Master in Energy, Environment and Society



Electrification of the Norwegian continental shelf: Discursive practices from the key actors

How do the key actors perceive electrification of the NCS?

Master Thesis

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15. June 2023

Acknowledgment

We would like to express our gratitude to our supervisor, Oluf Langhelle, who not only guided us throughout the study and thesis writing process but also proposed the topic as a random sidenote in a first-semester lecture, where we both eagerly jumped on the opportunity. This proved to be a topic that enlightened us both in the complexities entangled with the accelerated green transition. We graduate with insights and deeper knowledge on the issues of energy transitions, the challenges related to climate change and climate policy, and a useful academic toolkit to make educated inquiries in the field. For this, we are ever grateful.

We would also like to extend the most heartfelt thanks to our respective families, who have endured the last two years, and especially the last few months with us in this process of late-night readings, writing sessions, and digital meetings. We are immensely grateful for all the patience and support.

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Abstract

A 'renationalisation' of Norwegian climate policy, shifting from a global to a domestic approach to meet a 55 % emissions reduction target, also centres the debate towards Norway's biggest emitters of greenhouse gases: the petroleum industry on the Norwegian continental shelf. Just what exactly does "all emissions cuts to be made at home" mean for the petroleum industry? A question to which the industry proposes electrification of the Norwegian continental shelf as a preferred strategy and solution to the problem of increasing emissions. Norway's economic dependency on the petroleum industry also adds to the tension in this respect. As a climate policy topic, it captivates industry actors, politicians, environmental organisations, state bureaucracy, and the public. According to discourse theory, discourses carry a significant role in societal power structures. Thus, a perspective on the discursive practices of key industry actors, politicians, policy makers, and environmental organisations can provide valuable insights to nudge the transition towards the necessary measures to meet the emissions reduction target.

The thesis executes three angles of inquiry: 1. looking at the Norwegian climate policy (both past and current) and how the electrification of the Norwegian continental shelf arises as a strategy; 2. the discursive practices and story lines of central actors within the field of electrification; and 3. the official climate policies on electrification as a strategy to reach climate targets. With these inquiries, the study aims to give insights into whether and to what extent the electrification of the Norwegian continental shelf is an appropriate measure to reach the 55 % emission cuts target by 2030. We adopt a discourse analysis framework and approach to our study, consisting of 13 key actor interviews and document analysis to detect story lines and discourses on the topic. The analysis finds many narratives that are categorised and condensed into five main story lines, one of which emerges as dominant. Based on the interviews with representatives from central actors, in addition to document analysis surrounding topic, the five storylines are:

SL1: Full on electrification

SL2: Electrification, yes, but?

SL3: Yes, but by other means

SL4: Shut it down!

SL5: Forget About Norway!

The first four story lines focus on reductions in CO2 emissions in Norway, while the fifth focuses on the international mechanisms of purchasing CO2 quotas abroad, instead of taking national emission

reductions. We therefore find that most actors in our study argue for reducing emissions nationally, instead of using the international mechanism, which is a shift from the early 2000s. The study finds the second storyline, "Electrification, yes, but?" as dominant and almost hegemonic. Given its support by the most influential parties in parliament, on both sides of the political left-right spectrum, it's embedded in the state bureaucracy and can gain support from the SL1 and SL3 storylines. The SL2 storyline is a sort of middle-ground storyline that seems strategic in its purpose, due to its great flexibility to those who must defend their actions regarding electrification.

The thesis finds enabling and constraining aspects in the dominant story line, as well as discourse coalition and institutionalisation, consistent with certain characteristics of discourses. Furthermore, the study finds the discourse around the electrification of the Norwegian continental shelf to be volatile and abundantly dynamic, of which many actors have changed their position in the last decade. The concluding remarks of the thesis find that the dominant storyline, although influenced by factors such as prices on CO2 emissions and electricity prices, also falls subject to some nuances of greenwashing, legitimising oil and gas activities in the domestic political landscape as a way of securing a "license to operate".

1. Introduction: Issues and research questions

The Norwegian government announced its reinforcement of their climate goals to the United Nations (UN) ahead of the Egypt climate summit, to reduce its emissions by at least 55 percent by 2030 (Regjeringen, 2022). To reach this goal, it is logical to focus on the oil and gas sector as one of the largest emitters of greenhouse gas (GHG) emissions (Miljødirektoratet, 2022) and ways in which it intends to lower emissions. Electrification of the Norwegian continental shelf (NCS) is one proposed strategy to reach targets. Yet different strategies of electrification, or whether electrification should at all be realised, has become a topic of heated public debate drawing new political lines as well as coalitions, discursive strategies and narratives that is to some extent stalling further development. The European energy crisis also adds tension to this conversation as the situation has intensified following the Russian invasion of Ukraine. The European Union (EU) looking to Norway to be a reliant oil and gas provider further conceptualises the different discourses that shape the ongoing debate. How Norway electrifies could have consequences for increased energy consumption, an issue amplified by the current energy crisis, in addition to more favourable outcomes, such as reduced emissions. Norway's relatively low contribution to the total sum of global emissions (excluding scope 3 emissions) has also made the topic of electrification subject to "whataboutism" in certain political rhetoric. Therefore, discourse on Norwegian Climate Policy, as well as electrification of the NCS may come together as a representation of linked demands from different interests, such as: "protection of welfare state," "securing international economic growth," "petroleum as pro-environment," or "energy security."

Thus, the framing of issues, the role of language, and the meaning of values illustrate the contemporary significance of discourse and analysing the discursive practices of the key actors in Norway to understand the different perspectives could provide insights into the complexity and power of perception and ways in which it materialises. This is especially relevant given the Norwegian conundrum of being a (perhaps self-proclaimed) climate forerunner, while simultaneously continuing the production of fossil fuels. What makes the topic especially interesting to study is the complete turnaround of Norwegian climate politics in 2022, when the new Labour and Centre party government (Hurdalsplattformen) dramatically shifted the climate policy narrative: the 55% emissions target for 2030 to now include the emissions in the European Emissions Trading System (EU ETS) sectors. With no clear action plan on how this is to be done, this makes the narrative uncertain and questionable to political rhetoric rather than a feasible and attainable target. Is electrification of the NCS part of this domestic emissions reduction narrative,

and if so, how is this approached and who are the key actors in favour of this and why? And so, the current state of Norwegian climate policy sets the premises of our study and discourse analysis, in which we hope can contribute to a better understanding of the importance of framing, language, linguistics, articulation and argumentation that in turn influence power dynamics and materialise into policy or the lack thereof.

When doing research, Yin (2018) underscores the point that one must follow a clear methodological path. This path goes from somewhere and ends at another place. One could say that *what one wants to know* is where the path starts, and the *conclusion* is where the path ends.

Blaikie and Priest (2019, p. 20) say that research questions can be narrowed down to three types of questions: What, why and how. As such, we have developed the following research questions (RQ):

- 1. Which storylines surround the electrification of the Norwegian oil shelf in the time period 2013-2023?
- 2. Is there a dominant story line, or are they equally presented?
- 3. How are the storylines connected to different interests?
- 4. Are they intertwined and which discourse coalitions can be identified?

With these questions, we hope to gain deeper insight into the topic, as an emissions reduction strategy for a Petro state, and the power of definition and discourse in the framing of issues.

The thesis is thus structured as follows: in section 2 we present a brief history of the Norwegian climate politics. In section 3 we present the theory and theoretical perspective of discourse in which we engage and why. This is followed by the methods and methodological approach to our analysis in section 4, while section 5 presents data collection, data reduction and analysis, presentation of documents and interview subjects and why we have identified them as key actors. Section 6 showcases the results of our analysis, displaying the main storylines and the key narratives that make the storyline and which actors advocate for the different storylines, as a result of our analysis and sample. Section 7 contains our discussion argued up against theoretical concepts followed by concluding remarks in section 8.

2. Brief history of Norwegian climate policies

To better understand the discourse on the subject of electrification of the NCS, it is important to understand the history of Norwegian climate policy and the timeline of key events that in turn contributed to shaping the debate. As in the case of Norway, climate policy is closely linked to petroleum policy where electrification now is looked upon favourably. In this section, we present a brief history of Norwegian climate policy in chronological order starting from the late 1980s leading up to present day political climate.

The first mention of CO2 emissions being put on the political agenda followed the 1987 Brundtland Commission report titled "Our common future" which initiated parliamentary announcements of how they are to follow up on subsequent reports. This led to the first targets being set in 1989 aiming to stabilise emissions by 2000 (Berg, 2015). A couple of years later, the CO2 tax was introduced in Norway, with its main purpose to reduce emissions as a result of the petroleum activities on the Norwegian continental shelf (Oljedirektoratet, 2022). At the time, this tax covered 60 percent of Norway's emissions, this has since been changed. Up until recently, 80 percent of Norwegian GHG emissions were tax imposed or covered by the European Emissions Trading System (Berg, 2015). In 1992, the climate convention was established by UN nations to stabilise world emissions, and this is what marks the start of international climate negotiations. Then in 1995, the first Norwegian targets to stabilise emissions by 2000 were abandoned, stating emissions from oil extraction as the main cause for potential failure to reach set targets. The parliamentary announcement additionally mentions that emissions issues can only be solved through committed international cooperation (Meld. St 114, 1995).

To comprehensively understand Norwegian climate policy, it is helpful to look at past discourses in this sphere. Hovden and Lindseth (2004) identified two main discourses in Norwegian climate politics of the 1990s; "National Action" (NA) and "Thinking Globally" (TG), where the NA discourse is concerned with a national climate policy of domestic GHG emissions reductions in addition to uphold international obligations. The Brundtland report of 1987 was a point of departure for this discourse, where the main focus is setting a national target for emissions reductions. The transport sector was identified as a key sector for reducing emissions. Tackling this domestic challenge would paint an image of Norway as an environmental pioneer, as a country serious about their climate obligations - a concept that the different parties in parliament agreed upon, all with the exception of the Progress Party. The NA discourse sceptically views the approach of international cost-effectiveness and argues for the prioritising of national action as opposed to the views of the TG

discourse, which favours the need to think globally in order to secure the international cost-effective reductions in GHG emissions. This TG discourse would curb the need for domestic reductions and also create a climate policy not in conflict with the continuation of the oil and gas production. Brundtland herself, as prime minister in 1990, appeared to shift from the NA discourse to the TG discourse, arguing that the traditional approach of equal national targets as "antiquated", her rhetoric insinuating "those who disagree are 'old fashioned'" (Hovden & Lindseth, 2004, p. 69).

Langhelle and Ruud (2012, as cited in Meadowcroft et al., (2012) point to what they see as an issue with Hovden & Lindseth's NA discourse, more specifically how the location of the global level is interpreted, insufficiently acknowledging the notion of *global justice* of which the environmental space and movement has been anchored in. As is exemplified by the following: "think globally, act locally" has long been the slogan for the environmental movement" (*ibid.* p. 193). Hence, the national action prescribed is a distinct perception of global justice, referred to as the "contraction and convergence" concept, also known as equal emissions right per capita in the different countries. As such, based on these equity dimensions of sustainable development, the NA discourse has a strong *global* core, thus "thinking globally" is not limited to TG discourse. This exemplifies the fluidity of discourses and how dynamic they can be.

The 1997 Kyoto Protocol is another key event in the history of Norwegian climate politics, with an outcome that allowed Norway to increase its emission by one percent from 1990 levels, hence not leaving much room for expansion and development of the petroleum industry. At this point, Norway pushed for the proposal of flexible mechanisms, enabling countries to uphold their commitments by aiding in emissions reduction in other countries to be counted.² In 2008, Norway became a part of the ETS, a carbon market tool for reducing emissions more cost-effectively. The same year the Norwegian parliament reached climate agreements regarding carbon neutrality by 2050 or 2030 if part of an international agreement. Specific targets, such as emissions being nine percent below 1990 levels by 2020, of which ½ of emissions to be cut within national borders, not utilising the quota system. Additionally, Norway was to contribute 3 billion NOK to combat deforestation in developing countries. Yet again, the parliament announces a new climate

¹ The concept of 'Contraction and Convergence' is an international agreement on greenhouse gas reduction, where each country will be allocated an emission quota (changing over time) according to how much they currently consume. Source: https://climatechangeconnection.org/solutions/international-solutions/contraction-convergence/

² The flexible mechanisms consist of the Clean Development Mechanism (CDM), Joint Implementation (JI), and International Emissions Trading as a means to allow for cost effective GHG abatement. Source: https://unfccc.int/kyoto_protocol

settlement in 2012, this time cutting the equivalent of 30 percent of 1990 levels, $\frac{2}{3}$ of these emissions to be cut within Norway. All parties signed off on this except for the Progress party.

As Handeland and Langhelle (2021) point out, during the time period between 2011-2018, the Norwegian petroleum policy was relatively consistent regardless of changes in government, from the Stoltenberg government (2005-2013), a major coalition government, to the Solberg Government (2013-2021), a minority coalition government. The petroleum policy underpinned by the largest political parties (the Labour Party, the Conservative party, and the Progress Party) in turn helped shape a climate policy that very much upheld the continuation of petroleum activities while still setting ambitious climate targets. Noted by Handeland and Langhelle (2021), the official petroleum discourse has been and still is framed with imperatives of "securing economic growth in domestic dimension," "petroleum as pro-environment: efficient and clean," and "securing economic growth in an international dimension." The "securing domestic economic growth" imperative articulates petroleum as a resource owned by the people, where its revenues, in turn, secures the welfare state. The "petroleum as pro-environment" perspective is an example of excellent discursive manoeuvring, presenting the Norwegian Shelf as the world's cleanest petroleum provinces, where its activities are facing the strongest climate policy instruments, in addition to efficiency as a result of the CO2 tax. Therefore, justifying Norwegian oil and gas production as opposed to a "less clean" production elsewhere. Hence, Norwegian petroleum activity is "better" in an increasingly carbon constrained world tackling climate challenges. The "securing international economic growth" framing is concerned with providing reliable access to energy as an important aspect in the development of the world economy, playing on socio-economic factors where modern forms of energy are needed to lift people out of poverty (ibid.). This official petroleum discourse is strengthened with these imperatives as parliament commits to increasing obligations to emissions reduction, as it keeps on doing, portraying (to some) Norway as a leader in environmental and climate policy.

Tellmann's (2012) discourse analysis on Norwegian climate policy detected three prominent discourses: 1. Tax discourse, (national carbon tax as main solution in climate policy); 2. The quota discourse, (the (inter)national quota trading as a solution in climate policy); 3. A technology discourse (green energy technology and carbon capture and storage as key to reach climate targets). The green taxes discourse depicts a "polluter pays" principle of reaching climate targets, where industries and private actors effectively became responsible for emissions reduction:

The decision-makers in the economy must be directed to take into account the disadvantages they indirectly bring upon others in the form of pollution... Increased use of the environmental taxes will urge consumers and producers to take into account such direct consequences. (SSB 1989, p.27, as cited in Tellmann 2012, p.739)

Tellmann's quota trading discourse draw upon similarities of Hovden and Lindseths' "Thinking Globally" discourse, shifting focus to cost- efficiency across borders:

The climate strategy should be cost-efficient across nations. Because the climate problem is of global character the harmful effect of emissions is independents of where they take place. To achieve cost-efficiency emissions reductions should take place where cost are lowest, and they should not be tied by national borders. (IMGW 1991, p. 9, as cited in Tellmann 2012, p.741)

It is worth noting that during this time (mid to late 90s) Norway increased petroleum extraction, and that Norway was an important actor in establishing emissions trading systems in the 1997 Kyoto Protocol. Tellmann's third prominent discourse was that of technology, which could arguably be the biggest discursive shift, brought on by the increasing role of technological solutions, as new green tech matured in both national and international climate mitigation efforts. As such, carbon capture and storage (CCS) was portrayed as a solution to Norway's conundrum and emerging visions of a "low emission society" based on tech was promising. Thus, solutions to climate challenges were framed as technological, rather than economic (behavioural).

In the 2015 Paris agreement, the Norwegian parliament committed to a 40 percent emissions reduction by 2030 compared to 1990 levels through the National Determined Contribution (NDC). However, the following year, parliament consented to the ratification of the Paris Agreement, which changed Norway's intention to fulfil their target jointly with the EU (as opposed to within national borders), through mechanisms such as the EU ETS, EU Effort Sharing Regulation (covering non-ETS emissions) and Land USE, Land-Use Change and Forestry (LULUCF) regulations. In 2017, the parliament endorsed a climate change act that establishes emissions reduction targets for 2030 and 2050 by law. By 2019, Norway formally agrees to extend the climate cooperation with the EU for the period 2021-2030 utilising Effort Sharing Regulation (ESR) and LULUCF regulations in addition to the EU EST. This alignment with the EU reinforces Norway's obligation to the Paris Agreement, a 40 percent reduction of total GHG emissions in 2030 as opposed to 1990 levels (Parliament Announcement 13, 2014-2015, authors' translation). The EU EST provides flexibility for the EU/EEA countries to handle emissions reduction, further elaborated below.

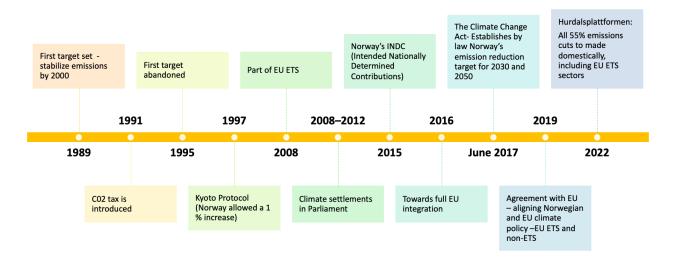


Figure 1. Timeline of Norwegian Climate Policy

Source: Authors' contribution

Today, the cost-effectiveness, as well as the technology solutions, very much remain as principles in Norwegian climate policy:

About 50 per cent of the present Norwegian emissions are covered by the EU Emission Trading Scheme (ETS), and more than 80 percent of domestic greenhouse gas emissions are covered by the emissions trading scheme or/and are subject to tax on greenhouse gas emissions. In addition, support to research on and innovation of climate-friendly technologies provides complementary support where markets do not provide the solutions. A range of public sector funding instruments and other support schemes have been established to promote zero- and low-emission solutions. (MoCE, 2019, s. 4)

The current Norwegian climate policy can thus be divided into two different areas: 1. In relation to the EU; 2. domestic. Being increasingly intertwined makes the meaning of emissions reduction or policy significantly different in these two areas. As mentioned above, the alignment with the EU to reach climate targets include the EU regulatory framework which divides emission into three distinct pillars: EU ETS, - a carbon market, EU ESR- (covering non-ETS emissions), and LULUCF (Land use, Land Use Change and Forestry). The EU ETS or carbon market works on a "cap and trade" function, where CO2 emissions are capped (by the EU commission, for a certain time period) as *allowances* that can be traded between emitters (companies or market players). The cap (which has recently been strengthened) is to be lowered every year until 2030. The system and its increasing carbon price are meant as an incentive for companies to lower emissions and evaluate investing in low-carbon technologies, energy-efficient technologies, or renewable energies.

