

Ending Big Oil

Nationalising the fossil fuel industry for a just transition in Norway

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Abstract:

Ecosocialist theorists increasingly call for nationalisation programmes to nationalise fossil fuel industry giants in order to orchestrate a just transition on a timetable compatible with pulling the emergency brake on climate collapse. Yet few such programmes exist. Synthesising utopian- and eco-socialist theoretical frameworks, this thesis uses class conflict informed participatory backcasting to broadly sketch the background conditions and ensuing potential policy pathways forward to achieve such a transition in Norway. Two initial pathways are located; a comprehensive but slow act of parliament pathway, and a shallow but rapid corporate restructuring pathway. A third pathway combining the fast-acting extraction bans of the second pathway with the comprehensive nationalisation and just transition procedures of the first is proposed. Placing such a pathway into the context of current forecasts for Norway's fossil future, it appears that whilst the backcasted nationalisation pathway is built on a semi-utopian framework, its realisation requires less magical thinking than reaching the expressed goals of the current Norwegian fossil fuel industry governance through current profit-driven ownership and governance structures.

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The results of this thesis are in great part thanks to the generous participation of eighteen climate activists, researchers and trade unionists who contributed thoughts, ideas and comradely support, and who continue to inspire through their dedicated work to pull the emergency break on the extinction-threatening traincrash of fossil capitalism.

Thank you to Sigrid Elise Høeg, Pauli Aue, Jack Johnson, Noah Herford, and my love Frans Jansson for feedback on earlier drafts. All persisting inaccuracies and oversights are entirely my own.

Dedicated to my inspiring grandmother, Jean La Fontaine, and to Maj Signe Jansson, my beloved niece - may we build you a future worth fighting for.

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ACRONYMS, ABBREVIATIONS AND TRANSLATIONS

Acronyms and Abbreviations

AGM - Annual General Meeting

CCS - Carbon Capture and Storage

NGO - Non-Governmental Organisation

IE - Norwegian Union of Industry and Energy Workers

ISDS - Investor-State Dispute Mechanism

LO - The Norwegian Confederation of Trade Unions

Safe - Norwegian Union of Energy Workers

Translations

The English translation is used for existing state infrastructure and processes, apart from the following newly proposed terms devised during research;

Avkarboniseringsrådet - The Decarbonisation Advisory Council

Bare transition byrået - The Just Transition Agency

Folkets multistakeholder-styre - The People's Multistakeholder Board

Nasjonal energiomstillingsdirektorat - The National Energy Transition Authority

CHAPTER ONE. INTRODUCTION

“We have our feet planted in the soil, and our eyes facing outwards” - Martin Tranmæl

“Overcoming the concentrated power of fossil capital demands meticulous planning and people power.”

- Jack Johnson and Noah Herford

On September 18, 1972, the Norwegian state, supported by a militant labour movement, coerced big oil (Sundaresan, 2012 p. 388) into comprehensively hand over control of the nascent fossil fuel industry to the state (Ryggvik, 2015). Nationalised control of this industry through the social democratic state apparatus would go on to catapult Norway from the hinterlands of Europe to a wealthy nation of low inequality and an unparalleled welfare state (Shammas, 2024).

By the 21st century, burning fossil fuels has caused global heating that is collapsing our climate at a devastating pace (Amitrano et al., 2024; Armstrong McKay et al., 2022; Bang & Lahn, 2020; Soeder, 2021). Across the world, a coalition of fossil fuel companies continue to extract more year on year (Achakulwisut & Erickson, 2021, Achakulwisut et al., 2023), with the Norwegian component slipping lose from the control of the labour movement and joining the ranks of big oil. The problem is not a lack of “technology” (Roos & Hornborg, 2024, p. 1); there already exists the knowledge of necessary socio-technological practices needed to transition away from this system (Hornborg, 2022). Yet we remain locked in a political and economic system that funnels even more fuel to the fire, catapulting us towards disaster (Malm, 2020a).

Stopping climate breakdown requires an emergency response on several levels: an immediate priority must be the abolition of fossil fuel extraction in the places most capable (Malm 2020, Hornborg 2011, Dorninger et al 2021). Norway is one such capable country; rich not only in fossil fuels and capital but in historical precedents and political formations that can serve as an excellent basis for a just transition (Kattel et al., 2021).

This thesis focuses on one core step in the transition beyond fossil fuels; the dismantling of the fossil fuel industry in Norway. Big oil has proven itself incapable of instigating and managing

this transition (Christophers, 2021; Fraser, 2021; Huber, 2013); the state is the only entity muscular enough to take on this job (Hertford and Johnson 2023, Malm 2020). Thus ecosocialist theorists such as Andreas Malm have called for a programme for the state to nationalise, socialise and transform the fossil fuel industry into a locally and internationally just renewable enterprise (Malm et al., 2022). However, very few nationalisation pathways currently exist (Aronoff, 2020; Green & Robeyns, 2022, Paul et al., 2022).

The dearth of ecosocialist just transition programmes is possibly due to such a programme lying beyond what currently feels “politically imaginable” (Cole, 2023, p. 2) in the Global North. Such is not the case in Columbia, where President Gustavo Petro was voted to power on a platform of worker empowerment, indigenous liberation and ecological flourishing (Fernandes, 2022). Petro, the radical oil workers union Unión Sindical Obrera de la Industria del Petróleo and the international network Progressive International have embarked on a project to spearhead this process in Colombia. They are calling on researchers, trade unionists and environmental activists across the Global North to do the same. This thesis is one answer to this call, written as part of the wider Progressive International “Ending Big Oil” programme.

Therefore the purpose of this thesis is to “outline the material conditions of the current ecological predicament” (Vettese & Pendergrass, 2022, p. 18) and, from this basis, construct a transitional policy pathway forward for the state to nationalise the fossil fuel industry in Norway and instigate a just renewable transition. In doing so, I extend ecosocialist theory through an exploration of what a key step - nationalisation of the fossil fuel industry - could look like in a transition step beyond fossil capitalism. This contributes to filling the gap in the academic literature regarding research into state-led just transition programmes in Norway. Finally, from a scholar-activist standpoint, I invite Norwegian climate activists, trade unionists and key agents to collaborate in reaching beyond current political consensus to build new bridges to the future in which we can not only survive but thrive in the centuries to come.

My question for this research is thus: how can the state renationalise the fossil fuel industry for a just renewable transition in Norway? In all probability, there are hundreds of ways to answer such a question. In the words of Troy Vetesse and Drew Pendergrass, this thesis does not set out to draft “the only possible solution” (2022, p. 21) but rather casts out one possibility in order to progress the conversation in and beyond the academy. It cannot claim to establish an in-depth rigorous answer to each step of such a plan; this would be far beyond the scope of this thesis. Instead, it uses a “tension between utopianism and practicality” to “create a framework commensurate to the task at hand but... simultaneously realistic enough” (p. 21) to provide a pathway forward that can be embarked upon tomorrow.

Trade unionists, climate activists, and researchers hold significant and relevant on-the-ground knowledge about the dynamics which affect a just nationalisation policy pathway (Huber, 2022). Thus this research is conducted using a form of participatory backcasting; collectively envisioning a desirable future scenario with participants, and then working backwards to identify the necessary steps to achieve it. Working within an ecosocialist framework (Löwy, 2015), I include an analysis of the history and development of the industry through a class-conflict frame in an experimental form of (preliminarily termed) “class conflict informed participatory backcasting”.

This paper is structured in four parts. In the first, I explain the ecosocialist theoretical background that guides the assumptions and mechanics operating through this research project, and the class conflict-informed participatory backcasting method employed to produce and analyse the pathways. In the second, I look to the past and present to outline the material conditions and forces in motion from which the backcasted pathways are built. In the third, I present and analyse two pathways to nationalisation and propose a third synthesis. In the fourth and final section, I compare the implications of the constructed pathway to the future that is forecasted based on the current ownership and governance structures of the Norwegian fossil

fuel industry, and discuss the implications of an ecosocialist fossil fuel nationalisation programme in a world on fire.

CHAPTER TWO. ECOSOCIALIST THEORIES OF NATIONALISATION

“Some theories can make the situation clearer while others might muddy it. Action remains best served by conceptual maps that mark out the colliding forces with some accuracy.” – Andreas Malm

This thesis is a piece of what Gomm terms “value-led research” (Gomm, 2008, p. 356). In his argument in favour of a methodological holism between values and research, Harvey argues that supposedly ideology-free research most often simply reproduces the dominant ideology of its age (Harvey, 1974). When the dominant ideology of our age pours fuel onto the fire of climate collapse (Holgersen & Warlenius, 2016; Klein, 2015), this would be a grave mistake to make.

I make no secret of my own positionality towards the subject at hand; I believe that climate collapse should be prevented, that activist groups are amongst those with the best chance of bringing forth a just world, and that they can be supported through research (Klein, 2015). Here I draw on lineage from Black feminists in the US who place Marxist theory into dialogue with lived movement experiences. The guiding premise of this position is the logical continuation of holistic approaches such as Harvey’s; that social research is itself a conversation between researcher and researched, and thus including the perspective of the researched is often highly valuable. Indeed, as scholar-activists such as bell hooks highlight, many actors engaged in such struggles are best viewed as experts in their own lives (hooks, 1994); thus, as Mattson et al. argue, “research agendas can be enhanced when societal actors actively participate in the research process” (Mattsson et al., 2023, p. 62). As Ekpe & Toutant argue, for activist-scholars the researched are not only informants but “co-conspirators” in the act of world-building (2022, p. 67). This paper is thus positioned as an act of scholar-activism in both its theoretical framework and method; an attempt to enter into a larger political conversation beyond the walls of the academy, both in its extraction alongside scholars and activists in Norway and in its intended effects in the vision-building of a truly just post-fossil fuel transition. I therefore seek a theory which can, as Malm posits, “make the situation clearer” for agents engaged in the fight against

climate collapse, because remedial action to the climate crisis will be “best served by conceptual maps that mark out the colliding forces with some accuracy” (Malm, 2018, p. 16).

Ecosocialist theory provides one such conceptual map, demonstrating the inextricability of the plight of both people and planet from the motors of the colonial economic system in which we live (Chakraborty & Ghosh, 2022; Löwy, 2015; Saito, 2017). By analysing the relationship between fossil fuel, economic growth, and the profit drive that is at the core of this cannibalistic system (Fraser, 2023), we can term this system capitalism, and see that any successful attempt to pull the emergency break will need to fundamentally transform such a system (Hornborg, 2012, Malm, 2020b). In its stead, we need a “steady state economy” (Pettifor, 2020, p. 58) that operates within “ecological boundaries” (p. 83). This core insight into the economic basis for the climate crisis and the end-point to which we should therefore strive constitutes a core component of the theoretical framework of this thesis.

A key site in the struggle to build this new economy is that of the direct extraction of fossil fuels. Capitalism is a system, not an expression of the will of one person or group of people. But there are nonetheless winners and losers, and groups that can be corralled together in a struggle, a struggle that shapes history (Harvey, 2011). As Moore (2015) argues, capital aligns to guard expropriation of both labour and environment in order to further accumulate. Capitalism relies upon fossil fuels for its ever-increasing supply of energy and for increasing profit accumulation (Mazzucato, 2022; Malm, 2016): there exists little hard evidence to support the premise that global profit accumulation can be decoupled from material economic throughput (Parrique et al., 2019), and plenty in support of the contrary (Hickel & Kallis, 2019). Therefore other factions of capital rally around fossil fuel extractors and “the political and economic interests tied to them” in solidarity (Lazarus & van Asselt, 2018, p. 1). It is thus left to the majority, those whose well-being are least immediately benefitted by capitalism, to organise against such a class in order to build that ecological economy we so desperately need to see (Huber, 2022). It is those most disenfranchised under fossil capitalism - workers in the Global South, indigenous groups,

and other marginalised people - who rise up most effectively to challenge fossil capital and build a new ecologically safe economy in its stead (Malm, 2021). Following Huber (2019), I argue that one important research priority in a warming world is how to build the power of organised labour in order to seize control and dismantle the fossil fuel industry.

Unsurprisingly, a focus on class war over fossil fuel extraction does not dominate the literature; a focus on demand-side changes, particularly consumer-behaviour change, does. But whilst supply-side approaches remain “the road less taken” (Lazarus & van Asselt, 2018), there is nonetheless a growing body of literature addressing the extraction of fossil fuels at their source as a primary focus for stopping climate collapse (such as Harstad, 2012; Huber, 2023; Malm, 2021; Pellegrini & Arsel, 2022; Pellegrini et al., 2024; Zakkour, 2021). It is within this body of literature that this paper primarily draws and contributes.

Drawing on a long history of Marxist theorising over state capture, Malm proposes that the state is the only machinery muscular enough to challenge the entrenched interests of fossil capital on a timescale compatible with preventing climate collapse (Malm, 2020). Following this, Green and Robyns argue that “the fossil fuel industry must therefore be nationalised to be able to control emissions” (2022, p. 54). Here, ecosocialist thinkers mean not simply the taking ownership of corporate structures, but a “socialisation” of the industry wrapped in too, bringing its core functioning under democratic control and within ecological parameters (Malm et al., 2022). Despite these increasing calls for an ecosocialist programme to use the state to nationalise the fossil fuel industry, very few such programmes exist. This thesis answers these calls, using the following ecosocialist principles of climate justice and the just transition.

