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Opportunities for Agency in Offshore Wind Power in Skåne, Sweden.

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Abstract

This thesis is a case study exploring opportunity spaces in path development for offshore wind power in Skåne, Sweden, from 2000 to March, 2023. By exploring interactions between policies and actors in the region, it contributes to path development literature with a more complex interpretation of agency in opportunity spaces for development. The thesis outlines how actors strategically adapt their approaches to align path development with their interests, highlighting the interplay between actors and policies in a sector characterized by conflicting interests. Qualitative thematic analysis of steering documents, market reports, and interviews with local and regional actors, reveals that actors in the offshore wind power sector in Skåne navigate a sea landscape of local and national interest conflicts, local environmental concerns, a lack of national awareness and control in a quickly developing market, and complex permit processes.

The findings emphasize the multifaceted nature in interest conflicts and collaborations between wind power actors, and the significance of external factors such as the energy crisis in stagnant conflicts. The research deepens understandings of opportunity spaces by uncovering the mechanisms through which actors shape path trajectories, which provides knowledge valuable for policymakers and industry stakeholders to develop effective strategies for sustainable wind power development in Skåne.

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Translation of Organizations

English Translation

The Environmental Court

The Environmental Protection Agency

Skåne County Administrative Board

The Swedish Energy Agency

The Swedish Defense

Swedish Sea and Water Authority

Region Skåne

Swedish Organization

Mark- och miljödomstolen

Naturvårdsverket

Länsstyrelsen Skåne

Energimyndigheten

Försvarsmakten

Havs- och vattenmyndigheten

Region Skåne

1. Introduction

1.1 Agency in Regional Offshore Wind Power

The Swedish region of Skåne is a boiling pot of wind power market actors, growing energy demand, and competing land use interests. The, in Sweden terms, densely populated region only produces roughly one tenth of the electricity it uses and currently struggles to support expansions of energy-demanding industries within the region. This energy deficit is projected to more than double to 2040 as Skåne undergoes continued electrification and a growing population (Region Skåne, 2020). To meet its own demand by 2040, Skåne needs to expand its energy production to approximately 10 TWh per year, which is equivalent to the demand of 2 million Swedish households (Statistics Sweden, 2021; Vattenfall, 2022). Wind power could fill this gap at sea: the region has suitable wind conditions, there is massive interest among wind power market actors to develop offshore, and wind power is one of the cheapest, quickest, and most mature technologies for increasing energy production within a short period of time (Confederation of Swedish Enterprise, 2023). Yet despite the pressing need, no wind power has been built in the sea around Skåne since 2007 (Karlsson, 2022). Skåne is now at a crossroads whether to capture investments in wind power before it is too late.

Previous studies of wind power development in the Nordics have shown that policy support has nationally *“played a clear role in influencing wind power penetration rates”* (Pettersson & Söderholm, 2011, p.55) (Nordic Energy Research, 2014; Swedish Wind Energy Association, 2020). Yet the process of how policies are implemented onto a regional sector is less illuminated. To explore the interaction between policies and actors in a region, the paper outlines national, regional, and local policies regulating offshore wind power development, and how wind power actors perceive, adapt to, and influence these policies. Results present a nuanced perspective on how actors and policy are interrelated in regional path development, between the year 2000 to March 2023 – a period when wind power in Skåne gradually became profitable and moved offshore.

1.2 Map of the Region

Figure 1 on the next page presents a map of offshore wind power projects in the Swedish economic zone surrounding Skåne in April, 2023. There is just one built offshore wind power park, which is Lillgrund Vindkraftspark, built 2007 (Karlsson, 2022). Kriegers Flak in the south has not yet been built but received all necessary permits in early 2023 (Swedish Government Office, 2023). The map further portrays the competition between developers over permits in the same area. In the north-west, the projects Galatea-Galene and Kattegatt Syd aim to develop in the same area, and in the south, Triton, Arkona Vindkraftspark, and Skåne Havsvindpark are competing.

Which actors are relevant in wind power development depends on the specific site and scale of governance considered. Projects applying for permits within the Swedish territorial sea border (red dotted line) are in the territory of coastal municipalities who can veto the trial of permit applications at the Environmental Court, effectively preventing necessary permits. Projects located outside the territorial border in the Swedish economic zone (black dotted line) are not affected by the municipal veto but require a different permit from the government. The different zones also require various environmental permits by regional and national authorities, such as permit for environmentally hazardous activity, water activity permit, sea floor investigation permit, sea floor cable permit, continental floor permit, and building permit. Site conditions may also require special permits, for example if located close to protected environmental zones or protected cultural environments (Swedish Energy Agency, 2019).