Domestic climate policy has long been based on cutting emissions in non-ETS- sectors, only recently in 2022 has domestic climate policy included the ETS sectors (resembling the NA discourse of Hovden and Lindseth). Since 2018, the government has set intentions to achieve the 2030 targets with a main emphasis on domestic emissions reductions, (cutting emissions in non-ETS sectors), this was more drastically shifted with the change of government in 2021 as the Labour Party/Centre Party came into power. At the moment of writing, climate policy states that all 55 percent of emission reductions for 2030 are to be made domestically, what is more ambiguous and imprecise however is *how* this is to be done.

Does this reduce the attention from the global to the national, justifying the continuation of Norwegian oil and gas production, while the industry operates on a global scale? This raises the suspicion of mere rhetoric if not backed by a clear action plan. How does the electrification of the NCS fit into this? Therefore, the Norwegian climate policies set the premises of what we seek to gain insight into with our main RQs as listed in the introduction.

3. Theory, theoretical perspective, and approach

In this section, we outline the theoretical perspectives and approaches by defining discourse, environmental discourse, storylines, narratives, discourse institutionalization, discourse coalition, and hegemony. We have in this thesis applied the storyline approaches of Hajer as an appropriate methodological tool and framework for detecting discourses in our study, as well as his concepts of discourse coalitions. The accumulated narratives have shaped and formed the different storylines presented in our thesis. We also refer to the theoretical concepts of Dryzek and Foucault, as well as Hajer, to gain deeper insight into discourse, the discursive, and its approaches.

3.1. Defining discourse

The word discourse tries to embrace the idea that our language is ordered in different patterns and that what we say follows these patterns when we act within different social areas (Ulleberg, 2007). As examples of these, we can talk about a justice discourse or a street discourse. Another way to describe it is to say that discourse is a certain way to understand and speak of the world. Dryzek (2022) views discourse as:

A shared way of apprehending the world. Embedded in language, it enables those who subscribe to it to interpret bits of information and put them together into coherent stories or accounts. Discourses construct meanings and relationships, helping to define common sense and legitimate knowledge. (pp. 9–10)

As such, the different discourses rest on assumptions, judgments, contentions, or disputes that provide the basic circumstances for analysis, debates, agreements, and disagreements. Thus, a discourse can be both enabling and constricting communication and expressions.

Hajer defines and describes discourse as a collection "of ideas, concepts, and categories through which meaning is given to social and physical phenomena, and which is produced and reproduced through an identifiable set of practices" (2023, "How do I define discourse" section). He further elaborates and stresses that a discourse is not synonymous to discussion but rather refers to concepts that structure the *contributions* to a discussion.

A discourse can also be a coordinating factor, organising groups of people that would otherwise not necessarily interact. For instance, environmental concerns have been coordinated by the discourse surrounding sustainable development (Dryzek, 2022).

3.2. Environmental discourse

As Dryzek (2022) points out, environmental discourse reaches further than environmentalism and even extends to those who do not consider themselves environmentalists who may find themselves in positions confronted by and having to deal with environmental issues through roles such as politicians, bureaucrats, corporate executives, lawyers, journalists, and citizens. Consequently, discourses illustrate their importance by effectively conditioning the way we define, interpret, and address issues, in this case, environmental affairs. According to Dryzek, environmental discourse has its origins in industrial society and is situated in the context of the discourse surrounding industrialism, which is characterised by growth and the quantity of goods and services produced. Industrialism is also characterised by the material well-being that accompanies such growth. Thus, the prosperity of the capitalist economy and industrialism in turn opposes action on environmental issues. Dryzek points to two distinguished departures from industrialism (as is called for in environmental action on climate change), prosaic departure or imaginative departure. The prosaic departure operates on the political-economic chessboard set by industrial society, where environmental issues are viewed as troubles encountered, requiring action, but not leading to a different kind of society. By stark contrast, the imaginative departure pursues a redefinition of the chessboard, where environmental issues are viewed as opportunities, as opposed to troubles encountered. Imaginative departure frames the environmental concerns in harmony with economic concerns.

However, the degree of change sought can vary from small (reformist) to large (radical) and combining the dimensions (reformist and radical) with the two departures (prosaic and imaginative) constitutes what Dryzek calls the four basic categories of environmental discourse, as illustrated in Table 1.

Table 1. Classifying environmental discourses

Classifying environmental discourses			
	Reformist	Radical	
Prosaic	Problem Solving	Limits, boundaries, and survival	
Imaginative	Sustainability	Green radicalism	

Source: Dryzek (2022, s. 16)

In brief, the four basic categories are described as follows:

Environmental problem solving is defined as the political-economic status quo in need of adjustments to tackle the environmental issues through public policy. This might look like liberal democratic governments facilitating pragmatic problem solving through taxing environmental harms and benefits, or through institutionalising environmental concern and competence in its operations. There may be considerable disagreements within this discourse as to which problem-solving method is more apt, and as a result runs a long debate between advocates of administrative regulation and market-based incentive mechanisms for emissions reduction. In this discourse, market proponents gradually gain footing.

Limits and survival discourse (gaining traction in the early 1970s), is characterised by planetary boundaries. The finite natural resources of the earth will be exceeded by population growth and economic expansion. Thus, the ecosystem's capacity to support human activity, agricultural and industrial. What makes this discourse radical is its call to total retribution of power within the industrial political economy, leading away from endless economic growth. Seeking solutions within conditions set by industrialism with increased or greater control by administration, science, or "responsible elites" of the existing systems.

Sustainability (emerging in the 1980s), defined by the imaginative ways attempting to solve conflict between environmental and economic stature. Fairclough (2006 p.39, as cited in Dryzek, 2022) describes the sustainability discourse as the nodal discourse of which other discourses clutter around. In this discourse there is no inherent radicalism, given the absent apocalyptic scenarios that very much defines the Limits discourse. The Brundtland report of 1987 aided in the establishment of the sustainability discourse that also gave rise to the ecological modernisation in Europe, in which economic growth and environmental protection is seen as more or less complementary to each other.

Green radicalism is defined as both radical and imaginative, rejecting structures of industrial society. Given its radicalism and imaginative departure makes this a discourse of broad division, bursting with green romantics, deep ecologists, social ecologists, green rationalists, where for example green lifestyle differs from green politics although they have far more in common with each other than compared to the other three discourse already mentioned.

And so, the four different discourses that Dryzek identifies within the overreaching environmental discourse are categories present in the context of Norwegian climate policy and its topics within. Norwegian climate policy has changed its discourse, therefore electrification of the NCS is also

situated within these discourses, shifting over time. Dryzek's four basic discourses is then a structure and concept of which we have reflected upon in discourse analysis study.

In addition to these, it needs to be mentioned that Dryzek identifies two discourses that react against the four environmental discourses. *Promethian* claims the human capacity to dissolve limits and boundaries, and *Gray radicalism* which comprises the fierce rejection of environmentalism. Dryzek credits Michel Foucault for his efforts on the concept of discourse but is more aligned with the concept of "critical discourse." This differs from the Foucauldian ideas of individuals' subjectivity to the discourses in which they move, almost unable to distance themselves to make choices across the many discourses. The Foucauldian portrayal of discourse are often in hegemonic terms, meaning one discourse as dominant to others, conditioning terms of agreement and dispute. Dryzek stresses the variety of discourses, especially that of environmental discourses, as an important factor. As powerful as discourses are or can be, they are still not unpierceable. The discourses within environmentalism can be complementing or competing with one another. He also argues that individuals can have competing discourses within themselves and express themselves according to roles that they inhabit. Such an individual can experience a pull in different directions that allows room for reflection, something Dryzek sees as crucial when considering effective societal response to environmental problems.

Foucault has, in his works, been accused of giving priority to the multiplicity of discourses, and how he made it problematic the exercise of disruption between and within these. Instead of talking of social development, he spoke of transformation of different types. Foucault argued that power within a system was not bound only by the institutions, but it was characterised by its relations, regarding the way which actors and institutions involved themself in the discourse (Hajer, 1995). Foucault argued that discourses accommodate domestic rules that make discourses operate as an architecture to behaviour. Hajer (1995) makes the case that Foucault's heavy emphasis on the *constraints* of discourse, makes the *enabling* qualities of discourse secondary in comparison. Thus, Hajer sees Foucault's concept of discourse (functioning as a structure to behaviour) as strong on the constraining aspects of discourse, "but is rather weak on the enabling aspect" (Hajer, 1995, s. 49). Nonetheless, discourse in the Foucauldian sense, and more so according to Hajer and Dryzek, is the constraints or enablers of "what can be said".

Foucault's strength regarding discourse theory has been pointed to the grade of discursive practices and the amalgamation and reciprocal action of discourses. An understanding stemming from Foucault (1972), discourses will be perceived as linguistic practices embedded in networks,

characterised within social relations tied to narratives that make up the construction of the world. Foucault describes this network or system of relations as the "Apparatus" -an assembly that incorporates anything from "discourses, institutions, architectural forms, regulatory decisions, laws, administrative measures, scientific statements philosophical, moral and philanthropic propositions" (Foucault & Gordon, 1980, s. 194).

In other words, an apparatus is a kind of formation performing a major function in response to a particular need, with a specific purpose, and therefore emerges at the junction of power relations and relations of knowledge.

3.3. Choice of discourse analysis

Energy politics and energy transition are fields with high complexity and high degrees of uncertainty. The field also contains a wide variety of actors who have different and conflicting interests, and they are often vocal about how to describe current situations, and how policies should be made to amend for lack of current situations. An example of this is how environmental organisations and industry compete on how to describe pollution and the worth of production, to influence the politicians.

Predicting the future is always hard, and the last years in Europe have shown how unpredictable the energy situation is when looking at availability, security, and prices. One can therefore claim that most actors who have incumbent interest, find themselves with uncertainty on how things will unfold and develop. Kern and Rogge (2018) describe how the interpretative process of which discourse analysis is, is highly favourable for transition research with these uncertainties.

According to Scrase and Ockwell (2010), when studying energy transitions and energy policies, it matters greatly how these policies are framed and discursively constructed.

Kern and Rogge (2018) explain how discourse analysis shows encouraging results when it comes to research of energy transitions and how the different actors opinionate themselves within the transition process. They further highlight how the discourse analysis by Hajer is a useful and well-known framework within discourse analysis, which focuses on storylines, and how central actors through mutual discourses define issues, by persuasion of public policy problems and within their ensuing policy responses. Nonetheless, they also point out that one of the usual criticisms of discourse analysis is for not augmenting anything concerning the policy processes or focusing enough on the extended institutional context from which policies are made. Nevertheless, they conclude "that foregrounding discursive struggles between competing discourse coalitions is a

useful conceptual tool to focus on the politics of transition processes, the positioning of actor networks within these processes, and how different actors interpret sustainability and the goals of potential transitions differently" (Kern & Rogge, 2018, s. 109).

3.4. The Argumentative approach

Hajer has what he calls an "argumentative" approach to discourse analysis. With this approach, he tries to use what is seen as good from Foucault and combines it with "social-interactive" discourse theory from authors like Billig or Harrè. Hajer, Billig and Harres' work accommodates some beneficial alterations to Foucault discourse theory. The "social-interactive" discourse theory allows one to see how subjects as ardently entangled in the conversion and construction of discourse, which can be seen as a small alteration of Foucault's theory.

The second curative function of the "social-interactive" discourse theory regarding Foucault, attributes to the aspect of permanence and social advancement. It entails that the customs and laws that establish the social union, is something that have to be continually reformed and revalidated, in debates or documents, i.e. in actual speech. As a consequence of this, it is precisely through discourse one can study the power structures of society.

Hajer underlines that Davies and Harrè introduce a new concept, the concept of "storylines". Hajer interprets storylines as a kind of narrative, which grant performers to muster different discursive categories, as to give context to distinct social or physical phenomenon. Hajer describes that as a weakness of Davies and Harrè framework, he finds that they have not put enough consideration to the extent to which discourse can grow into a part of the order in institutional arrangements. He further views storylines as "a condensed form of narrative in which metaphors are employed, used by people as 'short hand' in discussions" (Hajer, 2023 "What is a storyline" section). Thus, in our discourse analysis we engage with narratives (in the initial stages of analysis) in a condensed form, shaping, reducing and interpreting them into the storylines we have identified.³ Storyline is further described as "a generative sort of narrative that allows actors to draw upon various discursive categories to give meaning to specific physical or social phenomena" (Hajer, 1995, p. 56) where the key function of a storyline is the unity in the variety of separate discursive component parts of an

³ According to (Jones & McBeth, 2010, s. 329), "a narrative is a story with a temporal sequence of events unfolding in a plot, that is populated with dramatic moments, symbols and archetypal characters that culminate in a moral to the story".

issue. Therefore, storylines are an integral part of the positioning of subjects and structures, thus, policy and political change may come into existence through emerging storylines.

3.5. Discourse institutionalisation

Hajer argues that his "argumentative approach focuses on the constitutive role of discourse in the political process" (1995, p.58). This approach maintains that discursive interplay can construct new identities and meanings and concentrate on the mode of discursive interaction. Furthermore, the argumentative approach sees politics as an area where different actors fight for discursive hegemony and tries to achieve backing for their own definition of how the world "is".

There will therefore be a game of argumentation, which Hajer says will be defined by the three components of trust, credibility, and acceptability. Arguments are therefore not only won by their content, but also by the property of those who deliver them. If a discourse is constituted into institutional arrangements, for example if the discourse leads to concrete policies (discourse for electrification leads to policies that leads to more electric cars), we could say that the discourse is hegemonic in the given domain. This is a way of discourse institutionalisation.

In environmental issues, there are multiple discourses surrounding each theme. Hajer uses acid rain as an example and shows that regarding acid rain there are discourses that can be seen as legal, environmental, technical, political, and so on. If a discourse is to become relevant and prevalent, it has to be elevated into a higher order, so everyone involved can understand it. It must have multi-interpretability.

Beyond multi-interpretability, the conflicts and regulation of interdiscursive obstacles, is dependent and is determined by storylines and the effect they have on the discourse. Hajer points out that storylines work as metaphors, and gives them three characterizations:

- 1. They reduce complexity in the discourse and create solutions to problems
- 2. As more and more players start to use them, they get some permanence to the debate, and they get a ritual character.
- 3. It allows the different players to increase their apprehension and capability of the discourse regarding the phenomenon, past their former experience or expertise in the discourse.

If a storyline is to have any real power, the argumentative discourse analysis deems it necessary to sound right. The storylines can be said to be essential for the argumentative approach. They fill an

important part in the arrangement of players, the centralization of knowledge, and in the end, in the establishment among the players in a habituated realm. Storylines can, beyond allowing the construction of a problem, also be essential within a given domain to create moral and social order.

3.6. Discourse coalitions

Another concept of the argumentative approach are the discourse coalitions. As actors strive for a discursive hegemony, they will form coalitions. Hajers defines discourse coalition as the assemblage of three factors: "(1) a set of story-lines; (2) the actors who utter these story-lines; and (3) the practices in which this discursive activity is based" (Hajer, 1995, p. 65).

Hajer uses ecological modernization as an example of the concept of discourse coalitions. He exemplifies that ecological modernization is built on alluring and conceivable story lines such as that instead of unlimited growth one can have a sustainable future, pollution can be removed by being more efficient in the production and that the balance within our nature is something that all should esteem. Each of the mentioned story lines reduces the complexity within different debates but are attractive to different actors for their own different reasons. The different story lines give the actors new ways to conceive the world and gives new context to their social and physical realities within the present-day conflict in the environmental discourse.

One should therefore not understand discourse coalitions in the same way as one understands political alliances or coalitions. Discourse coalitions place priority on the lingual footing, not necessarily on the actors' interests. Also, discourse coalitions have a broader scope of actors influencing the storylines (such as for example a scientific magazine), and the different actors might join each other in a discourse coalition, actors who have previously operated individually.

To sum up, Hajer's argumentative approach finds that environmental conflicts are not only about what kind of actions are to be taken but rather a struggle over the understanding of social and physical phenomena. In this mechanism, one finds that storylines are to be observed as the drivers of transformation, and should be analysed in relation to the specified discursive practices they are forged in.

3.7. Philosophy of science, dominant storylines, and hegemony

This thesis adopts a critical realism approach, viewing scientific observations and theories as concept *dependent*, not concept *determined*. Thus, it maintains that reality cannot be studied by neutral empirics alone, but rather that our knowledge of the world is mediated, limited by or

reduced to language, concepts, and discourses (Danermark et al., 2019). Our point of departure acknowledges the two dimensions of science: *intransitive* and *transitive*, where scientific work and results builds on previous science, which can be surpassed by the processes and continuation of scientific research, "with the aim of deepening knowledge- the transitive object- about reality- the intransitive object of science" (*ibid*, p. 27). Viewing social reality as consisting of three layers: the empirical domain (which is theory laden and mediated through cognitive conceptualisations); the actual domain (described as an object's independent existence from human activity); and the reality domain (that of the generative mechanisms).

Our departure builds and acknowledges the works of post-structuralist, such as Foucault, however attempting to bridge the gap between philosophies of science, with an amplified focus on the ontology of the discursive.

Like Sunnercrantz (2017, pp. 43–44), we have engaged with the ontology of "the discursive" through the investigation of *meaning* depending on the various significant differences of all objects. As such, concepts, signifiers, social actions, practices, and relations cannot be defined on their own by an inherent essence, but rather, can only be deduced as discursive elements *in relation to* other concepts.

Hegemony or dominant storylines are treated from a non-essential objectivity, conceptualising it from the contingency, fluidity, and undecidability of discourse, meaning it can arise from everywhere and is like power, produced over and over again involving alliance through coercion and consent. Hajer (1995) views the struggle for discursive hegemony as a process of which coalitions are formed by the different actors through the argumentative approach.

Hegemony is often considered a ruling power, such as governance, order, or regime, however, it is also a process or a practice before "materialising" into a ruling power. Hegemony as a political practice builds coalitions through diverse and sometimes divergent demands to challenge a "form of rule" or even policy. And so, discourse on Electrification of the NCS may come together as a representation of linked demands from different interests, such as: "protection of welfare state," "securing economic growth," "petroleum as pro-environment," or "energy security" etc.

The dominant storyline prevails by the way it is framed and articulated, something that is not cemented but rather dynamic and ever evolving. This could be attributed to the human capability to make very different things of certain phenomena and issues. As Deyzek (2022) noted, "especially-their interconnections, providing material for political dispute. The existence of these competing

understandings is why we have environmental politics (or any kind of politics) to begin with" (p. 13).

It is important to note that due to the dynamic and "fluid" qualities of language, linguistics and articulation, what differentiates the storylines might in some instances seem like granular aspects yet contains factors that make them meaningful to separate. We recognize this aspect of discourse could be challenging, requiring researchers' interpretation of observed empirics to be detailed and immaculate in stages of analysis. We engage with discourses (and storylines) as something that can be compared, contrasted, and criticised by means of analysis.

