered as problematic due to their intermittency, most actors within the energy policy elite still viewed renewable energy diffusion as a positive trend. This was reflected in the Energy Agreement's aim to transform the power system so that it becomes 100 percent renewable. But the plannable – weather-dependent dichotomy created an ambiguity towards renewable energy that was reflected in the clarification of this aim: "The aim for 2040 is a 100 percent renewable electricity production. This is an aim, not an end-date after which nuclear power will become forbidden, and it does not mean that nuclear power will be decommissioned due to political decisions" (Swedish Government, 2016). The aim of 100 percent renewable power generation was immediately followed by the caveat that it would be possible to keep nuclear power in operation. While renewable energy was seen as green, modern, and desirable, the construction of the "plannable" – "weather-dependent" dichotomy pitted it against stability, security of power supply, and competitiveness, the values of which are unquestionable in the Swedish energy policy discourse. When articulated as a precondition for keeping Sweden's lights on, nuclear power could be framed as a necessary component of the power system until the 2040s and beyond, despite the widespread belief in the merits of a transition to renewable energy.

Representing "plannable" nuclear power as necessary for ensuring capacity adequacy implies that other means of providing capacity would not be sufficient. But even though the framing of "plannable" nuclear power as a necessity dominated the discourse, alternative capacity solutions had also gained traction among all kinds of actors, even to some extent incumbents themselves. These solutions include energy storage, demand-side response, energy efficiency, and increasing interconnections between previously national grids. Perhaps most importantly, Sweden already has access to an enormous capacity reserve in its large share of hydro power. A respondent from the Government Offices emphasized this point: "Sweden is ideal for wind power, because of our large share of hydro power. So, the potential to accommodate more wind power is enormous". This potential could be further expanded by increasing the capacity of the Swedish transmission grid to transmit hydro power from the north of Sweden to consumers in the south. Most actors view these possibilities as promising ways of developing Sweden's power system in the future, but there are different views regarding whether or not they will ever be capable of making "plannable" nuclear power redundant. Incumbent industry interests argued for the necessity of a continuous reliance on "plannable" power, while those sceptical of nuclear power meant that other capacity solutions could become sufficient with short notice. State actors and official documents tended to be more ambivalent. In the short term, they stressed the importance of avoiding an immediate nuclear phaseout. But in the long term, "plannable" power and alternative capacity solutions were both considered as possible ways of balancing variations in supply and demand, which calls the necessity of "plannable" power into question. In this sense, alternative capacity solutions introduce an ambivalence in the energy policy discourse regarding the future, which contradicts the representation of nuclear power as a necessity.

6. Conclusions and policy implications

The effect tax on nuclear power was represented as an acute capacity "problem" in the sense that decision-makers were confronted with a choice between removing the tax or having almost all of Sweden's reactors shut down in just a few years, which would jeopardize the functioning of the power system. A central event in the construction of this problem representation was Vattenfall's statement that it would close all its reactors, for commercial reasons, unless the tax was removed. While the effect tax was problematized before this statement, it amplified the narratives that were already in place and created a sense of emergency. This depended on an institutionalized market rationality according to which it is up Vattenfall alone to decide on commercial grounds if and when to phase out NPPs, and which ruled out the possibility of instructing Vattenfall to phase out reactors at a pace that the power system could manage, as that would interfere with the market. It also depended on the utility's position as the owner and operator of the majority of Sweden's reactors, which made it impossible to ignore its statement and hard to question its judgement about the commercial viability of a total and immediate phaseout.

A dichotomy in which nuclear power was categorized together with hydro as a "plannable" power source in contrast with "intermittent" wind power was used to downplay the shortcomings of nuclear power in terms of grid balancing, and framed it as a necessary tool for ensuring capacity adequacy. This dichotomy both drew upon and reproduced well-established narratives about nuclear power as an insurance for stability and competitiveness, but a turn was made from nuclear power as affordable, to nuclear power as "plannable". As a lack of capacity was framed as an immediate existential threat to the modern Swedish society, the representation of the effect tax as a capacity "problem" presented decision-makers with an obvious solution: to remove the effect tax in order to keep Sweden's lights on.

However, critical voices questioned the validity of this ultimatum and whether a total phaseout would really have been implemented even if the tax had remained, and highlighted the shortcomings of nuclear power in terms of balancing the grid. Finally, there was an ambivalence in the energy policy discourse regarding the potential of alternative capacity solutions, which contradicted the representation of nuclear power as a necessity and may be used to challenge it in the future.

So, what is special about the Swedish case, and what can it teach us about energy policy discourse under falling incumbent profitability? For three reasons, Sweden constitutes a case where the arguments for supporting the incumbent nuclear power regime in order to ensure capacity adequacy are particularly *unlikely* to become accepted. First, very few power mixes contain as large a share of hydro as Sweden's, and hydro provides a massive low-carbon, load-following resource at a marginal cost which is still competitive even in the face of renewable energy diffusion. Second, most of the times that Sweden had to activate its strategic capacity reserve to balance the grid, this was related to issues with *nuclear* power, according to unpublished statistics from the Swedish TSO.[10] Third, in Sweden it is inflexible baseload NPPs that are being crowded out of the market, while in other settings it has often been power plants which are more useful for balancing the grid. Still, the capacity "problem" dominated the energy policy discourse and provided the rationale both for the decision to remove the tax on nuclear power and for the unusual process that led to this decision.

Thus, in settings where capacity adequacy is a more pressing impediment to energy transitions than in Sweden, it is likely that capacity "problems" will be constructed as a way of legitimizing energy policy decisions that support traditional energy technologies, particularly those fossil alternatives that are suitable for load-following, as a response to incumbent profitability crises. As Buschmann and Oels (2019) argue, crises can present opportunities to challenge fossil hegemony and overcome carbon lock-in (Unruh, 2000), but this depends on the outcome of discursive struggles over how these crises are to be understood. In crises unleashed by falling incumbent profitability and increased competition from cost-effective renewables, the well-researched framing of incumbent technologies as the only options for delivering a sufficiently abundant and affordable supply of electricity

[10] These statistics are available on request via email to the Swedish TSO at: effektreserven@svk.se

(e.g. Bosman et al., 2014; Rosenbloom, 2018; Tarasova, 2018; Chester and Elliot, 2019; Brauers and Oei, 2020) can be expected to become less compelling. But if established energy interests are successful in portraying incumbent technologies as the only available means with which to ensure capacity adequacy, capacity-related problem representations could replace it. As problem representations have implications for policy, such as legitimizing certain decisions while marginalizing alternative courses of action (Bacchi, 2009, p.35), this could be a way of acquiring political support for incumbent technologies and marginalizing policies that can facilitate managed phaseouts and transitions towards sustainable energy, despite viable renewable alternatives and alternative capacity solutions.

Narratives that highlight the intermittency of renewables in order to legitimize support for incumbent baseload power sources have been identified in other countries as well, such as Germany and Poland (Szulecki and Kusznir, 2018) and Turkey (Aydın, 2020), and are likely to attract further scholarly attention as renewable energy diffusion continues. As research on energy policy discourse moves forward, it is important that close attention is paid to the characteristics that are (implicitly or explicitly) ascribed to baseload power sources when they are contrasted with intermittent renewables. As shown in this article, dichotomies where intermittent renewables are juxtaposed with nuclear or fossil baseload power may do more discursive work than apparent at first glance. They can serve to attribute baseload technologies with useful properties that they do not really contribute with, such as the framing of nuclear power as a "plannable" resource in the Swedish case, which exaggerates its flexibility. If this is not recognized, there is a risk of inadvertently reproducing dominant discourses and overstating the merits of incumbent technologies.

To conclude, the Swedish case suggests that problem representations relating to capacity adequacy can be an effective way of delaying phaseouts, and that they are more likely to gain traction in cases with concentrated ownership and operation of energy infrastructure and institutionalized market rationalities. But alternative capacity solutions can provide both a concrete alternative to fossil load-following (Jacobsen and Zvingilaite, 2010; Bradley et al., 2013) and, judging by the ambivalence that they introduced in the Swedish discourse, a way of challenging the discursive construction of incumbent energy technologies as necessary to ensure capacity adequacy. Thus, the importance of investing in transmission grids that can manage intermittent energy sources and of adopting capacity solutions such as energy storage, energy efficiency, and demand response cannot be overstated. At the level of discourse, it is important to challenge the closures that can form around established energy orders, which capacity "problems" might reinforce. Here, energy research has an important part to play in showing that these problem representations, while they might look like hard technical facts that are difficult to question, are only one possible way of problematizing capacity inadequacy. More research is needed on the ways in which capacity adequacy is problematized, especially as a response to incumbent profitability crises, and how this affects energy policy and energy transitions.

CRediT authorship contribution statement

Hugo Faber: Conceptualization, Data curation, Formal analysis, Investigation, Methodology, Project administration, Resources, Writing – original draft, Writing – review & editing.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

Two types of data are used. First, policy documents, which are publicly available (see reference list and Appendix B). Second, interviews, which cannot be shared for reasons of confidentiality.

Acknowledgements

The author would like to thank the interview respondents and two anonymous reviewers for their contribution to this article, as well as Elin Lerum Boasson, Karin Bäckstrand, Simon Birnbaum, Linda Ekström, Tatiana Sokolova, and Viviane Griesinger.

Appendix A. interview respondents

- The Center Party, Member of Parliament
- Swedenergy, Senior Advisor
- Swedish Energy Agency, Unit Manager
- Swedish Energy Agency, Manager
- Ministry of Enterprise, Manager
- The Energy Commission, Expert
- The Moderate Party, Member of Parliament
- Swedish Solar Energy Association, Representative
- Confederation of Swedish Enterprise, Expert
- Svenska Kraftnät (TSO), Unit Manager
- Svenska Kraftnät (TSO), Manager
- Vattenfall, Unit Manager
- Vattenfall, Senior Advisor

Appendix B. policy documents

See the reference list for policy documents that are referenced in the text.

Energy Policy Proposals to the Swedish Parliament in 2015

These proposals are gathered online at: www.riksdagen.se/sv/dokument-lagar/arende/betankande/_H301NU10. They were all accessed 2022-01-26.

- Björklund, Jan et al. *På väg mot ett fossilfritt Sverige* – Motion 2015/16:2249.
- Brännström, Katarina. *Fortsatt drift av svensk kärnkraft* – Motion 2015/16:1223.
- Bäckström Johansson, Mattias, Fransson, Josef, and Nissinen, Johan. *En hållbar energipolitik* – Motion 2015/16:2854.
- Gunther, Penilla. *Utgiftsområde 21 Energi* – Motion 2015/16:3149.
- Hjälmered, Lars, Rothenberg, Hans, Tenfjord-Toftby, Cecilie, Johnsson, Ann-Charlotte, Warborn, Jörgen. *Energi* – Motion 2015/16:2447.
- Hjälmered, Lars, Rothenberg, Hans, Tenfjord-Toftby, Cecilie, Johnsson, Ann-Charlotte, Warborn, Jörgen. *Utgiftsområdesmotion 21 Energi* – Motion 2015/16:2444.
- Malmberg, Betty. *Energimix av kärnkraft, vattenkraft och bioenergi* – Motion 2015/16:902.
- Ottoson, Erik. *Svensk kärnkraft nu och i framtiden* – Motion 2015/16:798.
- Petersson, Jenny, Warborn, Jörgen, and Svensson, Michael. *Sveriges framtida energiförsörjning* – Motion 2015/16:1225.
- Tenfjord-Toftby, Cecilie. *Kärnkraft och konsekvensen av en tidig avstängning av kärnkraftsel* – Motion 2015/16:1579.

Commentaries on the Final Report of the Energy Commission

All commentaries are available on request via email to the Ministry of the Environment: m.registrator@regeringskansliet.se. Commentaries

from the following organizations have been analysed.

- Affärsverket Svenska Kraftnät (TSO)
- Swedenergy
- Swedish Energy Agency
- Fortum Sverige AB
- Greenpeace
- IF Metall (Industrial trade union)
- LO, The Swedish Trade Union Confederation
- SKGS
- Confederation of Swedish Enterprise
- Swedish Nuclear Society
- Uniper
- Vattenfall
- World Wildlife Fund Sweden

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Article II

DOI: https://doi.org/10.1016/j.erss.2024.103832

Energy Research & Social Science 118 (2024) 103832



Contents lists available at ScienceDirect

Energy Research & Social Science

journal homepage: www.elsevier.com/locate/erss



Original research article



Free competition, come hell or high water? How neoliberalism prevailed and why Finland allowed peat to decline in the midst of an energy crisis

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ARTICLE INFO

Keywords:
Energy security discourse
Energy crises and fuel shortages
Carol Bacchi's WPR approach
Neoliberal governmental rationalities
State-market relations
Fossil fuel phaseout

ABSTRACT

Can advocates of fossil energy technologies in decline invoke energy security to influence energy politics? This article investigates how supporters of Finland's declining peat industry *failed* to do so, despite a window of opportunity presented by an energy crisis, Finland's dependency on imported Russian energy, and the abrupt end of these imports following Russia's invasion of Ukraine. By focusing on a case where invoking energy security has failed, it sheds light on the conditions that limit the political effects of energy security discourse, which has remained undertheorized in the literature. Using discursive policy analysis, the article analyses 22 expert interviews and 33 policy documents. It shows that neoliberal ideas about how to organize state-market relations can limit the political effects of energy security discourse, even when incumbent interests advocate for a domestic source of energy in times of war and energy crisis. In this case, neoliberalism made the peat decline and the fuel shortage appear as a "market problem" that did not warrant state intervention. The article uses insights from the Finnish case to theorize about the wider implications of how neoliberalism, energy security discourse, and energy crises interact, and how this affects the political influence of established energy interests. It suggests a research agenda on how neoliberalism affect energy transitions and energy politics, and argues that while neoliberalism can work against fossil industries in decline, it also risks impeding transitions to truly sustainable alternatives.