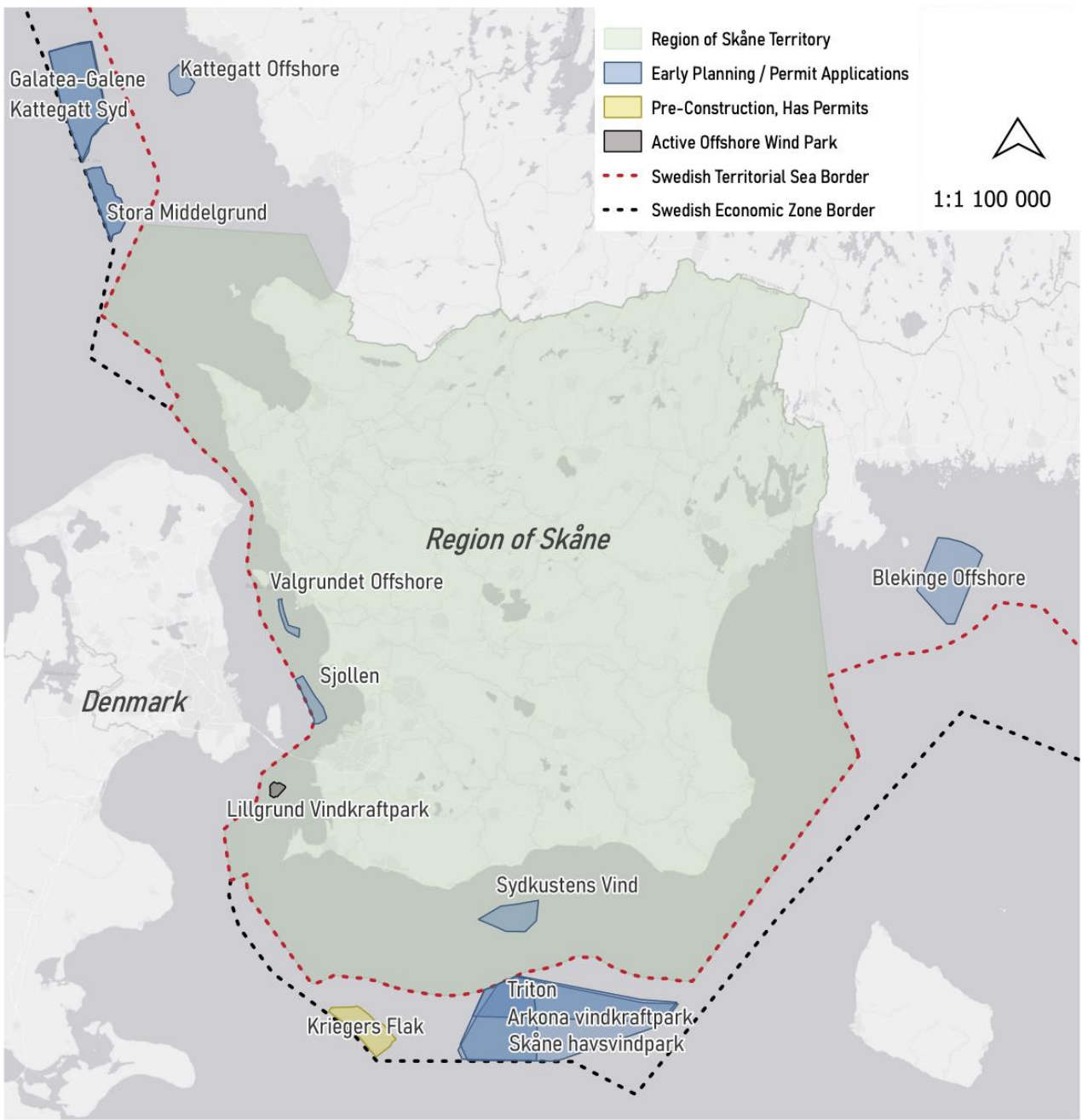


Figure 1: Offshore Wind Power Projects Around Skåne, April 2023.

Map created by author, using geodata from Vindbrukskollen (2023), the Swedish Maritime Administration (2022), and Lantmäteriet (2023).

2. Research Questions and Structure

This thesis investigates how policies have created openings and constraints for the interests of wind power actors in Skåne up until March 2023, and how actor interests have in turn tried to influence policies impacting them. As interplay between structures and actors is often missing in regional innovation research (Uyarra et al, 2021), the interrelation between actor groups and policies can be better understood by outlining the way actors adapt their operations to fit existing policies, while strategizing to shape policies according to their interests. The way these decisions and conditions influence developments can be understood by placing them in a development path. To achieve this, the thesis is guided by the following research questions:

1. What has characterized the development path of offshore wind power in Skåne, and how has it changed between the year 2000 to March 2023?
2. How do local, regional, and national policies shape the development path of offshore wind power in Skåne?
3. How are the perceived policy conditions for offshore wind power actors reflected in local and regional actor perceptions, adaptations, and strategies?

2.1 Purpose

A web of policies, regulations, politics, and profits have shaped the path forward for regional development in offshore wind power (Karlsson, 2022), and by mapping the actors shaping and being shaped by these policies, a more holistic understanding can be outlined of why offshore wind power has developed as it has in Skåne. The purpose of this thesis is not to identify how, where, or if wind power should be developed, which are strongly polarized questions in Sweden and particularly Skåne between politicians, wind power companies, and local inhabitants (Bjärstig et al, 2022). The thesis instead explores *why* and *by whom* it develops as it does, based on perceptions, adaptations, and strategies of wind power actors in the region.

2.2 Structure of Thesis

From here on, the thesis presents a theoretical background in the literature review consisting of new path development, path types, opportunity spaces, the role of policies, actors and agency, explicit and implicit actor goals, and actor strategies and adaptations. This is followed by an analytical framework describing how these theoretical concepts are applied in the thesis to analyse reports, policy documents, and interviews about offshore wind power development in the region. A methods section continues to explain processes and motivations behind the case study of Skåne and approaches in the research and is followed by a background section outlining wind power actors in Skåne, its history of wind power development, and ongoing wind power conflicts in the region.

The results and analysis section onwards presents the regional development path of offshore wind according to studied reports and policies. This is followed by perceptions of key events in the sector according to interviewed actors. Finally, results of policies shaping actor adaptations and actor strategies shaping policies according to interviews are presented. The analysis concludes with a discussion that identifies opportunity spaces and change agency in the regional path development. Finally, the conclusion provides a summary of the regional path development of the sector, and answers what has characterized the regional development path, how actor perceptions, adaptations, and strategies have influenced the regional path development, and recommendations are presented for future policies and for further research.

3. Literature Review

3.1 Path Development in a Region

Path development is a concept used to describe a process where an industry or region develops approaches that shape how a sector or region develops over time. As a region evolves, a path trajectory is created that shapes the future development of the region while influenced by previous layers of development (Hassink, Isaksen & Tripl, 2019).

Path dependence is used to refer to the situation where a sector, region or organization follows a particular path to such a degree that alternative paths become difficult to adopt. The concept is commonly used to explain that actors stick to less beneficial choices due to being tied to historical conditions and decisions (Rogers et al, 2013c). Path development literature originates from evolutionary economic geography which studies how economic regions develop through aspects like firms or labour (Grillitsch & Asheim, 2018; Hassink, Isaksen & Tripl, 2019). Instead of being rational economic actors, agents in evolutionary economics are considered components in an economic system that is transforming over time (Rogers et al, 2013b).