4. Methodology and methods

This section presents our methodology and methods applied, through qualitative research, research strategy, abductive approach, and lastly distinguishing between induction versus abduction.

4.1. Qualitative research

The intent of this thesis is to conduct research that will enable us to identify various discourses on the topic of electrification of the Norwegian oil shelf and catch the premise of different interpretations, perspectives, and arguments. We have exercised a discourse analysis with an abductive research strategy to better understand this aspect of energy transition in our social reality. In the method of discourse analysis, we have used articles, reports, and public statements. In the review we have also included relevant articles to recognize and grasp the various narratives on the topic. Furthermore, we have conducted several semi-structured and open interviews to gather the necessary qualitative data needed to cover, explore, and differentiate narratives. To ensure wide range, our informants consist of representatives from political parties such as the Green Party, Labour Party, Conservative Party, Centre Party and the Progress Party, as well as the oil companies Equinor and Aker Solutions, state bureaucracy NVE and Ministry of Petroleum and Energy, power company Lyse, and finally, the environmental organisations Bellona and Friends of the Earth. With this variety of informants, we identify numerous story lines which provides significant width on the matter. These interviewees have been identified as key actors within the field, due to their important role as stakeholders, policymakers, voices of influence, or position in the public debate.

Finally, we have exercised a discourse coalition approach. According to Hajer's, state about discourse analysis that "it analyses strategic action in the context of specific socio-historical dis-courses and institutional practices and provides the conceptual tools to analyse controversies over individual issues in their wider political context." (2023, "what are the advantages of discourse-coalition approach" section). In doing so, we analyse how interest unfolds in the contexts of specific discourses as well as organisational practices, highlighting the way different actors and organisations mirror or fight a given bias parallel to each other without necessarily sharing the same values. Formation of a particular discourse coalition could prove to be of valuable data to our research, to understand why different actors share storylines or certain practices over a time period. Therefore, identifying discourse coalitions is a focus for this research.

4.2 Research strategy

Research is a systematic approach in search for a better understanding of our world. Neuman (2014) states that it does not guarantee a hundred percent right answer at all times but underscores that "Research is an ongoing process of searching and working toward the truth" (Neuman, 2014, p. 7).

Given our thesis focus on the discourse of a topic, our strategy has been to collect data on how our topic is described by relevant actors, and then we have used the "argumentative approach" of Hajer to analyse the discourse. In the analysis, we attempt to identify potential dominant storylines, how these are defined by the different actors, and which actors use the same storylines. We have employed two methods of collecting data. One being a desk study or analysis of documents and statements from different actors, to better understand how they have described their position on the electrification of the Norwegian continental shelf. In this thesis, we try to answer our research questions within an already-established framework. Our interpretation and analytical layer of the data, we hope can contribute to and enrich the academic literature in the social science field of energy transition, environment, and climate policy.

4.3. Abductive approach

The project's research strategy and main method form an abductive approach, evolving as:

To move from a conception of something to a different, possibly more developed or deeper conception of it. This happens through placing and interpreting the original ideas about the phenomenon in the frame of a new set of ideas. (Danermark et al., 2002, p. 91)

Abduction has also been characterised as "redescriptions" or "recontextualizations" as this is a strategy that gives new meaning to known phenomena. To a certain extent, social science in general largely aligns with the concept of recontextualization. This is because social science rarely discovers completely new events or phenomena, but rather discovers relations and relevance to better understand already known events in a substantial and meaningful manner (Danermark et al., 2002). We believe that this approach has better enabled us to distinguish narratives as well as identify discourse coalition. To do this we will be looking for phrases and remarks that make up a storyline and uphold social constructs.

4.4. Inductive versus abduction

In our study, there are some elements of inductive inference in the sense that we start with a case, concept, or phenomenon, and then make an observation and to some extent generalise. Dey (2004), notes that "the inductive inference does not follow logically from the premise, but it infers beyond it" (p. 91). Such generalisation makes it vulnerable to further observations and may result in inconsistency. What more appropriately describes our inference is that of abduction, starting with theory before making an observation, and drawing inferences of the observation in consistency with the theory. Dey (2004) refers to the abductive inference as "a matter of interpreting a phenomenon in terms of some theoretical frame of reference" (p. 91).

Our study starts with discourse theory, and from the collected data we are able to interpret the observation and connect it to the theory or theoretical concepts, such as Foucault's "Apparatus" or Hajer's discourse coalitions and institutionalisation.

The conclusions will not be a complete one e.g. one that can ultimately be called false or true, or one that can't be argued against. As such, our methodology is what Danermark et al., (2019) call abductive methodology:

In social science, abduction often involves the interpretation of phenomena in relation to structures and mechanisms. Frames of interpretation and theories are more or less reasonable; they differ with respect to explanatory power but can rarely be considered ultimately to be true or false. (pp.112-113)

An essential point of abductive inference is the one of recontextualization. Danermark et al., (2019) describe recontextualization as "to observe, describe, interpret and explain something within the frame of a new context" (p. 113). Examples of recontextualization are how Karl Marx looked at the history of man, from where it before was seen upon in a materialistic way, to a way where the way of how work was distributed and paid for became essential. Likewise, Durkheim is known for his recontextualization of suicide when he started to express it as a social fact. What is innovative about the given examples, is that they describe already known phenomena, but by being recontextualized, they are given new meanings. In this thesis you will not find anything as scientific revolutionary as the examples before mentioned, nonetheless, it contributes added understanding of storylines and discourse coalitions, especially within environmental discourses and challenges within climate mitigation policy. Therefore, we apply the research strategy of abduction from the perspectives of

Danermark et al., (2019) "abduction is to move from a conception of something to a different, possibly more elaborated or deeper conception of it" (p.113).

According to Danermark et al., (2019), abduction is when you apply a theory as a starting point, as the framework one uses for analysis. The researcher then recontextualizes and interprets the objects that he or she studies, all within the given set of ideas or conceptual framework. Thereby the researcher tries to say something in a new or novel way, by the act of interpretations within the chosen conceptual framework. Our study, which uses already known and tried frameworks, and tries to understand actors' meanings within Hajer's discourse framework, are therefore using an abductive logic of inquiry.

5. Data

In the following section, we present our data consisting of documents for analysis, interviews followed by interview selection, and lastly the ethical considerations for data collection process.

5.1. Document analysis

A vital part of our research strategy is performing document analysis. In fact, having reviewed the various documents has in some ways served as a springboard and inspiration for the research itself, as analysing a variety of articles, news articles, and other published documents has provided a broad view of perspectives and narratives on electrification. According to Hajer, a document analysis allows for the "structuring concepts, ideas and categorizations, employment of storylines, metaphors etc" (2023, "what are the basic steps for discourse analysis?" section). With this approach, we are attempting to define and structure discourses to serve as the content of our discussion section for our thesis.

Document analysis is also one of Hajer's ten basic steps for conducting discourse analysis. This process started with reviewing relevant literature and news articles regarding electrification. For the document analysis itself we included "Hurdalsplatformen", as well as governmental announcements such as the Climate plan (Miljødepartementet, 2021) from the Ministry of Climate and Environment, and Energy plan (Olje-og energidepartementet, 2021) from the Ministry of Petroleum and Energy department. Other documents include ZERO's report on how to reach climate targets and Konkraft Status report and climate strategy for 2030 and 2050.⁴

All document-data was collected between January 2023- April 2023 by searching for the recent government announcements for climate and environment as well as oil and energy, in addition to "key actor" documents on the topic of "electrification of the NCS," "oil and gas," and "climate policy." Our selected documents make up the official Norwegian electrification discourse from 2021, thus they have been selected on this basis. In addition to white papers and reports, we have included a web page from the environmental organisation "Friends of the earth" to supplement with this perspective, as environmental organisations make up few of our conducted interviews. Their clear statement on the topic of electrification, as well as their societal position as the oldest Norwegian

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⁴ See table. 2

environmental organisation with well over 36 000 members and 100 local teams, makes their views invaluable in this type of analysis.

Before we look at how the discourse surrounding the electrification of the Norwegian continental shelf is now, it is useful to examine how it has developed during the previous years. To do that, we have gathered data from the website https://energiogklima.no. This website is the online newspaper for "Norsk klimastiftelse." Norsk klimastiftelse is a non-commercial green think tank that states that it works towards a "society without emissions from man-made greenhouse gasses" (Norsk klimastiftelse, 2023 "Om oss" section).

On this website different actors, e.g., politicians, different companies, and other interest organisations have discussed the electrification of the continental shelf since 2013.

In some of the articles, they also link to other sources such as online newspapers. Where we have found links to other sources of special interest, we have also read and added those articles. ⁵

Author	Year	Type of publication	
Ministry of Petroleum and Energy	2021	Meld. St. 36 (2020-2021) (white paper	
Ministry of Climate and Environment	2021	Meld. St. 13 (2020-2021) White paper	
Government coalition of Labour party and Centre Party	2021- 2025	Governmental platform (2021-2025)	
Friends of the earth (Naturvernforbundet)	2023	Website	
Konkraft	2022	Climate strategy for 2030 and 2050 (Status Report 2022)	
ZERO (Zero Emission Resource Organisation)	2022	Report (How to reach climate targets)	

Table 2. Documents chosen for analysis.

5.2. Interviews

Interviewees have been identified as central players from the political parties represented in parliament, organisation representatives, and company leaders. Interviews as a way of qualitative

⁵ The appendix contains an index with the online articles we have used.

data collection allow the informants to express their beliefs, experiences, perspectives and understanding, using their own words. "Interviews are, by their very nature social encounters where speakers collaborate in producing retrospective (and prospective) accounts of or version of their past (or future) actions, experiences, feelings and thoughts" (Rapley, 2004, p 16).

Hajer states that:

The interviews can be to generate more information on causal chains ('which led to what') that will always be the assumed core of the meeting on part of the interviewees, but the interviews might also be used to get a better understanding of the meaning of particular events for the interviewees. (2023, "what are the basic steps for discourse analysis" section)

It is with this in mind that we aim to identify storylines from interviewees' experiences in an event or situation. The interviews were semi-structured, meaning that we developed an interview guide to aid in the data collection. Yet, we aimed to create an environment where interviewees can express themselves in their own words, allowing free articulation, expression of perspective and rhetoric that in turn contributes to producing meaning. Hence, the interview guide has served as a "follow-up tool" and guideline, and not as limiting constraints (Rapley, 2004). We adopted a listener's position rather than a speaker or initiator.

All interviews were conducted between February-April 2023. As several interviewees are representatives and high-profile people, working in various locations all over Norway, 7 out of 13 interviews took place on Microsoft Teams as opposed to in person. This approach was beneficial in the sense that experts were more easily available to us, in addition to logistics in scheduling. Some communication traits such as body language might be lost through this medium, and this could to some extent be a small limitation. However, the authors feel confident that the camera feed, present in all the Team's interviews, adequately made up for this constraint. The total of 13 interviews resulted in over 270 minutes of interview time, ranging from 11 minutes (the shortest) to 45 minutes (the longest). The difference in interview time might be attributed to many factors, and there is however no consistency or obvious correlation between the length of the interview and specific actors that can be a contributing factor to this outcome, and we therefore considered this difference in interview time as being relatively random.

Table 3. Interview overview.

Company	Industry/Organi sation	Name	Position	Instrument
Labour party	Political party	Kari Nessa Nordtun	Stavanger elected Mayor	Face to face interview
Green Party	Political party	Richard Samslått	County political leader	Face to face interview
Centre Party	Political party	Ole Andre Myhrvold	Member of Parliament	Face to face interview
Conservative Party	Political party	Ove Trellevik	Member of Parliament	Face to face interviews
Progress Party	Political Party	Terje Halleland	Member of Parliament	Face to face Interviews
Equinor	Oil and Energy company	Simen Moxnes	Senior Advisor	Teams meeting interview
The Norwegian Water Resources and Energy Directorate (NVE)	State Bureaucracy	Kjetil Lund	Director	Teams meeting interview
Lyse	Industrial & multi utility company	Ånund Nerheim	Project Manager	Face to face interview
Ministry of Petroleum and Energy	Government Ministry	Amund Vik	Secretary of State	Teams meeting interview
Bellona	Environmental Organization	Christan Eriksen	Chief Advisor	Teams meeting interview
Aker Solutions	Engineering supplier Company	Torbjørn Andersen	Vice President Public Affairs	Teams meeting interview
Offshore Norge	Norwegian oil and gas association	Benedicte Solås	Climate and environment Director	Teams meeting interview
Federation of Norwegian industries (Norsk Industri)	Employers Organisation organise under the National Confederation of Norwegian	Knut Sunde & Runar Rugtvedt	Industry and industrial policy department	Teams meeting interview

Enterprise		

5.3. Interviewee selection

In this subsection, we present the selected participants and interviewees, of whom many were identified in the earlier stages of research design. As interviews were held, suggestions were made of potential other informants that could prove to be interesting subjects and thus this selection or sample was expanded by the so-called snowballing method. Each key actor is introduced with a short paragraph, followed by a short explanation or justification of choice and selection.

The Labour Party

Founded in 1887, the Labour Party is Norway's largest political party who describe their political vision as a just world, free from poverty, where people are free, equal and have influence over their own lives.

Where people are unique, irreplaceable and have equal worth. Where each and every one of us should have the opportunity to live good lives in small or big communities. We want a society based on freedom, solidarity and equal opportunities for all. Our ideology, or basic view or social view if you like is social democracy. We base our policy on the basic value of freedom equality and solidarity (Arbeiderpartiet, 2023 "Om arbeiderpartiet" section).

The Labour party is in the current government together with the Centre Party. This makes them relevant key actors and producers of meaning on electrification of the NCS. Just as relevant and obvious is their commitment to the trade unions and workforce, advocating for peoples' right to work, as well as a living wage. This makes them closely connected to the oil industry, where over 150 000 workers are employed (Køber, 2021).

The Green Party

The Green Party describe themselves as a party who's main agenda is to stop the climate and nature crisis, with policies that are good for humans and the environment. As electrification of the NCS is a proposed solution to reducing emissions, situated within Norwegian climate policy, this makes the green party's perspective a valuable contribution to the ongoing debate.

We have three basic principles of solidarity for all our policies: solidarity with other people, future generations, and animals and nature. We are part of an international, green grassroots movement with a global perspective. Social justice for everyone, regardless of

social background, orientation or skin colour are central values for us. (Miljøpartiet De Grønne, 2023 "Om Miljøpartiet de Grønne" section)

The Centre Party

The core values of the Centre Party are the endogenous building of society and community. From the bottom-up approach is where the people develop freely.

The Party's purpose clause reads as follows:

The Centre Party aims to create the conditions for harmonious social development. A living people's government, built on Christian and national grounds, is a prerequisite for the people's well-being and the country's progress. The individual and human dignity must be central to society and trust must be shown in the community. The social, cultural and economic measures on the part of society must aim to create conditions for growth and well-being for everyone, regardless of place of residence or occupation. (Senterpartiet, 2017 "Senterpartiets formålsparagraf lyder" section)

The Centre party as a key actor is justified through their 2021 formed government with the Labour Party.

The Conservative Party

The ideology of the Conservative Party is based on a society that values trust in the individual. "Each individual must have the greatest possible freedom and responsibility for shaping their own life and future based on respect for others and for the community" (Høyre, 2023 "Ideologi)" section). And as such also believes that limits must be set for politics. Stating the aim to cut emissions, but not the development. Having been in government from 2013-2021, and thus shaping Norwegian climate policy in this period, positions them as key producers of discourse, especially in this time period, but also currently as a major political party on the political spectrum.

The Progress Party

The Progress Party is on the far right of the political spectrum, valuing individual freedom accompanied by personal responsibility. Their political agenda is known for their focus on reducing taxes, strict immigration policy and in terms of climate, wish to stimulate a "broader research, open and critical debate around the cause and extent of climate change" (Fremskrittspartiet, 2023 "Partiprogram 2021-2025" section). They further describe the climate and environment debate as characterized by political symbols with little faith in the market. They insist on a predictable and fact-based climate policy, cutting emissions cost-effectively by actively using quota systems (EU

EST) aka flexible mechanisms. As such, they wish to expand the investments in the oil and gas production, which they speak of as the cleanest oil measures in emission per manufactured barrel. The Party Program for 2021-2025 states the oil industry as the largest and most important industry, crucial for the Norwegian economy and its affluence.

Equinor

Describing themselves as an international energy company with headquarters in Norway, Equinor has ambitions to become the leading company in the energy transition. Their purpose reads as follows: "Equinor is an international energy company committed to long-term value creation in a low-carbon future. Our purpose is to turn natural resources into energy for people and progress for society." (Equinor, 2023 "We are Equinor" section) They are primarily a petroleum company, with additional investments in renewables, operating in thirty-six countries. Equinor operates refineries, processing plants while having interests in various oil and gas pipelines, trading and transporting crude oil, condensate, natural gas, natural gas liquids, and refined petroleum products. Established as leading in the operations of the NCS, positions them as important actors to be included in our discourse analysis.

The Norwegian Water Resources and Energy Directorate

The directorate is the state bureaucracy answering to The Ministry of Petroleum and Energy. Their main area of responsibility is to responsibly manage Norway's water and energy resources, leading the national preparedness and response force of reliable power supply. This entails the processing of applications of concession permissions to build power stations, power lines, and transformers, as well as management of waterways. As a directorate below The Ministry of Petroleum and Energy, they are not necessarily big producers of discourse, due to their limited opinions on the topic. However, they have produced reports requested by The Ministry of Petroleum and Energy and thus, as experts on the waterways and energy management, have extensive knowledge on the further electrification of not only the NCS but other sectors as well as its implications and potential consequences (Noregs vassdrags- og energidirektorat, 2023).

Lyse

The Lyse Group is in the work of energy, telecommunications, and power grid. "Paving the way for a green and technological transition" reads a headline concerning their business (Lyse, 2023 "Virksomhet" section). Developing Infrastructure critical to society, making electrification and

digitalisation possible in Norway. Involving them as a key actor on the basis of being power grid experts, considering electrification will need considerable expansion of grid infrastructure.

Ministry of Petroleum and Energy

The overall goal of the Ministry of Petroleum and Energy is to facilitate a coordinated and holistic energy policy and facilitate the highest value-added or value creation, through effective and environmentally friendly management of energy resources. To them, competitiveness, effective resource usage, and profitability in the energy sector is what is considered a requirement for creating and sustaining jobs and income needed for welfare. They promote an energy policy that within an environmental framework, utilises access to labour, knowledge, capital, and natural resources (Olje-og energidepartementet, 2013 "Avsvarsområder og opppgaver i Olje- og energidepartementet" section).