1. Introduction

Fossil energy technologies have often been framed as the only options cost-efficient and scalable enough to provide the abundance of cheap energy that is necessary for national competitiveness and prosperity [1,2]. Such narratives have been effective for influencing energy policy and securing favourable conditions for incumbent fossil technologies [3]. But recent years have seen these technologies starting to decline economically because of climate policies and competition from increasingly affordable renewables. Technologies that struggle to compete are of course hard to portray as vital for national competitiveness, so when faced with economic decline, incumbent industries and their supporters have to turn to other strategies to maintain their influence over energy policy [4].

One way for incumbent industries to respond to economic decline is to portray their technologies as necessary for energy security. Energy supply is a core state interest [5] and a prerequisite for "almost all areas of modern human activity" [6]. This suggests that if fossil interests manage to represent their technologies as necessary for maintaining energy security, then this would be an effective way of influencing energy politics to improve market conditions. Particularly, of course, in times of war and energy crisis.

Yet, while the last decade has seen a proliferation of studies on *energy discourse* and its political effects [7,8], few of these have focused on *energy security* (but see [9]). Inversely, most research on energy security has focused on defining energy security [10], and developing indicators to measure it [11], thus leaving questions of power and discourse unanswered. However, as Chester [12] points out, energy security is a notoriously slippery and ambiguous concept. This calls for research that approaches energy security as a contested discursive construct rather than as an objective phenomenon, and for studies on how energy security is invoked to shape politics. As Jewell and Brutschin [13; p.19] put it, "there is far too little research which documents how actors use energy security to advance their own agendas at the national level".

The few studies that do exist have tended to focus on cases where energy security discourse has led to policy change (e.g. [14]), and showed that energy crises can result in increased support for incumbent technologies [15], particularly if these technologies are perceived as domestic and the external environment as threatening or uncertain [16]. Much less has been written about cases where energy security discourse

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https://doi.org/10.1016/j.erss.2024.103832
Received 7 May 2024; Received in revised form 22 October 2024; Accepted 29 October 2024
Available online 9 November 2024
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has *failed* to influence policy (but see [17]), particularly in times of energy crises and external threats. Thus, the conditions that *limit* the effects of energy security discourse on politics remains undertheorized in the literature.

To shed light on these conditions, this article turns to the case of Finland's peat decline. There, a domestic source of energy was allowed to decline despite a fuel shortage, Finland's dependency on imported Russian energy, and the abrupt end of these imports following Russia's invasion of Ukraine. The article shows that neoliberal ideas about how to organize state-market relations can limit the political effects of energy security discourse, even when established energy interests advocate for a domestic source of energy in times of war and crisis. In this case, neoliberalism made the peat decline and the fuel shortage appear as a "market problem" that did not warrant state intervention. Finally, the article suggests a research agenda on how neoliberalism affect energy transitions and politics, and argues that while neoliberalism can work against fossil industries, it also risks impeding transitions to truly sustainable alternatives.

To uncover the conditions that limit the political effects of energy security discourse, the article explains *why peat was allowed to decline despite the fuel shortage, the energy crisis, and the war*. To do so, it draws on Carol Bacchi's [18] approach to policy analysis. This approach stipulates that discourse shapes policy by defining the "problem" that policies are supposed to solve, thereby legitimizing certain measures while ruling out other courses of action. Thus, the article asks how the peat decline and the fuel shortage was represented as a problem in Finnish energy policy discourse in the aftermath of the energy crisis and the war, what the conditions and historical developments were that enabled this way of representing the problem, and how this affected policy.

Since energy politics are characterized by expert and elite governance [19], particularly in Finland [20,21], the article focuses on the discourse of an energy policy elite consisting of key decision makers and experts. The next section presents a background on energy peat in Finland. It is followed by a section on theory and a methods and material section. The remaining sections consist of the empirical analysis and a concluding discussion.

2. Background

Finland's energy consumption per capita is among the highest in the EU due to its cold climate, large area, and energy intensive industry. Total primary consumption was around 377 TWh in 2021 and energy sources are diverse, but wood fuels, oil, and nuclear energy dominates, together providing over two thirds of total consumption [22]. Peat is one of few domestic energy sources, a semi-fossil and carbon intensive fuel that became part of a national narrative about modernization and independence after the Second World War [23]. Peat combustion increased after the oil crises in the 1970s and peaked in the 2000s (see Fig. 1). It is typically co-fired with wood fuels in large CHP plants and in smaller heat-only boilers, and the largest peat producer is the state-owned company Neova. Peat extraction became a contentious issue already in the 1960s due to local environmental impacts [24]. As climate awareness increased, peat became problematized in terms of its considerable carbon emissions [23]. As a result, the coalition government that took office in 2019, led by Sanna Marin of the Social Democratic Party, stated that the energy use of peat should be at least halved by 2030.

This target became irrelevant quickly, however, as peat started to decline much faster anyway due to rapidly increasing allowance prices in the EU ETS[1] which made peat combustion expensive [25]. Demand plummeted and peat consumption fell rapidly, as illustrated by Fig. 1.

Large peat producers foresaw this decline and turned to other products such as horticultural and bedding peat, and many large energy companies invested in heat pumps and boilers that can fire biomass without peat. But smaller municipal companies struggle with these investments and many individual peat contractors have lost both livelihoods and savings.

Finland imported much of its energy from Russia before the invasion of Ukraine – a remarkable 34 % of total energy consumption in 2021 [26].[2] But one year after the war broke out, almost all imports had ceased. The end of the wood fuel supply was particularly important for peat policy, as both fuels are used for heating and highly substitutable. Together with the peat decline, this resulted in a fuel shortage of up to 5.7 TWh in 2023 according to one report [27]. As in the rest of Europe, the war compounded an ongoing energy crisis caused by tight global energy markets in the wake of Covid-19. Heating and electricity prices soared, energy companies started looking for alternatives, and the logic of phasing out a domestic fuel in times of trouble was questioned (e.g. [28]). Suddenly, the transition away from peat looked a lot more uncertain.

2.1. Finland's peat policy mix

Peat is not taxed like other heating fuels in Finland, but subject to an excise tax. This tax was raised from 3€/MWh to 5.7€/MWh in 2021, to reflect tax increases on other fuels [29]. There were two other changes in 2021 as well. First, there is a threshold under which peat is not taxed that was expanded from 5000 MWh to 10,000 MWh between 2022 and 2026, and to 8000 MWh 2027–2029 [29]. Second, a floor price mechanism was introduced which would raise the tax automatically if ETS prices should fall below 21.20 €/t. Moreover, a reimbursement for scrapping peat extraction machinery was implemented in early 2022 to support peat contractors, but ran out of funds quickly.

In response to Russia's invasion of Ukraine, Finland's National Emergency Supply Agency (NESA) was tasked with stockpiling peat amounting to "approximately 20–30% of the estimated need for fuel peat in the next heating season" [30]. According to interviews, this meant about 2–3 TWh in 2023. As the stockpile is not renewed annually, this is far from enough to affect the general direction of the peat decline. NESA did not stockpile peat before the war but organized a system in which private companies were compensated for doing so, and that system was continued as well.

3. Theory

3.1. Analysing problem representations

This article draws on the WPR (What's the problem represented to be?) approach, developed by political scientist Carol Bacchi [18], and inspired by Foucault [31,32], which highlights the connection between discourse and policy. The point of departure is that policies are legitimized through the discursive construction of the problems that they are supposed to solve. These problems are seen as contingent representations that are subject to contestation and change. Problems can be represented in different ways, and the ways in which they are represented have implications for how the issue in question is understood and governed [18]. Despite this, problem representations tend to be taken for granted. Analysing problem representations is therefore linked to a critical ambition. By showing their contingency and uncovering the underlying assumptions and rationalities that they draw upon and reproduce, the approach can help us understand how power is exercised and why some policies are legitimized while others are ruled out.

Problem representations tend to both rely on and reproduce *governmental rationalities*, which are *ways of reasoning* that draw upon some form of knowledge (e.g. scientific, religious, ideological) in order

[1] The ETS (Emissions Trading System) is a market-based EU policy that puts a price on carbon emissions in many sectors.

[2] Mainly oil, nuclear fuels, natural gas, wood fuels, coal, and electricity.

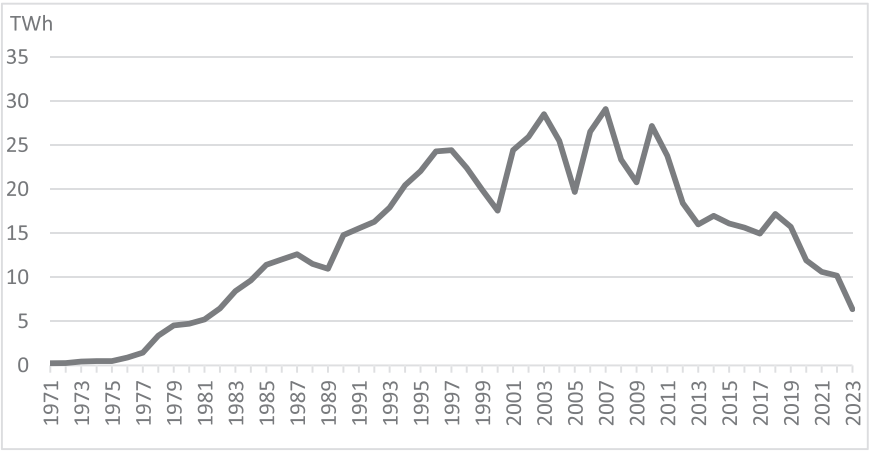


Fig. 1. Total consumption of energy peat in Finland. Source: Statistics Finland [22]. The value for 2023 is based on preliminary data.

to justify particular ways of representing problems [33; p.43]. Rationalities span across different topics and contexts. They do not alone determine how an issue is problematized, but act as important conditions that enable or constrain it.

3.2. Neoliberal rationality of government

During the data collection and analysis, it became clear that there were several parallels to be drawn between the empirical material and the literature on the *neoliberal rationality of government*, and that this literature offered an opportunity to identify important patterns in the material and reason about the wider implications of the findings. Neoliberalism can be defined in different ways, but this literature (e.g. [34–36]) has followed Foucault [32; p.118] in defining it as a rationality that elevates *competition* to a guiding principle not only for the market, but for all of society. Competition is not only fair according to this rationality, but also the most efficient way of allocating resources. Competition is also believed to incentivize innovation and efficiency, thus furthering growth and progress to the benefit of society [36; p.63].

From the neoliberal point of view, government and free competition are seen as dichotomous in the sense that more of one implies less of the other. Extending the reach of the market is believed to reduce red tape and costly bureaucracy, while extending government entails an (illegitimate) infringement on the market. This state-market dichotomy does not necessarily hold empirically [37,38]. On the contrary, upholding free competition requires state regulation, monitoring, and intervention – a specific form of government, rather than less of it [34; p.17]. Nevertheless, a core tenet of neoliberalism, at least in theory, is that states should avoid interfering with markets unless exceptional circumstances call for it.

Neoliberal rationality does not only prescribe what states should *refrain* from doing, but also what they *should* do. States have to facilitate and uphold free competition, e.g. by safeguarding property rights and protecting competition from distortion [39]. Moreover, there are cases where the market fails because there are *external costs* associated with an activity – costs that fall upon society rather than on the one who cause them. This distorts the signals on the market and incentivizes the costly activity. The prime example is emissions from energy production and industries. In those cases, the state needs to set the signals right again so that the social cost of producing a commodity is reflected in its price, if possible by "market-based" solutions that establish new markets [40].

4. Methods and material

The problem representations that underlie policies are rarely produced by state actors in isolation, but tend to be intertwined with expert knowledge produced in multiple settings [33; p.5]. Thus, the empirical material consists of interviews with 22 key experts and decision makers from a broad selection of organizations that are central to Finnish energy governance (see Appendix A). The organizations were selected to cover the most important knowledge producing organizations in Finnish peat governance. They include Ministries, state agencies, business organizations, consultancies, NGO:s, academia, regional organizations, energy companies, unions, and peat companies. All interviewees filled key positions as directors or senior experts. They were selected strategically to reflect the expert knowledge and the formal positions that their organizations hold – not in order to make a representative selection of a larger population, but to capture the discourse of an exclusive group with privileged access to the production of policy-relevant knowledge. The interviews revolved around their roles as professionals and organizational representatives rather than their personal views. The interviews were carried out between February 2022 and January 2024, and were recorded and transcribed in full.

In addition to the interviews, 33 policy documents were analysed (see reference list and Appendix B). They were selected either because they are central to Finnish energy governance, or because interviewees referred to them. They complement the interviews by capturing the political and party discourse well, since they include programs and strategies from both governments during the period, as well as the political parties.[3]

The empirical analysis was structured around six analytical questions. They were originally proposed by Bacchi [20], but have been modified for the purpose of this study:

1. How was the peat decline and the fuel shortage represented as a problem in light of the energy crisis and the war?
2. What assumptions and rationalities underlied this problem representation?

[3] Many documents were available in my native Swedish (a minority language in Finland) or English. Others were translated using the ai-based service Deepl.com. Nuances are inevitably lost in translation, but as the analysis was concerned with broader meaning rather than the (e.g. rhetoric) form of its expression, they could be used as a supplementary material.

3. How has this representation of the problem come about?
4. What conditions made it possible to produce and disseminate this particular problem representation?
5. What alternative ways of representing problems were side-lined?
6. How did this representation of the "problem" affect policy? Which measures appeared as legitimate, and which were ruled out?