Climate justice is both a movement and academic field that has emerged from justice-based climate struggles over the last four decades (Dawson, 2010; Klein, 2015). Buttressed by ecosocialist theory, climate justice can articulate a populist and global perspective on climate collapse and the fossil economy, and interpolates concepts of practical capacity and ethics to global visions of a post-carbon transition (Croeser, 2020). Just transition frameworks are

similarly informed by ecosocialist premises: originating in the trade union movement, the concept has developed into a broader framework that recognises the need to safeguard the interests of workers, indigenous peoples and other marginalised groups in the post-carbon transition (Wilgosh et al., 2022; Congress of South African Trade Unions, 2022). However, unlike in the field of climate justice, just transition frameworks are most often reactive rather than proactive (for example, see Cahill et al., 2020; Reitzenstein et al., 2019; Shapovalova et al., 2023). Even fewer deal directly with nationalisation as a core component (Routledge et al., 2018). Huber argues powerfully that workers should be a central site of attention in the post-fossil fuel transition not only because of ethical concerns but also because of their key position in being able to build power and confront capital (2019). This is indeed what divides ecosocialist concepts of climate and worker justice from liberal ones; the viewing of workers, indigenous communities and activists as key emergent agents whose action is key to powering the transition, rather than victims to be addressed in the transition's effects. Such a framework conceptualises workers, local communities, and environmental movements as vital sources of strength, whose interests and actions (both contradictory and complementary) will be a core motor of the just transition.

Such agents are emergent because they do not necessarily already exist in full form, but may arise from historical conditions (Williams, 1973). Following Dean (2012), I argue that the needed collectives and coalitions can be mobilised to action when hope of real change can be seen on the horizon. Huber (2019) further argues that such a mobilising framework must offer not only the abstract hope of halting climate collapse but real material gains in the short term.

Two such mobilising frameworks have risen to precedence in the recent decade; that of the green new deal, and of degrowth. Green new deals are policy frameworks aiming to power a post-carbon transition through coalitions of social and economic justice movements (Pettifor, 2020). They include a focus on harnessing worker power through current political frameworks. Green new deals appear in both more and less radical forms, the more radical of which is

explicitly described as a transition framework beyond capitalism (Pollin, 2018). Degrowth is also both a movement and field of research that draws (albeit more quietly) from ecosocialist premises. The founding insight of degrowth is demonstrating that perpetual economic growth is incompatible with our finite planet's biophysical limits. This approach is characterised more by community-level grassroots solutions to the climate crisis blended with high-level economic critique of green growth scenarios (Polewsky et al., 2024). There are conflicts and confluences between both of these ecomarxist schools. Many degrowthers argue that the Green New Deal "pivots on a central lie of continued growth...and perpetuates the capitalist paradigm...and maintains the system leading us towards total ecological collapse" (Jordana, 2019). Meanwhile, some proponents of a more radical Green New Deal argue that degrowth is "devoid of class analysis" (Chambers, 2021, p. 1). Indeed, it is only the more radical ends of both which are compatible with each other; following Pettifor, I argue that while the Green New Deal describes a policy framework that galvanises workers towards a transitory system, degrowth provides both relevant critiques of perpetual economic growth and examples of grassroots solutions that can be incorporated into a transitional and post-transition society (Pettifor, 2020).

These lines of thought draw inspiration from the 19th century utopian socialist tradition which scholars such as Troy Vettese and Drew Pendergrass endeavor to revive. Such work, they argue, requires the suspension of one aspect of determining conditions whilst keeping quite conservative parameters of some others, like ecological limits (2022). The pathway building of this thesis draws on this framework of horizon-building, in which it is assumed in the building of the pathways that the political will has been built amongst key agents, whilst strict restraints of justice, ecological and climactic safety, and the reality of currently available infrastructure still apply. However, it brings down the level of utopian belief-suspension to the level at which radical Green New Deal operates. That is to say, while Vettese and Pendergrass' scenario assumes a post-revolutionary scenario, the pathways ahead instead begin from the assumption of the relative success of a broad coalition of working-class and environmental forces which have

achieved power in elected governance and include an investigation of the climactic, historical and infrastructural basis for the pathways as currently stands. Paying close attention to the dynamics of class conflict and both local and global justice, the crafted policy pathways intend to operate just at the edge of the current horizon, in order to build the political will to move towards them.

CHAPTER THREE. COLLECTIVELY MAPPING FUTURE HORIZONS

“It’s easier to deconstruct than to start from scratch. The worst thing about academia is that [we] get so good at criticising other people’s ideas and pathways that [they] have inbuilt contradictions, but rarely get good at suggesting our own” - Jonas (research participant)

Norway as a Case Study

I research Norway as a case study for a nationalisation-driven fossil-fuel phase-out and renewable ramp-up pathway using participatory backcasting. A case study is “a qualitative approach in which the investigator explores a real-life, contemporary bounded system (a case)” (Creswell, 2013, p. 97). Case studies are useful for “exploratory... investigations into complex phenomena which have not previously been studied” (Bennett, 2020, p. 98). The Norwegian fossil fuel industry is one such investigation. Following Yin, I take a pluralistic approach, using multiple forms and sources of data (2012, p. 170) including interviews, academic literature, corporate reports, government policy papers, and newspaper articles. I selected Norway as my case study using the criteria analysed in Table 1.

Table 1.*Criteria for Selection Norway as a Case Study of Potential State Nationalisation Pathways*

Criteria	Explanation of Criteria	Relevance for Thesis
Theoretical applicability (Eisendhardt, 1989)	The case should be well positioned to support, challenge or challenge current literature and theoretical framework	Through my case study, I am looking to extend and deepen the concept of a state-led just transition through the nationalisation and socialisation of fossil fuel extraction. This theory is created to be applicable in countries with reasonable democratic precedent and labour movements and highlights that countries with high levels of oil, gas and coal extraction but low levels of dependency are particularly important sites for this. Norway is one such country.
		The current case studies on this focus on the UK (Johnson & Herfort, 2022) and the US (Alperovitz et al., 2017). Significant differences between the UK and US cases prevail, most notably that the Norwegian industry is already partially nationalised; hence the Norwegian case can broaden and complexify conclusions drawn from existing cases.
Feasibility (Yin, 2003)	The case should be feasible for the researcher to collect data and engage with participants given the constraints of their resources and positionality	I assessed the availability of data, access to relevant participants, and logistical considerations. Since I speak Swedish, a dialect of Scandinavian alongside Norwegian, and was already somewhat integrated into the activist and researcher contexts with overlaps to relevant social networks in Norway, Norway was selected as the most feasible of the relevant case studies.

Researchers debate the generalisability of case studies (Creswell & Poth, 2017). This thesis follows Eisendhardt's characterisation of case studies as a way of applying theory to real life, and thus further building said theory (1989, p. 544). By applying ecosocialist theories of state nationalisation and worker-led fossil fuel phase-out in the context of Norway, I extend the

theory by exploring it through a new case, a case characterised by an already strong labour movement and a high level of nationalisation.

Class Conflict Informed Participatory Backcasting

To explore the case study, I am employing participatory backcasting, a method used to creatively analyse possible futures. Backcasting was developed in the 1970s at the nexus of sustainability and future studies (Kishita et al., 2024), but has now spread to be used across the sustainability field (e.g., Kok et al., 2011, Okada et al., 2022; Quist et al., 2001), and beyond academia (frequently in local-level state planning, eg B. Johansson & Johansson, 2009; Gkioulou et al., 2021). Unlike forecasting, in which the researcher charts potential future scenarios based on “trend extrapolation and projections” (Bibri, 2018), backcasting takes a desired (or undesired) future scenario as its endpoint and then works back from there, analysing what steps would be necessary in the near and mid future to reach that point there (Robinson, 1990). Backcasting can help chew through the constraints of the present to think creatively about alternative futures. As Kishita, Höjer and Quist posit, backcasting is a suitable method where the problems addressed involve complexity, conflict between groups, and “where transformative changes at a systemic level are necessary” (2024, p. 1). A just, nationalised transition for the Norwegian oil and gas industry is precisely one such scenario; a challenge characterised by complexity (Jordhus-Lier et al., 2022), conflict (Marsdal, 2021), and where current trends are a core part of the problem (Heiret et al., 2021).

I am using participatory backcasting, which invites participants to take part in the construction of future scenarios. Following Van Berkel and Verburg (2012), involving participants in backcasting can have two (potentially complementary) aims. The first benefit (usually emphasised in academic research) is to gather knowledge from participants; when a backcasting project considers a scenario that is unusual, it often requires considering data and ideas that are not widely available through analysis of text alone. Through participatory

backcasting, the researcher can draw out and synthesise such knowledge. This may also allow the researcher to invite agents to creatively consider new scenarios and enter into dialogue in novel forms.

The second benefit of participatory backcasting is to “initiate discussion” between agents (Van Berkel and Verburg, 2012), which may pave the way for implementation of the pathways created through the backcasting project (for example; Shearer, 2005). This benefit is often emphasised in Non-Governmental Organisation (NGO) and state research, but it is also valuable for activist research such as this thesis. In the context of the Norwegian fossil fuel industry, workers and climate activists both hold vital knowledge concerning potential nationalisation pathways; and the action of both would likely be necessary for achieving a nationalised just transition. However, very few initiatives exist to bring this knowledge together (Marsdal, 2021). Thus securing their participation in the backcasting is valuable both to map relevant pathways and contribute to coalition-building efforts across these vital agents.

While backcasting supposedly includes an analysis of what Wagnel (2011) calls “social objects of change”, these are, in fact, rarely included or addressed in the analysis. Lacking a materialist basis, backcasting literature is dominated by a focus on the physical/technical aspects of change; seldom are the colliding forces of political and economic change taken into account. Following the insights of Vetesse and Pendergrass (2023), I argue that such mechanics are just as important as the technological and physical aspects and thus should be synthesised into the backcasting method. I therefore draw in such analysis into each stage of the research, trialling a new method preliminarily termed class conflict informed participatory backcasting. This approach takes a materialist approach to knowledge production (Malm, 2018), drawing in and building upon the perspectives of participants whilst critically assessing it within the context of wider colliding political and economic forces. An overview of the method, contrasted with the methods it draws from, is provided in Table 2.

Table 2.

Overview of Class Conflict Informed Participatory Backcasting in Constrast to Preceding Methods

Step	Robinson's Methodology	TNS Framework	Class Conflict Informed Participatory Backcasting
Construction of desired end-point	Determine objectives	Define a framework and criteria for sustainability	Determine pathway objective and which (if any) factor will be suspended from analysis
Analysis of present system	Describe present system and its material flows Specify exogenous variables and inputs	Describe the current situation in relation to that framework	Describe political and economic history, with attention to class conflicts Describe the present system, including constraints and enabling factors for pathways
Construction of Scenario(s)	Undertake scenario construction using the specified goals and constraints	Find strategies for sustainability	Undertake pathway construction using specified goals, precedents and enabling factors
Analysis of Scenario(s)	Undertake scenario impact analysis		Undertake pathway impact analysis in relation to goal, specified basis/parameters, and/or current forecasts of future.

Note. Columns 2 and 3 adapted from Phdungsilp (2011), columns 1 and 4 authors' addition.

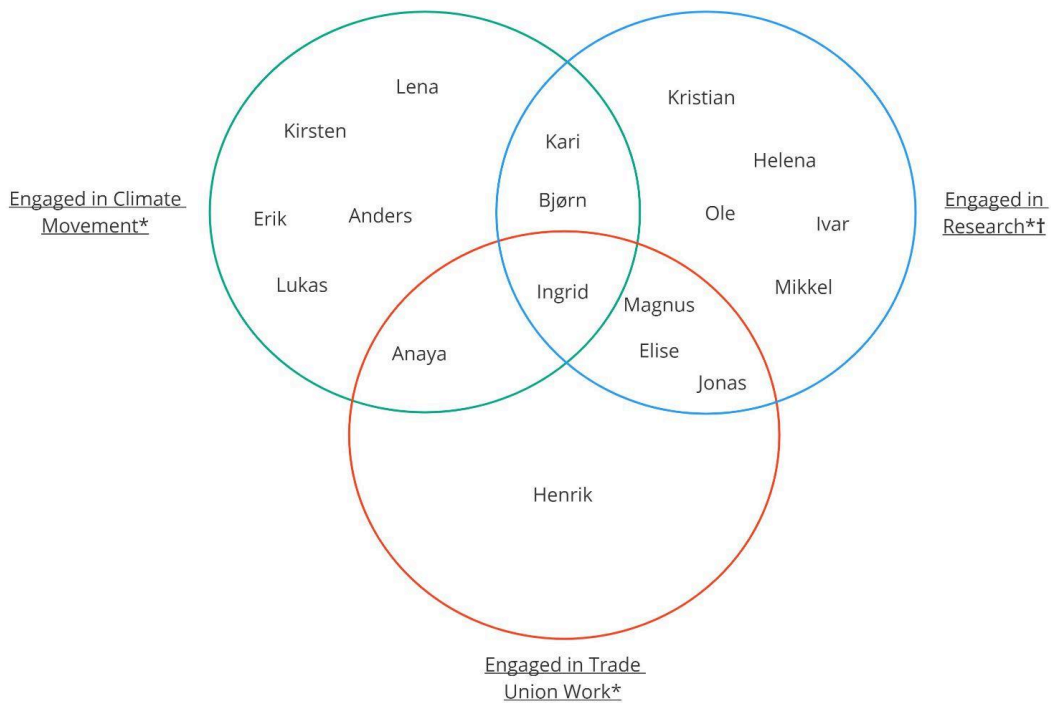
I gathered data from a range of primary and secondary text sources, such as newspaper articles and government websites, both English and Norwegian. To analyse such text and the interview transcripts, I broadly coded sections of each text by hand (Nelson et al., 2018). As I seek to reveal the underlying material dynamics, my analysis is latent (rather than semantic)

thematic analysis, which integrates an analysis of underlying meaning into the determination of themes themselves (Braun & Clarke, 2019).

I located potential interviewees using my personal networks and through authors of particularly relevant texts. I then used snowballing to identify further potential interviewees until I reached near saturation (Naderifar et al., 2017, Munro, 2021; Woodley & Lockard, 2016). In total, I conducted eighteen interviews over a period of two months, each lasting between 40 and 90 minutes. Twelve were conducted online, via Zoom, and six in person during a research trip to Oslo. For participant backgrounds, see Figure 1.

Figure 1.