The Bellona Foundation

The Bellona Foundation is an environmental non-profit organisation (ENGO) with headquarters in Oslo, that fights climate challenges through the identification and implementation of sustainable environmental solutions. The foundation goes further by working towards the protection of nature, environment, health, and a better ecological understanding. It works on a great variety of issues within climate challenges such as fossil fuels, CCS, renewable energy, and energy efficiency. Being a non-profit with broad expertise, the organization advocates on behalf of the environment making their perspectives on electrification a valued contribution to our research (Bellona, 2023 "Om Bellona" section)

Aker Solutions

Delivering integrated solutions, products and services to the global energy industry, Aker Solutions state "We enable low-carbon oil and gas production and develop renewable solutions to meet future energy needs. By combining innovative digital solutions and predictable project execution we accelerate the transition to sustainable energy production" (Aker Solutions, 2023 "Who we are" section). Their strategy is to provide the services needed to solve global energy challenges for future generations, while reducing emissions. They provide solutions to renewable energy, low carbon oil and gas solutions, fixed and floating solutions (production units or platforms), subsea systems (production systems, processing systems, and power distribution to mention a few), engineering services and maintenance modifications and decommissioning. As such, they are

closely tied to fossil fuel companies. Aker solutions was selected due to interest in energy solutions suppliers' perspectives.

Offshore Norge

Offshore Norge is an employer as well as in industry organisation for companies with activities related to the NCS. (Offshore Norge, 2023 "Om oss" section)Through the interviewing process, Offshore Norge came up as an actor in favour and promoting electrification of the NCS. Being big contributors to this debate, not only through their own channels but also through media makes them relevant in our participant selection process.

Federation of Norwegian Industries

"Norsk Industri is the largest national association in the Norwegian Confederation of Business and Industry (NHO). We represent a large variety of companies across the country" (Norsk Industri, 2023 "Dette er Norsk Industri" section). Their business policy aims to, like many other actors, facilitate added value in Norway, that in turn secures the welfare state, creates jobs, supports local communities, increases exports, and promotes societal development.

Technology is the driver for more efficient industrial production. And the industry is a strong driving force for a greener Norway. Roadmaps for various industrial sectors have been drawn up. These point in the direction of a future with significantly lower emissions, while at the same time production can be increased. Competitiveness increases when the technology of the future is put into use today. (Norsk Industri, 2023 "Dette er Norsk Industri" section)

ZERO

ZERO, founded in 2022, is an independent idealistic organisation whose only principal goal is to solve the climate crisis. They have a knowledge-based approach and work towards the belief that "everyone can contribute to be part of the solution" (ZERO, 2023 "*Om ZERO*" section). The organisation is party-politically independent and practises transparency as to where their funding comes from.

5.4. Ethical considerations for data collection

Interview data was recorded through the dictaphone app and audio files were uploaded to 'Nettskjema' for secure storage for the project duration. The collected data contains personal information such as full name, work title or position, and party representation or company

affiliation. All interviewees consented to us using their full names for the purposes of this thesis. The identification aspects are therefore not considered sensitive data. Project participants have the opportunity to retract participation at any moment, no questions asked. Data is accessed through UiS account login to 'Nettskjema' (where data is stored). Only the authors and assigned supervisor have had access to the dataset. All interviews have been recorded in accordance with the university guidelines to data storage and transcribed with interviewee's permission and compliance with the General Data Protection Regulation (GDPR).

Data reduction and analysis

In the data reduction and analysis, we utilised Quirkos analysis software for coding and indexing, systemizing, and organising categories which enabled more efficient use of the collected data (note, the articles from energiogklima.no have been manually analysed, and were therefore not applied to Quirkos with the usage of codes).

Making "codes" in Quirkos to sort the qualitative data provided a systemic structure to our findings. We sorted the data into 41 different codes of which five are identified as main storylines and the remaining codes form the underlying narratives within these five main storylines. Quirkos as a tool enabled us to spot and recognize narratives, relations, and relevant accounts of actors and their storylines. Once all the documents and transcripts were analysed and coded, each code contained all accounts of actors uttering or describing a fitting narrative within said code. Additionally, Quirkos has served as a real-time working platform between the authors, with a "shared project" function. We believe that this approach has better enabled us to distinguish narratives as well as identify discourse coalition.

Challenges and limitations

We are aware that abduction comes with its own set of challenges and limitations. Abduction is more likely to produce results in the form of interpretations, not true or false conclusions. This makes the data analysis somewhat vulnerable to transparency and interviewer biases (Sovacool et al., 2018). Therefore, we as researchers have exercised caution to not include personal biases and aim for transparency as data is analysed and interpreted. To the best of our ability, we strive to present the empirical data in the way it was conveyed to us without social desirability bias. The issue of social desirability can run both ways, from interviewer to interviewee (*ibid.* p. 29). This limitation has been kept in mind as we conducted our data collection in this study.

Additionally, there is a limited number of actors included in this study, allowing us to say something about the issue but not in total absolutes. In the Norwegian political landscape, the spectre of parties represented in parliament from the left to the right axis can be organised as follows:

$$R - SV - MDG - AP - Sp$$
 Krf $V - H - FrP$

Figure 2. Traditional left-to-right political spectrum

Source: Oluf Langhelle

According to Knutsen (1997), the parties' placement and cleavage from left to right axis changes in the lens of energy and environmental issues, to the following green cleavage, except for MDG (The Green Party) and R (The Red Party) which were not a political party at the time. However, The Green Party is placed to the far left (as the party most concerned with environmental issues), and The Red Party third to the left of Knutsen's political axis regarding energy and environmental issues.

$$MDG - SV - R - V - Krf$$
 $Sp - AP - H - FrP$

Figure 3. Environmental left-to-right political spectrum

Source: Oluf Langhelle

What we initially identified as a varied and diverse sample from looking at the first (blue) cleavage, became somewhat unevenly sampled, with much interview coverage on the right side, when considering the green cleavage as opposed to the blue cleavage. We recognise this limitation as something future research and scholarships must consider in similar studies in Norwegian climate policy and its subordinate subjects.

The scope of this study is limited to the data collected through interviews, document analysis, and manual article analysis, and as such is lacking on the topic's mainstream media coverage. And media, as a news source, can contribute to a discourse in for example running a story of a certain storyline, contributing to the (re)production of meaning, narratives, storyline, and discourse, thereby influencing the public and in turn perhaps elected policymakers. This aspect is a limiting factor in our study, although we feel confident that discourses have adequately been identified in our selected approaches, in order to make a meaningful contribution.

6. Results and empirical analysis

We begin this section by describing how the discourse surrounding the electrification of the Norwegian continental shelf has developed in recent years. We then present how we found five storylines surrounding the electrification of the NCS, which are the current storylines at the moment of writing. This is followed by a description of how we used codes in Quirkos, and the way in which this gave us our results. Then we briefly run through how we defined some key narratives, before going through the five storylines we found. Lastly, we present the actors without a fixed storyline.

6.1. The discourse regarding electrification up until now

The discussion on energiogklima.no started in May 2013 with two articles, debating for and against electrification of the Norwegian continental shelf. The interesting thing is that it was a consulting company within the energy business that argued for electrification, while a bureaucrat from the Norwegian Bureau of Statistics argued against it. Some of the arguments against electrification are that it is neither economically sensible, good use of technology, and that the gas that is not "burned" offshore, will just be spent elsewhere, releasing its CO2 there. Some of the arguments for electrification are that it is economically sensible in the long run and that it is cheaper to do it now, than later. And lastly, sooner or later Norway must reduce emissions domestically, and then electrification of the continental shelf has to be a part of the solution.

This debate continues in 2013, and while private NGO's such as "Avfall Norge" (an organisation that represents private and public companies in waste management and other related issues), and "Industri Energi" (a labour union consisting of members from gas, oil and land-based industry) argues against electrification. Other actors, such as the Socialist Left Party and Energi Norge (an employer and interest organisation for the energy industry in Norway, now named Fornybar Norge) were arguing for the electrification. This debate goes on through 2013 and well into 2014.

In May 2014, a broad coalition between The Labour Party, the Socialist Left Party, the Centre Party, the Christian Democrats, the Liberal Party, and the Green Party worked together in Parliament to electrify an oil field called "Utsirahøyden". This is against the governing parties The Conservative Party and the Progress Party (and at this time, the Christian Democrats and the Left party was the parliamentary support for the governing parties). So, in the middle of 2014, the political left and centre were united in their stance on electrification. As the parliamentary representative from the

Social Left Party claimed: "With this agreement, we are able to prevent further increases in emissions from Norway. Today, we have saved Norway's climate goals if we can trust the Norwegian Environment Agency's figures" (Fondenes & Stiegler, 2014, authors' translation).

The debate goes quiet for a long period after this but starts up again in 2018. It is then The Green Party and the environmental non-governmental organisation (ENGO) ZERO who gives credit to Equinor, because Equinor who until now seems to have been quiet in the debate, wants to electrify the oil rigs Troll C, Sleipner and Gudrun. As the executive director of Equinor states, "Our ambition is to continue to be one of the world's most carbon-efficient producers of oil and gas" (Akhatar et al., 2018, authors' translation).

So, at this time, it seems like the big oil companies and some of the major actors within the environmental movement are aligned on how to cut carbon emissions.

In the second half of 2019, a coalition consisting of many of the most important actors in the energy industry and some other actors from the state bureaucracy (Equinor, DNV GL, TrønderEnergi, BKK, IFE, Statnett, HYDRO, NHO, Statkraft, KONGSBERG and SINTEF) have a mutual petition where they argue for Norway's need to have a national investment in electrifying all throughout society, and that if we are to cut emissions, the electrification of the continental shelf, specifically. They also argue that this would be a great opportunity to develop green technologies and profitable job creation. What is also interesting to read in hindsight, is that they cite NVE, Statnett and other official agencies, who forecast a surplus of electricity for the foreseeable future. As they write:

NVE, Statnett and various analysis groups expect that there will be a surplus of power in Norway for the foreseeable future. Analyses carried out by both Statnett and DNV GL show that large-scale electrification can be covered by expected growth in renewable energy production. But if all of today's fossil energy use is replaced with renewable electricity, it will require a further increase in Norwegian power production by around 15 percent somewhere between 2030 and 2050. (Gjørv et al., 2019, authors' translation)

Entering the year 2020, a local electricity company in the southern part of Norway (Agder Energi) reconfirms that there is enough electricity production in Norway to support electrification of the Norwegian continental shelf.

But already in May of 2020, voices are raising concerns that there actually isn't enough electricity available for electrification of the continental shelf. As a result, a representative for the Labour

Party voices the concern that a lack of electricity production will stop the development of industry, hindering the electrification in the region around Bergen (Norway's second-largest city, and one of the central hubs regarding oil and gas production in the western parts of Norway). From here on, the optimistic voices from 2018 mostly fade, and further discussions surrounding electrification is mainly focused on Norway's electricity capacity, and whether there is a surplus of electricity to electrify the continental shelf. In the same month, some actors from labour unions and a left-leaning think tank argued for the need for offshore wind turbines to power the electrification of the Norwegian continental shelf.

By October of 2020, one of the journalists of the site energiogklima.no writes an article where he cites Statnett and argues that Norway in the not-too-distant future can have an electricity deficit, due to the expected increase in electricity consumption. That same month, the Labour Party and the Centre Party government, in their joint government platform (Hurdalsplattformen), stated that they wanted to cut climate gas emissions domestically in Norway by 55 percent by 2030, seen against the emissions from 1990, and no one believes this can be done without electrifying the continental shelf. But already the journalists of energiogklima.no are asking if the government is ready to pay the price (i. e. to risk the high electricity prices that will follow from an electricity deficit production in Norway), in the process of electrification.

In February of 2022, the ENGO ZERO argued that one must electrify the continental shelf, and that it has to be powered from offshore wind turbines, so the solution in the dilemma between electrification, and solving the energy crisis, is to be found in an accelerated construction of offshore wind turbines. Also, in February of the same year, the editor of the site "energiogklima.no" wrote a post where he states that the support for electrifying the Norwegian continental shelf is smouldering away. In his post, citing the NRK (the Norwegian state-owned broadcaster) he goes through how the different parties position themself regarding electrification of the continental shelf. He finds that within the two biggest parties in parliament, the Labour Party and the Conservative Party, there are voices that want to cancel the electrification, because of the "energy crisis" in Norway/Europe. Also, the Green Party together with Friends of the Earth Norway is now against the electrification of the NCS.

In March of 2023, there is one article worth mentioning, it is about how the Centre Party (who is then in the government) wants to stop the electrification of Melkøya, and the arguments against it is that it will "drain" the most northern parts of Norway of electricity.

To sum up, when the debate started on energiogklima.no in 2013, what was discussed regarding electrification was its potential to help cut emissions globally, and if it was economically sensible.

As the years progressed towards 2018, an increasing number of actors became positive of the electrification of the continental shelf, and many thought it would just be a question of how and when it should be done. As 2018 came to an end, there was an increased focus on the electricity capacity, in the event of full electrification of the continental shelf, and whether this was a good use of domestically produced electricity. This trend steadily increased in 2019, and from here on it is the availability, and the effect it will have on electricity prices (and other industries) that are used as arguments for and against electrification. Some actors highlight that mitigation is possible through offshore wind turbines, while others claim that offshore wind turbines will do too little too late. As described above, the politicians are regularly changing their stance, and it could seem that this is motivated by the fear of negative blowbacks regarding electricity prices and other market terms for land-based industries. As we describe in the forthcoming discussion, the rising electricity prices along with the war in Ukraine war resulted in implications in the geopolitics of energy which influenced the discourse. The actors from the oil industry have gone from being quiet about electrification to working actively for it. It could seem that as the prices on CO2 quotas have risen, this is their major motivator because this makes electrification increasingly economically sensible. At the same time, the Green Party and the Social Left Party, have gone from being for the electrification of the continental shelf to being against it. So, while they started by arguing that it would be a good way to cut emissions, it seems that they moved towards seeing it as "greenwashing" of oil, and something that would not solve our biggest problem, our dependence on carbon-based energy.

6.2. Quirkos - and the use of codes

After transcribing the interviews, the interviews together with our chosen papers were fed into the Quirkos program. Before we started analysing the documents, we both read through them, and set up the following codes which we could connect to text in the documents:

- Paris Agreement
- Maintaining the oil sector
- National Action
- Green Oil
- Competitiveness

- Incubator
- Energy security
- Public Support
- Supply-side Economics
- Thinking Globally
- Electricity prices
- Equal Treatment between offshore and onshore industry

We then started reading through our documents again, marking and coding the text to fit our codes. We also made new codes along the way as we saw fit, so that if we during our reading found new codes, we thought could be useful, they were applied. The new codes we generated were:

- Concerns over to high CO2 tax
- Supplying Europe with energy
- Climate policy integrated with the EU.
- Area Seizure
- Maintaining the oil-sector
- Increased CO2 tax to lower emissions
- LINCCS (linking large scale, cost effective, permanent offshore CO2 storage across the CCS value chain)
- Access to clean energy to enable electrification.
- Hydrogen
- Electrification of Oil industry to secure and create jobs.
- Referencing IEA as authority
- EU EST
- Flexible mechanisms
- Electrification does not solve the cause of the problem.
- Supply-side economics
- CCS
- Concern over increased energy consumption (limiting green industry)
- Government-sectoral/industry cooperation for emissions reduction
- Predictable framework conditions
- Oil "belongs" to the Norwegian people, thus shall benefit the people.
- Wind turbines

- Power from shore solution depends on the individual platform.
- Renewable energy as a competitive advantage
- Electrification of NCS to reach climate targets.
- Power from onshore electrification
- Phasing out oil and gas
- Supply and demand arguments
- Transition fee
- Enforcing best available technologies

Figure 4 depicts a screenshot of the Quirkos program (the number under the names of the codes, are the number of "hits" totally from all documents). As one can deduct from looking through the codes, many of them are overlapping, or at least talking about bordering themes. One should also note that the number of hits each code has, should not be given too much meaning, as one would have done in a quantitative analysis, because in our interviews, our questions will "lead" the interview subject to talk about a lot of these codes. I.e, one of our questions was, if the interview subject could think of other alternatives of electrification. And this leads them in most cases to talk about CCS. So, then the CCS code got a high number of "hits" from most interview subjects, even though most of them did not think of CCS as their primary solution to electrification.



Figure 4. Screenshot from Quirkos-Konkraft report.

Source: Authors' contribution

What these codes were useful for, was that we could go into each code, and see all the text connected to it, and thereby see how many different actors talked about it, and in which way. Figure 5 is a picture where we are looking at the National Action code:

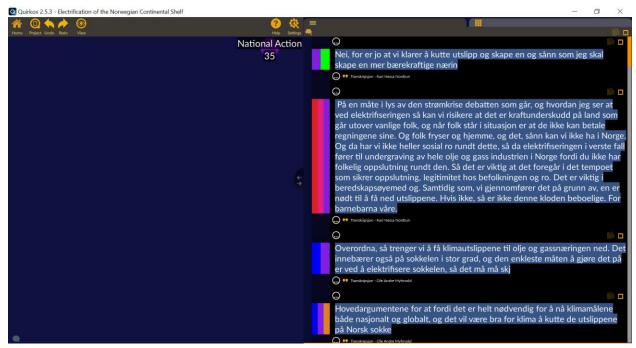


Figure 5. Screenshot from Quirkos- "National Action" code.

Source: Authors' contribution

6.3. Key Narratives

After going through these codes, and sorting them out, we identified the following key narratives regarding the electrification of the Norwegian continental shelf:

- Electrification of the Norwegian continental shelf to cut emissions in Norway as a means to fulfil the pledges in the Paris Agreement.
- Economically sensible as prices on CO2 emissions keep rising.
- It gives the Norwegian oil industry an international competitive edge.
- It will work as an incubator to spread solutions to cut CO2 emissions around the globe when pumping up oil and gas.
- Energy security
- Public support
- Equal treatment of onshore and offshore industries regarding electrification and electricity prices.

- CCS as the main solution to secure enough electricity
- The oil and gas production on the continental shelf has to be terminated.
- Supply-side economics
- National Action
- Meeting the goals set by the Paris Agreement in other ways.
- Instead of spending money and resources on electrification, one should rather buy CO2 emission quotas internationally, because there are higher gains to be made there.
- Maintaining the oil and gas industry

The subsequent subsections describe how these key-narratives connect to the five different storylines we identified.

6.4. Storylines

After going through 13 interviews and 6 documents, we identified five storylines regarding how the actors we have studied perceive the electrification of the Norwegian Continental shelf. The five storylines are:

- SL 1: Full on electrification
- SL 2: Electrification, yes, but?
- SL 3: Yes, but by other means
- SL 4: Shut it down!
- SL 5: Forget about Norway!

In the next sections, we will describe each of these storylines, and explain what narratives we find supporting them, and which interview actors are promoting them. It is important to point out that we have only interviewed representatives from each of the different actors and, especially within the political parties, there are different factions who hold different opinions, and therefore the interviewer might just describe what his faction within his party argues for.