Question 1 is only the starting point of the analysis, and answering it was a fairly straightforward inductive exercise of identifying how problems were represented in the material. Question 2 delves deeper into the deep-seated assumptions and rationalities that underlie these representations. A large number of coding categories were generated inductively and later grouped into three sets of assumptions. This was an iterative process of reading and going back and forth between coding categories and the material. Questions 3 and 4 inquire into the conditions and historical events that enable (and constrain) problem representations, and they were answered both through the empirical material (e.g. interviewees pointing out conditions and historical developments) and by consulting previous research. Question 5 highlights critical voices, and two alternative problem representations were identified. Question 6 tied the analysis together by inviting reflection on how the dominant problem representation made certain policies appear as legitimate, while others were ruled out.

Like any method, the WPR approach has its limitations. Compared to e.g. Hajer's [41] Argumentative Discourse Analysis, it pays little attention to how and why different actors come together in (discursive) coalitions. Neither does it offer the detailed linguistic analysis provided by e.g. Critical Discourse Analysis. But the WPR approach does highlight the conditions that enable particular problem representations and policies [42], which is key to answering why peat was allowed to decline.

Another limitation of the study is that it follows a strategy of "studying up" or focusing on elites [43; p.8]. Thus, it does not highlight how the peat decline is experienced in local communities or by peat workers. This choice reflects the research question, which focuses on energy security issues that are handled by elites at the national level, but it is important to recognize that the peat decline is just as much a social and justice issue as one of energy security. These topics are, however, excellently covered by [23,44,45].

Finally, this article focuses on a single case. Single case studies are useful for in-depth, context-sensitive exploration and theoretical development, but their findings are not directly transferable to other contexts [46]. The aim is therefore not to produce broad generalizations but to explore the conditions that limit energy security discourse in depth, and – based on that exploration – to facilitate a broader understanding by making theoretical propositions and identifying themes for further research.

5. Results: the peat decline and the fuel shortage as a "market problem"

The dominant way of problematizing the peat decline and the fuel shortage was to frame it as a "market problem" that should be left to the market and energy companies to resolve rather than as an acute problem that required state intervention, despite the war and the energy crisis. This called for maintaining the current policy mix and letting the energy market handle the situation without state interference, except for NESAs stockpile. Further measures would constitute a break with the key principles of free competition and technological neutrality. This problem representation underlied and legitimized Finland's peat policy. It was reiterated by interviewees from powerful organizations such as the Ministry of Economic Affairs and Employment, Finnish Energy, and the Confederation of Finnish Enterprise, and echoed in central policy documents. Moreover, even interviewees who supported peat tended to agree with the general logic of letting the market handle things.

The representation of the peat decline as a "market problem" was underlied by three central sets of assumptions and/or rationalities (Question 2), each relating to their own conditions and historical developments (Questions 3 and 4). They are presented in turn below. After that, two alternative problem representations are discussed (Question 5) and the analysis is then concluded with a discussion on the effects on policy (Question 6).

5.1. Free competition and technological neutrality

First, the representation of the peat decline and the fuel shortage as a "market problem" depended on a neoliberal rationality which elevated free competition and "technological neutrality" (free competition between different technologies) to guiding principles. These principles provided the central logic behind the representation of the peat decline as a "market problem," and were often referred to both implicitly and explicitly in the empirical material. The idea was that any measure that would favour particular technologies over others would distort competition, and that this would be a costly waste of resources:

> Peat is an energy source that's competing in an open market against other sources, and now other sources have become more competitive. And it would be a waste of economic resources to try to artificially build competitiveness for individual energy sources. (…) So to try to slow down the decline of peat would just have been a waste of money in the end.[4]

Supporting particular technologies would not only be unfair to investors in other technologies, but it would also end up wasting society's resources. The quote also illustrates that there was an element of naturalization to this rationality, in the sense that state interventions were described as "artificial," which implies that the market is a more "natural" state of affairs. It was even argued that it would be *impossible* in the long run to resist market forces, and therefore best to let them run their course:

> It is simply a question of whether peat is competitive or not. And due to many factors, it's not very competitive. (…) So what is going to happen, is going to happen. We can't keep alive sectors which are not competitive.[5]

Rather than "picking winners," the state should remain "technologically neutral" and let the market choose which technologies to invest in. Technological neutrality was not only invoked to argue against measures to support energy peat, but also against measures to support alternative sources of energy. There was already an investment support for new energy technologies in Finland, and electrical heating is subject to the lowest possible tax rate (to promote energy sector integration). These policies were typically considered acceptable, but further subsidies were deemed inappropriate. As a Director from Finnish Energy put it, "technological neutrality and a market approach, no subsidies. That's our main policy."[6]

The history of this rationality stretches back to a neoliberal turn in Finnish governance that started in the 1980s, when experts and civil servants picked up and implemented neoliberal ideas from organizations such as the IMF, OECD, and the EU [47,48]. Consequently, Finland's financial markets were deregulated in the late 1980s, and the speculation that followed contributed to a severe recession. Nevertheless, the recession was used to promote further neoliberal reforms, such as the deregulation of the Finnish power market in the early 1990s. The logic was to expose society to competition, so that a more competitive Finland could emerge from the crisis [49,50]. Neoliberal ideas started to proliferate in Finland's energy policy discourse in the 1990s as well [51,52]. They were spread in the public media [53], but more importantly among

[4] Interview 5, Chief Policy Adviser, Confederation of Finnish Industries.
[5] Interview 14, Director General, Ministry of Economic Affairs and Employment.
[6] Interview 9, Director, Finnish Energy.

the networks of experts, state actors, and industries that constitute Finland's "energy elite" [20]. Since then, the principles of free competition and technological neutrality have been firmly rooted in Finnish energy governance [21,51,54].

5.2. Carbon emissions and the ETS

A second set of assumptions concerned carbon emissions and the ETS. First, peat advocates have previously argued that peat could be classified as a renewable fuel [55], and thus exempted from the ETS. But almost all interviewees, including peat advocates, had come to believe that this was simply impossible, and also that national measures to counter the ETS would be incompatible with EU state aid regulation. This was considered to be a technical fact that could only be questioned due to ignorance. This can be confirmed by analysing the expert opinions on a parliamentary citizens' initiative [56] that was launched in January 2021.[7] The citizens' initiative argued that peat use below the national rate of peat regeneration should be classified as renewable and sustainable. It lacked parliamentary support, but was sent out for expert opinions that were delivered in October 2022. The initiative was supported by Neova, the Association of Peat Producers, and a small peat company, but all other actors opposed it. State and business actors pointed out that classifying peat as renewable in Finland would be pointless as it would neither affect the IPCC's (Intergovernmental Panel on Climate Change) classification of peat, nor the ETS. Academic actors added that there were no scientific grounds for such a classification.

Moreover, even though the ETS is a massive state intervention, most interviewees and policy documents categorized it as a market-based measure that made it possible to mitigate climate change without distorting the market. The logic was that the ETS corrected a market failure by putting a price on an external cost. This is characteristic of neoliberalism, but also an expression of a high degree of climate awareness, and the ETS was supported by most interviewees both as an effective climate measure and as a market-based instrument. The ETS merged market logic and climate awareness by transforming the problem of carbon emissions into a problem of competitiveness, and many interviewees referred to emissions as an economic rather than environmental issue.

These assumptions can be traced back to a lost battle over classifying peat as renewable. In the beginning of the 2000s, peat advocates tried to frame peat as a "slowly renewable biomass fuel", arguing that the accumulation of carbon in Finnish peatlands was greater than the emissions from burning peat [57]. In 2008, Finland's centre-right government tried to get this definition accepted in the EU, which hypothetically could have made peat exempt from the ETS, but failed [58]. The 2000s also saw the IPCC classify peat emissions as comparable to those of fossil fuels [59], which concluded the issue once and for all:

> In Finland, we tried to classify peat as a slowly renewable product, but then when the IPCC says that it is fossil, what we say here is not relevant. (…) We were in that battle, but it was lost. And I don't know, even if someone would say now that it is renewable, I don't think it would make any difference.[8]

Finland's lost battle over classifying peat as renewable made it seem unlikely that future efforts would fare any better, and interviewees cited it as proof of the impossibility of shielding peat from the ETS. Moreover, climate change has become a salient issue in Finland [60], and both public and elite support for peat has decreased in the years that followed its classification as a highly emitting fuel [61]. Accordingly, most interviewees saw peat as a high-carbon energy source, and the ETS as a welcome market-based measure to address its emissions.

5.3. Handling the fuel shortage

The third set of assumptions concerned the capacity of the energy system to handle the fuel shortage. Essentially, the situation was considered to be serious, but not acute enough to warrant market-distorting state measures. Many interviewees argued that the war and energy crisis had made energy security a core concern, but that the market and the energy companies were handling it well:

> After the Russian ban of the export of woodchips to Finland, there was a turbulent market situation when suddenly one significant source went dead. And there has been a rise in [the prices of] wood fuels, affecting district heating prices and also being an energy security challenge to some extent. But the market is now adapting to it.[9]

In any case, the situation was best left to the market. There were concerns that the forest industry would suffer from increasing wood prices as more wood was burned for energy, that fossil imports would increase, and that the decline of energy peat would lead to a lack of bedding and horticultural peat.[10] But in the end, scarcity would only translate into increased costs for companies and their customers, and that was regarded as an acceptable outcome, fully in line with the functioning of the market.

This depended on a set of material conditions. First, the mild winter of 2022/2023 reduced demand, and further energy savings were made due to increasing prices and the "down a degree" campaign that the state launched after the war. While energy prices increased as in the rest of Europe, the effect was less dramatic than expected, and most interviewees argued that the energy system was managing the situation relatively well. Second, many interviewees pointed out that it is fairly straightforward in terms of technology and investments to replace peat with wood fuels, and that even though peat is a significant source of energy, it would have been harder to replace sources that provide a larger share of Finland's energy supply. This made any physical scarcity seem unlikely. A shortage of fuels would in the end become a question about prices for consumers and industries, and many interviewees argued that this is precisely the kind of issue that is best to leave to the market.

5.4. Alternative problem representations

5.4.1. The peat decline as too abrupt

An alternative way of representing the "problem" of the peat decline was to frame it as so abrupt that it threatened energy security in times of war and crisis. As one interviewee put it: "There is that national security side, we need it at the moment. And at the moment, the world has become something that we aren't used to."[11] In addition to NESA's stockpiling, this called for removing the energy tax on peat to slow down the decline. This problem representation was reiterated by actors such as energy companies, peat producers, consultancies, and associations for forest industry and bioenergy. Many of these actors did, however, express the same assumptions about the ETS, peat emissions, and free competition that underlied the dominant problem representation, and these assumptions ruled out measures that would have a more significant impact on the decline.

This alternative way of representing the problem highlighted the repercussions of the peat decline. First, it was argued that the resulting fuel shortage would harm Finland's economy, especially since the

[7] See Appendix B for the expert opinions.
[8] Interview 18, Director, Oulun Energia/Turveruukki.
[9] Interview 13, Deputy Director General, Ministry of Economic Affairs and Employment.
[10] These forms of peat are often harvested from different layers within the same area, and it is less profitable to extract only bedding and horticultural peat.
[11] Interview 10, Senior Energy Adviser, Finnish Forest Industries.

decline coincided with the end of wood fuel imports from Russia. Many interviewees referred to a report from AFRY (a consultancy) which prognosticated a deficit of up to the equivalent of 5.7 TWh in 2023 [27]. Industrial quality roundwood would be burned for energy which would harm Finland's large and nationally important forest industry severely. Fossil fuel imports would also increase, the costs of which would be transferred to consumers and industries.

It was also argued that letting peat decline meant losing a strategically important fuel. Peat can be stored easier and longer than wood fuels, its main alternative, and this storability was emphasized:

> Energy demand varies year to year depending on how cold it is. And with biomass, you cannot store that much of the fuel. So you are not prepared for any changes, like this stop of the imports from Russia. (…) But peat is quite okay to store.[12]

Moreover, the seasonal variations in wood supply do not coincide with those of peat, and many interviewees argued that this made peat an excellent complement to wood fuels. The strategic importance of a *domestic* fuel in times of war and energy crisis was also highlighted. If peat were left to decline, however, the equipment and know-how needed to extract it would be lost and Finland's energy security compromised. Several interviewees emphasized that harvesting bedding and horticultural peat would become less profitable if energy peat declined. This could lead to a shortage which would harm the farming and agricultural sectors and make Finland dependent on imported alternatives.

When the peat decline was problematized as being too abrupt, the point was rarely that peat should remain in the energy system forever. Even those who wanted to slow down the decline tended to say that peat should be phased out eventually due to its emissions and its inability to compete once these emissions had been priced in. Interviewees also emphasized that there was nothing that *could* be done for peat in the long run anyway now that it was no longer competitive. It was virtually impossible to do anything about the ETS, and national policies to counter it were too costly and would be stopped by the EU anyway.[13] If there was a future for the peat industry, as many hoped, it would not revolve around energy but other products. However, energy peat was seen as necessary in the short term before the transition to other energy sources had come far enough:

> We need to speed up the climate friendly investments on the heating side. But at the same time, for safety reasons, to keep the peat industry alive as long as needed. Because you should have the new solution ready before you ruin the previous one.[14]

One of few possible measures was to remove the energy tax on peat. The idea was that this would slow down the decline, thus giving peat and energy companies some "breathing space," as one interviewee put it.[15] However, everyone agreed that the effect would be minor, considering the ETS. Many interviewees were critical of the tax increase in 2021, which was seen as a symbolic but harmful gesture from the Government:

> The Finnish taxation for energy peat was increased from 3 to 5.7 Euro per megawatt hour. And of course, it is not a game changer. It has a very minimal effect compared to the ETS. But raising the price gave the wrong sign to this sector who is… No one is doing anything, even like replacing an old tractor tire.[16]

Removing the tax, on the other hand, would send an important signal to peat producers that their work is important and that peat is needed in the short term, even if the economic effects would be marginal. But the main argument for removing the tax was that it would be a national decision that was not subject to EU regulations. In other words, removing the tax was one of very few measures that *could* be implemented. Changing or leaving the ETS was not considered as a serious option. It was simply impossible, and with that, the fate of peat as an energy source was ultimately sealed.