Instead of incremental and firm-led industrial expansion processes, new path development includes a wider range of actors beyond firms, more external influences on the region, and the role of competition and support between actors (Hassink, Isaksen & Tripl, 2019). This new literature centres on developing entrepreneurship through innovative practices rather than pre-existing knowledge or technology (Ibid.). It further considers external structures such as policies, geopolitics, and markets as well as phenomena within the region that affect path development. New path development is the study of interactions between multi-scalar processes (Rypestøl et al, 2022) becoming regionally located when actors and activities are co-located to a critical degree (Binz et al, 2016). The importance of a diversity of actors is highlighted in new path development as innovation often requires extensive interaction between actors such as firms, universities, research organizations, and policymakers (Hassink, Isaksen & Tripl, 2019).

The process behind changes in path development is described by Grillitsch et al (2019) as *opportunity spaces*, which are localized windows in time where problem-solving actors can act to implement structural changes. Opportunity spaces are not necessarily objectively defined; instead, actor perceptions and narratives define windows for change in a path trajectory. Opportunity spaces can be identified using ‘social filters’ where goals, values, and regional imaginations of actors combine into hegemonic perceptions of regional opportunities (Kurikka et al, 2022). As such, there is not necessarily a direct, clear relation between structures, opportunity spaces, and resulting development paths. This thesis adopts path development as a non-deterministic framework which can be interpreted based on actor perceptions.

3.1.1 Path Types and Critical Junctures

Path dependence can result in stable periods where the region follows a particular path and builds up structures and decisions within constraints, until a shorter period arises when dramatic change is possible due to larger institutional shifts (Capoccia & Kelemen, 2007). *Critical junctures* for these changes are identified by defining moments when the region experienced shifts that significantly restructured its development path (Ibid.), as portrayed in Figure 2.

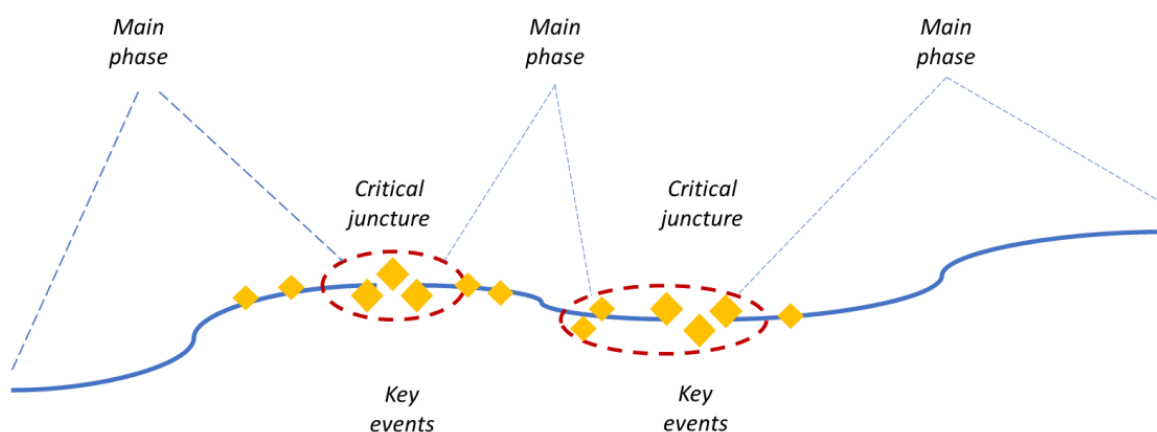


Figure 2: Critical Junctures in Path Development. *Source: Grillitsch et al, 2021, p. 309.*

Not all path development happens in a binary of stability followed by critical junctures, as seen in path development types summarized by Isaksen et al (2018). In their paper about agency in regional industrial restructuring, paths can develop through:

- a) *Path creation*, where new activities are created or imported to the region through new knowledge or research (Isaksen et al, 2018). Example: Based on water recycling development in Beijing, path creation for new industries requires actors to mobilize particular resources – knowledge creation, investment mobilization, market formation, and technology legitimation (Binz et al, 2016).
- b) *Path diversification* that recombines existing activities and knowledge to diversify industrial activities (Isaksen et al, 2018). Example: Neffke, Henning & Boschma (2011) describe how Swedish regional manufacturers branch out to industries that are related to existing activities but provide regional variety. Diversification enables new developments while overly related regional clusters cause non-related industries to exit which lowers the regional resilience.
- c) *Path upgrading*, where actors go through major changes due to uptake of new technology or organizational structures (Isaksen et al, 2018). Example: Miörner & Trippl (2019) portray that industrial transformation towards self-driving cars is driven by actors using external networks in global innovation systems to diversify and change, as a part of a larger tendency of actors looking outwards rather than regionally inwards when reconfiguring industry systems.
- d) *Path extension* where an industry experiences incremental changes and innovation within the current system (Isaksen et al, 2018). Due to public policy initiatives and strategies creating a new regional narrative, industries in the Raufhoss region chose to mobilize to upgrade technologies. This strengthened the region's ability to sustain ongoing competitive development (Brynthe Lund & Vildåsen, 2022).

While new path development literature tends to focus on entrepreneurship and private market drivers for path development (Torfing, 2009; Isaksen & Trippel, 2016), Tödting & Trippel point to how *“more recent models go beyond new path development and growth per se, paying more attention to the direction of innovation and change, and to policy approaches for achieving more sustainable forms of development.”* (2018, p.1779). By studying the processes where roles and motivations of actors shape policy, policymaking is made an integral part of path development (Uyarra et al, 2021). This allows research to approach how values such as renewable energy transitions can be developed through policies in a region.

3.2 Policies as Drivers of Path Development

Policy refers to a set of principles, guidelines, or rules that guide decision-making and action and provide incentives for other actors in a sector. This could mean subsidies, price signals, or rules for planning and operating wind power infrastructure – in short, incentives by policymakers to encourage actions or behaviors (De Laurentis & Pearson, 2021). Policies have a significant impact on path development as they provide social and regulatory infrastructure shaping path conditions and actor mindsets (Grillitsch & Rekers, 2016). Yet policies are not unidirectionally shaping path development, as institutions must continuously adapt to changing needs of industries (Boschma, 2009).