6.5. SL 1: Full on electrification

This story line is clear on the fact that it wants to cut carbon emissions in Norway, and that a lot of those cuts must be taken on the Norwegian continental shelf. To electrify the continental shelf, most of the oil rigs would need power cables from land to give a continuous flow of power, and

additionally also build offshore and onshore wind turbines to mitigate the usage of electricity that could be consumed by onshore industry and households. As offshore wind turbines are intermittent energy sources, and the need for power on the oil rigs is constant, making the power cables from land accompanied by offshore wind turbines becomes the default solution in this storyline known as full on electrification. The Trollwind project giving electricity to the Troll and Oseberg fields are examples of full electrification. But in some cases (e.g rigs with small production and/or with a limited lifespan), one can mitigate some of the pollution only with power from offshore wind turbines. The Hywind Tampen is an example of the latter and is known as partial electrification. To meet the goals stated by the Norwegian government regarding emissions cuts in Norway (that are in compliance with the Paris agreement) is often mentioned by these sources. Simon Moxnes, representative of Equinor describes:

So there is the political context, and we have also made it our own ambition for the whole company. Also the international business, that we shall have a 50% emission reduction in total up to 2050. It is like that, so to speak, one to one between Norwegian politics, Norwegian political leaders and what is our strategy. And it also goes on, in a way, that we want to be a company that is, you could say, compliant with the Paris Agreement, and then it is, in a way, our own emissions we to the greatest extent possible can affect. (Authors' translation)

Those who advocate for SL1, do so knowing that full electrification of the Norwegian continental shelf will negatively impact the onshore electricity market in the short term. Even though offshore wind turbines can mitigate, and in the length may completely replace or bypass the usage of electricity offshore, in the short term everybody recognises that the installation of wind turbines is going to take too long a time, to keep up with the electrification of the oil rigs. As the representative from the Centre Party stated:

Overall, we need to reduce climate emissions from the oil and gas industry. It also involves the continental shelf to a large extent, and the easiest way to do that is by electrifying the continental shelf, so it has to happen. (Ole Andrè Myhrvold, authors' translation)

The majority of those who argue for SL1 come from the industry itself. Our interview representatives from oil related industries, and with the NGO who represents the industries, were all arguing heavily for the electrification of the Norwegian continental shelf. They argue that even though it will be "painful" in the short term, before we have enough offshore-wind turbines to fully

mitigate the power needed for electrification, it is necessary if we are to cut emissions in Norway by 55% within 2030, which is Norway's stated official goals, which the industry aligns itself with.

"But a government must actually lead the country and make a decision, and it will be, it will be painful, because it's like a damned if you do, damned if you don't situation" (Knut Sunde, Norsk Industri, authors' translation).

Furthermore, it is argued that full electrification of the Norwegian continental shelf is economically sensible, not only for the companies but also for society as a whole, especially from a business point of view. They argue that as the prices of CO2 emissions keep on rising, the more economically sensible this will be.

As expected from the industry, policy makers and politicians alike, keeping the offshore industry and all its jobs operating, is an essential point. It is argued both by politicians and the industry, that if the Norwegian oil fields shall continue their production and deliver to the international market, then the production itself should be the "cleanest" production in the market. So, in this sense, the concept of "green oil" and its long-term competitiveness, are two intertwined key narratives in this storyline. Described by Torbjørn Andersen in Aker Solutions:

And as long as oil and gas are needed in that energy mix, it is important that the oil and gas used can both be produced, but also used with as low emissions as possible. And then we see that Norwegian oil and gas are among the sources that can best contribute to exactly that. In Norway, we can produce both oil and gas in such large quantities that it is important for the market that we supply, not least the European energy market, and we have relatively low emissions, and we are working to find solutions to get them even lower. And then electrification is part of that picture. (Authors' translation)

A last key narrative that was mentioned by different sources, was that if the industry on the Norwegian continental shelf invested in electrification and zero emissions, the Norwegian industry would be world-leading in offshore oil and gas production with close to zero CO2 emissions. When the technology and know-how is developed and established, it can be exported, to help other countries reduce their CO2 emissions, all the while Norwegian industry is profiting from being the exporter of this particular expertise.

The actors that support this SL1 in our study are:

Private Companies: Aker Solutions and Equinor.

NGOs: Offshore Norge, Konkraft and Norsk Industri

<u>Political Parties:</u> Representative from The Centre Party

State Bureaucracy: None

As one can see, it is the offshore industry and the NGO's connected to it that are the main actors supporting this story line. Their relation to this storyline makes sense, as they are the actors that seem to have the most to gain and least to lose from an electrification of the Norwegian continental shelf.

We found five key-narratives supporting this storyline. And these narratives are: the Electrification of the Norwegian continental shelf to cut emissions in Norway as a means to fulfill the pledges in the Paris-agreement; economically sensible as prices on CO2 emissions keep rising; it gives Norway a competitive edge, it will work as an incubator to distribute CO2 emissions reduction solutions around the globe when pumping up oil and gas; maintaining the oil and gas industry.

It is worth noting that the representative from the Centre Party in his interview with us did not align with how the Centre Party recently expressed itself in the media and the public discourse as described in section 6.1. This exemplifies the inconsistency and the internal struggles within parties, contributing to the lack of consistency not only between the different actors but also *within* the key actors themselves.

6.6. SL 2: Electrification, yes, but?

While many agree that there should be some kind of electrification of the Norwegian continental shelf, they also have grave concerns about the effect it will have on the land-based industry and the populace. Their biggest counterargument against electrification is that electricity is getting scarce and expensive, and therefore this storyline stresses the caution to tread carefully when directing electricity offshore. A situation more amplified by the current energy crisis.

This storyline holds the view that one should first make cuts in CO2 emissions in Norway, however, if the costs of CO2 emissions in Norway get too high, the appropriate action would be to utilise the EU framework to buy CO2 quotas (EU ETS). These concerns can be divided into three different categories:

<u>Energy security</u>: It is pointed out that even without electrifying the Norwegian continental shelf, Norway will within a few years produce less electricity that it consumes, and that this will leave Norway in a vulnerable state, if electricity becomes scarce across the markets.

<u>Equal treatment of onshore and offshore industries regarding electrification:</u> As the electrification of the continental shelf will direct electricity from land to offshore installations, there is concern that this will create unfair conditions for the land-based industry. Norway has a lot of energy-intensive industries that also could benefit from electrification, and why should they be second in line for electrification.

Energy prices: As the electrification of the continental shelf will draw a lot of electricity, it is a logical assumption that it also will drive electricity prices upwards. Norway has already seen its electricity prices rise as a result of higher electricity prices abroad, while being connected to international interconnectors, thus binding our market closer to the European energy electricity market. Given the significant contrast to how things were just a few years ago, we now see actors, especially politicians, worry about how further electrification development will drive what is considered high prices even higher.

The above concerns aside. The actors whose arguments align with this storyline, do not disagree with all the positive benefits of electrification that the actors who support the SL1 storyline voice. Therefore, many of the same key narratives will be the same as SL1, but with the addition of some counterarguments in their extra narratives. As our interview subject from the Labour Party stated:

In a way, in light of the electricity crisis debate that is going on, and how I see that with electrification, we can risk that there is a power deficit on shore that affects ordinary people, and when people are in a situation where they cannot pay their bills. And people are freezing at home, and that, we can't have that in Norway. And then we will not have social peace around this either, so electrification in the worst case leads to the undermining of the entire oil and gas industry in Norway because you don't have popular support for it. So it is important that it takes place at a pace that ensures support, legitimacy among the population and calm. It is important for preparedness purposes. At the same time, we are doing it because we have to reduce emissions. If not, then this globe will not be habitable for our grandchildren. (Kari Nessa Nordtun, authors' translation)

This story line is one of fine balances and minor differences to the first story line. On the one hand, it sees all the positive arguments for electrification, yet on the other, is concerned with the causal effects that a rush towards full electrification of the continental shelf will bring for the onshore industry and the lay people. So in many ways, this is a storyline that has rich inner tensions, standing out as the storyline with *the least* clear answer on how to cut the CO2 emissions that Norway has obliged itself to.

The actors that support this SL2 in our study are:

Private Companies: None

NGOs: None

Political Parties: Representative from Labour Party (Arbeiderpartiet) and Conservative

Party (Høyre)

State Bureaucracy: Ministry of Petroleum and Energy and Ministry of Climate and

Environment.

As one can see, this storyline is mostly supported by political parties and state bureaucracy. The two parties that support this storyline are the two parties that for the last 30 years have dominated Norwegian politics on the opposite side of the political spectrum. They are by many seen as the "responsible parties" that don't go for radical solutions. As the state bureaucracy seldom strays far from the government ruling, it is no surprise that the state bureaucracy and these two political parties align in these matters.

We found eight key-narratives that support this storyline. And these narratives are electrification of the Norwegian continental shelf to cut emissions in Norway as a means to fulfil the pledges in the Paris-agreement, economically sensible as prices on CO2 emissions keep rising, it gives Norway a competitive edge, it will work as an incubator to distribute CO2 emissions reduction solutions around the globe when pumping up oil and gas, public support, energy security and equal treatment of onshore and offshore industry regarding electrification, electricity prices and maintaining the oil and gas industry..

The key-narratives above need some further explanation, as some of them are arguments for a full-on electrification, while others are reservations against it. Following are the five key-narratives that argues for a full on electrification: electrification of the Norwegian continental shelf to cut emissions in Norway as a mean to fulfil the pledges in the Paris-agreement; economically sensible as prices on CO2 emissions keep rising; it gives Norway an competitive edge; it will work as an incubator to distribute CO2 emissions reduction solutions around the globe when pumping up oil and gas; maintaining the oil and gas industry.

The other three are those that are often used to argue against or set limitations for electrification: public support; energy security; equal treatment of onshore and offshore industry regarding electrification and electricity prices.

6.7. SL 3: Yes, but by other means

While SL1 and SL2 have electrification by cables from land, combined with wind turbines at sea as their main solution, there are those that say that this is a waste of clean energy. As the electricity that is getting drained from land is mostly from hydro (and some wind) power, the claim is that this electricity should be used in better ways. Yet, those who advocate for this do agree that electrification of the shelf would be helpful in cutting domestic CO2 emissions. Therefore, this storyline suggests other ways of electrifying the continental shelf. The most obvious solution is then electricity from gas-driven power plants, combined with modern CCS. This solution seeks to mitigate the problems that separate SL1 from SL2. Thus, this storyline maintains the idea of electrification of the NCS, without draining electricity from the mainland, and thereby avoiding the encompassed problems that follow such a scenario.

Another strong argument for this solution is that other places in the world do not have the conditions to electrify their oil and gas production with "clean" electricity, and therefore, the solutions presented in SL1 and SL2 are solutions that are to a lesser degree applicable to other parts of the world (thus, to some extent, invalidating the narrative of technology and knowledge-incubator). But electrification with power plants and CCS is thought to be applicable everywhere, and therefore, if one in Norway could develop a functioning and economic rationale way to implement this solution, it could be seen as a huge incubator for spreading ways to reduce carbon emission all throughout the world. This will also give the Norwegian industry a competitive edge, as described by our interview subject from the ENGO Bellona:

It is much more important that someone uses politics actively against the oil and gas industry, against Equinor and others, to ensure that they develop the solutions that are needed. Then of course, in a way, the Norwegian perspective is obvious, that we are the ones who have to cut our emissions and then we can think that many of the solutions that we have developed here in Norway are relevant globally. Offshore gas power and CCS are relevant globally. It can help cut emissions. Millions of tons, hundreds of millions of tons around the world. And that is part of our point then, which is that Norway can take the lead, showing how it should be done. We say we are so green and green and nice. OK, then we actually get to implement it ourselves, and then we can use those solutions, and also make them available globally. So that the world as a whole gets a little further. (Christian Eriksen, authors' translation)

This kind of electrification is described in two related ways in this storyline. The ENGO Bellona suggests building a gas-powered power plant with CCS, that is lying on a floating production storage and offloading facility (FPSO). This has the advantage of being movable and can be set as a node, between different platforms. Given this mobility from FPSO, makes it a good option for sites and platforms with a shorter lifespan, allowing it to be moved around as needed. This could also be an electrification solution for other petroleum facilities around the world.

Another solution is to build a gas-powered power plant with CCS on shore, using cables to electrify the surrounding oil and gas fields. Those who promote this solution, do so claiming that building a gas-powered power plant with CCS on a floating, mobile rig will be too costly, thus building the power plant with CCS on land is a strategy to avoid such a costly expense. From the fixed location of the power plant, cables would be towed out to the oil fields to be electrified. Interestingly, this specific way of electrifying the shelf is a solution that many point out as their second preferred electrification solution, e.g., the Progress Party whose first preference is the use of international mechanisms and the CO2 quotas system to cut carbon emissions. They happen to see this as a good alternative solution. As do many of the incumbent industries in the offshore businesses, best exemplified by our interview subject Terje Halleland:

Willingness to pay should be higher, offshore wind and so on, and then we have this proposal, which I hope we will get a good round of further, and then learn more about CO2 capture. And of gas power plants, and I can't see away from the fact that there could also have been a solution where a gas power plant had been built on land. We just tore one down. So, then we would build it -but then with CO2 capture and storage. This, and that we operate at Langskip, so we spend many billions on researching this, and that could well have been something too. And then, continued with the fact that we had made a gas power plant. Which has then produced clean energy by storing the CO 2 emissions. (The progress party, authors' translation)

The actors that support this SL3 in our study are:

<u>Private Companies</u>: None (Although Aker Solutions and Equinor sees this as a good second alternative)

NGOs: None

<u>Political Parties</u>: No representative. Although the representative from The Progress Party sees this as a good second alternative, as do Labour and Conservative Party)

State Bureaucracy: None

ENGOs: Bellona

In the SL3 storyline, the only actor in our sample who fully supports and advocates for this storyline as their first choice is ENGO Bellona. What is even more interesting is that the actor who is closest aligned with them in this solution is the Progress Party. This is interesting because The Progress Party is the sole actor in our study who does not see 'National Action' as a necessary measure, thus could therefore be seen as traditionally far away politically from an ENGO.

We found 7 key-narratives that support this storyline. And these narratives are: electrification of the Norwegian continental shelf to cut emissions in Norway as a means to fulfil the pledges in the Paris-agreement; economically sensible as prices on CO2 emissions keep rising; it gives Norway a competitional edge; it will work as an incubator to distribute CO2 emissions reduction solutions around the globe when pumping up oil and gas; public support; equal treatment of onshore and offshore industry regarding electrification and electricity prices; CCS as the main solution to secure enough electricity.

6.8. SL 4: Shut it down!

Out of all the storylines, this is the one that really separates itself from the others. If its intention were to be implemented, it would mark a radical shift in Norwegian policies, and most likely have profound effects on Norwegian society. Its main goal is to reduce CO2 emissions by phasing out and terminating the oil and gas industry, it can therefore be seen as what Turnheim & Geels (2013) describes as industry destabilisation.

Norway's oldest environmental organisation, Friends of the Earth, is one of the few key actors in our study who are against electrification, citing that such a measure will not solve what they refer to as the main issue or problem, namely the global utilisation of oil and gas. Electrification won't solve this and therefore they are advocating for a rapid phaseout of oil and gas production, halved by 2030 and full phase out by 2040. Expressing electrification as a concern for increased energy consumption that in turn limits the opportunities for green industries. Increased energy consumption is likely accompanied by the expansion of onshore renewables such as wind turbines and power lines, resulting in the degradation of pristine nature. This is in their view not a good strategy for cutting emissions.

The Green Party is also in favour of terminating the oil and gas industry. They have almost identical arguments as Friends of the Earth, but their main arguments against electrification are that it is a waste of green energy, and secondly, that long-term solutions should seek to end the production of oil and gas, not use resources to extend its lifetime. As our interview subject, Richard W. Samslått explains:

Our starting point is that the shelf should not be electrified. It really is built on several things, but there is one, for the power part, so there is a priority now with where we are going to go if we are not going to have enough power in the future. How to prioritise then? That is one thing, the other thing is that the fact that it is in a way extending the life of the industry that everyone knows cannot continue indefinitely. (The Green Party, authors' translation)

The actors that support this SL4 in our study are:

Private Companies: None

NGOs: None

Political Parties: Representative from The Green Party

State Bureaucracy: None

ENGOs: Friends of the Earth

We found four key-narratives that support this story line. And these narratives are: the oil and gas production on the continental shelf has to be terminated; supply-side economics; national action; meeting the goals set by the Paris agreement.

6.9. SL 5: Forget about Norway!

In our study, there was only one actor who was against electrifying the Norwegian continental shelf, and at the same time against terminating the oil and gas industry. This actor was the Progress Party. Their arguments are that electrifying the continental shelf is wrong for two reasons. One, the electricity that is needed to electrify the continental shelf is needed onshore, and electrifying the continental shelf will increase electricity prices, and two, it is economically unsensible.

After all, we basically want that everyone in Norway who needs power should get power, but when we are in a situation that means that power is a scarcity, then we have to consider to a greater extent which measures we take, and we believe that the petroleum sector,

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which is part of the quota-obliged sector. We do not find it prudent to use electric power as a climate measure now. And therefore, we say no to electrifying the shelf. (Terje Halleland, The Progress Party, authors' translation)

It's evident that The Progress Party is in the "Thinking Globally" narrative. And Terje Halleland elaborates:

So, there is a little bit back to, to the quota-obliged sector. Norway is a country that, admittedly, we are a little, a little proud of ourselves and can say that everything we produce in Norway is positive for the climate if the alternative is that we shut down our production so that it can start somewhere else. And then we mean, that really, when you have a quota-obliged sector, then we have if we can be a bit generous like that and say that we have approximately 25 million tonnes that, as in the quota-obliged sector, then I don't see any reason for Norway actually phasing out the 25 million tonnes before 2030. Because then you are in competition with the rest of Europe, so I think that, as far as the climate is concerned, it is actually better that we get reduce emissions in Romania, in Bulgaria, which has no claim in the quota system at all, I think Romania has 2% and Bulgaria has 0% claim to emission reductions before 2030, so, there is a lot of low-hanging fruit. Which is most important to get out, i.e. small production in relation to, to the emissions which are very high, and there, after all, almost everything is coal-based, and no purification, so in that sense, it does not worry me as long as we have this international cooperation that on the quota-obligatory side we have emissions in Norway, but after 2030, this will only get tougher and tougher, the quotas will just disappear more and more, and then we need to start replacing that power. Now, in any case, give the opportunity to the continental shelf, to how we will electrify. So, I have a basically relaxed relationship with the emissions linked to Norway now, as long as you have international cooperation. (The Progress Party, authors' translation)

As mentioned above, even though the Progress party is against electrifying the continental shelf, they state that if one were to do so, it should be done with the power from gas driven power plants, together with CCS.

The actors that support this SL5 in our study are:

Private Companies: None

NGOs: None

<u>Political Parties:</u> Representative from The Progress Party

State Bureaucracy: None

ENGOs: None

We have found five key-narratives that support this storyline. And these narratives are: instead of spending money and resources on electrification, one should rather buy CO2 emission quotas internationally because there are higher gains to be made there; maintaining the oil and gas industry; equal treatment of onshore and offshore industry regarding electrification and electricity prices; energy security and public support.