5.4.2. Beyond peat and neoliberalism

A second alternative problem representation rejected both the dominant neoliberal rationality and the notion that peat was necessary for energy security. It was only reiterated by a few interviewees from environmental NGO:s and academia, and to a limited extent in documents from the Green Party [63] and the Left Alliance [64]. They argued that energy security could be built around sustainable technologies already in the short term, such as heat pumps, improved energy efficiency, thermal energy storage, and renewables combined with energy sector integration. The problem was that these technologies were not deployed quickly enough, which precluded a truly sustainable transition away from combustion-based technologies. In lieu of policies that promoted sustainable alternatives, it was argued, peat would be replaced with wood fuels. These were cheap and accessible, and the investments required to replace peat with wood fuels comparatively small. The market would inevitably favour wood fuels as it was the cheapest short-term option, and this would reduce Finland's carbon sink and make it hard to reach its climate targets. This transition could also become locked in:

> Many power plants are now in a situation where they have to make investments, and I don't think anything that's not based on combustion would be realistic within the next couple of years. And that's problematic (…). Because, of course, when you invest into some kind of technology now, you are expecting use that technology for the next couple of decades.[17]

To avoid this, proactive state measures were needed to accelerate the adoption of alternatives. This would, however, imply a degree of state leadership that was incompatible with neoliberal rationality and its emphasis on technological neutrality, and this rationality was explicitly questioned:

> It is often said that we should be technologically neutral. (…) And it sounds really good, "let us be neutral." But it means that established technologies are the winners.[18]

As the status quo would benefit established technologies based on combustion, technological neutrality was an illusion, and the supposedly impartial order of the market was rejected.

5.5. How did the representation of the peat decline as a "market problem" affect policy?

So how did the representation of the peat decline and the fuel shortage as a "market problem" affect the legitimacy of different policies? Getting peat out of the ETS or implementing measures that would shield peat from it was widely regarded as inappropriate due to climate concerns and its status as a market-based instrument. In any case, it was considered impossible after the lost battle over classifying peat as renewable. While it would certainly be hard for Finland to do anything about the ETS, it is worth noting that defining this as *impossible* ruled out even attempting it.

A more contested measure was to remove the energy tax on peat. This was the measure that those who wanted to slow down the decline

[12] Interview 1, Head of Consulting, AFRY.
[13] There were two exceptions. The True Finns Party [62] argued that Finland should leave the ETS, and the NESA argued that offsetting the costs of emissions allowances were necessary for preserving a peat supply chain and thereby energy security [28].
[14] Interview 17, Director, Neova.
[15] Interview 4, Expert, Chamber of Commerce.
[16] Interview 2, Manager, Bioenergy Association of Finland.
[17] Interview 22, Researcher, University of Lapland.
[18] Interview 21, Professor, The Finnish Climate Change Panel.

advocated for most actively. But when the decline was represented as a "market problem," it was ruled out. Removing the tax, the argument went, would have been a market-distorting subsidy. In line with the neoliberal rationality that dominates Finnish energy governance, this was considered self-evidently unfair and harmful. It was also argued that removing the tax would delay the transition to more long-term solutions. In fact, many interviewees argued that full technological neutrality would require *raising* the tax, as it was lower than other fuel taxes and "would be much higher if it would follow the general logic of the Finnish energy taxation of fuels."[19] The tax exemption for the first 10,000 MWh of peat used for heating was similarly regarded as a market-distorting subsidy. However, even those who argued that peat was unfairly subsidized via the tax system tended to see this as a minor problem, as the effects were almost insignificant compared to the ETS.

Measures that would steer the transition towards technologies that were not based on combustion, such as increased support for alternative technologies, were also ruled out as they were considered incompatible with technological neutrality.

There was one measure that was considered acceptable even though it affected the energy market. Almost all interviewees agreed that instructing NESA to acquire a peat reserve was an appropriate response to the war and crisis, and it was supported by both the centre-left Marin government [65] and the right-wing Orpo Government that succeeded it [66]. The main reason was the perceived need for insurance against a worst-case scenario, which became urgent when the import of Russian wood chips ended. Moreover, this measure was portrayed as acceptable from a market perspective. Some interviewees argued that the effects on the energy market were negligible: "It doesn't affect really the market, but it helps if something very severe happens."[20] Others meant that the effects were acceptable as there was a market failure to address:

> We are now talking about addressing the tail risks that have a probability of less than one percent, and those are the risks that markets traditionally don't cover well enough. Societally, we want to be 100 percent sure that we have enough energy in case of emergency, whereas the market would only provide us with 99 percent. So that's the marginal part of the market that needs to be addressed with regard to other principles than just pure market optimization.[21]

Other than upholding "free" competition, addressing market failures is one of few tasks that warrants state intervention according to neoliberal economic thought. Thus, framing NESA's reserve as correcting a market failure legitimized it by aligning it with neoliberal rationality. Moreover, Finland has a history of emphasizing security of supply and stockpiling that harks back to Finland's cold war doctrine of total defence [67]. One expression of this is the fact that Finland has a state agency dedicated to security of supply – the NESA itself. In sum, while removing the peat tax was too blatant a break with free competition, NESA's stockpiling could be framed both as less of a distortion and as an insurance (albeit very limited) for energy security.

6. Discussion and conclusion

Surprisingly little has been written about how energy crises affect energy policy discourse, but the studies that do exist suggest that they can result in increased support for incumbent technologies [15], particularly if these technologies are perceived as domestic and the external environment as threatening or uncertain [16]. Finland's peat decline, however, shows that neoliberal rationalities can limit the ways in which established energy interests can invoke energy security to shape discourse and policy, even when they advocate for a domestic source of energy in times of war and energy crisis. In this case, the dominant representation of the peat decline as a "market problem" ruled out measures that would favour peat, as such measures would distort free competition. The one measure that was taken to address energy security, NESAs stockpile, was legitimized by representing it either as merely a minor break with neoliberal rationality, or as fully in line with it in the sense that it corrected a market failure. A less influential representation of the problem was that the decline was so abrupt that it threatened energy security during the crisis, which called for removing the peat tax to slow it down. But even those who wanted to slow down the decline tended to accept the market logic, the classification of peat as non-renewable, and the long-term necessity of phasing it out. The struggle concerned the short term and how the inevitable decline should be managed.

This resignation is a far cry from the discourse of peat advocates in 2010, when they argued that without peat, "the lights will go out, and the 'homes' of Finland will be forever cold", or in 2017, when they framed peat as "a pile of gold" [55]. An important reason behind this shift was that getting peat out of the ETS was widely considered impossible after previous attempts had failed. Thus, when increased allowance prices eroded the competitiveness of peat, it became incompatible with the neoliberal rationality that has dominated Finnish energy policy since the 1990s. As peat combustion was already considered a high-carbon fuel in a climate-conscious country, it now runs counter to two of the most important principles in Finnish energy discourse. Considering Finland's dependency on Russian energy, the war in Finland's vicinity, and the energy crisis, it still comes off as surprising that neoliberalism prevailed and that peat – one of few domestic fuels – was allowed to decline. But reduced energy consumption and the substitutability of peat made an immediate physical scarcity seem unlikely to most actors, and high energy prices was seen as the kind of problem that markets are supposed to handle.

Despite their implications for energy politics, neoliberal rationalities remain a marginal topic in energy research (but see [38,68]). This suggests the need for a research agenda focused on how neoliberalism affects energy politics and transitions. Scholars from other fields than energy have shown that neoliberalism have become widespread since the 1990's [36,37], and it is therefore of limited interest to simply *identify* its presence within energy governance. But questions remain about *how* neoliberalism affects energy politics specifically. This article illustrates that neoliberalism lends itself well to oppose measures that "artificially" increase the competitiveness of particular energy technologies, which suggest that it can work against incumbent technologies in decline. But as Lehtonen [69] points out, the vagueness and flexibility of notions such as state support and subsidies make it possible for incumbent interests to use them strategically and opportunistically, and neoliberalism has indeed been leveraged by incumbents to gain political support and resist phaseouts before, e.g. by the nuclear industries in Russia and Poland [70]. One strategy has been to threaten to close down vital power plants more abruptly than the power system can manage, unless support is granted [4,71]. Neoliberalism can facilitate this by stipulating that the state cannot interfere with such "commercial" decisions, even if they would threaten energy supply [4]. In other words, neoliberalism can be leveraged to support even declining technologies. Pertinent questions for a research agenda on neoliberalism, energy politics, and energy transitions are thus how and why particular versions of what a free energy market entails becomes accepted, what it is that determines if neoliberal rationalities favours or disadvantages incumbent technologies in decline, and how neoliberal rationalities affect energy politics and transitions. Another important question is how neoliberalism affects local communities and workers in the midst of energy transitions. As it is hard to think of any redistributive measures that does not, from a neoliberal perspective, distort the market, a hypothesis for further research is that neoliberalism impedes policies that could mitigate the social and justice-related consequences of phasing out fossil fuels. Moreover, when renewable energy technologies are diffused

[19] Interview 13, Deputy Director General, Ministry of Economic Affairs and Employment.
[20] Interview 9, Director, Finnish Energy.
[21] Interview 5, Chief Policy Adviser, Confederation of Finnish Industries.

and operated under neoliberalism, social and environmental considerations become secondary to competition [72], and this raises the question of how neoliberalism shapes the impact of new "green" infrastructures. More case studies could contribute with depth and detail, but cross-case comparison is necessary for providing a broader understanding of these questions [43].

Another timely item on such an agenda would be the interaction between neoliberalism, energy security, and energy crises. While the Finnish case shows that neoliberalism can limit the political effects of energy security discourse even during wars and energy crises, it is possible that an ever deeper crisis would have increased support for more security-oriented politics, as suggested by developments in other cases [9,16]. Energy crises can also challenge neoliberal state-market relations in a more fundamental way, and it is presently unclear whether or not the current crisis will usher in a lasting "return of the state" in energy politics [14]. Moreover, the ambiguity and malleability of market arguments can allow them, paradoxically, to be aligned with energy security narratives that calls for state interventions [73]. It is thus unclear how neoliberalism interacts with energy security and crises and how this affects politics, and these are also pertinent questions for a research agenda on neoliberalism and energy transitions. More case studies, comparison, and theoretical development are needed for us to understand more precisely how these factors interact. Why is it, for example, that Finland allowed peat to decline while Germany responded to the war with (market-distorting) measures to delay its coal phaseout?

Finally, the case of Finland shows that neoliberalism can work against incumbents who are already in decline, but also that it may favour unsustainable transition pathways, as market actors turn to the cheapest alternatives to maximize profits. As Finland's carbon sink has recently turned out to be much lesser than previously expected [74], it looks increasingly difficult to increase the reliance on wood fuels without jeopardizing Finland's climate targets. Yet, barring further policies, most energy peat will be replaced with wood fuels, as existing path dependencies favour combustion-based technologies [75]. This suggests that more active state measures are needed to steer the transition towards sustainable technologies, as also pointed out by critical voices in the empirical material. The dominance of neoliberalism made this a marginalized position in Finnish energy policy discourse at the time of the study, but a more active role for the state has quickly become a reality in other contexts, as illustrated for example by the massive support to clean energy introduced with USA's Inflation Reduction Act, or the resurgence of state coordination in the UK power sector, which was once a global blueprint for neoliberal restructuring [76]. As the literature on neoliberalism suggests [34], ideas about the proper relation between the state and the market are subject to contestation and change, and there is nothing "natural" or "neutral" about their current configuration in Finland or elsewhere. A research agenda on neoliberalism and energy transitions could shed light on assumptions and rationalities about state-market relations that tend to be taken for granted despite their importance for energy politics. By turning to cases where the dominance of neoliberalism has been disrupted, research could show how it can be challenged and replaced, and open up for proposing alternative transition pathways.

CRediT authorship contribution statement

Hugo Faber: Writing – review & editing, Writing – original draft, Validation, Supervision, Software, Resources, Project administration, Methodology, Investigation, Formal analysis, Data curation, Conceptualization.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Acknowledgements

The funding for this research was provided by the Baltic Sea Foundation.

Appendix A. Interviewees

1. AFRY, Head of Consulting
2. Bioenergy Association of Finland, Manager
3. Bioenergy Association of Finland, Managing Director
4. Chamber of Commerce, Expert
5. Confederation of Finnish Industries, Chief Policy Adviser
6. Finnish Association for Nature Conservation, Policy Officer
7. Finnish Association of Machine Entrepreneurs, Director
8. Finnish Clean Energy Association, Director
9. Finnish Energy, Director
10. Finnish Forest Industries, Senior Energy Adviser
11. Kuopion Energia, (two interviewees) Managing Director and Director
12. Ministry of Agriculture and Forestry, Senior Specialist
13. Ministry of Economic Affairs and Employment, Deputy Director General
14. Ministry of Economic Affairs and Employment, Director General
15. Ministry of Economic Affairs and Employment, Senior Specialist
16. Ministry of Economic Affairs and Employment, Ministerial Advisor
17. Neova, Director
18. Oulun Energia/Turveruukki, Director
19. Regional Council of Eastern Finland, former Development Manager
20. The Finnish Association of Peat Producers, spokesperson
21. The Finnish Climate Change Panel, Professor
22. University of Lapland, Researcher, PhD

Appendix B. Policy documents

See reference list for documents referred to in text.