Interviewee Code Names and Backgrounds



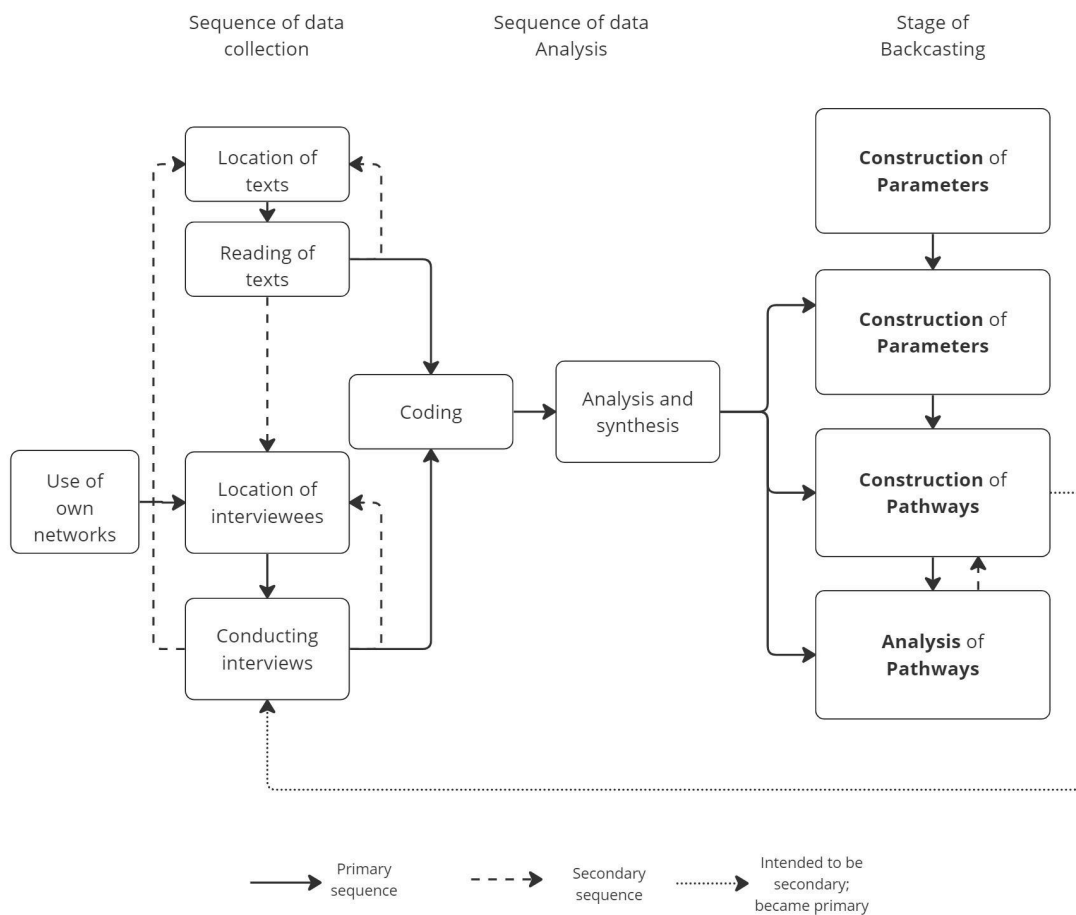
Notes. *Currently or within last five years. Identifiers given as overview for the reader.

† In one or two of the following areas: fossil fuel industry ownership and governance, nationalisation, climate policy, trade unions, climactic economic limits, just transition, climate justice.

In participatory backcasting, participants are commonly only involved in the third step: scenario construction (Van Berkel & Verburg, 2012). I conducted semi-structured interviews (Soria-Lara & Banister, 2017) that originally focussed on pathway-building, allowing for collaborative exploration of potential futures. However, during these first eight interviews, interviewees encountered challenges with this topic, yet shared useful insights on the historical, climactic and justice basis for the pathways. I thus pivoted strategy and drew participant insights

further into the method (see Figure 2). I also adjusted the interview guidelines, structuring the interviews around already-constructed pathways. Interviews and analysis occurred in an iterative process, moving from step to step (Chase, 2017); see Figure 2.

Figure 2.



Iterative Source Analysis in Class Informed Participatory Backcasting Method

Ethical considerations are particularly important when working collaboratively with participants. I used recorded verbal consent, anonymised names and given limited details about

the interviewees in order to protect their anonymity, and I did not collect sensitive personal data during the research process.

Synthesising findings into coherent pathways was an inherently creative process (Vize, 2023). I built two alternative pathways, grounded in planetary and practical restrictions, but suspending analysis of the political will, in dialogue with participants through interview exploration. The results and analysis are presented in a synthesised manner, as according to the stages of the method; first, the parameters and precedents are presented, followed by the potential pathways, and finally, an analysis of the implications of these pathways¹.

The method allowed for creative exploration and locating participants through snowballing despite the limited labour and time scope of the thesis, buttressed with in-depth review and analysis of literature and primary sources to conduct a class conflict informed participatory construction of potential nationalisation and just transition pathways in Norway.

Limitations

A core limitation of this method is that it relies upon interviewees synthesising potential future pathways from scratch. More challenging still, it requires many participants to do so whilst considering a totally novel framework; as Anders described, “this is not something I have ever really thought about before”. This challenge was partially overcome through the aforementioned pivot in interview format, presenting interviewees with partially constructed pathways. Nonetheless, the pathways represented should not be seen as a summation of

¹ This diverges from the traditional “background, findings and analysis” sections commonly used in thesis presentation. I have chosen to do this for two core reasons; the first is that due to the nature of participatory backcasting, in which the background is part of the setting of the constraints for the pathway construction, and the pathway construction is itself the result of collective analysis, the delineations between these three sections are already reimagined. Secondly, combining the findings and analysis sections make the paper more concise and easier to read, as it eliminates the need to switch back and forth between sections, enhancing clarity and coherence (Anderson, 2010).

interviewee inputs, but rather the author's proposed pathways, built on and amended with input from participants.

Language and sample size are also limitations of this thesis. I analysed documents in both Norwegian and English but conducted interviews in English (a non-native language for all but one interviewee) due to my non-fluency in spoken Norwegian. This limits the fluency and creative input of interviewees (Squires, 2009; Schembri & Jahić Jašić, 2022). There is also a clumping of interviewees around the Oslo region, and a lack of trade unionists who are not also actively involved in research, likely due to the use of my personal networks and snowballing to identify participants (Naderifar et al., 2017). This limits the thesis' ability to represent a generalisable overview of climate activist, researcher, or labour unionist perspectives, and should not be read as such.

A final limitation is the broad scope of this case study; the thesis is unable to explore in depth a number of significant factors (Bennett, 2020), such as the economics and cost of nationalisation pathways. It should be treated not as a final, comprehensive plan but a broad, exploratory overview of ways in which the state can nationalise the fossil fuel industry for a just renewable transition in Norway.

CHAPTER FOUR. THE BASIS FOR THE FUTURE

“Once Norway had an oil company; now an oil company has Norway” - Anders, Bjørn, Heidi, Lena, Lukas (research participants)

In order to backcast a nationalisation and transition pathway for the fossil fuel industry in Norway, the parameters within which that transition must happen must first be identified - the climatic, economic, social, and infrastructural enablers and limits that are in place, as well as the political and economic history that has shaped the development of this powerful industry.

The Mandate: When Does Norway Need to Phase Out Extraction?

Phasing out fossil fuels globally with even a 50% chance of keeping global heating below the 1.5-degree threshold requires fast action globally (CSER, 2023). But the question remains - exactly which extraction should be phased out first, and on what grounds? Capitalism determines this primarily by profit (Christophers, 2024); the most profitable sites are drilled, which is affected by factors like the availability of the oil, how easily exploited workers are, and state support (or lack thereof) (Malm, 2016; Mitchell, 2013).

An alternative rubric that elements of big oil propose is dirtiest first, cleanest last (Bindman, 2024). The dirtiest fuel is coal; this would therefore have to go first. Next would be oil and gas, which are usually found together and thus inseparable from one another (despite gas' cleaner burn than oil's). As Ingrid noted, “for decades, the Norwegian government has claimed its oil as the cleanest”, due to its strict legislation requiring producers to capture methane gas (Kennett et al., 2022; Teigen, 2018). This is backed up by the IEA when measured by emissions intensity (IEA, 2023); Norway is closely followed by Gulf nations like UAE, Saudi Arabia and Qatar which have more “easy to access” reserves (Zakir, 2023). However, Wood Mackenzie estimates that less than 10% of emissions actually come from the extraction process itself (2023), so these gains would be marginal; and this rubric would require some of the most ill-prepared economies who have contributed least to climate collapse to shut down extraction first. “Dirtiest first,

cleanest last” would likely in turn to fail to meet the criteria of climatic and ecological safety, as a phase-out that requires those with the least capacity to take the most action is a phase-out least likely to happen on the timescale needed.

Before COP28, a coalition of African nations put forth a proposal for a ban on developed nations exploring further fossil fuel fields “well ahead of 2030, whilst allowing developing countries to close the global supply gap in the short term” (Bindman, 2024). This proposal contains two logics. One is an idea of fairness and justice; those countries who have already reaped the rewards of fossil fuel burning most, and thus most polluted the atmosphere, should be the first to stop using them. The rest should be given time to catch up. The other logic, that of capacity, says that those countries most able to transition fastest with the least negative effects on the people and planet should go first. The former is an ethical argument, the latter a practical one; but interestingly, the proposed results of both are very similar. Notably, much extraction in the Global South is carried out by corporations based in the Global North, affecting benefits distribution. Once this is taken into account, as it is in Calverley and Anderson’s groundbreaking 2022 report, the alignment is even closer. This is, of course, not a coincidence, but because the development of the fossil fuel industry has been the pulsing lifeblood of the development of imperial capitalism since its inception (Chakraborty & Ghosh, 2022; Hickel et al., 2022). This is why ecosocialist climate justice frameworks address both fairness and capacity as one (as I will from herein).

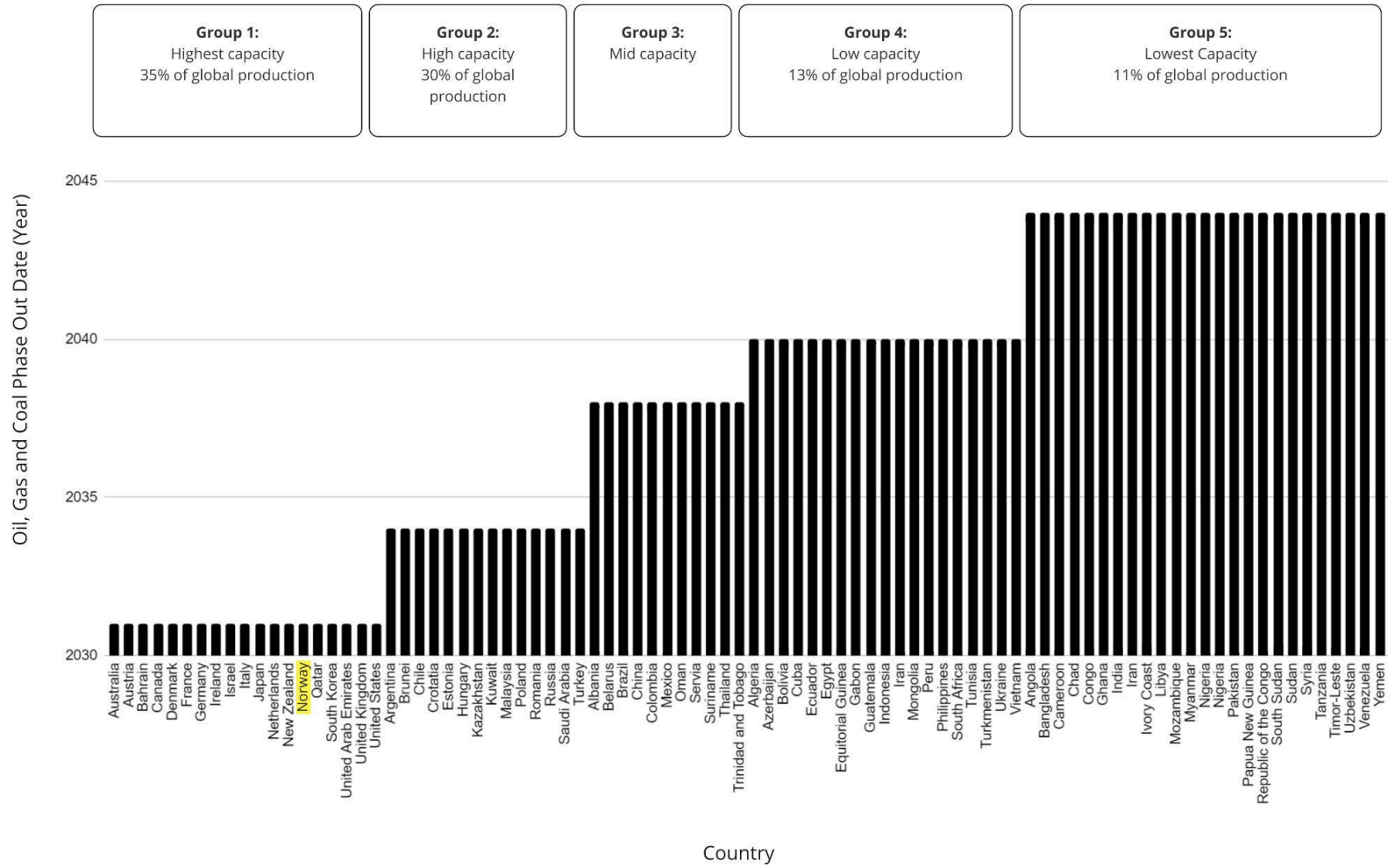
Norway is a petrostate with a 14% fiscal dependency on fossil fuels and thus classified as a “petrostate”: a state highly economically dependent on fossil fuel extraction (Coffin & Grant, 2021). Fossil fuel extraction is the largest industry in the country: oil and gas represented almost three-quarters of the country’s total exports in 2022, with the state’s total income from petroleum reaching almost 1,300 billion NOK (111 billion Euro) for the same year (Statistik sentralbyrå, 2024). This is equal to 42% of the state’s total revenue, and 26% of Norway’s GDP. However, this is much lower than most petrostates, especially those in the global south; for

example, lower than Equatorial Guinea's 81%, Congo's 54%, and Iraq's 89% (Calverley & Anderson, 2022). Countries with the highest non-fossil fuel GDP per capita, like Norway, have, in Anaya's words, "not just the ability but an absolute obligation" to lead the global phase-out of fossil fuels. Given that Norway also holds significant capital accrued through fossil fuel profits in its Government Pension Fund Global (the Oil Fund), it is better positioned than any Global South country to begin the rapid transition.