6.10. Actors without a fixed storyline

In our dataset, there are two actors who are not fixed to any storylines. These are the private company Lyse, and The Norwegian Water Resources and Energy Directorate (NVE).

Lyse, contrary to the other private companies interviewed, was much more measured in their opinion. They stated that they thought Norway should cut carbon emissions, and that they thought that electrification could be a useful tool in that regard, but they also stated that they had no opinion on whether electrification was a good strategy to cut carbon emissions in Norway. As explained by Ånund Nerheim, when asked if electrification is a good strategy to cut Norwegian emissions:

I can't go into that. It is not something that Lyse has as such a separate field in a segment which gives the most effect in decarbonisation. Generally speaking, we see that society must decarbonise, it is both in Norway and in other countries, in the Nordics and in Europe. Then we will switch from fossil fuels and cut emissions, and that will require a lot of renewable electricity. It is, in a way, a situation we can observe. (Lyse, authors' translation)

Lyse did state that electrification of the continental shelf, together with off-shore wind turbines, would be socio-economic sensible, as one could share the costs of the electric grid between those who are operating the oil rigs, and those who are operating the off-shore wind farms. Lyse is in general positive towards electrification, especially if it would lead to increased investments in offshore wind farms, also looking upon electrification as sensible to cut domestic emissions. However, they would not take any stance on how the politicians should do this, or how fast it should be done.

Kjetil Lund, leader of the Norwegian Water Resources and Energy Directorate, stated early in the interview that they as a directorate, do not form politics, but rather effectuate them through assigned analysis and counselling. In this respect, they could affect politics directly or indirectly. Lund was in his interview more concerned with showing the consequences that political decisions would have, as he stated regarding the electrification of the Norwegian continental shelf:

So, we have an alternative application that could have been used for something else. Right? It's a choice, so whether you think it's a wise or unwise choice, it's a choice, which has a consequence. Then there is, it comes with a price for society. And there is less power left for other things; Households, other businesses and, and everything else, thus higher electricity prices. And that will and in some cases could lead to large grid investments having to be, yes, so maybe we could otherwise avoid so, and it is our task to shed light on that. And a choice has consequences. (NVE, authors' translation)

However, the following proved to be interesting from this interview: though NVE was clear on the fact that electrification of the Norwegian continental shelf would cut emissions domestically, they were more unsure about the global net effect of electrification as a result.

Table 4. Storyline and key narrative overview from representatives of actors interviewed.

Source: Authors' contribution

Story Line	Key narratives	Actors interviewed
SL1 - Full on electrification: with power from land and with wind turbines	 Electrification of the Norwegian continental shelf to cut emissions in Norway as a mean to fulfil the pledges in the Paris Agreement Economically sensible as prices on CO2 emissions keep rising. It gives the Norwegian oil industry an international competitive edge. It will work as an incubator to spread solutions to cut CO2 emissions around the globe when pumping up oil and gas. Maintaining the oil and gas industry 	 The Centre Party Aker Solutions Equinor Federation of Norwegian industries Konkraft
SL2 - Electrification, yes, but?	 Electrification of the Norwegian continental shelf to cut emissions in Norway as a mean to fulfil the pledges in the Paris Agreement. Economically sensible as prices on CO2 emissions keep rising. It gives the Norwegian oil industry an international competitive edge. It will work as an incubator to spread solutions to cut CO2 emissions around the globe when pumping up oil and gas. Maintaining the oil and gas industry Energy security Public support Equal treatment of onshore and offshore industries regarding electrification and electricity prices 	 The Labour Party The Conservative Party Ministry of Petroleum and Oil
SL3 -Yes, but by other means - Use power from gas driven power plants with CCS to electrify the continental shelf	 Electrification of the Norwegian continental shelf to cut emissions in Norway as a mean to fulfil the pledges in the Paris Agreement. Economically sensible as prices on CO2 emissions keep rising. It gives the Norwegian oil industry an international competitive edge. It will work as an incubator to spread solutions to cut CO2 emissions around the globe when pumping up oil and gas. Public support Equal treatment of onshore and offshore industries regarding electrification and electricity prices CCS as the main solution to secure enough electricity 	- Bellona - (The progress Party)
SL4 -Shut it down! - One should stop the production of oil and gas, instead of electrifying the continental shelf	 The oil and gas production on the continental shelf must be terminated. Supply-side economics National action Meeting the goals set by the Paris agreement 	Friends of the EarthThe Green Party(Bellona)
SL5 - Forget about Norway! - One should not electrify the continental shelf	 Instead of spending money and resources on electrification, one should rather buy CO2 emission quotas internationally, because there are higher gains to be made there. Maintaining the oil and gas industry Equal treatment of onshore and offshore industry regarding electrification and electricity prices Energy security Public support 	- The Progress Party

7. Discussion

In this section we will discuss our findings and issues that arose from them, starting with discourse hegemony and coalitions, followed by electrification as a climate solution or rhetoric. We then present key events that have contributed to a change of discourse, followed by key narratives that could potentially alter the dynamics. We further discuss how petroleum interests are embedded in policy and the discursive hegemony in practice, followed by insights on onshore & offshore wind turbines, and the fading SL 4. Lastly, we look at "National Action" versus "Thinking Globally" discourses in relation to our dataset, as well as in relation to the dominant storyline and its contemporary significance.

7.1. Discourse hegemony and coalitions

As presented in the previous chapter, the most supported storylines from our dataset are SL1 and SL2. And these two storylines are also the closest to each other in their understanding of the electrification of the Norwegian continental shelf. However, at the time of our conducted research, the dominant storyline, emerging and seeming relatively hegemonic as well as gaining considerable momentum, is SL2: Electrification, yes but.

The SL2 storyline is pursued by the traditionally largest and most influential political parties in opposite sides of the political coalitions. The Labour Party, (led by Jonas Gahr Støre currently in government), are traditionally the leader of the centre-left governments, while the Conservative Party has during the previous two parliamentary terms led the centre-right coalition and held the prime minister's office for those previous parliamentary terms. The SL2 discourse also has a lot of traction in the state bureaucracy. When these powerful and dominant forces align, they have a lot of power to influence the discourse. And in many ways, the SL2 solution is the non-confrontational "middle ground" possibly negating the potential negative consequences for any parties involved. If it were to deliver what it promises, it will maintain a strong oil and gas industry, while keeping the electrification process from unfolding too rapidly or be too invasive or resulting in the creation of an unforeseen crisis for the onshore industry or citizens paying their electricity bill. What the SL2 storyline also has going for it, is its capability to coexist beside SL1 and SL3, without directly disagreeing and falling into what Rosenbloom et al. (2016, p. 1285) described as a "Thrust-andparry-dynamic." By trust-and-parry dynamic, it is meant when different actors try to delegitimise the other actors' storyline, the "thrust," or when they try to stick the liability of a known issue to the other actors, the "parry."

These storylines are differentiated by what could seem as granular differences, therefore SL1, SL2 and SL3 could be condensed into one storyline, categorised as the "for electrification" storyline. We have chosen to not do this because it is precisely the nuances within the discourse that make for meaningful insights on the topic. Thus, it seemed reasonable to split up this storyline (which most actors support), due to the great variances within these on how to do it. And it could also be worth noting, that from our point of view, the SL1 and SL2 storyline seems much more aligned then e.g., SL2 and SL3. SL1 and SL2 want much of the same, but the difference is more on how fast to implement the electrification, and at what cost to the other parts of society. The SL3 storyline, chooses a totally different approach to electrification, and would therefore seldom go tandem with the SL2 or SL1 storyline.

The powerful coalition of the Labour Party, the Conservative Party, and people within the state bureaucracy, who can also seek support from industrial actors and NGOs from the industry when needed, create in this case a powerful discourse coalition. It fulfils all the three criteria set by (Hajer, 1995, p. 65). It has a set of storylines SL 2 and SL1 (and sometimes SL3), it has many different actors who utter these storylines, which makes them heard, and finally, there are practices where these discourses are expressed.

Our claim would therefore be, that if one storyline seems to be hegemonic, it is the SL2 storyline. It has support from some of the most powerful actors across the political spectrum, in addition to few direct threats, or other powerful actors who can delegitimize the SL2 storyline.

Another interesting coalition is that-of the political parties on opposite sides of the spectrum, the Green Party and Progress Party, who share the similar storyline of SL4 and SL5 in the sense that electrification should not be pursued, but for very different reasons and underlying values. Although this storyline for now has little traction, we could easily see how this storyline would gain further momentum if electricity is getting scarce, or if electricity prices continue to rise beyond what is already considered as high prices.

Our findings show that the political parties are linked to different storylines, and they are connected in many ways to where they stand, from the *environmental* left to right spectrum in politics. The Green Party, which is regarded as a party leaning heavily to the left, is deeply embedded into the National Action key narrative, proposing to terminate the oil and gas industry to cut CO2 emissions both domestically and abroad. On the other end of the political aisle, the Progress Party is not that concerned with making national emission reductions and is more embedded into the 'Thinking Globally' key narrative. In the middle, we have the representative

from the Centre Party, which is embedded into SL1, and thereby aligned with most of the petroleum industry in the offshore sector. The two biggest parties in Norway, who are traditional oppositional foes in the Norwegian Parliament, are aligned in their SL2 storyline. They are also aligned with the political bureaucracy in this.

7.2. Electrification- a climate solution or rhetoric?

As described in section 6.1, the debate surrounding the electrification of the Norwegian continental shelf started with different actors disagreeing on whether or not it would be helpful for the climate.

And not only was the debate doubtful if electrification would be a total net gain for reducing emissions, but there were also voices who clearly expressed concern for it being very expensive and economically inefficient. When looking at how the different actors argue for and against electrification today, we do not see the same argumentation. Most of our interviewees agree that it would be a net gain in emission reduction if the Norwegian continental shelf were to be electrified. The actors who do not agree are the Green Party, the Progress Party and Friends of the Earth. What is interesting here, is that if we look back to 2018, the Green Party gave credit to Equinor for planning to electrify the Troll C, Sleipner and Gudrun oil rigs. But now they are against it. The same turnaround can be seen from the Socialist Left Party, who went from arguing for electrification in 2013 and 2014, to now seem to be against it.

Other actors, like the Conservative Party, have turned the other way, they were against it in 2014 when they were the ruling party in government, but now, they are on the SL2 storyline, and states that it clearly has to be a part of the solution to reduce emissions. As stated in our interview with Ove Trellevik, The Conservative Party:

It is in order to reach the climate goals that we electrify the Norwegian continental shelf and, as a result, it is my opinion and my party's intention that it should contribute to extending the lifespan of the Norwegian continental shelf. I often say that the Norwegian shelf is the world's most important incubator. It is because I want the shelf to be a world leader in technology development. For example, to reach the climate targets, and to, in a way, that we should be able to produce petroleum in a long-term perspective. But then we have to reach the climate targets, we have to produce in a way that means we have minimal emissions, and then we see that the consumption of fossil energy is going to change in the years that we enter. There will be a need for Norwegian gas, for example, for many, many decades in Europe. (Authors' translation)

This raises the question, why has it changed from being disputed to being something that most actors claim is a relevant climate action?

In our research, there are no findings (spoken words) to sufficiently explain and describe this shift of position, in fact, most of the actors we asked claimed that they had not changed positions during the latest years on the subject of electrification of the NCS. However, from our reasoning and interpretation as an additional analytical layer, we can at the very least point out some of what we consider as contributing factors.

As this master thesis was being written in the spring of 2023, the different political parties in Norway had their national meeting where they would hammer out their political positions before the local elections of autumn 2023. Below is a table of the latest, most up-to-date (as of May 23rd, 2023) positions regarding the electrification of the NCS, collected from their own websites:

Table 5. Party positions on electrification of the NCS.

Source: Authors' contribution

Party	Mentioned electrifying the continental shelf in their resolution on their national meeting	Position	Link
Green Party	No	Against electrifying the continental shelf	https://www.mdg.no/str om og energipolitikk
Socialist Left Party	Yes	Yes, but only if the oil industry are enforced to build enough offshore wind turbines to power it	https://www.sv.no/wp-content/uploads/2023/0 3/u26-gronn-industri-i- 100-nye-a%CC%8Ar.pdf
The Centre Party	Yes	Not if it will weaken the energy security or the energy prices. Wants to stop electrification at Melkøya	https://www.senterpartie t.no/politikk/vedtatt- politikk/uttalelser/lm202 3/sikker-tilgang-og- konkurransedyktige- priser-pa-energien- forutsetning-for-onsket- norsk-samfunnsutvikling
The Labour Party	Yes	Yes, but only in a way that does not weaken the competitiveness of the mainland industry	https://res.cloudinary.co m/arbeiderpartiet/image /upload/fl attachment:en -aktiv-energipolitikk-i-en- ny-tid-hele-dokumentet- vedtatt/v1/ievv filestore/ 49991af6cf1046a6a0b54 4e8c68a5fd73384a0d3dc 3c4bf58a1bb2726c72292
The Conservative Party	Yes	Yes, but have to be considered on production field to production field basis, given there is a acceptable amount of power and grid capacity available	https://hoyre.no/content /uploads/2023/03/Vedta tt-resolusjon-Et- baerekraftig- energisystem-for- fremtiden.pdf
The Progress Party	Yes	The petroleum industry has to be stopped from using hydropower to electrify onshore and offshore oil installations	https://www.frp.no/files /Landsmote/2023/LM- SAK-050023- Resolusjoner-fra- landsstyret.pdf

Both from the industry and from ENGO's, there have been written official reports that claim a net positive gain regarding emissions from electrifying the continental shelf. Examples of this are the report from THEMA Consulting on behalf of Offshore Norge Thema (THEMA, 2023), and the report from ZERO (2022). When both industry and ENGO agree on what will help to cut emissions, it gains a lot of both trust and credibility, which are two of the three components that Hajer (1995, p. 59) argues that will form the dynamics in the argumentative game of discourse.

7.3. Key events that contribute to a change of discourse

An important finding in this study is that all industry actors are strong advocates for the electrification of the NCS, however looking back this was not the case. Our dataset indicates that the pro-electrification actors of the past were the NGOs and environmental organisations more so than the petroleum industry itself. What changes or key events influenced this shift?

Many factors could be contributing to gradual and sudden change. This shift could be attributed to the international developments in the climate discourse, with the Sustainable Development Goals, The Paris Agreement, the IPCC 1.5-degree report, the alignment with EU climate policy, and the strengthening of EU ETS, making CO2 emission more expensive, all of which makes it harder to justify business as usual in petroleum policy. This seemed to solve the issues of emissions reductions while simultaneously addressing cost-effectiveness and securing economic growth, allowing Norway to, as Handeland and Langhelle (2021) concludes:

positioning itself to compete internationally for a place in the carbon-constrained future. In doing so, it attempts to strengthen the connection between the energy policy goal of the environment (clean production) and the state's imperative of survival (fossil fuel exports). (p.12)

And in the case of the electrification of the NCS, electrification (as a means of clean production) is framed by the petroleum industry as the pathway to reach domestic targets, including the ETS sectors, thus aiding in the justification of continued oil and gas activity. The fact that it is economically sensible (as The Cap is strengthened) seems to some extent to be secondary.

Other key events include Russia's invasion of Ukraine and the weaponization of energy towards Europe, resulting in the need for a stable and reliable gas provider ie. Norwegian oil and gas. This further conceptualises Norwegian oil and gas as "pro-environment" for having been CO2 taxed and being subjected to high measures of domestic climate action, thus justifying the continuation of petroleum activities to a continent in an energy crisis. On January 5th, 2023, the German vice-

chancellor & climate-business minister Robert Habeck stated to the NHO annual conference that "Norway has become Germany's most important energy supplier and will continue to be in the future" (NRK, 2023). This promise was followed by a subtle warning, saying this is not the future, rather "the time for fossil fuels is nearing the end and climate neutrality will require something new, like new technology, new supplies, energy, savings, hydrogen, CCUS and CCS".

And so, the Norwegian-German collaboration on green transitions is strengthened through the establishment of the long-term structured dialogue in the field of industry and energy.

Additionally, electrification of the NCS could influence the electricity market substantially, resulting in a steeper rise in electricity prices beyond what is currently experienced. Electrification of the NCS is then positioned almost as yet another obstacle to citizens' ability to pay their bills. The existing public outcry over high energy prices is an issue already felt by the leading party in government, which is a contributing factor to their subscribed storyline (SL2). This also raises the issue of energy security and social justice and frames Norway's climate actions of electrification as a disadvantage to the average citizen. The ENGOs and the Green Party seem to, over time, have come to the realisation that electrification has a prolonged effect on the petroleum industry. A more rapid and radical shutdown or phase-out of the fossil fuel industry is more in alignment with their core values as key actors in the environmental movement.

Thus, novel intentions of lowering emissions domestically have both gradually and suddenly shifted. This goes to show the dynamics of discourse as a fluid quality ever evolving to the changing contexts and turn of events.

An example of a shift towards domestic emissions reductions was announced on November 29th, 2019, by the Conservative Party Tina Bru, calling for an emissions-free continental shelf by 2035 (Krekling, 2019). An announcement that must have startled the petroleum industry, despite its quick turnaround and response on January 6th, 2020, with an ambitious climate plan to cut 40% of emissions by 2030. However, this came with a prerequisite from the petroleum industry to the government, requesting stable and *predictable* framework conditions, essentially meaning no changes to be made to these (Equinor, 2020). As such, 2019 marks a clear shift in the Norwegian climate policy, a "re-nationalisation" breaking with what had up until then been the reigning principles of cost-effectiveness, turning the focus away from the EU ETS toward national emissions reductions. A national perspective that explicitly involves the petroleum industry that through these measures will compete in the production of oil and gas in an increasingly carbon-constrained world and market.

Also contributing to the change of public discourse are Norway's many interconnectors that facilitate the import and export of electricity to seven different countries. The two most recent, one connecting the south of Norway to Germany (Nordlink), and the other to the United Kingdom (North Sea Link), have been subjects of heated debate as of late (Delebekk, 2022). Being connected to the European market has influenced the energy prices to the likes of which the south of Norway has never experienced before. Attempts have been made to frame this as the European green battery. The initial idea of wind and hydro complementing each other depending on the weather conditions as a way of regulating the power supply. An important aspect is that the early interconnectors (from the 70s, 80s, and 90s) were framed as the Norwegian power supply. However, the irregularities of renewables (in this case, wind turbines) make the business aspects somewhat reinforced. An increasing CO2 price was also a factor influencing the market; hence the idea of interconnectors was evaluated as having socio-economically profitable potential (ibid.). Benefitting Norway when margins are low. Also benefiting Norway when margins are high. And so, being connected to the European market, affecting our prices in such a way makes electrification of the NCS yet another measure eating away at the already scarce electricity supply, escalating issues of social justice. The renowned Norwegian investor Øystein Stray Spetalen, warned about the interconnectors as a catastrophe for all commerce in Norway, which was largely based on cheap energy, "foreseeing" that a European connected energy market impacting electricity prices in such a negative way (Stephansen, 2022). Electrification with its accompanied increase of energy consumption therefore elevates concern over energy prices.