Party documents

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Swedish People's Party. 2023. Hållbar Energi Skapar Välfärd - SFP:s Energipolitiska Program. https://sfp.fi/wp-content/uploads/2023/03/Energipolitiskt-program_LR.pdf.

Expert opinions on citizen's initiative

Expert opinions are collected here: www.eduskunta.fi/FI/vaski/KasittelytiedotValtiopaivaasia/Sivut/KAA_7+2021_asiantuntijalausunnot.aspx. Opinions from the following organizations have been analysed:

- Ministry of the Environment
- Pohjanmaan Biolämpö Oy
- Finnish Meteorological Institute
- Natural Resources Institute Finland
- The Finnish Climate Change Panel

- Ministry of Economic Affairs and Employment
- Neova
- Finnish Nature Panel
- Ministry of Agriculture and Forestry
- Finnish Energy
- The Bioenergy Association of Finland
- Confederation of Agricultural and Forestry Producers (MTK)
- Finnish Energy Agency
- Finnish Peat Producers Association
- LUT University
- NESA

Data availability

Two types of data were used. First, policy documents, which are publicly available (see reference list and Appendix B). Second, interviews, which cannot be shared for reasons of confidentiality.

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Article III

DOI: https://doi.org/10.1016/j.erss.2026.104632

Energy Research & Social Science 134 (2026) 104632

Contents lists available at ScienceDirect

Energy Research & Social Science

journal homepage: www.elsevier.com/locate/erss

Original research article

In the grip of a dying giant: How neoliberalism and energy security discourse perpetuates Estonia's oil shale dependence

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ARTICLE INFO

Keywords:
Carol Bacchi's WPR approach
Neoliberal governmental rationality
State-market relations
Fossil fuel destabilization phaseout
EU - Russia geopolitics
Oil shale decline

ABSTRACT

Estonia has responded to energy security concerns related to a hostile Russia by supporting uncompetitive oil shale power plants located no more than *2 km* from the Russian border. How did this policy come to appear as necessary and legitimate, and what can this tell us about the politics of phasing out fossil fuels in our time of geopolitical instability? This article uses discursive policy analysis to analyze 21 interviews with key Estonian experts and decision makers and 27 policy documents. It traces a shift that has unfolded in Estonian energy policy discourse between 2015 and 2024, from placing faith in market-based and common EU policies towards emphasizing state interventions to secure domestic fossil capacities. The article explores how the interplay between this shift and the prevalence of a *neoliberal free-market rationality* has ruled out alternative ways of providing energy security and portrayed state support to oil shale power as unfortunate but necessary. It explains how fossil subsidies have been reconciled with free-market neoliberalism, and argues that the result is a contradictory approach to energy security that places faith in a single large oil shale complex located right on the border with Russia. Finally, it explores the wider implications of neoliberalism for energy politics in our time of geopolitical instability, arguing that it can empower incumbent industries and restrict the ability of states to act strategically and preemptively, thereby locking them in a state of continued crisis management where fossil subsidies appear as the only option for providing energy security.

1. Introduction

Two enormous oil shale power stations are located in Narva, no more than two kilometers from Estonia's border with Russia. No longer competitive, they remain operational only because the state has defined them as a strategic reserve vital to Estonia's supply of electricity, and implemented policies to delay their phasing out. Considering the location of the plants and the fact that Russia is perceived as the fundamental threat to energy security, it would be an understatement to call these policies puzzling. Moreover, experts and decision makers in Estonia agree that the plants are technologically and economically ill suited for acting as a reserve, not to even mention their carbon emissions. How and why, then, did delaying the oil shale phaseout become the mainstay of Estonia's approach to energy security? This article argues that the answer can be found in an interplay between *neoliberalism* and a *discursive shift* during the last decade, towards the framing of domestic fossil capacities as necessary for energy security (referring in this context to security of *power supply*). Moreover, it uses this case to theorize about how similar dynamics can shape the future of fossil fuels in our time of geopolitical instability – both in Estonia and on a wider scale.

To set the scene, the last decade has seen fossil technologies starting to decline because of climate policies and competition from cheap renewables. Fossil industries have often responded by framing their technologies as necessary for maintaining energy security, in order to gain state support and delay phaseouts [1]. This has proven effective, particularly in uncertain times [2], such as the current period [3]. But supporting fossil industries runs counter to a key governing principle in contemporary capitalist societies, which is to let *free competition on the market* allocate resources and phase out uncompetitive enterprises. Once hailed as a cornerstone of capitalist growth and competitiveness [4], unprofitable fossil technologies are becoming incompatible with this "neoliberal" rationality. Thus, there are cases where free competition has trumped both security-related concerns and the political influence of fossil industries [5]. The future of fossil industries is thus contested and uncertain, hinging on how free-market neoliberalism and energy security are constructed and negotiated. But research is lacking on the interplay between neoliberalism and the framing of declining fossil industries as necessary for energy security. Energy security and free competition are both vague concepts that can be invoked strategically to further different agendas. Previous research has shown that arguments pertaining to free

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https://doi.org/10.1016/j.erss.2026.104632
Received 22 August 2025; Received in revised form 12 December 2025; Accepted 24 February 2026
Available online 16 March 2026
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competition are ambiguous enough to be used by *both* sides in conflicts over energy transition policies [6], and calls have been made for further research on how they are used to influence the politics of phasing out fossil fuels [5]. Energy security is also an ambiguous concept that can be framed in different ways [7], to further different interests [8]. Yet, most research on energy security has focused on *defining* and *measuring* it (e.g. [9,10]), rather than on questions of politics. The studies that do engage with the politics of energy security tends to focus on international relations and how foreign states are perceived, e.g. as threats or partners [11–13]. Less has been written about how energy security is invoked to delay the phasing out of declining fossil industries [14]. Moreover, few studies have focused on how *neoliberalism* interacts with the framing of these industries as necessary for energy security.

The present article addresses this gap in the previous literature by turning to the case of Estonia's oil shale decline, in which the tension between "free market" neoliberalism and security-oriented geopolitics is both unusually urgent and particularly pronounced. The country has distanced itself from its Soviet past by becoming one of Europe's most market-oriented and neoliberal societies [15]. At the same time, security is a dominant concern in the formerly occupied country, and the threat of sabotage against energy infrastructure and even invasion looms large in public discourse. This tension has become acutely relevant in relation to oil shale, which has become hopelessly uncompetitive but remains the mainstay of Estonia's approach to energy security. Thus, it offers a prime opportunity to explore the discursive construction and negotiation of free competition and energy security, and how this affects declining fossil industries.

To this end, the article draws on Carol Bacchi's [16,17] discursive policy analysis. The latter is both a theory and a method, which highlights how discourse makes certain measures appear as legitimate or even necessary while ruling out others, and how this in turn depends on particular historical developments and rationalities (such as neoliberalism). The research question that guides this article is thus *how Estonia's policy of delaying the oil shale phaseout came to appear as necessary*.

The article traces a shift that has unfolded in Estonian energy policy discourse between 2015 and 2024, from placing faith in market-based and common EU policies, markets, and infrastructures, to emphasizing state interventions to secure *domestic* capacities. It shows how this shift together with the prevailing influence of neoliberal ideas ruled out alternative ways of ensuring energy security, thus portraying a continued reliance on oil shale as an unfortunate but necessary precaution. The article shows that the result is a contradictory approach to energy security that places faith in a single large oil shale complex that is located right on the border with Russia. Finally, it explores the wider implications of neoliberalism in our time of geopolitical instability, arguing that it can empower incumbent fossil industries and restrict the ability of states to act strategically and preemptively, thereby locking them in a state of continued crisis management where fossil subsidies appear as the only option for providing energy security.

2. Background

Oil shale is a solid fossil fuel comparable in many ways to lignite, that has been mined in Estonia for over a century. It can be refined into liquid *shale oil*, which the Estonian industry exported to Germany in the 1930s. It can also be turned into household gas, which the industry supplied Leningrad with after the Soviet takeover [18] (p. 133). As the emerging USSR natural gas industry made shale gas redundant while demand for electricity grew, the oil shale industry was reoriented once more. Two gigantic thermal power plants, the Balti Elektrijaam (1430 MW) and the Eesti Elektrijaam (1615 MW), were commissioned in Narva between the late 1950s and early 1970s (see Picture 1 and Picture 2). They fire solid oil shale, and are often referred to as the "Narva plants". Up until the 2010's, they accounted for almost all of Estonia's power production [19].

The Narva plants epitomized the Soviet vision of modernity, in which electrification was a centerpiece (illustrated in Picture 3). But Estonia's relation to oil shale was ambiguous. The industry was a symbol of Soviet colonialism and environmental degradation, most of its products were sent elsewhere, and Moscow's policy was to "russify" it. It is no coincidence that the industry became a key point of contention for environmental protests in the late 1980s, which turned into a catalyst for independence [20]. Simultaneously, many saw it as a way of preserving unique science and technology within Estonia [18] (p. 295ff). After independence, it provided a fully domestic power supply and much-needed revenue from exporting shale oil.

After the Soviet Union, the Baltic states continued to be a part of the post-Soviet IPS/UPS power grid. Frequency regulation, one of the main technical challenges of grid operation, was thus managed largely by Russia. This dependency was considered risky, and different alternatives were explored. In 2018, the final decision was taken to desynchronize the Baltics from the IPS/UPS, and to join the Continental Europe Synchronous Area [21]. This large and costly infrastructural project was supposed to be completed in late 2025, but the deadline was expedited after Russia's full-scale invasion of Ukraine. The Baltics were thus synchronized with continental Europe already on February 9, 2025.

Producing electricity from oil shale is both carbon-intensive and inefficient. By the late 2010s, ageing technology and infrastructure, competition from renewables, and CO_2 prices within the EU Emissions Trading Scheme (ETS) had made oil shale power unprofitable [22]. When CO_2 prices began to increase massively around 2019, this spelled the doom for oil shale electricity, which started to decline rapidly. As Fig. 1 illustrates, production from biomass, solar, and wind have increased, but not enough to cover the oil shale decline. This turned Estonia from a net power exporter to a net importer (despite falling domestic consumption under Covid-19), which raised concerns over security of electricity supply. Despite the declining production, 1165 MW of oil shale power is kept operational due to government interventions – ready to produce electricity when prices are high enough or if necessary to ensure supply [22].

The oil shale industry is located in Ida-Virumaa, a marginalized region in Estonia's northeast that is heavily dependent on the industry. The region is home to a Russian-speaking minority, which has been subject to fear and marginalization by central authorities [24]. Concerns have included social unrest as well as Russia using this as a pretext for some kind of interference. These concerns are decreasing, however, as social unrest has been absent [25].

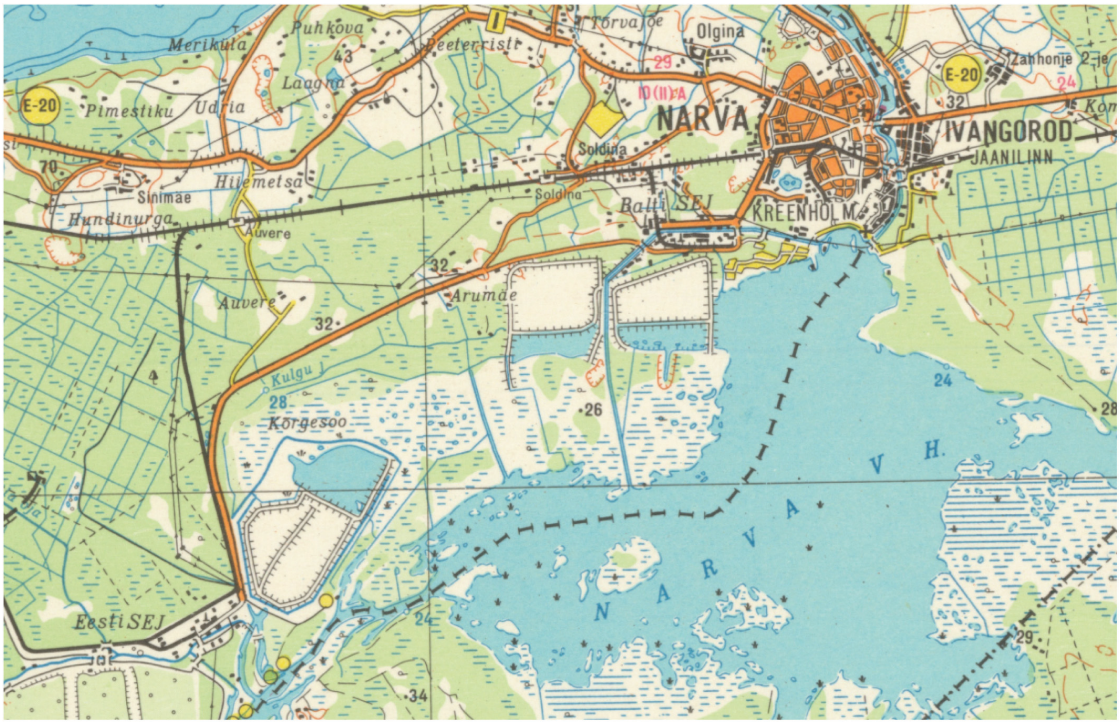
The largest oil shale company in Estonia (and the world) is state-owned Eesti Energia, founded in 1939. In 2022, it produced almost all shale-based electricity in Estonia, 39% of the oil, and mined 59% of the oil shale [26]. Private owned Viru Keemia Grupp (VKG) was the largest producer of oil (52%), and second in mining (32%) [26]. The third largest company, Kiviõli Keemiatööstus, is considerably smaller.

2.1. The policies of delaying the oil shale phaseout

In 2019, the Estonian Government ordered Eesti Energia to keep at least 1000 MW of domestic dispatchable generation available until the end of 2023 [27].[1] This policy was renewed in 2022, to be effective until the end of 2026 [28]. These decisions were made because Eesti Energia would otherwise phase out the Narva plants on commercial grounds. This raised two concerns in 2019: energy security and unemployment in Ida-Virumaa. By 2022, energy security was the overriding concern.