In path development, policies are distinctly multi-scalar structures built up across local, regional, national, and international scales (Rypestøl et al, 2022). Policy decisions also tend to have impacts far into the future due to building up path dependence in the form of infrastructure, institutions, or competences and human capital in the region (De Laurentis & Pearson, 2021). This makes industrial development a multi-scalar process where policies shape actor incentives towards development paths while being path dependent to previous policies. Local, regional, national, and international policies from different points in time thus impact current wind power actors in Skåne.

According to Grillitsch et al (2019), sustainability policies in Sweden often avoid directly dealing with conflicting interests around sustainability developments. Policies are rather sometimes a contributing cause for growing conflicts, as *“causes for such conflicting interests are often institutional, path-dependent and compounded by an unequal distribution of power”* (Ibid., p. 1057). While policies may aim to solve conflicts, they can worsen or institutionally cement them if implemented without addressing existing conflicts, not opening avenues for collaboration or conflict resolution, or preserving inequitable power balances.

3.3 Actors and Agency in New Path Development

3.3.1 Defining Agency

The Dictionary of Human Geography defines agency as *“the potential and actual ability of individuals and institutions to affect the circumstances that structure their thought and action”* (Rogers et al, 2013). In this thesis, it is closer defined as the capacity of actors to influence the content of policies. Uyarra et al (2021) argue that research in regional development often struggle to portray how actors create strategies as a response to institutions. The lack of theoretical understanding of actor strategies hides how actors and policies are not separate processes, but rather parts trying to influence one another (Ibid.). By investigating the relationships between actors and policy in the offshore wind power sector in Skåne, a more nuanced understanding can be created about the interplay between actors and multi-scalar policies in regional path development.

The regional offshore wind power industry can be understood as a web of actors with interests and structures (e.g. institutions, markets) enabling and limiting each other and resulting in a particular direction for innovation, development and infrastructure. This marks a difference between *stakeholders* and *actors*: while stakeholders are everyone influenced by developments in wind power, actors can construct and/or exploit potential change opportunities (Jolly et al, 2020). Actor categories in Table 1 illustrate the variation in actor roles in path development based on a change agency framework for the Swedish region of Värmland in Jolly et al (2020). This framework showcases the range that actors might have in a Swedish region such as Skåne.

Table 1: Defining Actor Categories.

New firms: e.g. start-ups or new public-private open test and demonstration initiatives.
Incumbent firms: e.g. large, influential firms in the regional industry.
Facilitating Actors: e.g. universities, educational facilities, business development organizations, industry organizations, cluster organizations, science parks, and incubators.
Public Policy Actors: e.g. municipalities, regions, regional development agencies, and national-level agencies and ministries.
Fringe Actors: e.g. civil society, ordinary citizens, user associations, and environmental movements.

Definitions from Jolly et al, 2020, p. 180.

3.3.2 Actor Strategies and Adaptations

While adaptations are done by actors to adapt to structural changes, strategies in this thesis mean that actors take an active role in attempting to change perceived structural conditions. Actor strategies are typically aimed within spheres of influence, such as local, regional, national, and international scales or public or private spheres (Kurikka et al, 2022; Grillitch & Sotarauta, 2019). Expected developments and perceived impacts of policies lead actors to adapt to and mitigate policy impacts. Actors may also influence policymaking to better fit their interests and goals, either alone or with other actors (Grillitsch & Asheim, 2018).

Policymaking and agency in shaping policies is not just influenced through strategic interactions between public and private sectors, but also strategies and perceptions between different scales of public administration. In a case study of policy development in Sweden and Finland, Mukhtar-Landgren and Smith (2019) concluded that policymaking strategies of local and regional authorities were largely dependent on national policymaker decisions. It is also worth noting is that agency as described by Grillitsch & Sotarauta (2019) is not always aiming to be path-breaking: sometimes actors resign to or oppose change. Kurikka et al's (2022) case study of a failing traditional industry concludes that when actors perceive themselves as lacking change agency, they do not recognize opportunity spaces even if they might appear. Working against an ongoing path can be difficult or seem impossible, and adapting to an expected future is therefore preferred (Ibid.). Actor opposition to changing paths is also driven by actors aiming to preserve existing knowledge and structures. This can take the shape of persisting institutional routines and continuing investments that build up path dependence for the future, preferring incremental to sudden changes in practice, and challenging actors that are speaking for change (Grillitsch & Sotarauta, 2019).

3.3.3 Implicit and Explicit Actor Goals

A challenge for researching actors is that actor goals for instigating path shifts are often not made explicit. As described by van Prooijen et al (2020), actors in the sustainability sector can have environmental, financial, and legal goals in mind – but not all these goals are formally or explicitly communicated. Maryudi & Fischer (2020) proposes that this is due to actor interests in environmental policy often being a sensitive issue and are therefore hidden by actors and overlooked by researchers, thus remaining informal and implicit in their strategies.

For example, De Vries et al (2015)'s research on communicating company motives showed that suspicions of greenwashing were a common customer response to publicizing environmental company motives, making companies tread carefully in how they market their intentions (de Vries et al, 2015). Maryudi & Fischer (2020, p. 144) conclude that while formal goals are found in outward communication, informal goals are better found by studying actor behaviors and conducting in-depth interviews.

4. Analytical Framework

This section identifies the relationship between core concepts investigated in this thesis. Figure 3 portrays how relations between policies, actors, and the regional development path are operationalized in research questions, methods, and theoretical concepts. This framework inspired by Jolly et al (2020) that outlined the regional transition toward bioeconomy in the Swedish region of Värmland. Their framework combines phases in development paths with types of actors and their agency. By mapping actor methods of influence in a development path during separate phases, the study can capture shifts in the importance of certain types of agency.