Calverly and Anderson's 2022 report maps a just phase-out deadline for fossil fuel extracting countries based on such principles of equity and a limit of "a 50:50 chance of not exceeding 1.5C of warming" (p. 6). The final dates are reproduced in Figure 3 with Norway highlighted; we can thus put a globally just phase-out date for Norwegian fossil fuel extraction at 2031. This will require Norway to urgently decommission and shut down all extraction and ramp up carbon draw-down and renewables (IEA, 2022). It will also require Norway-based fossil fuel companies to cooperate with local authorities and communities on the phase-out of their operations in other countries according to their respective deadlines.

Figure 3.

Globally Just Oil, Gas and Coal Phase-Out Dates



Note. Reproduced from Johnson & Herfort, 2022 p. 13. Highlight added.

The History: the Development of the Oil and Gas Industry in Norway

What are the core colliding forces that shape the impulses and direction of the extraction of fossil fuels in Norway? In order to map a pathway forward, it is essential to understand the dynamics that have shaped the present (Malm, 2016).

Contrary to folk belief within Norway, Norway's social democratic structure did not arise through amicable social dialogue (Dølvik et al., 2014). Similar to developments in Sweden and Finland, a strong workers' movement achieved the taming of capitalist processes through a state welfare system that controlled large swathes of the economy and redistributed wealth along just lines. The Norwegian working class was highly organised at the turn of the century (Aarebrot, 1982; Rokkan & Valen, 1973), and by the 1930s a communist revolution simmered just beyond the horizon (Petrick & Scholz, 1994). To abate it, the capitalist class made considerable concessions to organised labour in order to mediate the conflict whilst preserving the overall capitalist structure of the economy. This compromise resulted in what is known as the "Norwegian model for balancing power" (Heiret, 2024 p. 154).

When oil was discovered in Norway, the capital and technical expertise were concentrated in international fossil fuel companies, such as British Petroleum (Hanisch & Nerheim, 1992). As Claes notes, these companies historically operated in colonial settings with labour movements incapable of challenging their authority, and these companies were "used to defining the rules of the bargaining game" (2003, p. 46). However, the Labour government assessed that the control of the means of production would be key to ensuring democratic control of resources (Ryggvik, 2015). Thus through the 1960s, the Norwegian state, supported by a powerful labour movement, imposed increasingly stringent restrictions on international companies, coercing the transfer of knowledge, rights and technology over to the Norwegian State. By the 1970s, the Norwegian state had gained enough leverage to enforce a comprehensive buyout of oilfields and

drilling rights across Norway, shifting the majority of control of fossil fuel extraction in Norway into public hands via the newly created public firm; Statoil (meaning literally “state oil”).

Restrained by social democratic compromise, the conflict between labour and capital continued to simmer through the 1970s. Inspired by the neoliberal regimes of Reagan and Thatcher, successive Conservative governments in Norway initiated economic policy that embraced financial market liberalisation in the 1980s, including in the fossil fuel sector (Ryggvik, 2015). Having exhausted domestic markets, the Norwegian state, compelled by the expansive logics of capitalist accumulation, “set in motion a comprehensive process of internationalisation of state-owned enterprises” (Heiret, 2024, p. 48)

In 1990, the Conservative government established the Oil Fund, designed to serve as a protective barrier between the state’s income and volatile fluctuations in oil prices. By channelling industry revenue into the fund, investing, and then drawing from the interests rates to support its spending, the state created a financial buffer against fossil fuel price volatility and diminished its dependence on Statoil (Larsen, 2006). Thus, in the words of Jonas, “oil became valued for its exchange value, not its use value”; the fund transformed oil from a resource to an asset that gained Norwegian citizens investment in the global market. The fund, mediated through stock market investments, transformed Norwegian citizens into what Alexander termed “a nation of shareholders”, their lives buttressed financially from a steady trickle of dividends from what now represents ownership of 1.5% of the world’s economy (Shammas, 2024).

Viewed from the corporate lens that increasingly governed state enterprises in Norway following the 1990s neoliberal turn, state ownership was seen as a hindrance when seeking access to petroleum regions globally (Larsen, 2006). Investments in emerging petroleum markets, such as Latin America, Southeast Asia, West Africa, and the Caspian Sea, necessitated capital resources beyond Statoil’s individual capacity (Claes, 2003). To participate effectively in such ventures, the Statoil management argued that alliances and partnerships with other

international fossil fuel companies were essential; and to do this, a “professional”, i.e corporate culture and governance structure would be required (Knudsen et al., 2020, p. 10).

The industry leadership’s proposal for partial privatisation was enacted by the Labour Party in 2001. Instead of directly governing, the state would manage Statoil “at arms’ length” (Isaksen, 2022), with state-owned companies operating autonomously. Despite significant opposition from organised labour, neoliberalism took its next step in Norway and fossil fuel industry governance was handed back into the hands of big oil (Shammas, 2018).

The semi-privatization and “at-arm’s length” strategy transformed Statoil into a more profit-oriented entity with an aggressive expansion agenda, particularly in foreign markets. The move freed the company from obligatory participation in all fossil fuel licensing rounds in Norway, which had the dual effect of allowing Statoil to prioritise expansion plans based on internal (profit-driven) considerations rather than governmental directives, and cracked open fossil fuel exploration in Norway further to corporate interest, with gains made by a plethora of international companies, from ExxonMobile to Shell. Consequently, this strategic evolution has brought about repercussions such as declining wages domestically, escalating CEO remuneration, and a more assertive neocolonial extractive approach in global operations (Kopperud & Østby, 2023).

At many points in Norway’s history Statoil has acted notably as an agent in the unfolding mechanisations of the Norwegian economy. As Richardson notes, Statoil’s interactions with the broader Norwegian industry bestowed upon it a level of autonomy beyond the expectations of central policymakers (Richardson, 1981). This role as an independent agent grew sharply following the partial privatisation in 2001. Compelled by a now-more powerful internal profit drive, Statoil’s interests in lobbying and currying favour within government became markedly more pronounced (Steinberger, 2019).

Statoil’s increased agency became particularly visible as climate change forced its way onto the political agenda in the 2000s. Statoil was fast to adopt greenwashing measures in tandem

with BP, Shell and ExxonMobil. While Statoil publicly acknowledged that there appeared to be some negative impacts of CO2 emissions, behind closed doors it lobbied hard against regulations and its preference for emission trading over carbon taxes (CAN, 2020). The alignment of commercial and political views, fostered by intimate connections between government, bureaucracy, and the oil industry, conferred a privileged position on Statoil in climate negotiations (Nissen, 2021).

This transformation also marked a departure from the initial government restraint on extraction pace, with subsequent concessions more aligned with industry demands. In navigating its evolving ownership structure, Statoil, driven by the growth imperatives of its corporate structure, attempted to blast through climate regulations in order to secure an ever-increasing flow of oil, gas and profit both in Norway and now, beyond (Grayson, 1981; Lie et al., 2014; Nissen, 2021). An aphorism quoted by Lukas, Kirsten, Ingrid and Heidi pithily critiques the resulting relationship; “once Norway had an oil company; now an oil company has Norway”.

The Present: the Norwegian Oil and Gas Industry Today

Industry Ownership and Governance

Where does this history of social democratic ownership and constrained class struggle leave the fossil fuel industry in Norway today? The next section assesses the infrastructure, extraction rates and ownership and governance structures of the fossil fuel industry in Norway today.

Despite dominant cultural perceptions within Norway of the nation as an “insignificantly small country” (Lena, in interview), Norway’s extraction amounts to a significant contribution to the global emissions that threaten total climactic collapse. In 2020, Norway was the seventh-largest natural gas producer in the world, supplying 3% of global gas and 2.3% of global oil extraction (IEA, 2022). This extraction translates directly into planet-warming pollution.

According to Greenpeace, over 500 million tonnes of CO₂ are released into the atmosphere every year as a result of Norwegian fossil fuels (Greenpeace Norge, 2024). Whilst Equinor (as Statoil was rebranded in 2018) coordinates a large share of this extraction, a number of other smaller companies are also active in Norway (see Figure 4).

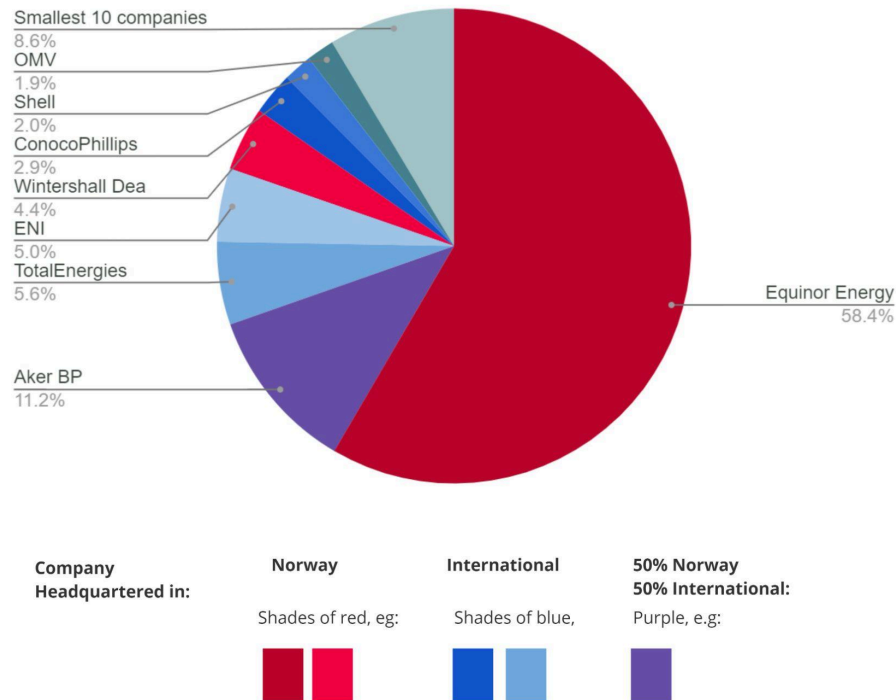
High levels of extraction also translate into profits, much of which is fed back into the Norwegian economy through Norway's high fossil fuel revenue taxation rate and Equinor's share dividends into the oil fund. In 2022, Norway earned around €121 billion (or \$131 billion) in net income from its petroleum industry, an increase from about €27 billion (or \$29 billion) in 2021. The total market capitalisation of these companies at time of writing (March 2024) is valued at \$22.7 billion USD (Norwegian Petroleum, 2024a).

Figure 4.

Fossil Fuel Extraction in Norway by Parent Company in 2023

Note: Data sourced from Norwegian Petroleum (2024a)

Equinor is the only fossil fuel company with international extraction headquartered in Norway. Equinor has built “a strong position in some of the world’s most prolific oil and gas



provinces...which are considered to be their core areas for exploration activities” (Equinor, 2024a). Its international extraction now accounts for 37% of its total activities. For example, in 2023, Equinor produced an average of 1,374 million barrels of oil equivalent per day (mboe/d) in Norway, and 708 mboe/d internationally (Equinor, 2024b p. 116).

With a controlling interest of 67%, the Norwegian state stands as Equinor’s principal shareholder, with the Ministry of Trade, Industry, and Fisheries overseeing owner interests. 32% of Equinor’s current shares are traded on the New York and Oslo stock exchanges. In combination with the *at arm’s length* principle, this results in capital like mammoth asset management BlackRock contributing to decision-making, compelling it to prioritise profit over

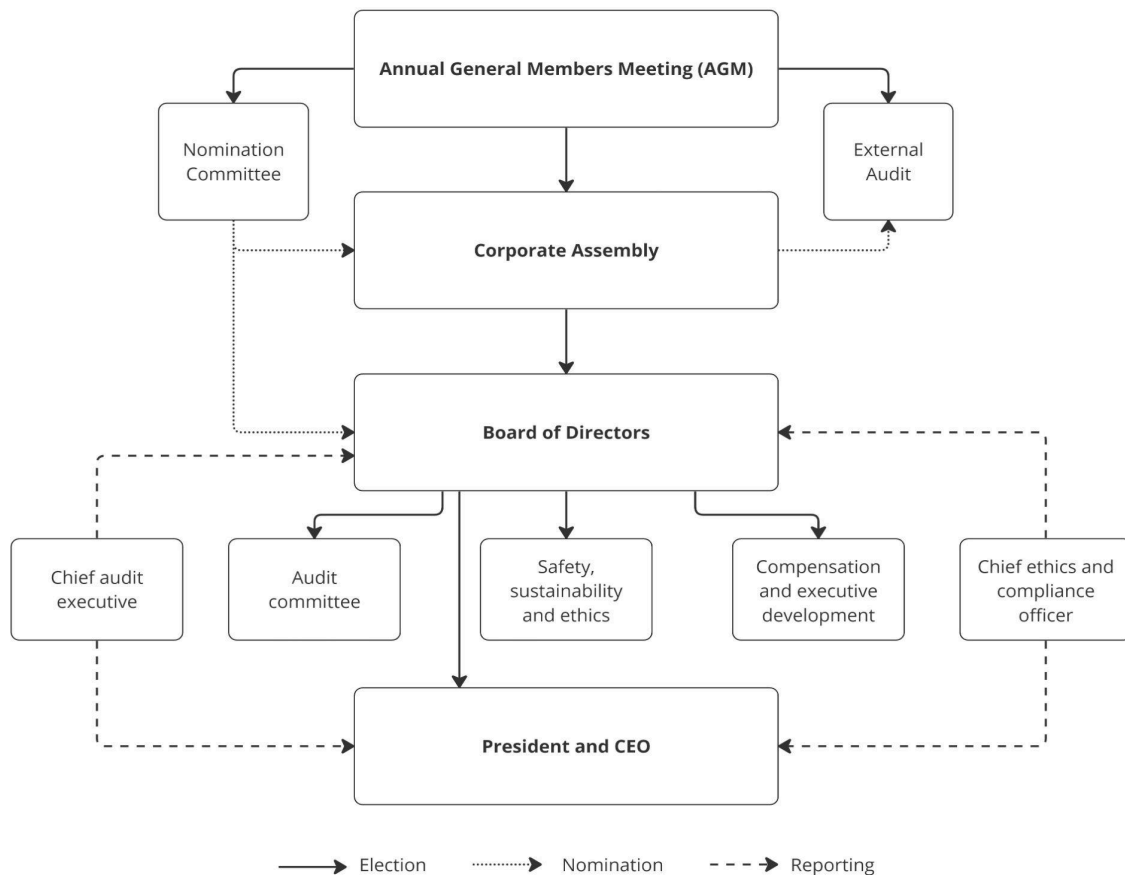
people and the planet. Equinor is governed as if it were a purely profit-driven corporate enterprise, despite being majority state-owned. Thus its governance structures are very similar to that of any other international corporation (see Figure 5)

Figure 5.