These policies were easy to implement, as the Government could simply issue instructions to its own company. But keeping the Narva blocks operational was costly for Eesti Energia. This led to calls for compensating the company. In the EU, measures to reimburse capacity owners for providing security are called *capacity mechanisms*, and the mechanism that was discussed in Estonia was a so-called *strategic reserve*

[1] The current 1165 MW is needed to fulfill this obligation during maintenance.



Picture 1. Narva and its power plants (labeled "Eesti SEJ" and "Balti SEJ"). The dashed line indicates the border with Russia.
Source: Republic of Estonia Land and Spatial Development Board.



Picture 2. Balti Elektrijaam in 2024. Or "The remains of a dying giant", according to a Google Maps review. Only one block (192 MW) is still in commission. Author's photo.

[29]. This means that the state pays for a specified level of capacity to be kept operational. The supported capacity does not participate on the market unless there is a shortage. Effects on power prices are thus reduced, supposedly minimizing market distortions and negative effects on investments in other capacities. As a strategic reserve entails state aid, the state has to get approval by the European Commission after showing that a reserve is necessary for energy security[2] and analyzing and removing market distortions that may have caused the situation. Preparations for Estonia's strategic reserve started in 2019, it was decided to start implementation in 2022, and it will be effective from 2027 [30].

[2] Using the common European Resource Adequacy Assessment methodology.



Picture 3. *Monument Energia.* Installed 1982 outside the entrance of Balti Elektrijaam.
Author's photo.

3. Theory

3.1. Analyzing problem representations

This article draws upon Carol Bacchi's [16,17] "What's the problem represented to be?" (WPR) approach to discourse analysis. The WPR approach builds on a number of discourse-theoretical premises, from which it derives a set of analytical questions to analyze how certain policies are represented as legitimate while other are marginalized.

First, following Foucault [31,32], the WPR approach highlights that discourse defines the *problems* that policies are supposed to solve. These problems are not taken to be naturally given, but contested discursive "problem representations" that can be defined in different ways. Problem representations make certain measures appear as necessary and legitimate, while ruling others out. Thus, as the first step in answering the research question of *how Estonia's policy of delaying the oil shale phaseout came to appear as necessary*, this article asks what the problem that this policy is supposed to solve is represented to be. This focus on problem representations is not do deny the importance of "real" issues or "material" factors for influencing policy, but rather to stipulate that we make sense of them through socially constructed systems of meaning. Thus, this article does not study the effect of material factors *directly*, but it does show how they are problematized in energy policy discourse.

A second premise is that problem representations draw upon and reproduce certain underlying assumptions without which they would not make sense. Some assumptions are derived from *rationalities of government*, which can be understood as modes of reasoning that appeal to some kind of expertise, science, or body of knowledge to legitimize certain ways in which to represent problems [16] (p. 6). This article defines neoliberalism as such a rationality, discussed in the next section. Moreover, informed by Foucauldian "genealogy", WPR highlights that the process in which some problem representations are elevated to official policy is the result of particular historical developments [17] (p. 46). Thus, to gain deeper insight into how delaying the oil shale phaseout came to appear as necessary, the article traces the assumptions, rationalities, and historical events that has enabled the dominant problem representation.

Finally, problem representations legitimize policies by ruling out alternative ways of understanding the issue, in ways that are often implicit and unquestioned. This comes with an imperative for researchers to highlight alternative ways of problematizing the issue that have been side-lined. The aim is not to map dissenting voices empirically, but to critically interrogate dominant problem representations and to shed light on their silences and internal contradictions.

Based on these discourse-theoretical assumptions and drawing on Bacchi [16], this study asks five questions to explore the problem representation that underlie Estonia's policy of delaying the oil shale phaseout:

1. What was the problem represented to be in Estonia's policy of delaying the oil shale phaseout?

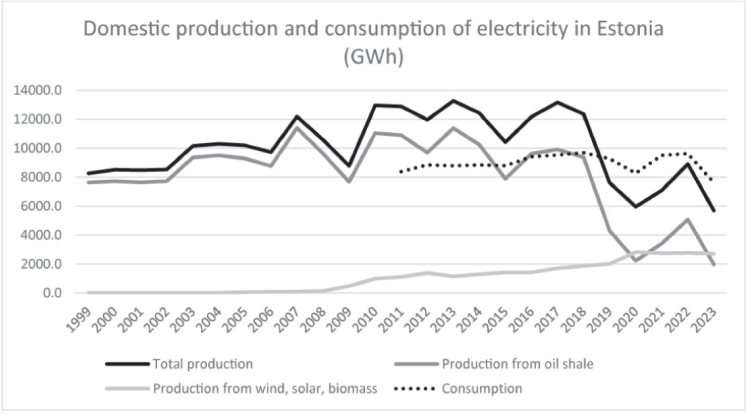


Fig. 1. Domestic production and consumption of electricity in Estonia (GWh).
Source: Statistics Estonia [19,23].

2. What historical developments made it possible to produce and disseminate this problem representation?
3. What assumptions and rationalities underlay this problem representation?
4. What are the implications for the legitimacy of different policies? Which measures appeared as legitimate, and which were ruled out?
5. What critical perspectives and alternative ways of problematizing the issue were side-lined?

The practical application of these questions is discussed in the methods and material section (Section 4).

The WPR approach, like all methods, has its limits. First, it focuses on dominant problem representations and deep-seated assumptions that are *widely shared* among different stakeholders and constitute a kind of "common sense" in policy circles. This comes at the expense of not highlighting the standpoints of individual actors or how they form discourse coalitions, like e.g. Argumentative Discourse Analysis does [33]. Moreover, compared to approaches such as Critical Discourse Analysis [34], WPR offers little in terms of micro-analysis of how texts and speech are constructed linguistically. Furthermore, its focus on particular policies is not as conducive to exploring the formation of broader identities and political movements as approaches like Political Discourse Theory [35]. What the WPR does offer, however, is an account of how problem representations make certain policies appear as necessary and the historical roots of these problematizations, which makes it suitable for answering how Estonia's policy of delaying the oil shale phaseout came to appear as necessary.

3.2. Neoliberal rationality of government

Originally an economic and political theory, neoliberalism can be traced back to the Austrian and Chicago schools of economic thought. It entered mainstream politics in the 1970s, after the post-war Keynesian economic order had been undermined by global economic restructuring and oil crises. Since then, neoliberalism has turned from a theory espoused by intellectuals into a rationality of government that has increasingly come to define state-market relations, even if the term itself is rarely used. In Estonia, neoliberal ideas were spread through communication networks with Scandinavia that were enabled by the perestroika reforms [36]. Espoused by Swedish trade associations and the neoliberal think tank "Timbro", they were picked up by many of those who would become key officials after independence, seen as a way of aligning Estonia with the West [15]. The ensuing neoliberal transition was particularly thorough, and Estonia is often referred to as a poster child of free-market reforms.

The neoliberal vision is one of a "de-regulated" society where the state has been reigned in and where *free competition* is elevated to a governing principle, presumably expanding individual freedom as well as economic efficiency, growth, and progress [37,38]. But in practice, creating and sustaining free competition requires regulation, supervision, and state intervention. Moreover, deregulation often results in protracted crises that forces states to engage in continued crisis management [39] (p. 26). Thus, despite the rhetoric of deregulation, neoliberalism does not necessarily result in less government, but in a *particular form* of it [38,40]. Rather than rolling back the state, neoliberal governance entails using the state to promote competition – and to patch things up when deregulation fails.

In the context of energy policy, the principle of free competition is typically translated into calls for *technological neutrality*, meaning that the state should refrain from "picking winners" and instead let the market choose which technologies to invest in [6,41]. Interventions are only acceptable to the extent that they *promote* free competition by addressing a market failure – such as the ETS, that puts a price on carbon emissions. Except for addressing market failures, neoliberalism comes with a strong baseline aversion towards subsidies.

Another implication of elevating free competition to a guiding principle is that society as a whole is recast in terms of market relations. Non-market institutions that are not necessary for upholding property rights and competition should either be privatized, abolished, or reinvented in "market-like" ways [42]. This does not necessarily rule out state ownership of enterprises, as long as these enterprises are *governed like regular private companies*, tasked with generating profit in competition with others. Applying this principle to national energy companies is a core feature of so-called "de-regulated" power markets – such as Estonia's.

4. Methods and material

The primary empirical material consists of 21 interviews. As problem representations are produced and disseminated through discursive practices at multiple sites [17] (p. 5), the aim was to include key experts and decision makers from all of the most central organizations in Estonian energy governance. The strategy used to identify them consisted of consulting previous research and reports on Estonian energy policy, peer debriefing with energy scholars and political scientists, and asking interviewees for advice. The organizations include Ministries, oil shale and energy companies, public agencies, business organizations, unions, and academia. Most of the interviewees have worked at several of these organizations. They fill key roles such as (past or present) CEO:s, Ministers, Chairs of Boards, Director Generals, Senior Advisors, Secretary Generals, and Directors. Because of their key positions, it would be easy to identify them if their full titles were disclosed. Titles are therefore kept deliberatively vague, such as "manager" and "expert." See (Appendix A) for a list of interviews. To help with the task of identifying alternative ways of problematizing the issue, a second category includes representatives of NGO:s, renewable energy associations, and local communities in Ida-Virumaa.

The interviewees were selected to reflect the expert knowledge and formal standpoints of their organizations. They were interviewed in their capacity as professionals, and their personal views were not in focus. The interviews were held between June and December 2024. All except one were recorded and transcribed.

The article followed the common practice of "triangulation" [43]. The interviews were thus complemented by 27 policy documents that provide an insight into Estonian oil shale politics. They were used to ensure that the problematizations and assumptions in the interviews were echoed in central policy documents. They were also key to analyzing their history (Question 2). Three week-long field trips to Narva, Tallinn, and oil shale towns and sites in Ida-Virumaa were made to provide contextual knowledge.

The empirical analysis was structured around the five analytical questions presented above. Question 1 was a fairly straightforward inductive exercise of identifying how problems were represented in the material. Question 2 inquire into the historical events that enable (and constrain) problem representations, and it was answered both through reports that documented, and interviewees that experienced, historical developments. Question 3 delves deeper into the assumptions and rationalities that underlie these representations. A large number of coding categories were generated inductively and later grouped into three sets of assumptions. This was an iterative process of reading and going back and forth between coding categories and the material. Question 4 tied the analysis together by inviting reflection on how the dominant problem representation made certain policies appear as legitimate, while others were ruled out. While such an analysis shows how policies are legitimized, it does not provide a full account of all the causal relationships that influence policy. Question 5 called for a critical reading of the problem representation in the light of critical voices in the empirical material as well as previous research and theory.

5. Results: stuck with oil shale

The problem representation that legitimized Estonia's policy to delay

the oil shale phaseout was that Estonia needed at least 1000 MW of dispatchable power capacity within the country to ensure security of supply and that there were no feasible alternatives to oil shale, at least not in the short term. It was widely acknowledged that oil shale is costly and polluting. But in lieu of alternatives, Estonia was stuck with it for the time being. As one interviewee put it, "oil shale is what we have, and we have to use it."[3] No longer competitive on the market, oil shale had to be supported by the state, which was ultimately responsible for security of supply.

This problem representation was reiterated in one way or another by almost all of the respondents, echoed in central policy documents, and explicitly referred to as the reason for delaying the oil shale phaseout. There were no other problem representations that were reiterated widely enough in the empirical material to be categorized as serious contenders or that interviewees claimed had any direct effect on policy. A few respondents and documents did however question parts of its underlying assumptions (further discussed in Section 5.4).

This representation of the problem was quite different from how energy security was problematized less than a decade earlier in Estonia. The analysis is therefore presented chronologically, with the next section tracing earlier problematizations and the historical developments that instigated this discursive shift (Question 2). The subsequent Section 5.2 draws upon this historical analysis and delves deeper into the assumptions that underlie the current problem representation (Question 3). Section 5.3 ties the analysis together by discussing the implications for policy (Question 4), and Section 5.4 concludes with critical perspectives and alternative problem representations (Question 5).

5.1. The history of losing faith in the common electricity market

This section traces a shift in how energy security was problematized in Estonia, from trusting market-based approaches, the EU, and power generation in other member states, to ensuring domestic capacity through state interventions. Estonia's Transmission System Operator (TSO) Elering has published annual reports since 2015 [44–52], and more detailed "security of supply reports" since 2016 [21,53–59]. As Elering is formally responsible for Estonia's energy security, these reports provide an excellent opportunity to gain insight into the shifting discourse. Other key policy documents and interviews with respondents who experienced the shift were used to complement Elering's reports.

5.1.1. 2015–2018: a market-based and regional approach

In this period, a market-based and regional (EU-focused) approach to energy security prevailed. This approach can be traced back to the institutionalization of neoliberalism into Estonian energy policy in 2010–2013, when the TSO Elering was separated from Eesti Energia and the power market was opened up for competition. These years saw the leadership of Elering and Eesti Energia, arguably the two most influential organizations in energy policy, taken over by young professionals educated in economics and business administration, cementing the institutionalization of neoliberal ideas (see [60]).

Between 2015 and 2018, Elering described *market distortions* as the main energy security "problem". The reasoning was that new investments in power generation were necessary, as consumption was increasing while old capacities were decommissioned. But on a common European energy market where subsidies, capacity mechanisms, and price caps distorted price signals (by lowering prices), these investments were hampered. Removing market distortions across the EU was therefore key [53] (p. 8). If the rest of Europe would only embrace the market approach, like Estonia, power prices would reach "exactly the level needed to ensure that the necessary generation capacity or consumption management can enter the market" [21] (p. 74). The textbook neoliberal reasoning was that this would ultimately be the cheapest option for consumers, industry, and society at large.