The framework is re-interpreted in this thesis by mapping multi-scalar wind power policies and critical junctures in Skåne in a timeline, and connecting these to goals, perceptions, and strategies of actors in the region. With this analytical framework, the thesis portrays the interrelation between structures and actors in regional path development. Figure 3 also portrays how the research questions are connected to the outlined theories of path development and how they are answered through different methods and data sources.

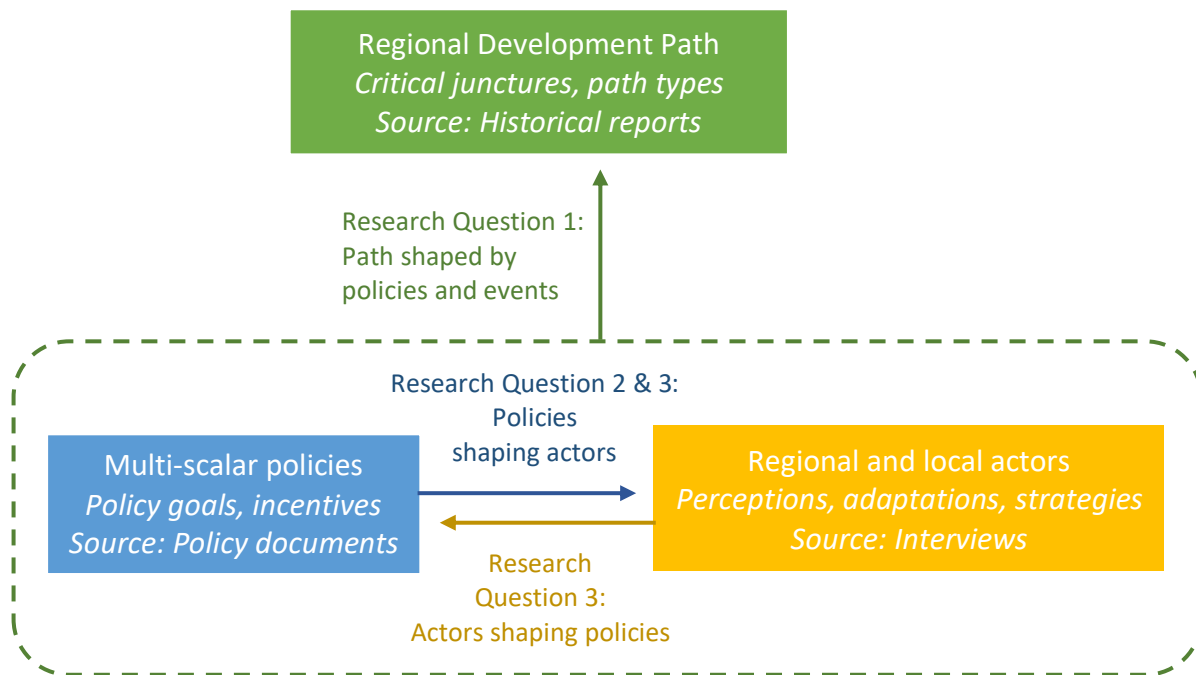


Figure 3: Connecting Theoretical Concepts to Research Questions and Methods.

Author's illustration, inspired by framework by Jolly et al (2020).

- **RQ1** describes the development path of offshore wind power in Skåne based on historical and current trajectory of development paths being reshaped during critical junctures. This is done by identifying development paths based on types of path development, onto data in the form of historical reports of offshore wind development in the region between 2000 and 2022.
- **RQ2** describes how a multi-scalar web of policies for offshore wind power shape this development path by influencing offshore wind power actors in Skåne while aiming towards policy goals. To limit the scope, steering documents with strategic rather than operational implementation are chosen from the year 2000 to 2022. Data in the form of wind power policy documents are collected and analysed to map scale, time period, and goals of each policy, which are then put together in a timeline.

- **RQ3** explores how regulatory conditions are perceived through the eyes of actors. Actors are then not only reacting to policies but also acting on them through their own goals and strategies. This information is collected through interviews with regional and local actors in Skåne based on the actor categories in Table 6. The policy timeline designed from Q2 is used as support to investigate actor perceptions, adaptations, and strategies responding to policy conditions.

5. Methodology

5.1 Case Study Design

This thesis presents a qualitative, exploratory case study of the region of Skåne, using policy documents, historical reports, and actor interviews to gather data on policies and actor perceptions in offshore wind power. The resulting study is an outline of current regional offshore wind power development and how actors are affected and influencing this development. According to Yin (2016), case studies are a preferred strategy for answering ‘how’ or ‘why’ questions, in particular when studied phenomena are contemporary. Case studies are suitable to illustrate decisions throughout an evolution: *“why they were taken; how there were implemented; and with what results”* (Schramm, 1971). This makes the case study a fitting research design for studying how actor perceptions, adaptations, and strategies are connected to changes in policy.

The research proceeds in three, slightly overlapping steps. First, pilot interviews are conducted with industry experts in the sector. Secondly, documents in the form of reports and policies are selected. A simple summary of these is used to create a basic timeline as support in interviews, and a more in-depth thematic analysis is later done to construct a timeline of path development of offshore wind power in the region. Finally, interviews with actors in the sector are conducted to confirm the timeline and add in actor perceptions, adaptations, and strategies surrounding the developments in the region.

The analysis was thus conducted in slightly overlapping stages: 1) identifying critical junctures and path development in the region through thematic analysis of documents, to create an initial timeline of policies and events, 2) Outlining actor perceptions, adaptations, and strategies in these timelines with thematic analysis of interviews, and 3) Comparing actor perceptions to explore differences between actors. While the modern wind power industry has developed in Skåne since the late 1970's (Ekholm, 2011), this thesis focuses on path development and actor perceptions from the year 2000 to February 2023. This scope in time was chosen due to the national introduction of energy certificates that supported renewable energy investments in 2003 (Swedish Government Office, 2009). Together with a national goal for offshore wind power development in 2002, the 2000's signify a beginning for market interests in offshore wind power in Sweden (Royal Swedish Academy of Engineering Sciences, 2002).