Equinor Governance Structure.

Note: reproduced from Equinor 2024b.

Private corporations are also listed on the stock exchange and thus bound by the same duty; to produce "the highest possible return over time" for stakeholders (Greenpeace, 2023). For



Equinor, this principle is situated within a broader framework of "fairness" and "justice" (Meld.

St. 6, 2022–2023). The state is supposed to actively communicate its expectations to companies in which it holds stakes and strives to convey to society its role as an owner, and then, as Anaya stated, “simply hope that the corporate structures which govern Equinor choose to comply”. Anders followed, “from where we are standing...it seems that there is very little difference to how a privately owned fossil fuel company would interact with the state and how Equinor interacts with the Norwegian state”. Thus the partially state-owned company operates in a similar manner to the remaining portion of the extractive industry in Norway.

This representation of the *de jure* governance of Equinor does not capture all aspects of its leadership. Lena, Magnus, Bjørn and Elise described a “revolving door” dynamic between fossil fuel companies and relevant government ministries, where a small number of individuals move between the upper management tiers of the organisations, maintaining a united interest bloc and buttressing formal governance with personal interconnections. Indeed, Oil Change International found the industry to be one of the most highly interconnected in the world, with a small number of 1000 individuals holding a majority of key connections (2023). Thus nationalisation pathways must working past the current consensus of these groups and build transparent, democratic governance mechanisms in their stead.

Indeed, as Bjørn, Elise, Ivar, Kristian and Lukas argued, mere transfer of ownership of the Norwegian fossil fuel industry is not enough to achieve a just transition: it must also be a socialisation of the state-owned portions (Malm et al., 2022), reintroduce a social mandate and deliberative democratic process back into the beating heart of the organisation. And pathways must achieve an ecologisation of the industry, to for the first time restructure economic processes within planetary limits (Löwy, 2015). To do so, as discussed, requires replacing the corporate profit drive that has gained increasing precedence over the last fifty years with an alternative mandate and governance structure entirely.

Infrastructure

Nationalisation pathways must be commensurate with the challenges and opportunities of the human and technical infrastructure that currently exist in Norway, and the social relations that these embody. In the words of Jordhus-Hier et al, “a rapid phase-out of Norwegian fossil fuel extraction over the coming decade...is not a matter of transferring investments and workforce from one sector of the economy into others. It is about transforming the entire Norwegian economy” (2022, p. 6).

At the time of writing, there are currently 92 oil and gas fields in production on the Norwegian Continental Shelf; 67 in the North Sea, 23 in the Norwegian Sea, and 2 in the Barents Sea (Norwegian Petroleum, 2024b). There are also 15 new fields under development (Norwegian Petroleum, 2024a). To achieve a just phase out by 2031, all these wells must be either plugged or recycled into Carbon Capture and Storage (CCS) and off-shore wind (Jordhus-Lier et al., 2022). Indeed, due to the high levels of CO₂ currently in the atmosphere, the drawdown of carbon already in the air is necessary to keep warming within ecologically and climatically safe limits. The Norwegian Continental Shelf presents an opportunity for CCS and off-shore wind, due to the already-existing offshore infrastructure and skills of its workforce, and the high availability of renewable energy (Osmond et al., 2022). Decommissioning and/or transforming these platforms will form an important part of any just transition pathway.

A just transition pathway will also need to reckon with the ramp-up of renewable energy to replace this energy source. As Brett Simpson argues, “Norway knows how to channel morally fraught profits to greener alternatives” (Simpson, 2023). In the early 1980s, after a decade of accumulating fossil wealth, Norway began investing billions of dollars into building a robust domestic renewable supply, and thus today, Norway’s energy grid is comprised of 95% renewable electricity (Simpson, 2023). However, Norway still gets 140 TWh of energy from fossil fuels, and an additional 100 TWh of energy will be needed to replace the use of fossil fuels in transportation and other processes, through making hydrogen and ammonia. Norway will

thus still need to expand its renewable power generation, and/or commit to buying more energy from neighbouring countries to replace that lost by fossil fuels.

However, the decarbonisation of the Norwegian economy will not simply require substituting one power source for another. Renewable energy is a flow source, dependent on exogenous factors (such as wind speed and sunlight strength) for power generation, in contrast to fossil fuels, whose tempo is determined by human labour in combination with technology (Christophers, 2024). In the short term, this will require a number of infrastructure development projects, such as scaling up the capacity and amount of battery storage (Inderberg et al., 2024), alternative agricultural systems (Olkkonen et al., 2023), ground-source heat pumps (Sadeghi et al., 2022) and limited use of green hydrogen (IEA, 2023a). In the long term, the decarbonisation transition will require a shift from a growth-based to a steady-state economy (Hickel, 2020; Pettifor, 2020).

Whilst a transition away from fossil fuels in the long-term interests of all, the immediate needs of local communities and workers must be safeguarded in a just transition (McCauley et al., 2019). For example, there are currently conflicts between Sami communities reliant on traditional reindeer herding techniques, other non-indigenous local communities, and private companies rolling out wind in rural areas of Norway (Fjellheim, 2023). A state-led democratic transition plan must take corporate interests out of the equation, and allow for both conflict mediation and the safeguarding of indigenous rights.

As stated by the International Trade Union Confederation in its 2015 “Climate Justice” report; “there are no jobs on a dead planet”. Nationalisation pathways must include a managed job transfer for most of these workers, including “training and skill development to support the deployment of new technologies” (p. 16), without requiring the prolongation of planet-destroying industries past ecologically and climactically safe boundaries. Recent reports estimate that 185,000 jobs are currently dependent (both directly and indirectly) on the Norwegian oil industry within Norway (McKinnon et al., 2017, p. 12), encompassing

individuals ranging from mechanics to taxi drivers, whose employment tends to be more precarious than that within energy companies. Communities face potential repercussions such as revenue loss and diminished local economic activity, along with cultural ramifications in areas deeply entrenched with a specific employer or industry. Indeed, Elise detailed that “there is a shortage of labour for offshore renewable energy due to the growing size of the offshore oil and gas sector”. Thus a just state-led transition pathway can include plans to utilise these skills by prioritising the development of off-shore technologies.

Indeed, despite fossil phase-out “totally beyond” the current political horizon (in the words of Elise), Norway’s history and current infrastructure set it up well to achieve a rapid ramp-down of fossil fuel extraction by 2031. A strong nationalisation pathway can draw on strengths such as Norway’s strong history of radical labour movements and developed renewables infrastructure in order to overcome the challenge of its large privatised sector and current governing consensus to “develop, not dismantle” the fossil fuel industry (Statministerens kontor, 2021). Drawing from this basis, the next chapter will lay out two alternative nationalisation pathways.

CHAPTER FIVE. PATHWAYS

“Norway has all the financial, technological, and human resources it needs to thrive in a decarbonised future; what’s missing is policy leadership.” - Marriana Mzzucato and Rainer Kattel

Pathway 1: Act of Parliament

The first pathway uses state infrastructure to comprehensively restructure the ownership and governance of the oil and gas industry of Norway by using an Act of Parliament to instigate a (re)nationalisation and socialisation of the industry along locally and globally just principles. This pathway was developed following historical processes and developed mainly through conversation with Jonas and Heidi, with significant contributions from the literature and Anaya, Anders, Bjørn, Elise, Henrik, Jonas, Kristian, Lukas and Mikkel.

Two Precedents

The first precedent for this pathway is in the Labour government’s 1972 founding of Statoil. The nationalisation of the budding oil and gas industry represents a successful move to wrench control and rewards for key energy generation work from a purely profit-interested model to one focused also on social ends (Sandal, 2023) and thus provide legal and political precedent for reintegrating extractive activities back into the public framework. This precedent also holds cultural significance; as Ivar noted in interview, “while there has been an opening to private and foreign capital for the exploitation of the oil resources, there has nevertheless remained a very strong political consensus” continuing from 1972 to the present day that fossil fuel resources should be owned and managed by and for the public interest.

The second precedent for this pathway is the semi-privatisation of Statoil in 2001 (Claes, 2003), which supplements the first with a more recent legal precedent for state intervention in the fossil fuel sector. In 2001 after a highly divisive debate (Sandal, 2023) within the Labour Party and in the labour movement, the government listed Statoil on the stock exchange and sold

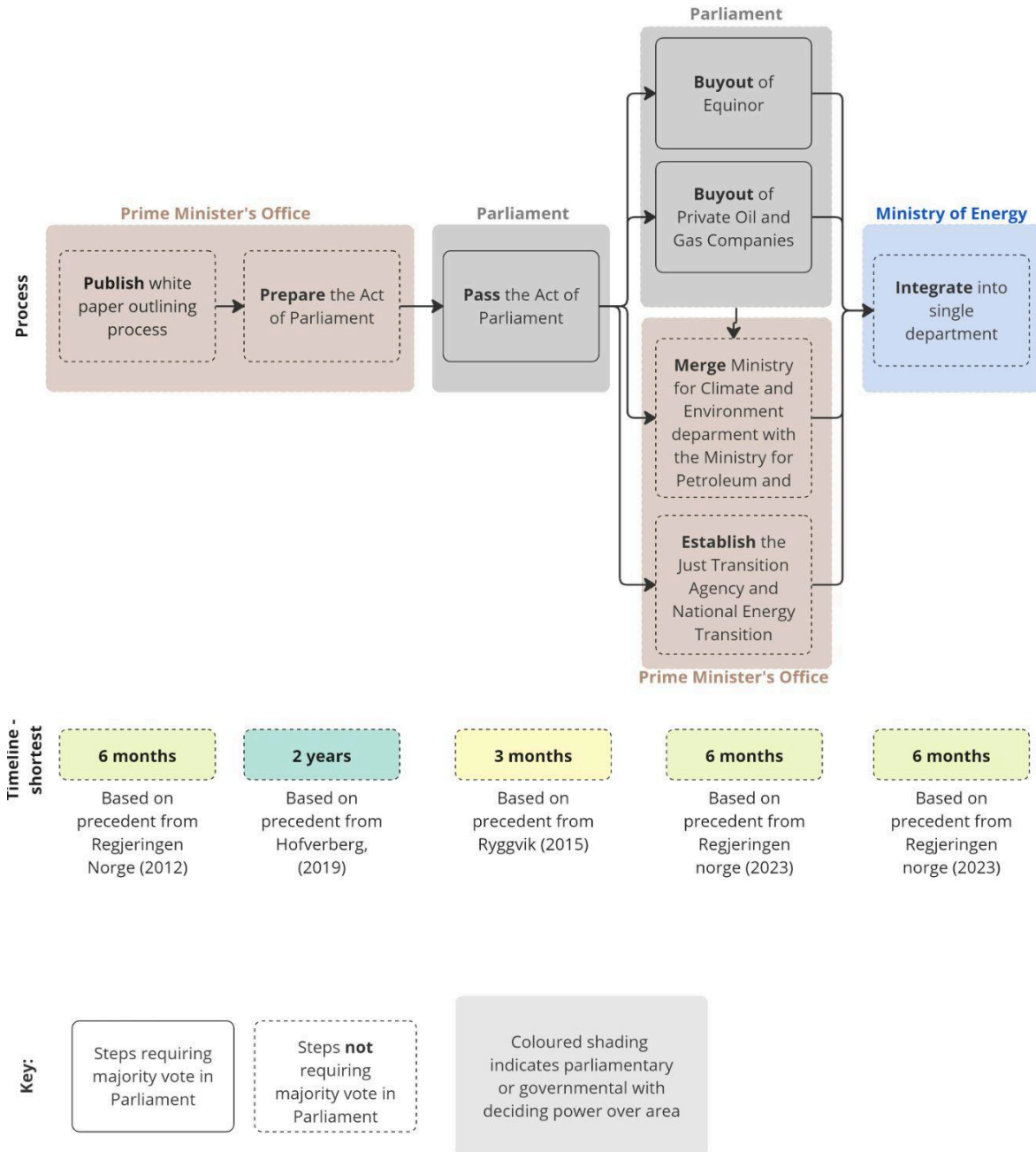
a significant minority of its shares (Equinor, 2024c). This was achieved via the passing of an Act of Parliament that was voted through by a narrow majority (E. Larsen, 2013). This shift in ownership and governance lies in direct contrast to the kinds of pathways towards renationalisation and resocialisation that this paper argues are necessary. It does not hold strong cultural significance; as Lukas expressed, “2001 privatisation is not a big moment (for us). No one I know would cite it in an argument”. Nonetheless, it remains the most significant change in the ownership and governance of fossil fuels in Norway since the government established Statoil in 1972 and can serve as a precedent for the renationalisation of the industry, as it uses the same legal and political frameworks and processes for amending the ownership and governance structures of the state-owned components of the industry.