Capacity mechanisms were considered market-distorting and thus counterproductive. Elering even made a proposal to discourage other countries from using them [54] (p. 96). Subsidizing domestic alternatives to firm capacity, such as energy storage and offshore wind power, was also considered market-distorting, and several interviewees argued that the neoliberal approach explains Estonia's lack of substantial policies to support them.

A crucial aspect of this representation of the "problem" was that energy security was conceptualized as a regional, rather than national, issue. As the European electricity market is interconnected, the argument went, Estonia's security of supply was inseparable from that of the wider region:

> security of supply in the common European energy market is a transnational issue and developments in the region and Europe as a whole are key. In Estonia, it is not possible to make investments in power plants on a scale that would guarantee the region's production security.
>
> [54] (p. 70)

To be effective, measures had to be regional. A key assumption behind this perspective was that interconnections were no less reliable than generation capacities, and this was stated repeatedly, e.g.: "In terms of security of supply, interconnections are no less secure than power stations in Estonia" [53] (p. 8). This was also reflected in analyses and scenarios that assess future security of supply, which treated interconnections exactly like domestic dispatchable capacity. Import dependency was not problematized at all, even though it was estimated that Estonia would depend on a large share of imports for covering its peak consumption after the Narva blocks were decommissioned.

5.1.2. 2019–2021: from the regional market approach to domestic capacity

This period saw a rapid shift towards the notion that the state should guarantee that there was dispatchable generation *within Estonia*, epitomized in the instruction to Eesti Energia to keep 1000 MW of oil shale operational. The market-based and regional approach was still considered superior in terms of cost-effectiveness, but this point was now toned down, and it was conceded that a capacity mechanism would be necessary "if the energy-only electricity market does not provide an adequate level of security of supply" [55] (p. 10). In 2020, this "adequate level" was explicitly defined as having 1000 MW of firm capacity in Estonia [56] (p. 72), a definition that is still used in official strategies [61].

The position that Estonia needs 1000 MW of domestic dispatchable capacity was based on a simulated scenario in which Russia suddenly disconnected the Baltic states from the IPS/UPS. They would then have to operate as an isolated Baltic Synchronous Area, until they could be synchronized with continental Europe. This would mean that the interconnections to the Nordic countries would be limited to 400 MW for safety reasons, as a small Baltic Synchronous Area would be unable to handle sudden failures of larger capacities. The likelihood of this scenario was described as increasing due to the "situation" in Russia, and planning for it as Elering's "central priority" [49] (p. 5). Elering expected that this scenario could be handled until 2030. After that, economic analyses prognosticated that oil shale phaseouts would bring dispatchable generation below 1000 MW, leading to shortages during peak hours. Without further explanation, or even an estimation of the amount of missing capacity, it was concluded that Estonia needed the conspicuously round number of 1000 MW. No explanation was given as to why e.g. additional interconnections could not be counted upon in this scenario.

In addition to the risk of a sudden disconnection from the IPS/UPS, several other developments contributed to the discursive shift towards domestic capacity. First, when the carbon price increased, Eesti Energia started to communicate that they would soon phase out oil shale power unless something was done. This created a sense of urgency among

[3] Interview 2.

policymakers, as a lack of domestic capacity was no longer a hypothetical scenario. It also raised fears over social unrest in Ida-Virumaa, even if interviews and previous research [25] show that these fears have decreased since then. Second, the *planned* desynchronization from the IPS/UPS was drawing closer, and the fragility of the interconnections between the Baltics and the continental power system that they would join became more salient. Third, many interviewees argued that Covid-19 had shown that during crises, even EU member states tended to prioritize their own constituencies over international agreements. Energy trade could be halted, which highlighted the importance of domestic fuels and capacities.

By 2020, Elering had also decided that a strategic reserve would be the most appropriate capacity mechanism, based on a consultancy report [29]. This was considered the least market-distorting option, as strategic reserves only participate on the market during emergencies [62]. The European Commission also preferred strategic reserves for this reason, making implementation easier. However, as more than 1000 MW oil shale was expected to be competitive until 2030, Elering did not yet propose the implementation of a strategic reserve [50] (p. 23).

5.1.3. 2022–2023 the shift is consolidated

The discursive shift was consolidated after Russia's full-scale invasion of Ukraine in February 2022. The security of supply situation was described as "more unpredictable (…) than ever before" and the risk of Russia disconnecting the Baltics from the IPS/UPS was highlighted [58] (p. 11). The possibility of sabotage against infrastructure, particularly interconnections, was also emphasized. Several interviewees referred to the Baltic connector gas pipeline disruption in 2023, by a ship registered in Hong Kong:

> if we will lose the connection with Finland and Sweden for any reason, maybe some Chinese ship coming and destroying it, then Estonia could have a blackout.[4]

Shortages of gas and other fuels became another increasing concern after the energy crisis and decreased Russia-EU energy flows. In contrast with earlier periods, Elering also started to describe dependency on imports, even from other EU countries, as a problem [59] (p. 107).

These risks were taken as arguments for a more active state, which created tensions as market-based solutions were still held high. Elering managed this tension by simply ceasing to elaborate on the market dimension, only mentioning it in brief. Moreover, economic analyses now showed that *all* of the remaining Narva blocks would be uncompetitive already 2027, just when Eesti Energia's instruction to keep 1000 MW would expire. Domestic capacity would then drop dramatically. A prolongation of Eesti Energia's instruction seemed unlikely, since the company had been successful in communicating its discontent with the allegedly unsustainable costs for keeping the plants. These costs had been increasing since 2019, in tandem with carbon prices. Almost all interviewees were aware of Eesti Energia's disapproval, and certain that the instructions would not be renewed. Thus, Elering proposed the implementation of a capacity mechanism by 2027 [58] (p. 77).

5.2. Assumptions and rationalities

Drawing on the historical analysis, this section goes deeper into three sets of key assumptions and rationalities that underlie the current problem representation: that there were no alternatives to oil shale, that oil shale was technically and economically unsuitable but had to be supported anyway, and that the state was responsible for providing this support.

5.2.1. "Oil shale is what we have" – the lack of alternatives

One set of key assumptions behind the idea that Estonia needed 1000 MW of oil shale had to do with the notion that other alternatives were either insufficient, insecure, or not yet available.

The alternative to a power system based on dispatchable capacity is one based on renewables, storage, flexible demand, and interconnections. Such a system was considered feasible when the market-based approach dominated. But it had now become considered common sense that there were no secure alternatives to domestic dispatchable capacity, and this assumption was expressed by most of the interviewees and in central policy documents (e.g. [59,61]).

Renewables were considered vital for delivering low-cost electricity, but also as unsuitable for providing security of supply due to their intermittency, especially since peak loads tend to occur in cold weather when there might be little sun and wind:

> When it's very cold, and there is no sun, and no wind, and we have −30 degrees. That's the reason why we need oil shale.[5]

Storage and flexible consumption were described as key for balancing supply and demand within the day. But not for providing power over longer periods (weeks). Most respondents agreed that this would require unrealistic amounts of storage, and that flexible consumption was only realistic for short periods.

A key part of any system that is not based on dispatchable capacity is the ability to import electricity when domestic production cannot cover demand. As the conditions for renewable electricity are always present somewhere, given a large enough interconnected area, interconnections can provide a reliable supply over time. But interconnections had now become considered insecure in Estonian energy policy discourse. Sabotage remained a major concern, and the unintentional technical failure of Estlink 2 in the beginning of 2024 added to the perceived fragility of a system based on interconnections.[6]

Another concern was that a situation could arise in which capacity was lacking in the whole region, as firm capacity has decreased in Estonia's neighboring countries as well. As discussed above, Covid-19 had already shown that other states were likely to put their own interests first during crises. In essence:

> It is nice to have connections, but if there is a crisis everywhere, you might have friends, but home is more important.[7]

Many respondents believed in replacing oil shale with other dispatchable capacities, firing imported liquefied natural gas (LNG). Gas plants can ramp up and down quickly and efficiently, making them more useful than oil shale for balancing a system based on renewables. With roughly half the emissions of oil shale, they would also be less polluting and less burdened by the carbon price. Thus, most respondents thought that gas would be both cheaper and more useful as a power source of last resort. It was also argued that gas plants could fire cleaner fuels, once available.

But replacing oil shale with gas would take a long time. Large capital costs and fierce competition discouraged market-based investments. Gas power would thus need state aid, which entails an uncertain and lengthy process of planning, getting approval from the European Commission, and making a public tender – before construction would even begin. Even when Estonia got a special derogation from the state aid rules to procure 500 MW of gas power to provide frequency regulation to support desynchronization, this (still ongoing) project was protracted [63]. Other projects would be even more complicated. Thus, gas was seen as a likely successor of oil shale, but not in the near term.

In short, interconnections were considered insecure, gas not yet available, and renewables, storage, and flexible consumption insufficient. Thus, the only alternative that remained, for the time being, was oil shale.

[4] Interview 10.

[5] Interview 1.

[6] Estlink 2 failed again on Christmas Day 2024, this time due to sabotage.

[7] Interview 16.

5.2.2. The drawbacks of oil shale

A second set of assumptions had to do with the competitiveness and technological suitability of oil shale. Almost all interviewees held that oil shale was unable to compete on an open market, and this was reiterated in central documents (e.g. [22,59]). But in lieu of alternatives, this became an argument for supporting oil shale rather than letting it decline.

Almost all interviewees believed that the Narva plants would be phased out in the 2030s or 2040s because of their uncompetitiveness. As discussed in Section 5.1, this understanding was cemented around 2019, when ETS prices increased. But the failing competitiveness of the plants was also attributed to their age, for example by referring to them as "old Soviet Union technology."[8] Another issue was that the industry depended on economics of scale and continuous operation. As a private oil shale company executive put it:

> Oil shale electricity production cannot be turned up and down quickly. There are mining operations. It's not like "oh, it was a warm winter. We didn't order anything". That's a huge machine working, that you need to keep on. From that angle, it's definitely not the best solution for reserve power.[9]

Furthermore, the Narva plants were designed to operate as a baseload, not to be ramped up and down. It takes a long time to warm them up which is costly in itself, and ramping them up and down increases mechanical stress, which translates into high maintenance costs. But with a large share of low marginal cost renewables, power prices are both volatile and usually too low for operating the plants for long consecutive periods. As an executive at Eesti Energia put it:

> We have quite volatile energy prices and not only during the week, but even during the day. And those ups and downs… The power stations are built for baseload, so they are not designed to work that way.[10]

Many interviewees also pointed out that slow-ramping baseload plants are much less useful for Estonia than fast-responding capacities as they are not suitable for frequency regulation – the crucial task of countering sudden shifts in supply or demand.

For these reasons, almost all interviewees agreed that oil shale was ill suited both as a reserve and for balancing a system based on renewables. But they also agreed that lacking alternatives, oil shale was necessary to provide energy security at the moment.

> We have oil shale, we have a source of energy, but it costs a lot of money to keep them ready for security, and of course somebody has to pay for it.[11]

Despite its problems, Estonia was stuck oil shale. And lacking alternatives, the uncompetitiveness of oil shale became an argument for supporting it rather than letting the market phase it out.

5.2.3. State-market relations

A third key assumption behind Estonia's policy to delay the oil shale phaseout was that the state should intervene to ensure security of supply, rather than leaving it to the market. But the neoliberal belief in "free" competition and undistorted markets was still widely held. Both of these conflicting views were expressed in the majority of the interviews and in central documents (e.g. [61,62]).

Many interviewees resolved this contradiction by arguing that while market-based solutions are preferable, the energy market was *already* distorted, to the disadvantage of dispatchable capacities. Supporting dispatchables was, unfortunately, necessary to compensate for these distortions. First, it was pointed out that the common EU market was permeated with state support in the form of capacity mechanisms and renewable energy subsidies, despite its purpose to facilitate free competition:

> We have a very strange system in Europe. We have the most market-liberal model on the globe, super liberal. And in addition to this, a massive injection of state aid. It's a strange model.[12]

These interventions lowered power prices by increasing supply, thus blocking investments in dispatchable capacity. Moreover, price caps kept prices far below the market value of electricity in hours scarcity, negating the advantage of being dispatchable those hours. It was also pointed out that a free-market approach had been tested in Estonia, but failed to deliver dispatchable generation because of distortions:

> We really tried to give market participants a chance to make market-based investments, and only now are we introducing a capacity mechanism (…). The common understanding is that if countries do not intervene, then markets could theoretically deliver all the investments by themselves. But this concept is ruined by a long list of things which distort the pure investment signals on EU markets.[13]

As discussed above, the idea that the EU market was plagued by distortions was central already in the period dominated by the market-based and regional approach. But while the answer back then was to encourage others to follow the free-market example set by Estonia, it was now time to adapt to the situation and for the state to step in and support dispatchable capacities – oil shale, in practice.

The tension between the neoliberal laissez-faire ideal and state responsibility was also resolved by downplaying the negative effects of Estonia's interventions:

> We have already regulated the market with taxes and environmental regulations. And if we add just one additional component to this package of regulations, then yes, we are extending the lifetime of some energy blocks. But it does not disturb the big picture.[14]

These arguments stand in stark contrast with the earlier description of such interventions as harmful and counterproductive. This shows the ambiguous and malleable nature of neoliberal arguments, as they were readily adapted to the new political reality.

In essence, free competition was still hailed as superior, and Estonia as a champion of market liberalism. But as the rest of Europe did not uphold a proper division of responsibility between the state and the market, Estonia had no choice but to follow suit. Interventions by the Estonian state, which were previously strongly discouraged, were now portrayed as harmless.