Pilot studies are suitable for broad cases to help refine data collection plans and find the right focus (Yin, 2016). Three early pilot interviews are therefore done with key actors: An international wind power developer, a local wind power developer, and a regional public actor in wind power network-building. These pilot interviews refined research questions, theories, and methods, to capture relevant information about actors and their perceptions of policies. Results provide the researcher with an understanding of key issues and perspectives among regional actors which is used to fit the study's theories, methods, and targeted actors to the context of the region.

5.2 Data Sources and Triangulation

This thesis collects data through 1) document analysis to map historical and current policies and wind power developments, and 2) actor interviews to understand how actors perceive, act on, and influence these policies. These data sources are further described in Table 2. Grillitsch & Asheim (2018) write that while quantitative data can inform us about current structural conditions, the emergence of opportunities for change is largely influenced by non-quantifiable factors such as expectations of the future. Qualitative data are thus suitable to in-depth capture perceptions of policies and is the intended datatype of this thesis.

Table 2: Overview of Data Sources.

<i>Source of Data</i>	<i>Material</i>	<i>Use in Data Collection and Analysis</i>
Offshore wind power development reports	Eight reports from 2000 to beginning of 2023.	Informs what developments have been particularly important for offshore wind power development over time, is interpreted through the lens of path development into a timeline and is used as a tool for interviews.
Public policies for offshore wind power development	Six steering documents from 2000 to 2022.	Informs what strategic decisions have been made for offshore wind power development over time. Constructed as a timeline and used as a tool for interviews.
Interviews with local and regional wind power actors	Recordings and notes from eight semi-structured interviews, 40-70 minutes each.	Used to understand the role of actors in the path development, in terms of key events and strategic policy developments for the sector in the region. Captures perceived goals, actions, influence, and reasoning of actors for particular events or strategies and for the sector as a whole.
Supporting documents	News articles, reports, other publications.	Used to cross-reference information from interviews to support events and facts brought up in the analysis.

Compiled by author.

By examining various kinds of data in relation to each other, different perspectives can be brought together to compile a more detailed image of the studied phenomena (Valentine, 1997). The timeline is then made more accurate and can illuminate differences in actor perceptions of key strategies and events. Suggestions brought up in interviews that fall outside of the policy documents and development reports are also triangulated with news articles and publications. These methods of data triangulation between interviews, documents, and external information sources are essential to mitigate potential faults of memory of interviewees (Yin, 2016).

5.3 Documents

5.3.1 Sampling

As material for constructing a timeline, sampled documents consist of market and development reports together with steering documents with strategic rather than operational implementation. Documents are found through archives of regional and national authorities and publishers, and through snowball selection in the form of references in documents and through recommendations from interviewees. The final selection consists of eight reports from 2008-2023 and six policy documents from 2000-2022, summarized in Appendix 2 and 3. Criteria for selected development reports are that they are published between 2000 and beginning of 2023. A large amount of development reports however exists within this timeframe. The selection is limited further through strategic sampling, where the researcher chooses reports based on general coverage of events relevant to Skåne and spread over time (Peters, 2017). This enables a well-researched timeline that includes the most important changes in the region while limiting the number of documents to process.

Criteria for selecting steering document documents are that they are published by national, regional, or public authorities between the year 2000 and beginning of 2023. As there is a wide range of regulations, laws, and planning documents related to wind power from many different authorities, the thesis requires further limitations in scope. Policy selection is therefore limited to policies for renewable energy or wind power from national, regional, and local authorities, that are strategic rather than operational in implementation.

5.3.2 Exclusions in Sampling

While international events can influence the regional development of wind power, such as the Ukraine-Russia war (Skåne Effect Commission, 2022), such shifts also give rise to reactions and events on smaller scales. The selection of reports is therefore limited to publishers on a national and regional level to keep focus on the region's specific conditions. After March 2023, some national strategies were publicized that were relevant for actors but could not be included in document sampling due to time constraints. This includes a national investigation about local incentives for wind power (Fredriksson, 2023) and an update to the national sea plans with new areas outlined for wind power (Swedish Energy Agency, 2023). European policies such as the recent REPowerEU initiative also influence wind power development in Skåne (European Commission, 2022), but since these are legally integrated in Sweden's national policies as an EU member state, European strategies are excluded from analysis.

5.3. Analysis of Documents

Thematic analysis focuses on generating themes from a dataset (Social Change UK, 2016). The themes applied in interview analysis are chosen based on path types defined in the literature review section. Developing a timeline through thematic analysis follows a process where historical developments and strategies in the regional sector are defined according to theoretical path development types shown in Table 3 together with the concepts of critical junctures and types of path development. These themes are condensed into a path development timeline, making the thematic analysis a deductive procedure where path development theories interpret the data (Yin, 2016).

As most institutional changes happen gradually, transitions between paths can happen incrementally, making path shifts and actor responses difficult to clearly delineate. Delineations in path development therefore typically require a degree of subjective interpretation (Streeck & Thelen, 2005). To nuance the interpretations of strategies and policies, the path development types are less intended to delineate periods in time and more intended to describe developments in the periods between critical juncture events. While the path types are defined using coding, critical junctures are freely interpreted from the overall development across reports and strategies. This captures both smaller changes in path development and larger, overarching shifts.

Table 3: Path Development Types for Thematic Document Analysis.

<i>Path Tendency</i>	<i>Definition</i>
Critical juncture	Moment when the region experiences shifts that significantly restructures its development path.
Path creation	New activities are created or imported to the region through new knowledge or research.
Path diversification	Existing activities and knowledge are recombined to diversify industrial activities.
Path upgrading	Actors go through major changes due to uptake of new technology or organizational structures.
Path extension	Incremental sector changes and innovation within the current system.

Compiled from Cappoccia & Kelemen (2007) and Isaksen et al (2018).