Process

The government begins by releasing a white paper outlining the new just transition mandate for the oil and gas industry in Norway, and the process for designing it (see Figure 6). Negotiation and collaboration between the climate movement, unions and the organised left more widely will be necessary to prepare the paper. White papers (stortingsmeldinger in Norwegian) serve as formal notices issued by the government to present analysis and policy proposals on specific areas (Regjeringen Norge, 2012). Whilst white papers do not hold legal standing, their release has preceded every major shift in state ownership and governance of the fossil fuel industry since 1960 (Kooprud and Østby, 2023; Knudsen et al, 2022); therefore Anaya proposed this as the first step.

Figure 6.

Process for Nationalising the Norwegian Fossil Fuel Industry Through an



Act of Parliament

Next, the Act that will renationalise Equinor and all the Norwegian branches of international fossil fuel companies operating in Norway is created in dialogue with local union chapters and locally affected communities, within globally just environmental limits. As Kari expressed, a just pathway for setting the phase-out plan must “work with the Labour unions”, including “LO, the federation of labour unions”, aka LO (Anders), and specific unions for oil and gas workers such as IE (the Union of Industry and Energy Workers) and Safe (the Union of Energy Workers). Unions will have a mandate to deliberate aspects of the Act such as the retraining and reskilling programmes, worker democracy and control practices in the new socialised workplaces, and safety standards in renewable infrastructure. As Jonas notes, the unions “can work as constructive, term-setting, goal-operationalizing actors” in a just transition.

Such dialogues would also include what Jonas called a “mandate for regional decision-making”; “regional conversations where people can speak to skill policies on regional development pathways, local industries and higher education institutions”. The Act “has to be relevant to these key regions (such as Vestland) and other regions”. Jonas recommended in this pathway to use inspiration from current collective bargaining processes but to expand beyond the top-down leadership frameworks to allow for a decentralised expression of needs and opinions. Such a process allows, from the perspective of labour, what Elise calls “transitioning within the industry instead of transitioning away from the industry”. This can follow a set timespan so that the process can move on the timetable necessary to avoid what Jonas called “the crash scenario”, where unplanned economic collapse from the fossil fuel industry and climate collapse.

After the Act is prepared, which is likely to take at absolute minimum two years due to the high level of deliberation needed (see Figure 6). The Norwegian Parliament (Stortinget) then approves the Act in a vote after consultation with relevant party committees. A majority is required in order to approve the Act, which may be amended through the process (Hofverberg, 2019).

Upon gaining a mandate from parliament, the government proceeds with a full buyout of Equinor's shares from other private owners. Approval will be required from Equinor's board of directors, regulatory authorities, and possibly shareholders. Since the state is already the majority owner, this is not a barrier: the State can grant this approval through its representatives using the AGM structure (see second pathway for details) and replace a non-compliant board. The state then proceeds with a forced acquisition of the remaining privately owned fossil fuel extracting enterprises operating in Norway.

Following principles of justice and capacity, it is suggested in this pathway that the state compensates only pension funds and private individuals in Norway, and not all shareholders of companies. Following the logic of Johnson and Herfort "people consciously investing in planetary destruction should receive nothing in return" (p. 27). Additionally, following the guiding values of capacity, financial institutions that own fossil capital such as BlackRock are some of the best positioned to take financial losses. Furthermore, non-pension private individual investors are generally "the richest individuals who can afford a personal loss on their planet-wrecking investments" (p. 28). As Semieniuk et al. demonstrate, it is thus such individuals who also have highest capacity to stomach losses (2022). Thus only Norwegian individuals, whose buy-in is required for the success of the measures, are included in the compensation of ordinary people (Esteban & Ray, 2006). Under such a rubric, such a buyout would cost the Norwegian State a (roughly estimated) total of \$26bn. It is also notable that following the publication of the white paper, share price of Equinor is likely to plummet; thus this cost stands as a "worst-case scenario" (Anaya). For example, after Western nations began divesting from the Russian stock market, the value of the Norwegian Oil Fund's holdings in Russia dropped by \$2.8 bn before it sold out (Shammas, 2022; Taraldsen & Treloar, 2022).

After acquiring full ownership of extractive industries in Norway, the Norwegian state integrates the companies into a new ownership and governance structure. There currently exists separate Ministries for Climate and Environment and for Energy, whilst the ownership of

Equinor is situated under a third (the Ministry for Trade and Fisheries) (Regjeringen Norge, 2024). As Bjørn explains, this current set-up has “become very fixed and institutionalised in the way that it currently operates and it is governed by a kind of very close cooperation between these government agencies” and that beyond restricting licensing rounds for extraction, “there is no parliamentary oversight or democratic debate”. One solution to this that Bjørn proposed is to bring in expert scientific panels with mandate over aspects of the process. This would place ecological demands over those of local (and potentially international) justice in the transition. Instead, following Johnson & Herfort (2022), the government establishes a Nasjonal energiomstillingsdirektorat² (English: National Energy Transition Authority) within a reimagined Ministry for Energy, into which the ownership and governance of Equinor and other newly nationalised companies is moved (see Figure 6).

Nasjonale energiomstillingsdirektorat is tasked with managing the phase-out of fossil fuel extraction in Norway and the ramp-up of a socialised renewable energy transition state company. Nasjonal energiomstillingsdirektorat assumes control over all Norwegian-based fossil fuel assets, including oil and gas fields, refineries, and infrastructure. This could include the cancellation of expansion projects in all other “fossil heavyweight” countries, namely the UK, as well as a planned shutdown and plug-up of active wells according to timelines compatible with a climate-just global transition timeline, likely requiring a planned end to the Mexican and Brazilian extraction sites long before 2038 (Calverley & Anderson, 2022). Such a process can follow deliberation between local unions, affected communities and scientific experts in a dialectic local-international planning process. Further, Nasjonal energiomstillingsdirektorat would scope how best to replace the 140 TWh of extra energy needed to replace fossil fuels in the Norwegian grid, likely including a ramping up wind turbines, especially floating offshore wind, contributing more than 100 TWh by 2050, and onshore wind may contribute a further 40–50 TWh. Retrofitting some grey area solar allows for local-level energy generation and

² Note: term determined through discourse with interviewees. “Direktorat” was selected by Anaya as the most relevant term over “myndighet”

supports the grid on low-wind days (DNV, 2023). Under proper state leadership and management, CCS technologies are ramped up to replace Norway's oil and gas economic output (Lyngseth, 2023). According to these parameters, Norway may briefly face a net electricity deficit in 2028 lasting until 2032, which could see Norway paying European price levels or more for electricity.

Through this pathway, the new reimagined energy department would also include a baked-in mandate for affected parties through Bare Transition Byrået (English: Just Transition Agency), which would sit as an agency within Nasjonal Energiomstillingsdirektorat. Bare Transition Byrået's mandate would include scientific expertise, "bringing nature into the budgeting and the economic planning" (Lukas), as well as consultation with local communities and workers who hold what Jonas called "real decision-making power".

Bare Transition Byrået would be responsible for supporting workers, communities, and industries affected by the energy transition, including workforce retraining, job placement programs, and economic diversification initiatives. Local communities, industry representatives, and labour unions within Bare Transition Byrået would contribute valuable knowledge and defend their interests in tandem with the infrastructural design from Nasjonal energiomstillingsdirektorat.

Under this pathway, transitioning workers from fossil fuel extraction (and related) to decommissioning work and renewables would be locally deliberated and centrally planned, safeguarding jobs and preventing crash-and-burn scenarios for regions where extraction is key to the local economy. As Elise highlighted, the state would now be able to plan directly across all extraction processes, it would be possible to ensure that workers are retrained and moved within the same employer. This could be planned and powered by what Jonas describes as a dialectical planning process between both national and local trade union deliberation to ensure that no worker is left behind, and no aspect of the transformation is understaffed.

In the long term, renewable industries will require a steady-state economy and require less overall labour than the extraction of fossil fuels (Pettifor, 2020). By baking in trade union power and deliberation into the planning process alongside ecological experts, this could, in the long-term, lead to shorter working weeks and longer holiday shifts (Hickel; 2020), rather than the cutting of jobs. As Henrik noted, this is especially relevant for physically demanding jobs, which “compromise many in this sector”.

Analysis

The most significant drawback of the Act of Parliament is the timescale; a legislative process can be time-consuming, taking a minimum of three years nine months (see Figure 6) and potentially up to seven. This would allow for continued extraction along current plans for the first (at least) five years, which would likely increase as private companies race to increase extraction pace (Aune et al., 2020). Legislative changes require the full force of Parliament, opening up the pathway to potential delays or watering down of proposed reforms.

A further potential cost and delay could come in the form of Investor-State Dispute Claims (ISDS). Forced nationalisation could make the Norwegian state mechanism liable to expensive Investor-State Dispute Settlement (ISDS). ISDS is a system which “allows investors to unilaterally sue states over sovereign policy that threatens future profits” (Johnson et al., 2023, p. 15), often taking the form of international arbitration between the foreign investor and the nation (Finizio et al., 2014). This has been used in 175 cases at time of writing by corporations to extract payments from the state on the grounds of lost profits due to environmental and climate protection legislation. If Norway were to forcibly nationalise its fossil fuel industry, foreign investors who have invested in the industry could potentially bring a case against Norway through ISDS (IISD et al., 2023). To date, “fossil fuel companies are using ISDS to sue sovereign states for \$18 billion over climate policy” (Johnson et al., 2023, p. 15) so the precedent for this risk is strong.

However, the enforcement of ISDS awards is complex, with room for resistance by the Norwegian state. ISDS is also a highly criticised mechanism (Olivet & Eberhardt, 2012; Di Salvatore, 2021; Vaudano, 2018), and a progressive Norwegian state could extricate itself from such harmful trade rules, and work with other states to challenge these rules on a multilateral level. What's more, nationalisation will help avoid a crash scenario; compared to the current extract-burn-crash pathway pursued by oil and gas companies and the Norwegian state, it is comparatively cheap and stable. As Jonas describes, "there will be an economic slump during the transition period, but we use our common efforts to restructure that and protect ordinary people from its effects". Then forecasting predicts that with a strong renewable sector, Norway can reap rewards not only in income but in worker well-being and ecological flourishing by 2050 (Stoknes et al., 2021). Thus the economic risks of these pathway implications are potentially outweighed by the long-term income and stability it provides.

Indeed, the main strength of this first pathway is its ability to fully nationalise all fossil fuel infrastructure in Norway and all fossil fuel companies based in Norway, not just Equinor. This would in turn pave the way for a total reset of its mandate and governance structure. This allows for a coordinated and planned phase-out (Jonas) on a timetable compatible with a climate-just 2030 deadline. This pathway would enable Norway to phase out all fossil fuel extraction by 2030, leading to an almost 3% drop in annual global emissions³.

Changes enacted through an act of parliament carry the force of law, which, Anaya noted, provides a clear and enforceable framework for governance, and with it, long-term stability. Legislative action offers the opportunity for comprehensive reform of the industry's core governance structure, allowing the government to address broader systemic issues and take full democratic control of the just transition. This allows for comprehensive and ongoing public debate, scrutiny, and parliamentary oversight, enhancing transparency and accountability.

³ Following the core logic of this paper, that "without the ability to store significant surpluses of fossil fuels", extraction is for most intents and purposes equatable with consumption (Calverley & Anderson, 2022, p. 9)

As Magnus, Jonas, Ygnve and Daniel noted, this pathway is strong because it draws on and nurtures the power of unions and the local community, and expresses these through the powerful coordinating mechanisms of the state. The pathway is a “radical solution” that sets the state as “the term-setting actor”, rather than the market or the fossil fuel companies as Jonas expressed. It thus might actually have the potential to manage a truly just transition on a timeline compatible with climate justice.

Pathway 2: Corporate Restructuring

The Norwegian state already controls the majority stake in the company consisting of 70% of fossil fuel extraction in Norway, and 100% of extraction occurring internationally but headquartered in Norway (Equinor, 2024b), but does so through a governance structure that mimics the same pitfalls as the privatised industries. As Ivar summarises, “we’ve got state ownership but profit-driven management”. Without passing any legislation, the government can choose to restructure the governance of Equinor on just social and ecological mechanisms, with locally affected communities and trade unions contributing knowledge and power to decision-making via the following pathway.

The second pathway follows pathways initially devised with Heidi and Lena, and elaborated with insights from Bjørn, Ivar, Kari, and Kirsten as well as drawing in data from the literature. It follows precedents from the mainstream climate movements’ current strategy, and works through the corporate structures of Equinor from inside out, using the majority-state ownership as a leverage point that would circumvent the need for any Acts of Parliament.

Two Precedents

In 2022, the Norwegian government issued a white paper, detailing that any state-owned company must be Paris Climate Agreement compliant and that any non-compliant company could be subject to direct intervention (Meld. St. 6 (2022–2023)), challenging the governments’

“at arm’s length” governance principle. Kari explained that her activist group submitted a motion to the Annual General Members’ Meeting (AGM) which “followed pretty much exactly the wording of the governments’ 2022 white paper.” As Lukas described, this forced “Equinor’s owners to vote on whether they should follow this plan”, which they “voted down”. Whilst the paper had no discernable implications on Equinor’s actions, it provided an opening which climate activists exploited to as Lena explained “drive a wedge” between the Ministry and the company by revealing how little the company heeds the Ministry’s wishes, and thereby “hold the minister more accountable”. The paper can serve as a recent precedent that a pathway using state ownership to adjust the mandate and strategy of the fossil fuel industry using current corporate governance structures can build upon and follow the “current strategies” (Lena) of a number of climate activist movements.