Although not a dramatic key event like the case of the Russian invasion of Ukraine, it is still an event that influences policymakers who face a population frustrated with high energy prices, especially since low energy price is something that Norwegians have long been accustomed to.

Electrification of the NCS (and other sectors) is something NVE states (both officially and in our dataset) will inevitably increase power consumption, further affecting energy prices.

Lastly, as the price of CO2 emissions has steadily risen, the economic side of electrification has changed, from one being almost just a costly measure, to being something that will save the oil and gas industry a lot of money. This was pointed out in our interview with Terje Halleland from the Progress Party and was one of the reasons he was against electrifying the continental shelf as "this will be unprofitable for the society as whole, but it will be economically profitable for the companies" (authors' translation).

And usually, big companies implement and argue for what they find the most profitable conduct. As the oil industry as a whole is such an important actor in Norwegian society, and few politicians want to erase the profits they create, one could easily see how their argumentation can sway the opinion of the politicians.

7.4. Key narratives that could alter the dynamics?

Even though our study shows that the SL2 storyline seems hegemonic and that strong actors in the oil and gas industry support it but push it towards the SL1 storyline, we see two key narratives that could potentially alter the current situation quickly. Those two key narratives are "Energy security" and "Public support."

Looking back at the last two years, the energy situation in Europe has changed drastically. Only two years ago, Europa had plenty of cheap energy, mostly due to Russian gas, and states like Germany, they had a clear plan to get rid of power from coal and nuclear plants. At the same time in Norway, our electricity prices were low, and power from electricity seemed abundant. The current reality in Norway is very different. By a combination of the war in Ukraine, and Norway getting more international interconnectors, electricity prices have for a period skyrocketed and now stabilised at a level most people find uncomfortable. The story about Norway's international interconnectors might prove as a lesson for the electrification of the Norwegian continental shelf. After the electricity prices soared, and the public perception was that it was the interconnectors who were to blame, it ended with the Minister of Finance stating: "The plan for the third cable from Norway to Scotland (NorthConnect) will not materialise" (NTB, 2021, authors' translation). This shows that public support is closely related to and contingent upon electricity prices.

In the predictions of Norway's future regarding power surplus of electricity, there are forecasts that show that Norway could have a deficit of electricity by 2030 (Statnett, 2023, p. 6).

In our interviews, the politicians seemed especially aware of the side effects of high electricity prices and also were aware of how fast the situation regarding energy security could change. As Ove Trellevik from the Conservative Party said when answering what his main arguments for and against electrification were:

If the main argument for electrification is to reach climate targets. The main argument against that is that we don't have enough power, that is, we can't have dark cities and hospitals that have to close down. That doesn't work. (Authors' translation)

And Kari Nessa Nordtun from the Labour Party said: "Yes, electricity prices must be low. It must be a competitive advantage for Norwegian industry and the business expectations of people out there that we have low electricity prices and that's how people organise their finances, right?" (authors' translation).

But they are still advocating electrification, and they are aware that the future prospect of the Norwegian surplus of electricity is dim. Our interpretation of this is that the politicians in the most influential political parties are highly sensitive to changes in the overall situation regarding electricity prices and energy security and that any changes there, be it from national or international events, could easily derail the SL2 and SL1 storylines, and give a big boost to SL3 or SL5.

7.5. Petroleum interest embedded in policy and the discursive hegemony in practice

Our analysis articulates the strong links between the industry and policymakers in the electrification context, as presented in the results section, making the dominant and rather hegemonic storyline in practice the SL2 (Electrification, yes but). In this position, not being at odds with either storyline 1 (Full on Electrification) or storyline 3 (Yes, but by other means) comes across as a very 'convenient' and non-confrontational position, where to some extent, accountability can be 'adjusted' accordingly depending on which side or narrative gravitated towards (the full-on electrification of NCS or considering public support and energy prices). Could this dominant storyline be stalling the development and implementation of climate measures? A lack of a clear action plan is evidently missing in this storyline and as such, being the ruling storyline with the most traction could indicate this as simply political rhetoric. How exactly is Norway to reach its climate targets with this storyline?

What comes across is the politicians, policymakers, and state bureaucracy's position between the industry (all represented in SL 1) and the public (represented in SL2), seeking cooperation with the industry, while maintaining public support might pose a dilemma in rapid transition and reach of targets. Another noteworthy aspect of climate policy is the government concept of 'sectoral responsibility' also adds to the difficulty to have an overall sector-wide climate policy, as this concept leaves this responsibility for the different sectors to solve (Norwegian environment agency, 2023).

The ruling storyline (SL2) is heavily influenced by the petroleum industry (all of which are identified in storyline 1) Thus, the electrification of the NCS could in part be viewed as a discursive strategy to maintain and prolong the oil and gas industry.

If electrification of the NCS is part of the "re-nationalisation" of climate politics that came with the full EU integration in 2019, and reinforced with the new Labour/Centre party government in 2022, (where all 55% emission cuts are to be domestically) in turn reducing the focus from the global to the national further justifies Norwegian oil and gas, whereas one tends to forget that the industry operates globally. Thus, the industry is in favour of electrification as the EU ETS cap is gradually lowered towards 2030, cleaner oil from electrification will give them a large competitive advantage in a carbon-constrained world. Put simply, electrification of the NCS would lower emissions domestically, but also maintain and perhaps even expand the petroleum industry in the justification of clean and green oil. Such a narrative also underpins Handeland and Langhelle's findings of the juxtaposed "petroleum as pro-environment".

The petroleum policy in a nutshell consists of measures of electrification, (preferably by power from onshore due to the inconsistency from wind turbines), CCS implementation, and most importantly *no action plan to phase out oil and gas.* Thus, electrification is both economically sensible in the long run as the EU carbon cap is lowered and is not threatening their existence.

According to the environmental foundation ZERO, the way to reach the 55% emissions cuts target would require substantial cuts in all sectors, with specific mention of electrification of rigs by wind turbines.

But this electrification should, to the greatest extent possible, be done with the help of offshore wind. The government must demand that the remaining power needs for the electrification of petroleum installations be solved with offshore wind rather than power from shore. (ZERO, 2022, p. 15, authors' translation)

Yet this strategy is widely criticised for being too costly and thus a worse solution than the EU ETS system. And so, the petroleum industry is adamant in their requests for predictable framework conditions from the government, for electrification in the appropriate fields, however insisting that power from onshore is needed for "when the wind doesn't blow", further arguing that surplus energy can be sent to shore. And to a large extent, the government through the Ministry of Petroleum and Energy seem to be in compliance with the predictable framework conditions as the "Stability of predictable framework conditions for the industry will still be necessary" (Olje-og energi departementet, 2021 p.135: authors' translation)

"Equinor plays a central role on the NCS through its operator tasks and broad participation. A still active and efficient Equinor is therefore important for good resource management on the Norwegian continental shelf" (Olje-og energidepartementet, 2021 p.151: authors' translation).

In same white paper, the resources (oil and gas) are framed as a good belonging to the Norwegian people and thus shall benefit the people as "The government's policy shall lay the foundation for energy resources to continue to be used to create value, work and welfare in Norway" (*Ibid.* p.5: authors' translation). It further builds the argument with the issue of job creation in that "The energy policy is based on the government's overall goal of creating more profitable jobs in the private sector and cutting emissions, not the development" (*Ibid.* p.5: authors' translation).

ZERO requiring the government to demand electrification by the offshore wind seems like a tall order in light of this. According to ZERO, electrification by offshore wind is the only way Norway can reach the 55% emissions cut target within the petroleum sector. However, with the industry's demand for predictability from the government and the government's returned compliance on this matter, it's evident that the petroleum industries and their interests are embedded within the ministries, influencing their power dynamics.

The discursive practices of the key actors of SL2, with the narratives that in turn make up the storyline and ultimately a discourse: "Electrification yes, but" can then be seen as an 'Apparatus' according to Foucault and Gordon (1980). At this moment in time is performing a function, in response to an urgent need (climate change). Whether or not this is the right function for the need can be subject to debate. But it serves a material-discursive practice that meets the need for key stakeholders within this discourse as well as addressing the urgency and public outcry for responsible action towards climate change. Thus, the storyline is very strategic in its purpose, relating to the forces supported by different types of knowledge, framing and power. We argue that this storyline can be both *constraining* and *enabling* at the same time. The reasons for electrification make sense in the national action narrative, meeting national climate targets while not threatening the existence of the petroleum industry at a global scale, but rather enabling its continuation.

The constraining and enabling characteristics mentioned in Foucauldian discourse (although Foucault does not attribute much to the enabling aspect like in contrast Dryzek or Hajer argues for), is in the case of electrification of the NCS very much present in our dataset. Being "on board" with the industry's SL1 'Full on electrification' as the best national action climate solution while in compliance with a predictable framework for this to unfold in the appropriate and applicable fields. It is constraining in the sense that it very much operates within the current political-economic

status quo, with no action plan to phase out fossil fuels, thus limiting linguistics, articulation and expression associated with any form of radical change. It is enabling as it allows for highly ambitious targets to be set as a response to the public outcry for action on climate change.

We also argue that in a sense the SL2 discourse has been what Hajer refers to as institutionalised, due to the many mentions of sectoral cooperation or compliance for predictable framework in government whitepapers, policy and legislation. As Hajer points out "even money power assumes some sort of discursive interchange, whether as a threat to withdraw investments or, more likely, as anticipated reaction, in a discussion among independent actors" (Hajer, 1995, p. 58). The former can be understood as the discursive practices between a firm and the state, and the latter as the discursive practices within government, such as cabinet meetings and parliamentary debates. And they are both very much present in the case of Norway. The state's income from the petroleum industry comes mainly through the special tax (særskatt) on the subsea petroleum deposit, but also through the sales revenue from the state-owned oil and gas, though rather large shares in the oil companies, such as the 67 % owner shares of Equinor with an estimated 2023 cash revenue of 15 billion NOK (Norsk Petroleum, 2022 "Skatteinntekter" section).

The state's revenues from oil and gas are then transferred to the State Pension Fund, something that also helps frame oil and gas as a good belonging and in turn benefitting the Norwegian people, through the welfare state.

7.6. Enforce onshore and offshore wind turbines

As stated in an interview by Knut Sunde:

Some of the actors we have interviewed, state that the solution to the problems highlighted in the previous chapter is to enforce the building of wind turbines, especially offshore, but also onshore.

Everyday matters are somewhat like that in Northern Norway, where a great many companies in Northern Norway and certain projects, more or less serious projects in Northern Norway, are struggling to get electricity because Melkeøya is to be electrified. Then we notice it, very spot on. And the answer to that is actually more power and the forcing on off-shore wind turbines. Now you just have to correct me, Runar? Because the more they force offshore wind development, the more it relieves the load, and then the cable from land, as Runar said, becomes more than just an umbilical cord that works in

periods when there is no wind. (Norsk Industri, authors' translation)

The problem here that is not mentioned, is that the Norwegian government has for some time tried to build more wind turbines, with a low rate of success, and that can in many ways be attributed to the resistance within the Norwegian population regarding wind turbines (Rustad, 2023). Also, the sites of built onshore wind turbines have created a lot of friction and in one case, the Norwegian Supreme Court found the Norwegian State at fault for having broken the law when allowing licenced permission to build wind turbines in Fosen. It was unlawful because it broke the rights of the Sami population according to the UN's International Covenant on Civil and Political Rights, article 27 (Agence France-Presse in Oslo, 2021).

The example used here is regarding onshore wind turbines. But the same types of problems will arise with offshore wind turbines. The fishing industry in Norway is already concerned that while offshore wind turbines have a low efficiency yield, it will come in conflict with fishing, which they regard as a sustainable resource utilisation contributing to great economic gains and food production (Svendsen & Elliott, 2023).

As shown in the Fosen case, Norway as a democratic state is bound by its own and international laws, therefore makes it very unlikely to enable the bypassing of procedural steps that it is bound by. Given these conditions, the prospect of enforcing onshore and offshore wind turbines, is not a solution that has too much credibility.

7.8. SL4 - Dead in the water?

The only actors in our study that supported the SL4 storyline were Friends of the Earth, The Green Party and to some degree Bellona, and as such, two ENGO's and the smallest party in Parliament backed this storyline. The SL4 storyline (Shut it down!) is also one that would require a drastic change in Norwegian financial, industrial and climate policy. Such a scenario would be such a radical change that it would require an accelerated political transition from current policies. As Richard Samslått from the Green Party explains:

I think we had the clearest position in relation to the oil industry and our main point there is such a restructuring plan. Which in the program is for 15 years. We must get, like the state and the employee organisations and the business community to sit down and draw up a restructuring plan so that we get out of the oil age. (Authors' translation)

Roberts et al. (2018, p. 305) make the case that three conditions are essential to accelerate a political transition.

The three conditions are:

- 1: The role of coalitions
- 2: Feedback and stability
- 3: Context dependence

As is evident from our analysis of these storylines, the Friends of the Earth, Bellona and the Green Party have no coalition with other powerful actors like one of the big parties in parliament or big industry actors. And to reiterate the quote of Samslått, The Green Party also recognizes the needs of partners from other relevant key actors to be able to make a stable coalition. Their challenge is in acquiring coalition actors with whom they would have a substantial impact.

The context is also somewhat lacking. Regardless of the collective aspiration (in the general sense) to cut CO2 emissions, there is little to no external or internal pressure in Norway to cut down on oil and gas production. One could almost claim the opposite is true, as the EU wants Norway to produce more gas (Ask, 2022).

All actors in our study agree that the oil and gas production on the Norwegian continental shelf won't last forever, so eventually the SL4 will probably see its imperatives fulfilled, however, we do not see this happening in the near future. Currently, our dataset and the majority of key actors support the continuation of the offshore oil and gas industry as long as it is economically sound.

7.9. SL5 - National action vs global thinking

Our dataset found only one actor who thought that the best solution would be to buy foreign CO2 quotas instead of reducing domestic emissions, and that was the Progress Party. All the other actors in our study stated that one had to take emission cuts in Norway. As Terje Halleland from the Progress Party explained when asked if the interviewer understood him right that no action was needed before 2030:

No, that's it, now they have double toll duty right? They (the oil industry: authors' note) pay the quota price, and then they pay the CO 2 tax, and then they will, if the market, and now there is so much happening every time someone increases the tolls on the EU ETS sector, then we had the financial crisis and all the emissions went to the bottom so there have been a lot of problems. We have had corona, and now the prices went straight up after the Ukraine war. So this has varied and the Norwegian oil industry then looks at what they find expedient. If they want to make an investment now, they will go to gas power plants and

offshore wind and other solutions, so, it will be a business calculation for them. They have to comply with the international obligations that they themselves have entered into in the EU ETS sector, and then they have to compete with the emissions that are there. And if the price of the quotas then becomes too high, yes, then it will pay off to take measures. If the price of the quotas stays below what they think is the cost, then they can continue to emit. And then it is that the emissions in our atmosphere are global, so if the 14 million tonnes disappear in Europe and remain in Norway, then it does not worry me in the short term. (Authors' translation)

This talk of letting the market, and especially the market regarding the EU ETS sector driving the emissions cuts, was only expressed by the Progress Party.

This is a strong indication that the storyline of 'Thinking Globally' which is described by Hovden and Lindseth (2004), does not have a lot of traction these days. We, therefore, argue that the dominant storyline has gone from National Action in the late 80s, shifting to Thinking Globally in the late 90's, and has now shifted back to National Action.

What is interesting here, is that it is not only the politicians and the bureaucrats that talk about Nation Action, but also the actors from the industry. As explained earlier, we argue that this is closely connected to the rise of prices on CO2 quotas as well as the strengthening of the EU ETS as The CAP is lowered.

Another factor that works for electrification, is that it is intertwined in the discourse of offshore wind turbines. Offshore wind turbines are mentioned by almost all our interviewees when talking about electrification of the NCS, and that it could mitigate the use of power needed, and as the oil wells are emptying, the offshore wind turbines can increasingly provide green electricity to the mainland.

One can therefore argue that there are what Kivimaa and Kern (2016) calls "motors of innovation" and "motors of creative destruction" at play, reinforcing the National Action narrative. The steady rise in the price of CO2 is an example of a "motor of creative destruction", while the intertwining of electrification and offshore wind turbines are examples of a "motor of innovation".

7.10 SL:2 "Electrification, yes but...?" "National Action" or "Thinking Globally"?

Is the current sway towards National Action, also entangled with a stronger global core as highlighted by Langhelle and Ruud (2012, in Meadowcroft et al., 2012), and if so, what are the indicators? The turn towards NA is emphasised by the government domestic emission reductions by 2030, assuming full electrification of the NCS is part of this strategy and successfully implemented by this time, then surely Norway have succeeded in reaching domestic targets. This aspect corresponds with the 'think globally, act locally' slogan of the environmental movement, and from this perspective the NA contains traits of thinking globally. However, meeting domestic targets through electrification, also results in a continuation and prolongation of the petroleum industry, which through stable framework conditions likely will have access to cost-effective and flexible mechanisms.

"The government intends to continue Norway's participation in the EU ETS as one of several instruments to achieve our overall goal for emission reductions in Norway" (*Hurdalsplattformen* 2021 p.30: authors' translation).

"The government intends to cut Norwegian emissions by 55% towards 2030 compared to 1990 levels, as a subtarget on the way to net zero emissions in 2050. The emissions target applies to the entire economy, including the quota-obliged sector" (*Hurdalsplattformen*, 2021 p.29: authors' translation).

This makes it all the more difficult to clearly distinguish the two discourses from each other. Langhelle and Ruud present three types of arguments to consider:

- 1. Consequentialist arguments- concerned with the net effects of certain actions.
- 2. Cost-effectiveness- concerned with the costs of different measures.
- 3. Justice- concerned with just distribution of global emissions.

Norwegian climate policy has in the recent past been more aligned with the first two arguments, while the Brundtland report was more aligned with the justice argument.

We argue that current climate policy seems to consist of all three of Langhelle and Ruud's arguments, due to the explicit strengthening of emissions cuts target (consequentialist and justice), and the continued EU ETS participation (cost-effectiveness). The point here is that the discursive practices of key stakeholders (petroleum industry) reach deep into the government ministries,

which over this course of time have resulted in what Langhelle and Ruud refer to as a climate policy 'tailor-made' for the oil and gas industry. Considering the limited or non-existent action plan following the climate policy renationalisation contradicts any notion of significant change.

The Norwegian petroleum industry must be developed, not discontinued. The petroleum sector is a highly productive industry that contributes large revenues, value creation and jobs to Norway. The government will facilitate a continued high level of activity on the Norwegian continental shelf. Ripple effects on land must benefit the entire country. (*Hurdalsplattformen*, 2021 p.26 authors' translation)

Framed as a resource that has and shall continue to benefit the population at large, helps underpin the arguments for further development rather than a discontinuation. The ongoing debate must consider whether petroleum expansion is reconcilable and compatible with the strengthened climate targets and a green transition on the whole. The petroleum industry presents electrification as a solution to this dilemma, and the government seems to trust the industry to assess the appropriate approaches for the various fields.