5.4 Interviews

After collecting and summarizing documents, semi-structured interviews are made with actors in the region based on actor categories in the literature review (Table 1). In this thesis, actors are interpreted as organisations represented by interviewees. Interviewed actors include established wind power developers, municipalities, a public authority, and two types of network organizations. The identities of interviewees and their organizations are kept confidential to enable them to express opinions and experiences that might otherwise be controversial or sensitive, while their actor type, organizational type, and interviewee role are provided to give context to testimonies. The interview data is used to explore perceptions, adaptations, and strategies by actors in response to events and policies in the region over time.

5.4.1 Interview Sampling

Interviews are sampled strategically by reaching out to relevant actors and seeing who was available within the timeframe of the thesis work. The goal is to achieve at least two interviews with the larger actor categories *incumbent firm* and *public policy actor* to secure a range of experiences. The *new firm* category is however not represented as none were found that fit the definition. Offshore wind power is expensive to develop, and the market is highly competitive (Swedish Energy Agency, 2016), so new companies may struggle to grow in a region with many inhibiting factors. The final selection for interviewees is available in Table 4. When looking for interviewees to describe historical influences and decisions, it is important to contact the right people in organizations (Peters, 2017). This can be environmental strategists, project leaders, or other people with long-term knowledge about the organization's involvement in historical events, decisions, and policies. While initial contacts with interviewees are made by the author's previous knowledge of actors in the region, further attempts to reach suitable interviewees are often done by getting referrals from gatekeepers and contacts within the organization (Ibid.).

Table 4: Interviewee Roles and Actor Categories.

<i>Interviewee</i>	<i>Role</i>	<i>Organization</i>	<i>Actor category</i>	<i>Date</i>
Interviewee A	Communicator	Wind power developer	Incumbent firm	4th of April 2023
Interviewee B	Head of development	Wind power developer	Incumbent firm	11th of April 2023
Interviewee C	Head of development	Wind power developer	Incumbent firm	21st of April 2023
Interviewee D	Project manager	Large municipality, >100 000 inhabitants	Public policy actor	4th of April 2023
Interviewee E	Environmental inspector	Mid-size municipality, >40 000 inhabitants	Public policy actor	6th of April 2023
Interviewee F	Strategist	Regional public authority	Public policy actor	5th of April 2023
Interviewee G	Project manager	Regional network	Facilitating actor	3rd of April 2023
Interviewee H	Communicator	National and local network	Fringe actor	3rd of April 2023

Compiled by author, actor categories interpreted from Jolly et al (2020, p.180).

5.4.2 Interview Procedure

All interviews are conducted through Zoom or Teams, recorded with approval of interviewees, and transcribed. Since digital meetings have a less personal or engaging atmosphere (Peters, 2017), visual tools in the form of timelines designed from the document sources are used to engage the interviewee and nudge memories of historical events. All interviews are held in Swedish since this is the working language in the organizations. Due to this, the timelines used as support are translated to Swedish and available in Appendix 4. The interviews are semi-structured, meaning they follow a planned interview guide (available in Appendix 1) but encourage flexibility in adapting and adding questions and expanding elements while interviewing (Peters, 2017). Notes are taken during each interview, and immediately after their contents are summarized to support later coding. Doing this directly helps keep the content fresh in memory of the interviewer (Grillitsch & Asheim, 2018). Interviews are recorded to support transcription with interviewee consent and interviewees are informed that only the researcher will access the recordings.

Interviewees may not initially want to describe sensitive aspects of their relation to wind power development and policies. Furthermore, an actor's historical interpretation of a situation is often re-interpreted when told based on current interests, identities, or goals. Actor interpretations of, and their role in, historical path development must therefore be considered from the context of current conditions (Maryudi & Fisher, 2020). To make sure that interviewee responses are as historically accurate as possible, it is important to carefully design interview guides with positive, open, and safe questions that gradually go deeper and reveal more complex information (Ibid.). The interview guide therefore starts with easy questions about the interviewee's role and work, then goes deeper into historical developments, and finally opens a broader discussion about actors' internal interests, goals, strategies, and ideal developments. By using confidential interviews, interviewees are further made comfortable to share sensitive experiences (Peters, 2017).

5.4.3 Analysis of Interviews

Thematic analysis is used to explore deeper meanings in the form of actor perceptions, adaptations, and strategies in the interviews. The codebook in Table 5 identifies meanings in interview transcriptions with codes chosen based on the research questions about perceptions, adaptations, and strategies. Results are presented according to actor categories and then contrasted between actors, to portray similarities and differences in perceptions and strategies between different types of actors.

5.5 Presenting and Discussing Results

A timeline of key events and strategies from documents is compiled and described according to path development types. This is complemented by additional timelines portraying interviewed actors' perceptions of key events in the path trajectory. Finally, actor goals, approaches, conflicts, and collaborations in adapting to policies and strategizing to influence policies are discussed. Finally, opportunity spaces and change agency are identified among local, regional, and national actors in the path development.

Table 5: Codebook for Interviews.

<i>Theme category</i>	<i>Theme</i>	<i>Definition</i>
Perception of event or policy	Enabler perception	Actor interpretation that an event or policy has positive impact on wind sector or regional growth.
	Obstacle perception	Actor Interpretation that an event or policy has negative impact on wind sector or regional growth.
	Neutral/mixed perception	Actor interpretation that an event or policy has mixed or low impact on the sector or the region.
Strategy to influence policy	Strategy goal	Actor's goal in trying to influence policy.
	Strategy approach	Set of actions conducted by an actor to influence other actors' policies.
	Strategy conflict	Actors having conflicting goals or approaches in their strategies to influence policy.
	Strategy collaboration	Actor working with other actors toward a common goal of influencing policy.
Adaptation to policy conditions	Adaptation goal	Actor's goal in trying to adapt to policy conditions.
	Adaptation approach	Set of actions conducted by an actor to adapt operations to policy conditions.
	Adaptation conflict	Actors having conflicting goals or approaches in their adaptations to policy conditions.
	Adaptation collaboration	Actor working with other actors toward a common goal of adapting to policy conditions.

Compiled by author.