The second precedent comes from the state’s handling of the state-owned telecommunications company Telenor in 2002. Financial losses and neoliberal international expansion caused widespread public concerns about Telenor’s governance. In response, the government used its majority ownership to instigate a shareholder coup of the board at the 2002 AGM (Lie, 2016). Together with a group of institutional investors and activist shareholders, the government (specifically, the Ministry of Trade and Fisheries) voted to replace several members of the board with new candidates who supported an alternative vision, leading to significant changes in the management and a renewed focus on Norwegian operations (Lie, Myklebus, et al., 2014). Whilst little known, the Telenor AGM serves as a precedent for the formal processes of transforming the governance of a state-owned company in Norway.

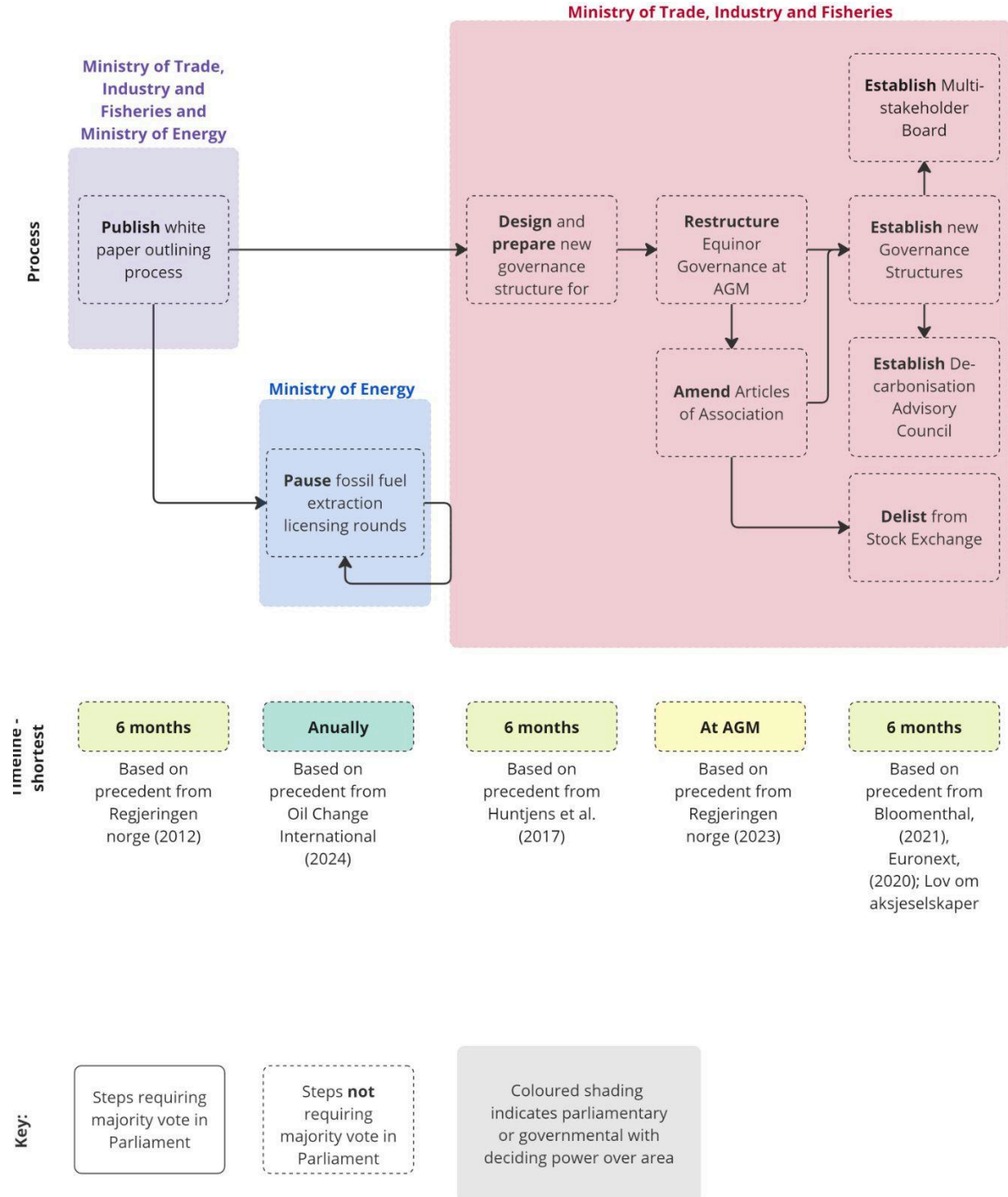
Process

The Government begins by issuing a new white paper, reaffirming the 2022 white paper that declares the Government will take active control of any state-owned company which is not 1.5 degree aligned, and detail more precisely the process below of how more active control will be

taken. Whilst not holding legal standing, the white paper extends the precedent for action and is used to build consensus within the government ministry on the course of action (Anders).

Figure 7.

Process to Partially Socialise the Norwegian Oil and Gas Industry Through Corporate Restructuring



As Kerstin continued, “putting the right people in charge of Equinor is an important step”. The board is the highest command of Equinor (Brønnøysundregistrene, 2022), and the current board is composed of ten people, and, as Kerstin noted, “9 out of 10 has an oil and gas background” including former or current heads of three international oil companies (Shell, Cuadrilla, Vattenfall) three other fossil fuel related companies (Telenor, Tekna and Torvald Klaveness Group) (Equinor, 2024d). Thus the board is “captured by fossil capital” (Ivar), whose interests are tied to the extraction of profit and not well-being and inclusion of people and planet (Petitjean & Dubois, 2024).

The first step the government takes in this pathway is therefore to design an alternative board structure and composition in the form of a Folkets multistakeholder-styre (People’s Multistakeholder Board in English) in consultation with unions and local communities. As Heidi described, this includes “seats reserved for; workers who understand the worker safety hazard...environmental experts...experts from environmental justice communities to articulate what the plan is”. The Folkets multistakeholder-styre then continues to function as the top executive power, supported by Avkarboniseringsrådet (the Decarbonisation Advisory Council), which could comprise external stakeholders, including industry experts, academics, community leaders, and representatives from non-governmental organisations, who provide advice and guidance to government-owned companies on strategic, environmental, and social issues.

The new governance structure is implemented at the AGM. As the supreme body, the AGM is governed by Equinor’s Articles of Association and the Norwegian Public Limited Liability Companies Act (Equinor, 2024e). All registered shareholders in the Norwegian Central Securities Depository receive invitations, allowing them to submit proposals and vote, either directly or by proxy. As the government owns a 67% stake in Equinor, it receives 67% of these invitations (Equinor, 2024c); specifically, the Ministry of Trade does, as the body in charge of handling the governments’ ownership of Equinor (cite). As Kirsten notes, under its current

structure, the AGM is “the most important place for changes in governance” under Equinor’s current ownership and governance structure. Three of the climate activist groups interviewed cited the AGM as a place where significant change could potentially be made.

At the AGM, the government uses its majority ownership to propose resolutions and amendments that alter the company’s articles of association (Meld. St. 6 (2022–2023)). This includes introducing new specific governance principles and policies relating to fossil fuel phase-out and renewable roll-out, through a just transition framework, as well as the newly designed Board and Avkarboniseringsrådet. The second step that can be taken at the AGM is, in Bjørn’s words, “turn Equinor around: take it off the stock exchange”. The privatisation of Statoil opened up its governance to corporate interests (Ole), necessitating it to put profit over people and the planet. Whilst it is not possible to enforce a complete buy-out of Equinor without an Act of Parliament, it is possible to restrict the financialisation of Equinor by delisting from the Stock exchange. Delisting from the Stock Exchange is a voluntary act, which the state, being the primary owner of Equinor, can take following an AGM (Bloomenthal, 2021; Euronext, 2020; Lov om aksjeselskaper (aksjeloven), 1999; Scott 2023).

These steps result in the new oversight and governance structure for Equinor; however, they do not guide phase-out for the 30% of Norwegian fossil fuel consumption that is operated by non-state owned companies. As Kari proposed, the Ministry of Energy, therefore, pauses all annual licensing rounds to make sure there are “no new oil and gas fields”, as there is no climate-justice-compliant pathway for Norway that includes the opening of new oil and gas fields (Calverley & Anderson, 2022); as Bjørn explains, this therefore requires a halt to both the “frontier rounds” or the “regular concession rounds” of licensing, a step that the government renews annually (Licensing Rounds, 2021; Oil Change International, 2024; The Petroleum Act and the Licensing System, 2015). The Ministry of Energy can also “phase out all fossil fuel production and consumption subsidies” (Global Oil and Gas Network, 2020). Kari pointed to how these subsidies prop up fossil fuel exploration, drilling and clean-up for

international firms, and “can be channelled instead into expanding the new justly run renewable sector”.

Analysis

This second pathway is only partially successful in achieving nationalisation, leaving 30% of the industry private as well as a significant minority of the ownership of the state-owned company Equinor. Thus phase out of 30% of fossil fuel extraction managed by the private sector, likely in an unjust manner (Routledge et al., 2018). As Heidi described, “A regulation-only approach will not be managed and it will not be just”. There is also a significant risk of “less planning” and “more anarchic market fluctuations” governing the dismantling of oil rigs and the roll-out of CCS or renewable technologies as noted by Magnus.

The pathway also leaves the shell of the fundamentally corporate Equinor in place, unable to force a total buyout and thus unable to fully integrate it into state structures. Whilst some degree of union and local community prioritisation is safeguarded through the multi-stakeholder board, this a weaker form of co-governance and deliberation than the Act of Parliament’s dialectical local-national deliberation model, and thus, as Jonas highlights, less likely to effectively harness the power of organised labour and transform the industry in its entirety into a worker-governed, just economic mechanism. The state would also still be open to ISDS claims from Equinor’s shareholders and fossil fuel companies on the grounds of lost profits from halted extraction (IISD et al., 2023; Johnson et al., 2023). It is thus overall a more fragmented and less wide-reaching solution than legal pathways.

However, this fragmentation does also give this pathway benefits; it does not require an Act of Parliament and therefore does not require full Parliamentary support. As Henrik notes, it is a pathway that can be implemented solely by the Prime Minister in coordination with the Ministry of Trade and the Ministry of Energy (see Figure 7) - indeed, if one fails to cooperate, then the actions of the other may persist regardless. It is also an expedient pathway, with a

minimum estimated implementation time of just over eighteen months (see Figure 7), and a less costly pathway, with no costs incurred through the buyout of the industry. It also builds on a strong precedent within government action following the 2022 white paper and from current strategies employed by the climate movement, as noted by Lena, Erik, Anders and Kerstin.

A Combined Pathway

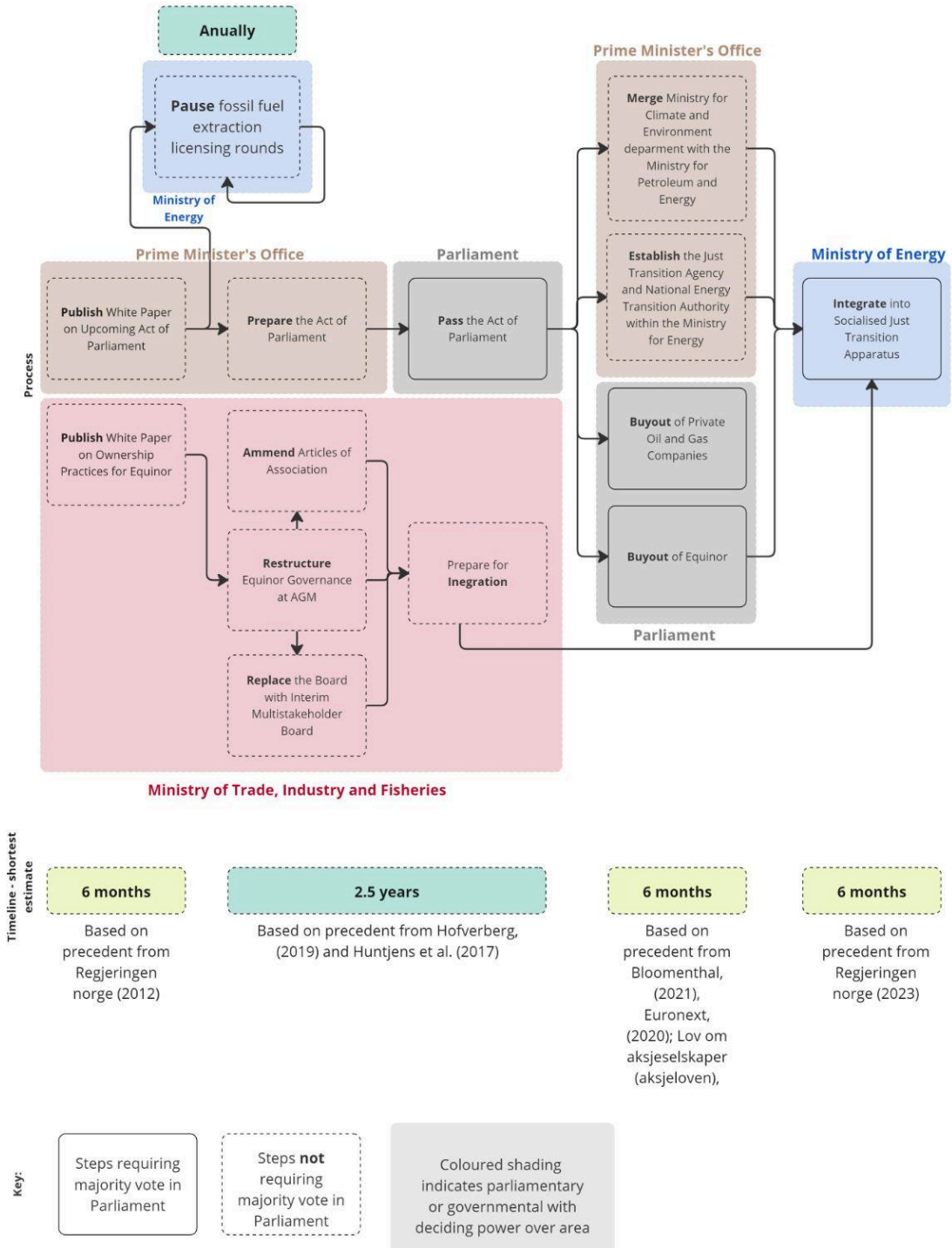
The two pathways emerged from two alternative groups of perspectives from the interviewees, combined with precedents from Norwegian history. But as Heidi notes, “nationalisation and regulation can operate in concert: the regulatory framework of a national company sets the parameters for when and how, and accountability for following national decisions”. A combination of both pathways, acting both to immediately limit exploration by pausing new licensing rounds, and internally restructure Equinor in order to immediately limit ecological damage and slow emissions, whilst delivering an Act of Parliament to fully nationalise the industry (see Figure 8). This combined legislation would expedite the process, preventing a “race to the bottom” and beginning the phase-out process from day one.