Ensure further electrification of oil and gas fields while ensuring sufficient renewable power for new and existing industry on the mainland. Electrification of the shelf must, to the greatest extent possible, be done with offshore wind or other renewable electricity produced on the shelf. (*Hurdalsplattformen*, 2021 p.27: authors' translation)

Electrification of the NCS might be a climate 'solution' to reduce emissions domestically yet in the global perspective (where oil companies operate) is rather an enabler and justifier for continued petroleum activities. We argue that the ruling storyline surrounding the electrification of the NCS could potentially contribute to domestic emissions reduction and is a domestic climate solution in the short term. In the long term however, the ruling storyline continues to (re)produce a discourse that enables and justifies petroleum industries.

In terms of Dryzek's four environmental discourses, the Norwegian climate policy has shifted the dominating discourse over a period of time. Starting off with the Brundtland rapport in the 1980s situated within the Sustainability discourse, where policy of environmental protection complements economic growth. By the late 1980s to early 1990s, environmental concerns became institutionalised as first targets to stabilise emissions by 2000 were set, this was further strengthened through legislation of CO2 tax in 1991, all characteristics of the Prosaic-reformist Problem Solving discourse. Key events happen within this same decade (the first targets set were abandoned in 1995, the Kyoto protocol in 1997), yet the discourse remained in the problem-solving

territory, until the 2000s when the discourse dynamically sways between Problems Solving and Sustainability, the latter gained more traction as Norway became part of the EU ETS, building up to the Paris Agreement of 2015. This is when the Sustainability discourse serves as the node to which many discourses gravitated towards.

The following years had elements of apocalyptic imagery from grave climate reports of dystopian futures in the event of no climate action, yet the discourse remains in a dynamic sway between Problem Solving and Sustainability. Policy and action consisted of taxing the environmental harm, heavily influenced by market-type incentive- mechanisms, as substantial disagreements to appropriate actions were ongoing. Within the same time period 2010-2020, electrification of the NCS contributed to the pragmatic Problem-Solving discourse, satisfying the public outcry for industry adjustment in order to cope with climate change, while simultaneously upholding the political-economic status quo. Closer to the 2020s, in terms of policy and action still remain intact, but new narratives that are of somewhat radical proponents start to enter the conversation (national emissions cuts in all sectors). This is radical in terms of the complete shift in the narrative in the government's strengthened recommitment to targets, however with no political plan to phase out the petroleum industry, perhaps make the electrification of NCS strategy (a technological strategy) a component of a problem-solving discourse. In the case of a Petro state like Norway, a domestic emission cuts narrative (and electrification of the NCS as part of this strategy) strengthen the perception, both nationally and internationally, of responsible fossil fuel production justified as necessary and legitimised as less pollution.

8. Conclusion

In summary, our analysis shows the electrification of the NCS is illustrating the power of discourse and framing of an issue, influencing outcomes or lack thereof. In this case, prolonging the life of the petroleum industry, which through electrification narratives are contextually presented as green and clean, and thus competitive in a world of continuous and increasing carbon constriction. Although cutting emissions within national borders, one tends to forget that the industry operates globally.

This thesis has utilised Hajer's framework for analysing the discourse surrounding the Norwegian continental shelf. Our discourse analysis includes three angles of inquiry consisting of: 1. a literature review of Norwegian climate policy and media review on the online debate on "Energi og Klima"; 2. data collection through 13 interviews with representatives from key actors; 3. document analysis of relevant whitepapers and reports. From our sample and dataset, we have found five different storylines, of which the storyline SL2: Electrification, yes, but? emerges as dominant and almost hegemonic.

The different storylines do not always align with the traditional political spectrum, and in some cases, like for gas-fired power plants with CCS, we have detected what could seem like unnatural or coalitions between the Progress Party and the ENGO Bellona, aligned in their gas-fired power plant and CCS approach. However, our findings have also detected more "natural" discourse coalitions, like the imperatives shared between the two dominant Parties in parliament and state institutions.

We have highlighted how the force of market mechanisms such as the price on CO2 emissions, seems to influence not only the embedded actors within the oil and gas industry but that also spreads to the political parties who want the petroleum industry to thrive.

Furthermore, it seems like the discourse coalition between the petroleum industry together with ENGO's such as ZERO creates a narrative that holds both trust and credibility towards electrification of the Norwegian continental shelf as a legitimate climate solution.

One of our main findings was the volatility and fluidity surrounding the discourse of electrification of the NCS, as well as the emissions-cutting strategies from the petroleum industry. Although not initially raised as an overarching RQ, yet indisputably present in the climate policies, our sample and dataset. The analysis detects a majority of actors changing their position through time, those who were against electrification 10 years ago, are advocating for its implementation today, and vice versa. And, at the moment of writing, it seems that some positions are changing yet again. The

governing parties at parliament, who started their government in 2021 as strong promoters of electrification, are now slowly starting to back out, as they are *enabled* to in their SL2: 'Electrification, yes, but?' non-confrontational position, thus highlighting the *strategic purpose* of the storyline. The ruling storyline SL2: Electrification, yes, but?, as strategic in its purpose is both *enabling* and *constraining*. As an assembly consisting of institutionalised discourse, regulatory decisions, scientific statements and moral propositions, it functions as an *Apparatus*, performing a function to a certain need.

What we find in our study is that there are external factors outside the continental shelf that drive these shifts and make the discourse dynamic. There are two aspects that have driven the petroleum industry from being silent on the issue to being major advocates for electrification of the NCS. The first factor is the ever-increasing prices on CO2 emissions, a logical driving force to change the discourse. The second aspect is the industry framing of electrification as 'pro-environment' and 'responsible climate action', legitimising oil and gas activities in the political landscape and thus can be seen as a way to secure a "licence to operate", i.e., protecting the core business.

All the while, some ENGOs and other environmentalists like the Green Party, have moved from being in favour of electrification to being against it. They seemed to have moved from arguing that all mitigation of CO2 emission is good, to arguing that electrification is "greenwashing" of the oil industry and that it does not address the real problem, the dependency on carbon-based energy.

As this happens, the politicians seem to be herded by the oil and gas industry, wanting to both make profit, and be seen as staunch proposers of cutting CO2 emissions. However, the politicians also seem to be very wary of the energy prices, and the energy surplus (energy security). Just as the patricians in ancient Rome had to keep the bread cheap (and sometimes free) and easily available, it seems like the politicians of today's Norway are bound to do the same regarding electricity.

As a discourse analysis study, we recognize the lack of mainstream media coverage on the subject of electrification as a potential weakness of our study. Such an inquiry could provide valuable insights on how electrification is presented to the public and how the discourse has changed in the public sphere. Another potential weakness is the absence of interviews from what we consider key actors, such as Statkraft (Norwegian State-owned hydropower company). Their interview data would most likely have made a meaningful contribution to our thesis. Unfortunately, some key actors like Statkraft never responded to our inquiries.

In closing, we submit that future scholarship could benefit from including the aspects of mainstream media coverage of electrification of the NCS as well as Norwegian climate policy.

Other future research could, in relation to our thesis, examine how the different external factors, such as price on CO2 or energy prices, influence the major actors when arguing for and against measures of CO2 emissions cuts. Our specific research inquiry, concerning the discursive practices of identified key actors, would also be interesting in the context of other oil states on the verge of electrifying its sector. This could open opportunities for comparative case studies of the different petrostates.

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Appendix

Index of articles used to go through the history of the discourse surrounding the electrification of the Norwegian continental shelf

ate	Article	Actor	Link
08.05.2013	Er elektrifisering av sokkelen et godt tiltak?	SSB	https://energiogklima.no/energiduellen/er-elektrifisering-av-sokkelen-et-godt-klimatiltak/
08.05.2013	Er elektrifisering av sokkelen et godt tiltak? 2	Thema Consulting	https://energiogklima.no/energiduellen/er-elektrifisering-av-sokkelen-et-godt-klimatiltak-2/
10.06.2013	Olje- og gasskabaler og andre utenlandskabler	Avfall Norge	https://energiogklima.no/meninger-og- analyse/kommentar/olje-og- gasskabaler-og-andre-utenlandskabler/
11.06.2013	Kraft fra land kutter utslipp	SV	https://energiogklima.no/meninger-og- analyse/kommentar/kraft-fra-land- kutter-utslipp/
01.07.2013	Elektrifisering: Dårlig for klimaet, dårlig for industrien	Industri Energi	https://energiogklima.no/meninger-og- analyse/kommentar/elektrifisering- daarlig-for-klimaet-daarlig-for- industrien/
03.07.2013	Elektrifisering: Bra for klimaet, bra for industrien	Energi Norge	https://energiogklima.no/meninger-og- analyse/kommentar/elektrifisering-bra for-klimaet-bra-for-industrien/
04.07.2013	Alle kostnader må regnes med	Industri Energi	https://energiogklima.no/meninger-og- analyse/kommentar/alle-kostnader-ma regnes-med/
11.02.2014	Driv Utsirahøyden med offshore vind	Greenstat og Norwegian Hydrogen Cluster	https://energiogklima.no/meninger-og- analyse/kommentar/driv-utsirahoyden- med-offshore-vind/
14.03.2014	Klima, moral og investeringer	Privatperson	https://energiogklima.no/meninger-og- analyse/kommentar/klima-moral-og- investeringer/
23.04.2014	Kan Norge kjøpe seg helt fri	Journalist	https://energiogklima.no/meninger-og- analyse/debatt/kan-norge-kjoepe-seg- helt-fri/
16.05.2014	Opposisjonen er enige: Hele Utsirahøyden må få strøm fra land	AP, SV,Sp, KrF, Venstre og MDG	https://www.tv2.no/2014/05/16/nyheer/innenriks/5600349
20.05.2014	Utsiras underlige allianser	CICERO	https://energiogklima.no/meninger-og- analyse/kommentar/utsiras-underlige- allianser/
11.06.2018	Equinor vil elektrifisere tre plattformer. Får ros av miljøbevegelsen	Equinor, MDG, ZERO	https://www.nrk.no/rogaland/equinor- vil-elektrifisere-tre-plattformer- 1.14078857
13.06.2018	Equinors rop om klimasubsidiar	Norsk Klimastiftelse	https://energiogklima.no/meninger-og- analyse/debatt/equinors-rop-om- klimasubsidiar/

			https://energiogklima.no/meninger-og-
04.00.2010	Equinor og flytande havvind - kven skal betale	Norsk Klimastiftelse	analyse/debatt/equinor-og-flytande- havvind-kven-skal-betale/
04.09.2018	Equinor og nytande navvind - kven skal betale		<u>'</u>
05.09.2019	Fornybar elektrifisering gir norsk næringsliv muligheter	SINTEF, Equinor, DNV GL, Trønder Energi, BKK, IFE, Statnett, Hydro, NHO, Statkraft og Kongsberg	https://energiogklima.no/meninger-og- analyse/kommentar/fornybar- elektrifisering-gir-norsk-naeringsliv- muligheter/
11.10.2019	No ser vi effekten av høgare CO2-pris	Norsk Klimastiftelse	https://energiogklima.no/meninger-og- analyse/debatt/no-ser-vi-effekten-av- hogare-co2-pris/
16.01.2020	Elektrifisering, havvind og kraftkabler: Norge trenger en «energipakke» for 2020-tallet	Energiogklima.no	https://energiogklima.no/meninger-og- analyse/debatt/elektrifisering-havvind- og-kraftkabler-norge-trenger-en- energipakke-for-2020-tallet/
20.01.2020	Vi har nok kraft til å elektrifisere Norge	Agder Energi	https://energiogklima.no/meninger-og- analyse/kommentar/vi-har-nok-kraft- til-a-elektrifisere-norge/
11.05.2020	Mangel på kraft stopper utvikling av ny industri og elektrifisering i Bergensregionen	Arbeiderpartiet	https://energiogklima.no/meninger-og- analyse/kommentar/mangel-pa-kraft- stopper-utvikling-av-ny-industri-og- elektrifisering-i-bergensregionen/
28.05.2020	Still krav om grønn industri	Aker, Manifest og NITO	https://energiogklima.no/meninger-og- analyse/kommentar/still-krav-om- gronn-industri/
26.10.2020	Forventer sterkere vekst i kraftbehovet enn tidligere antatt	Energiogklima.no	https://energiogklima.no/nyhet/forvent er-sterkere-vekst-i-kraftbehovet-enn- tidligere-antatt/
05.10.2021	Dømt til evig strid om olje og klima	Energiogklima.no	https://energiogklima.no/meninger-og- analyse/klimavalg21/domt-til-evig- strid-om-olje-og-klima/
10.2021	Low Emissions Scenario	Statkraft	https://www.statkraft.no/globalassets/ 0/.no/lavutslipp/2022/low-emissions- scenario-report-2022-digital.pdf
23.10.2021	Vil verdens ledere bruke IEAs World Energy Outlook som "jukselapp" i Glasgow?	Energiogklima.no	https://energiogklima.no/meninger-og- analyse/klimalederen/vil-verdens- ledere-bruke-ieas-world-energy- outlook-som-jukselapp-i-glasgow/
08.02.2022	Norsk sokkel må elektrifiseres med havvind	ZERO	https://energiogklima.no/meninger-og- analyse/debatt/norsk-sokkel-ma- elektrifiseres-med-havvind/
14.02.2022	Støtten til å elektrifisere sokkelen slår sprekker	Parliament	https://www.nrk.no/vestland/stotten- til-a-elektrifisere-sokkelen-slar- sprekker-1.15851391
15.2.2022	Klimamålet i spill – støtten til (olje)elektrifisering smuldrer opp	Energiogklima.no	https://energiogklima.no/meninger-og- analyse/klimavalg21/klimamalet-i-spill- stotten-til-oljeelektrifisering-smuldrer- opp/
20.03.2023	Sp-landsmøtet stopper Melkøya- elektrifisering; hva gjør dere nå, Equinor?	Energiogklima.no	https://energiogklima.no/meninger-og- analyse/klimavalg21/sp-landsmotet- stopper-melkoya-elektrifisering-hva- gior-dere-na-equinor/

Interview guide - English

- 1. Brief Introduction- what company/institution do you represent and current position?
- 2. What do you think should be the overall policy for electrification of the oil shelf?
 - a. How will you/your institution be cutting emissions on the Norwegian continental shelf (NCS)?
- 3. Is this in your view part of the Norwegian decarbonisation path? Why or why not?
- 4. What are the main issues for or against?
- 5. How should the oil shelf be electrified? Power from land or ocean wind turbines, a combination of both these options? Or other ways of electrifying the NCS?
 - a. Why power from land?
 - b. Why powered by ocean wind turbines?
 - c. Why a combination?
 - d. Other ways of electrifying the oil shelf?
- 6. By what timeline should the shelf be electrified and why?
- 7. Has your view regarding this changed the last two years? If so, when and why?
- 8. What led you to your current point of view?
 - a. Why is this important for your institution?
- 9. How is Norway going to reach its climate targets if we don't electrify the oil shelf?

Interview guide - Norwegian

- 1. Kort Introduksjon. Hvilken Institusjon/organisasjon/parti representerer du? Og hva er din nåværende stilling?
- 2. Hva mener du bør være den overordnede politikken for elektrifisering av sokkelen?
 - a. Hvordan skal du/dere kutte utslipp på norsk sokkel?
- 3. Tenker du at dette er en god strategi for å kutte norske utslipp? Hvorfor eller hvorfor ikke?
- 4. Hva er dine hovedargumenter for og/eller imot?
- 5. Hvordan bør sokkelen i tilfelle elektrifiseres? Kraft fra land eller hav vind? Eller begge deler? Andre måter å elektrifisere sokkelen på?
 - a. Hvorfor kraft fra land?
 - b. Hvorfor havvind?
 - c. Hvorfor begge deler?

- d. Andre måter å elektrifisere på? (Bellonas forslag om flytende gasskraftverk med CCS som mulig måte å elektrifisere på)
- 6. Innen når tid bør sokkelen elektrifiseres og hvorfor?
- 7. Har du skiftet mening om dette i løpet av de siste to årene? I tilfelle, når og hvorfor?
- 8. Hva ledet deg til dette standpunktet?
 - a. Hvorfor er dette viktig for institusjonen du representerer?
- 9. Hvordan kan Norge ellers nå sine klimamål om en ikke elektrifiserer på en eller annen måte?

Documents chosen for analysis

Author	Year	Type of publication	Link
Ministry of Petroleum and Energy	2021	Meld. St. 36 (2020- 2021) white paper	https://www.regierin gen.no/no/dokument er/meldst36- 20202021/id2860081 /?ch=1
Ministry of Climate and Environment	2021	Meld. St. 13 (2020- 2021) White paper	https://www.regierin gen.no/no/dokument er/meldst13- 20202021/id2827405 /
Government coalition of Labour party and Centre Party	2021-2025	Governmental platform (2021-2025)	https://www.regjerin gen.no/no/dokument er/hurdalsplattforme n/id2877252/
Friends of the earth (Naturvernforbundet)	2023	Website	https://naturvernforb undet.no/energi/elekt rifisering-av- sokkelen/
Konkraft	2022	Climate strategy for 2030 and 2050 (Status Report 2022)	https://konkraft.no/ main/publikasjoner2/
ZERO (Zero Emission Resource Organisation)	2022	Report (How to reach climate targets)	https://zero.no/wp- content/uploads/202 2/04/Rapport ZERO2 030 3.pdf

Interview overview

Company	Industry/Organi sation	Name	Position	Instrument
Labour party	Political party	Kari Nessa Nordtun	Stavanger elected Mayor	Face to face interview
Green Party	Political party	Richard Samslått	County political leader	Face to face interview
Centre Party	Political party	Ole Andre Myhrvold	Member of Parliament	Face to face interview
Conservative Party	Political party	Ove Trellevik	Member of Parliament	Face to face interviews
Progress Party	Political Party	Terje Halleland	Member of Parliament	Face to face Interviews
Equinor	Oil and Energy company	Simen Moxnes	Senior Advisor	Teams meeting interview
The Norwegian Water Resources and Energy Directorate (NVE)	State Bureaucracy	Kjetil Lund	Director	Teams meeting interview
Lyse	Industrial & multi utility company	Ånund Nerheim	Project manager	Face to face interview
Ministry of Petroleum and Energy	Government Ministry	Amund Vik	Secretary of State	Teams meeting interview
Bellona	Environmental Organization	Christan Eriksen	Chief Advisor	Teams meeting interview
Aker Solutions	Engineering supplier Company	Torbjørn Andersen	Vice President Public Affairs	Teams meeting interview
Offshore Norge	Norwegian oil and gas association	Benedicte Solås	Climate and environment Director	Teams meeting interview
Federation of Norwegian industries (Norsk Industri)	Employers Organisation organise under the National Confederation of Norwegian	Knut Sunde & Runar Rugtvedt	Industry and industrial policy department	Teams meeting interview

Enterprise		