5.3. (De)legitimizing policy

This section ties the analysis in the two preceding sections together by reflecting on how the dominant problem representation made certain policies appear as legitimate while others were marginalized. In the period when the market-based and regional approach dominated, capacity mechanisms were de-legitimized because of their market-distorting effects. This also applied to measures that would accelerate other options for providing security of supply, such as energy storage and offshore wind power.

By 2019, the discourse around energy security was shifting. Interconnections and foreign capacities were considered increasingly unreliable, and the importance of firm capacity within Estonia was emphasized. It became widely agreed that oil shale was no longer competitive, but also that there were no viable alternatives. The 2019

[8] Interview 9.
[9] Interview 16.
[10] Interview 12.
[11] Interview 2.
[12] Interview 9.
[13] Interview 13.
[14] Interview 12.

policy of instructing Eesti Energia to keep 1000 MW oil shale operational was thus welcomed by most interviewees as a quick and effective way of managing the difficult situation. While it was unfortunate that the state had to step in, and that oil shale with all of its drawbacks had to be supported, the policy was never intended to be a permanent solution anyway. Thus, it was initially accepted as a short-term measure, even by those in Eesti Energia's management who were concerned over the costs for the company:

> It is not a long term solution. Of course you can put it on Eesti Energia, but somebody finally has to pay for it. So if we just pay less dividends to the state you can do it for some time, but it is not a long term solution.[15]

The years that followed saw Eesti Energia's costs for maintaining the plants mounting, and the company successfully spread the message that the situation was unfair and untenable. The idea that the policy was "too costly" for Eesti Energia calls for some reflection. In essence, it supposes that a state-owned company can be treated unfairly and have a right to compensation from its very owner. As illustrated by an executive at Eesti Energia:

> At first sight it was a positive feeling, someone takes care that our industry is in operation. But if we look at the numbers, this "care" only means the obligation and costs. In that way, I think this owner's expectation is unfair. We have to compete with other companies in the market, but we have costs that our competitors don't have to carry.[16]

This does not make sense unless one understands Eesti Energia as an entity whose purpose is first and foremost to compete with other companies on the market. If one considers Eesti Energia to be an instrument of the state, it does not matter much if the company or the state shoulders the cost of maintaining the Narva plants, a cost which is passed on to the state in the form of reduced dividends anyway. But from a neoliberal perspective, state companies should be treated like regular private companies. This is not only a question of abstract economic theory, but one of how Eesti Energia and its management view their own role and function. As the quote illustrates, the "we" that Eesti Energia constitute is one that competes with other others on the market, just like any other company.

The dominant notion that the owner's instruction was "too costly" for Eesti Energia ruled out perpetuating the owner's directive. But the discursive shift towards domestic capacity had been consolidated after the pandemic, the war, and the energy crisis, and alternatives to oil shale were still considered insufficient. Delaying the phaseout was thus still considered "unfortunate but necessary". The owner's instruction was prolonged in 2022 as the strategic reserve was not yet ready for implementation [28], but it was also made explicit that this was only temporary and that it was going to be replaced by a strategic reserve as soon as possible – in 2027.

As explained in Section 5.1, the choice of a strategic reserve over other capacity mechanisms was justified by appealing to market values, as it could reconcile market rationality and security concerns by offering a minimally distortive way of supporting capacity. Moreover, it reconciled these logics with the interests of Eesti Energia, who would finally be reimbursed. In essence, the strategic reserve could simultaneously accommodate market rationality, calls for domestic capacity, and the commercial interests of Eesti Energia.

5.4. Critical perspectives and alternative problematizations

This section explores critical perspectives and alternative problem representations. First, relying on the Narva plants for security of supply can be problematized as an extreme example of centralization, with almost all dispatchable capacity concentrated in a small area in the northeast corner of Estonia. Some interviewees[17] pointed out that a dispersed power system would be much more resilient. Moreover, this sensitive and vital node is located only about *two kilometers* from the Russian border. This is contradictory, to say the least, considering the centrality of the Russian threat in the dominant problem representation. Picture 4 illustrates this point quite well on its own.

Furthermore, there are very few hours when Estonia's power demand cannot be met by renewables, storage, and imports. The merits of massive oil shale capacities, which are designed to operate constantly, are few in such a system. Without denying the necessity of firm capacities, oil shale technology itself can be questioned, as well as the staggering amount of 1000 MW in a system with peak loads around 1600 MW. Maintaining the reserve costs around €40 million every year [64]. These funds could be used to accelerate energy efficiency, offshore wind power, demand side response, storage, and gas-fired backup plants, which would lower oil shale dependency, reduce costs and pollution, and increase resilience through decentralization. Several interviewees pointed out that the lack of alternatives to oil shale is a result of the absence of policies to support them, which in turn is a consequence of Estonia's excessive emphasis on free markets.[18] Estonia's National Audit Office echoed this critique, pointing out that it had urged the Government to do more to develop these alternatives for over a decade [65] (p. 15). The International Energy Agency also expressed support for this view:

> The government places a strong reliance on market measures and aims to limit subsidies and state intervention needed to achieve its climate goals. However, the need to accelerate the energy transition, especially in relation to reaching the 100% renewable electricity goal, will likely require targeted subsidies.
>
> [66] (p. 13)

While these critical perspectives were side-lined in the sense that they were not expressed in the dominant problem representation or translated into policy, they illustrate that the security of the Narva plants and the lack of alternatives are not naturally given, but a question of politics.

6. Discussion and conclusion

This paper set out to explain how Estonia's policy of delaying the phasing out of the Narva plants at the Russian border came to appear as necessary. Before 2019, energy security was widely considered a common EU issue, market-distorting subsidies and capacity mechanisms were represented as the main problem, and removing these distortions as the solution. But the dominant problem representation shifted towards securing dispatchable generation capacities *within* Estonia when Covid-19, geopolitical tensions, the impending oil shale phaseout, the energy crisis, and desynchronization from IPS/UPS made interconnections and foreign capacities seem increasingly unreliable. Domestic substitutes for oil shale were also considered insufficient, but critical voices highlighted that this depended on the unwillingness to support alternative technologies due to neoliberal non-interventionism. Lacking alternatives, the uncompetitiveness of oil shale turned into an argument for subsidizing it rather than phasing it out. This was considered unfortunate due to the pollution, inefficiency, and inflexibility of oil shale, but necessary. State support was reconciled with neoliberal free-market logic by shifting the blame to market distortions in the rest of the EU, and by claiming that Estonia's interventions were marginal. A first temporary solution was to simply order state-owned Eesti Energia to keep 1000 MW of oil shale operational. But the

[15] Interview 21.
[16] Interview 12.
[17] Interviews 4, 6, and 20.
[18] Interviews 6, 7, 8, and 20.



Picture 4. The location of the Narva Plants. Courtesy of the University of Texas Libraries, The University of Texas at Austin. Edited by Author.

company could leverage the neoliberal idea that state-owned companies have to be treated like private companies, which made Eesti Energia's costs for maintaining the plants seem "unfair" and "unsustainable". It was therefore decided to introduce a strategic reserve to reimburse the company. As a strategic reserve was considered to be the least market-distorting capacity mechanism, it could simultaneously accommodate neoliberal rationality, calls for domestic capacity, and the interests of Eesti Energia.

The case of Estonian oil shale politics shows that neoliberal rationality can be malleable (see also [6,67]). Before the discursive shift around 2019, market rationality dictated that capacity mechanisms should be avoided, even discouraged internationally. But by 2024, they were widely accepted. Rather than being abandoned, however, neoliberalism had been *reinterpreted*. Estonia's strategic reserve was now considered to be compatible with a market approach, but letting a state-owned energy company bear the costs of providing energy security was not. Free competition and market-based policies were held as important in both periods, but their meaning had changed. This calls for more research on exactly *how* malleable neoliberal rationality can be, where its "limits" are in terms of which policies it can legitimize, and to what extent this malleability is specific to neoliberal rationality or more widely applicable.

While the prevalence of neoliberal ideas in energy governance seems to work against state support to declining fossil industries in theory, it can facilitate such measures in three important ways in practice. First, it limits the ways in which the state can interfere with the commercial decisions of energy companies, even if these companies control key infrastructures that society depends on. This gives fossil industries a powerful political tool in threatening to shut down key infrastructure for commercial reasons in a way or pace that the system cannot handle,

unless support is granted [68]. The sense of urgency among policymakers when Eesti Energia declared the oil shale phaseout illustrates the weight of such threats. These threats gain credibility and even legitimacy when neoliberalism is accepted as common sense, as the companies in question are not responsible for the power system, while they *are* responsible for turning a profit (see also [1]). This raises important questions about the viability of the state shouldering responsibility for energy security while abdicating authority over the infrastructures on which it depends to companies that it cannot legitimately control. More research is thus needed on how neoliberalism interacts with incumbent ownership and operation of key infrastructures, and how this affects energy politics and fossil phaseouts. Additional case studies could provide depth, and cross-case comparison wider applicability [69].

Second, the state cannot legitimately treat commercial companies "unfairly" under neoliberalism. As Eesti Energia's successful endeavor to get reimbursed for maintaining the Narva plants show, this can be leveraged by fossil industries to gain state support. Third, when free competition is elevated to a guiding principle, measures to accelerate alternative ways of providing energy security are ruled out. Thus, when crises show up, which they do regularly if history is any guide, incumbent fossil technologies may appear as the only secure alternatives. Fossil industries have a track record of pushing this no-alternatives narrative [8], and as the Estonian case illustrates, it is easy to overestimate the merits of domestic fossil capacities in uncertain times (see also [2]). In Estonia, this has led to the paradoxical and unfortunate situation where a baseload technology is ramped up and down to serve as a backup, and where the threat from Russia is countered by concentrating key elements of Estonia's power system no more than a few kilometers away from its borders. It is worth emphasizing that whether or not there really are no alternatives depends on the willingness to implement effective policies to support them – an inherently political question, in the end.

Finally, previous research has indicated a resurgence of state coordination in energy politics [3,70], a prospect that seems increasingly likely in our crisis-ridden time of resurging great power rivalry. But the question remains of what this resurgence will look like. The case of Estonia shows that one scenario is a *neoliberal* resurgence of state coordination, in which the prevalence of neoliberal ideas continues to rule out measures that interfere with the commercial interests of energy companies and policies that accelerate alternative technologies. As this case illustrates, states that are thus restricted from advancing energy transition policies strategically and preemptively may end up in a difficult situation where there appear to be no other options than fossil subsidies in the form of capacity mechanisms. While neoliberal rationality precludes such subsidies in theory, its tendency to lapse into a continued state of crisis management [39] (p. 26) may thus translate into protracted state-backed fossil dependence in practice. As Haikola and Anshelm argue, such "extraordinary" state measures can indeed become inherent parts of neoliberal energy policy paradigms [71]. The upshot for energy social science is that research needs to transcend the question of whether state coordination is on the rise or not, instead focusing on *what kind* of state coordination it is that is emerging.

CRediT authorship contribution statement

Hugo Faber: Writing – review & editing, Writing – original draft, Validation, Project administration, Methodology, Investigation, Formal analysis, Data curation, Conceptualization.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Acknowledgements

The funding for this research was provided by the The Foundation for Baltic and East European Studies.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.erss.2026.104632.

Data availability

Two types of data were used. First, policy documents, which are publicly available (see reference list). Second, interviews, which cannot be shared for reasons of confidentiality

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Appendix A to Article III: Interviewees

1. TalTech University of Technology, Director and Researcher
2. Oil Shale Competence Center, Unit Director and Researcher
3. Estonian Chemical Industry Association, Director
4. Ministry of Climate, Deputy Secretary General 1
5. Estonian Stockpiling Agency, previously Elering and Eesti Energia, Director
6. The Estonian Renewable Energy Association, Director
7. Ministry of Climate, Deputy Secretary General 2
8. Estonian Green Movement, Director
9. Estonian Competition Authority, Director 1
10. The Estonian Energy Workers' Union, Leader
11. Ministry of Economic Affairs and Communications, previous Minister
12. Eesti Energia, Director
13. Ministry of Climate, Director
14. Kiviõli Keemiatööstuse OÜ (KKT), Executive
15. Undisclosed municipality 1 in Ida-Virumaa, Mayor
16. Viru Keemia Grupp (VKG), Executive
17. Undisclosed municipality 2 in Ida-Virumaa, Mayor
18. Private energy company, Director
19. Estonian Competition Authority, Director 2
20. The Estonian Green Movement, Expert
21. Estonian Employers' Confederation, previously Eesti Energia, Director

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A growing number of fossil industries face economic decline due to climate policies and competition from cheap renewables. Yet we remain dependent on fossil energy, even in places and sectors where it is no longer competitive and alternatives exist.

To help us understand why, this dissertation explores how the decline of fossil industries is resisted. It investigates how supporters of these industries portray them as necessary for providing a secure supply of energy, and argues that this can legitimize state support that delays their decline.

The dissertation argues that these representations rely on entrenched assumptions about the reliability of fossil industries and the lack of alternatives to them, that downplay and highlight different technical risks, advantages, and drawbacks. Moreover, it shows how the neoliberal rationality that prevails in energy governance can limit the ability of the state to act strategically and preemptively. Together with existing dependencies on fossil industries, this can result in a state of chronic crisis management where delaying the decline of these industries appears to be the only reliable option. This, the dissertation argues, is untenable in our time of overlapping crises that constantly remind us of the vulnerabilities and perils of relying on fossil energy.

Hugo Faber is a political scientist and interdisciplinary energy researcher at Södertörn University. This is his doctoral dissertation, written at the research area of Politics, Economy and the Organisation of Society (PESO), and the Baltic and East European Graduate School (BEEGS).

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ISBN 978-91-89962-83-5 (print) / 978-91-89962-84-2 (digital) | Södertörns högskola | publications@sh.se

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