The combined nationalisation pathway (referred to as “the nationalisation pathway” from here) is technically feasible and harnesses the power of organised labour and deliberative democracy to rapidly shut down fossil fuel extraction and transform Norway into a carbon-removing, justly run steady-state economy. It is not without its risks; it would take an enormous injection of initial capital, including potential further losses to ISDS; but such enormous shifts have been seen in Norway before and thus there is no reason to believe they could not happen again. And in the time between the pausing of licensing rounds and the nationalisation of companies, that would, as Henrik noted, “introduce some minor damage in terms of initial uncontrolled worker layoffs”. Despite this, the pathway will still result within five years in the desired end-point; a justly controlled and planned phase-out. This state-led just transition pathway could also have further geopolitical knock-on effects; providing inspiration

to worker movements beyond its borders, just as Norwegian working-class initiatives cooperated with and inspired other workers' movements through the 20th century (Heiret, 2024; Ryggvik, 2015).

Figure 8.

The Combined Pathway for Nationalising the Norwegian Fossil Fuel Industry



CHAPTER SIX. CROSSROADS

“One thing that strikes me is that you are excusing yourself for operating on a semi-utopian level. But it is the realpolitik actors right now [whose ideas] are truly utopian.” - Jonas (research participant)

How do the implications of the nationalisation pathway constructed in this thesis compare to the path that Norway is currently on? In this chapter, I place the pathways in the context of current forecasted trajectories, to evaluate the extent to which the nationalisation pathway is more just and ecologically safe.

Currently, the Norwegian government aims for the country to be “climate neutral” by 2030 (Ministry of Climate and Environment, 2021). However, this is not the same as decarbonisation; it relies upon Norway continuing to emit and paying off poorer countries for emissions reductions instead (Lyngseth, 2023), a scenario not globally compatible with preventing warming exceeding 1.5 degrees, particularly not if countries with a much lower transition capacity (such as Sudan and Iraq) are not to phase-out extraction first (Calverley & Anderson, 2022). This goal of climate neutrality also does not account for Norwegian fossil fuels that are exported abroad, or the emissions of the fossil fuels that Equinor extracts internationally. For example, Equinor has committed to halving its operating emissions by 2030 through actual greenhouse gas reductions rather than buying carbon offsets. However, it has no plans to stop searching for new reservoirs, despite the International Energy Agency’s warning that no new fossil fuel exploration or development should take place if the world is to meet its climate goals (IEA, 2023b).

Indeed, under its current profit-driven planning process, Norway will scale up its fossil fuel extraction year on year. Norway is home to the fifth highest number of expected new oil and gas projects (Bearak, 2023), and, as Muttit and Kartha starkly state, “Norway’s proposed and prospective new oil and gas fields would lead to 150% more emissions than what is in currently

operating fields” (2020). For example, propelled by the expansionary pressures of capitalist accumulation drives, Equinor will grow this figure annually to diversify its portfolio; thus Equinor’s international fossil fuel extraction grows annually, increasingly looking beyond Norway for new markets. Equinor is thus engaged in the construction of several large-scale carbon bombs internationally, including Peregrino in Brazil and Rosebank in the UK (Čavčić, 2024). These projects are incompatible with a global climate that is inhabitable long-term for most current life forms (Kühne et al., 2022). As Lukas despaired, under current forecasts, big oil is “destroying my generation’s future”.

Without a planned phase-out, Norway’s fossil fuel industry is forecasted to continue growing year-on-year until it encounters a sudden crash in demand and investment (Froggatt et al., 2020) with up to half of assets becoming worthless by 2036, initiating a recession in Norway of an unprecedented scale, a forecast by Mercure et al (2021) finds. Meanwhile, the Norwegian state is forecasted to continue spending significant proportions of state finance on fossil fuel subsidies, which will “impose large fiscal costs on governments and drain scarce financial resources” (Oil and Gas Network, 2020). Climate collapse also poses intense risks to the global economy of a global crash scenario, in which Norway would also be deeply affected, with challenges to accessing food and basic amenities, find Olson and Lenzman’s 2016 forecast. Thus whilst the pathway detailed is initially costly to state apparatus’ and private owners outside of Norway, it becomes a cheap deal compared to the devastatingly unstable course currently forecasted.

Roll-out of renewables in Norway under current conditions is forecasted to be strong, although slower than in the nationalisation pathway. The industry is forecasted to provide 100% renewable energy for the Norwegian grid by 2050 (DNV, 2023), constrained primarily, as Elise explained, by a shortage in infrastructure and skilled labour as a result of the fossil fuel industry continuing to grow. The form of the roll-out is forecasted to be unjust, as local communities (particularly indigenous Sami reindeer-herding communities) fail to be appropriately consulted through the corporate planning processes (Rasmussen, 2023)

The strategy amongst NGOs working to end fossil fuel extraction in Norway, like Greenpeace and WWF, is currently to focus on legislation. As Anders explained, the strategy is “not to get involved with the running of the industry” but, as Kari added, “get the government to ban extraction”. A number of studies forecast such legislation-only phase-out scenarios where external legislation is used to limit licences for new fossil fuel extraction in Norway, with some ending in an eventual ban on extraction. No forecast of this scenario is able to predict a phase-out timeline compatible with a globally just 1.5-degree scenario. A ban on new exploration is likely to lead to a rush for extraction, with phase-out only truly beginning after 2030 (Aune et al., 2020). If combined with a reduction in subsidies and other tax alterations, this could eventually halve output by 2050, leaving Norway continuing to extract fossil fuels well beyond a just phase-out date, and even beyond advised final phase-out dates for countries with much lower phase-out capacity (such as Iraq) (Calverley & Anderson, 2022).

The process for workers (not considered in these forecasts) in legislation-only scenarios are likely to be turbulent. As Magnus outlined, “many workers and their families depend on the income from these industries”. Unlike in the nationalisation pathway, a sudden ban could disrupt their livelihoods, especially in regions heavily dependent on extraction (Agyekum et al., 2022) such as Västland. In such an unplanned phase-out, workers are likely to be required to move to find new employment opportunities if their current jobs become obsolete due to a ban. This could lead to significant social and economic changes in their communities. The shift from fossil fuels could potentially impact workplace democracy; as Elise argued, workers won strong rights through decades of organised struggle in the sector, and newly privatised industries are unlikely currently to provide the same conditions. On top of this, workers will need to acquire new skills to find employment in other sectors, which could require significant time and resources (Cronlund et al., 2014).

Finally, legislation-only scenarios do not hinder Norway’s international fossil fuel extraction. Indeed, if extraction in Norway was limited, Equinor’s current strategy (Equinor, 2023)

indicates that this would likely increase its international focus, expanding its drilling activities for fossil fuel in places like Brazil and the UK. Thus legislation-only scenarios are forecasted to be less effective in phasing out extraction in Norway as a whole than the nationalisation pathway, and actually likely to increase extraction internationally, with degrading effects on working conditions, and worker and indigenous rights in Norway and beyond.

Norway stands at a crossroads. The forecasted pathways for likely scenarios if the Norwegian fossil fuel industry continues to function through its current ownership and governance structures suggest a future that is climatically unsafe, and locally and globally unjust. Even if the climate movement were to succeed in securing external legislation used to limit extraction, Norway would continue extracting at unsafe levels for long enough to rob Global South countries with lower transition capacity of their potential for a delayed phase-out in line with their capacity. Regardless, Norway's current forecasts indicate that it is headed toward an unplanned and uncoordinated crash scenario in which workers bear the brunt of the costs of the transition, and industries are ill-equipped to coordinate a renewable rollout and CCS infrastructure in an efficient and just manner. As David noted, whilst the ideas of the nationalisation pathway is "semi-utopian" in its design, the path forward it charts requires less fairytale thinking than the hope that a profit-driven phase-out could deliver change of the scale and form needed.

CHAPTER SEVEN. CONCLUSION

“To refuse to participate in the shaping of our future is to give it up. Do not be misled into passivity either by false security (they don’t mean me) or by despair (there’s nothing we can do). Each of us must find out work and do it.” - Audre Lorde

By using a productive tension between utopianism and practicality, this paper presents one answer to the enormous challenge of orchestrating a just transition on the short timescale needed to pull the emergency break on climate collapse (Vetesse & Pendergrass, 2022). Through what I preliminarily term class conflict informed participatory backcasting, I interviewed eighteen trade unionists, climate activists and researchers and analysed existing literature and primary sources from the Norwegian state and fossil fuel industry. I outlined and analysed the basis for potential pathways for a state nationalisation of the fossil fuel industry and transition into a justly run renewable powerhouse.

Initially, two nationalisation pathways were constructed. The first was a comprehensive Act of Parliament, re-nationalising all fossil fuel companies in Norway in concert with unions and locally affected communities. Following this pathway, the state creates a combined authority for fossil phase-out, Nasjonal energiomstillingsdirektorat, and just transition agency, Bare transition byrået, within a reorganised Ministry for Energy. The Ministry coordinates a rapid emergency measure that would take fossil fuel extraction out of the hands of fossil capital and into democratic control of those who work in its extraction and understand in-depth the ecological and environmental limits.

The second pathway followed precedents from the climate movements current strategy for reducing fossil fuel extraction in Norway. By utilising the state’s preexisting part-ownership of Norway’s biggest fossil fuel company Equinor, the state can restructure the oil giant around principles of local and international climate justice. This pathway is considerably weaker than the first pathway in its ability to secure a comprehensive renationalisation and to wrestle back control of fossil fuel extraction and renewable energy production. It does, however, contain

measures that could immediately reduce extraction. I then combined the strengths of the first two pathways into a final pathway, buttressing the muscle of the Act of Parliament pathway with the fast-acting legislative elements of the Corporate Restructuring pathway to create a comprehensive policy plan that both halts industry expansion immediately and provides for a just, fully nationalised transformation in which workers and local communities are not left behind.

The case study I have presented extends the theoretical assumption of a growing number of ecosocialist theorists who suggest that using the arm of the state might be the most effective way to initiate a just sustainable transition (Aronoff, 2020; Gowan, S. 2018; Malm et al. 2022) Climate justice theorists are correct in arguing that countries like Norway are well-prepared to transition (Calverley & Anderson, 2022; Kattel et al., 2021; Lyngseth, 2023); Norway has the financial means, the technology and the infrastructure to begin a rapid just transition tomorrow. What Norway also has, unlike big Global North extractors like the UK (Hertford and Johnson 2023), is recent political precedents for a strong nationalisation pathway and just renewable transition.

This case study provides a preliminary extension of the participatory backcasting method by blending it with aspects of historically informed class conflict analysis in seeking precedents and analysing implications. This enabled the identification of historical precedents for pathways, and for analysis of potential futures that paid attention to the interests and conflicts of actors, an aspect often overlooked through traditional backcasting methods (Wagnel, 2011). Backcasting also presented one method for lubricating such a conversation and allowing space for collective imagining; however, it was nonetheless a limited interview format and relied heavily on the researcher to synthesise the coherent pathways. Further research could analyse potential nationalisation pathways in Norway using a more developed workshop backcasting method, such as that developed by Jordhus-Lier et al (2022). The use of the state to nationalise fossil fuel industries as part of a just renewable transition remains an understudied topic in general; further

research is warranted, particularly into case studies on other high-extracting Global North countries such as the US, Canada, Australia, Poland and Germany.

The stakes of this struggle are clear when comparing the pathways to current forecasts. Whilst this research borrows much from the utopian socialist tradition (Vetesse & Pendergrass, 2022), one finds a truly unhinged optimism in the plans of the Norwegian state and fossil fuel industry that require truly fantastical thinking. Despite claiming to aim for a sustainable transition, Norway's fossil fuel industry is currently on a pathway to continue fuelling climate collapse beyond 2050 (Lyngseth, 2023; IEA, 2023b; Bearak, 2023), to decrease worker democracy, and to override indigenous rights. This includes forecasts based on the success of the current climate movement priority in Norway, that of legislating for a corporate-led phase-out of the industry beginning in 2030.

Indeed, the less likely “legislation only” strategies that aim to phase out fossil fuel production through extraction bans alone would create a chaotic, delayed phase-out in which workers and local communities bear the brunt of the costs (Johnson & Herfort, 2022; Jordhus-Lier et al., 2022). In a context where such a scenario is the goal of large swathes of the Norwegian climate movement, it is unsurprising that key aspects of organised labour remain resistant (Normann & Tellman, 2021). Yet it is worker power that is needed to push through key changes such as this; historically, when the state has acted decisively in the interests of workers against Big Oil to achieve the kinds of changes this paper's pathways outline has been when radical worker movements held the wheel of the state (Ryggvik, 2015). Thus just, state-led, transition pathways that are in the interests of local communities and workers are not (only) ethical, but strategic (Huber, 2019).

In the process of conducting this research I encountered climate activists, trade unionists and researchers willing and enthused to enter into discussion on the question of fossil fuel, but deeply challenged when considering nationalisation and phase-out pathways that lie outside the

current political consensus. Despite the results of this thesis undoubtedly lying beyond the current political consensus, there also appears to exist both an appetite and need for collaboration between environmental and labour movements in Norway (Heiret et al., 2021, Marsdal, 2021;) in order to imagine and move towards a state-led just transition pathway. As crises deepen, “the parameters of political possibility expand” (Tarnoff, 2020); this thesis contributes to the ongoing work of all those in Norway building a future worth fighting for.

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