5.6 Considerations in Research

Creative constructions of empirical data can result in a variety of interpretations that reveal new aspects and knowledge (Alvesson & Kärreman, 2013, p.5). The result of this case study is one such interpretation, which can lead to new understandings of how actors and policies around offshore wind power interact. The thesis follows a critical realism ontology and epistemology where scientific methods can capture reality by critically analysing subjective perceptions (Grix, 2002). As such, material in the form of reports and steering documents describe a version of what has happened in the development path of Skåne, while actor interviews illuminate why and how this has happened according to various actors.

To confidently portray historical events and decision-making, the thesis employs triangulated data and a diverse range of actor interviews. By portraying a chain of results and chronological events in data collection and result presentation, this validity and reliability is further enforced (Yin, 2016). A weakness in validity is that interviews are confidential, meaning statements cannot be attributed to a certain person. To counter this, factual statements of interviewees are fact-checked with external information sources as a form of triangulation.

Interviewees' and the researcher's situated perception shape results of this thesis. It is therefore important to continually acknowledge the position from where situated knowledge is produced by both actors and the researcher, to contextualize how results are interpreted (Peters, 2017). In the thesis, both researcher and actor perceptions are broken down through adding and contrasting perceptions from reports and interviews, to challenge interpretations of development paths (Alvesson & Kärreman, 2013).

Ensuring the confidentiality of actors is a central ethical consideration in cases like this (Peters, 2017), to enable more honest answers in sensitive subjects. To situate the actors despite their confidentiality in the thesis, their actor type, organization type, and role in their organization are described. While results of the case study may not be generalizable to other regions, due to the nature of studying situated perceptions, the thesis shows how a regional path development is a specific output of interactions between actors and structures. As such, it aims for analytical generalization as its methods of showing systemic interactions in path development can be replicated in other regions (Yin, 2016).

6. Background of Offshore Wind Power in Skåne

6.1 Wind Power Actors in Skåne

In this thesis, wind power actors are limited to national, regional, and local actors active in Skåne. That includes developers, suppliers, and service companies working in offshore wind projects around the region (Swedish Energy Agency, 2017). Developers currently planning projects around Skåne are outlined in Table 6, showing a range in state-owned and private companies with activities from international to local. Municipalities and regional authorities are further included as actors since they have a key role in permits. Energy companies primarily focused on energy distribution are however excluded. Local and regional networks in wind power development are included since interest organizations have a role in organizing actors to influence policy (Mels, 2016).

Table 6: Offshore Wind Power Companies Around Skåne.

<i>Wind Power Companies</i>	<i>Projects around Skåne</i>	<i>Company Origin</i>
Vattenfall	Lillgrund (constructed) Kriegers Flak (has permits) Kattegatt Syd (planning)* Stora Middelgrund (planning)	Swedish state-owned company
OX2	Galatea-Galene (planning)* Triton (planning)**	Swedish company
Eolus Wind	Arkona Vindkraftspark (planning)** Sjollen (planning)	Swedish company
Blekinge Offshore	Blekinge Offshore (planning)	Daughter-company to Eolus Wind
Skåne Offshore Wind Farm	Skåne havsvindpark (planning)**	Daughter-company to Ørsted, a Danish historically state-owned company
Kustvind	Sydkustens vind (planning)	Swedish company based in Skåne
Valgrundet Offshore	Valgrundet Offshore (planning)	Swedish company based in Skåne
GIG	Kattegatt Offshore (planning)	British company

* - Competing projects in north-western location. ** - Competing projects in southern location.

Compiled by author from Vindbrukskollen (2023).

6.2 History of Wind Power Development

Wind power was first considered an electricity source worth large-scale investments in Sweden during the Oil Crisis in the late 1970's. Together with the Chernobyl and Harrisburg nuclear accidents of the 1980's and growing environmental awareness, investing in research and development for renewable energy sources such as wind power became a high priority politically. Sweden started a national wind power programme, and this set a foundation for developing a private wind power industry in the 1990's (Ekholm, 2011). Test wind power plants were constructed on land in Skåne and new technology developed through public research grants. The Swedish innovation process was however not privately led. In comparison, the Danish state promoted private research & development and provided stimulus for private entrepreneurship, resulting in a faster growing Danish private sector (Ibid.).

Denmark's stronger public resistance against nuclear energy also meant more investments and planning for increasing Danish wind power, while Sweden continued to rely on its existing nuclear plants (Karlsson, 2022). While the total Swedish energy system has gone under-invested for many years due to sufficient existing energy production of hydropower and nuclear power (Nordling, 2016), new political ambitions are currently developing to enable the electrification of Swedish society and industry developments in a green transition. This has brought new attention to the energy production deficit in Skåne (Karlsson, 2022; Swedish Climate Policy Council, 2022).

6.3 Wind Power Conflicts in Skåne

Estimates show that 3.5GW more offshore wind power in southern Sweden could have lowered energy prices with 30-50% during Autumn of 2021 (Energiforsk, 2022). There is political demand to increase energy production and lower electricity prices for companies and households, while also meeting climate goals such as Sweden being zero-net greenhouse gas by 2045 (Swedish Climate Policy Council, 2022). On the other hand, modern offshore wind turbines can be up to 250 meters tall and are by some locals considered obstructive in the landscape, loud, or negative for local wildlife (Waldo & Klintman, 2010). Disagreements around wind power's nature impacts and necessity in the energy system have led to years of polarised political debate in national, regional, and local levels of government. National and regional authorities are today generally more positive towards offshore wind power while some municipalities and locals resist wind power projects, particularly in more populated areas of Sweden such as Skåne (Westlund & Wilhelmsson, 2021).

In contrast to countries such as Denmark where the government decides which areas should be exploited for wind power, Sweden has no equivalent top-down governmental direction of where wind power should be located (Swedish Sea and Water Authority, 2023). Sweden has a long tradition of municipalities having monopoly over planning processes, resulting in wind power development often being considered a local and regional matter (Karlsson, 2022). This de-centralized governance structure means many actors have impact on whether offshore wind park permits get approved. For example, municipal resistance against landscape changes stops wind power projects to a degree not typically seen in other countries, as the municipal wind power veto blocked an estimated 76% of land and sea-based wind power projects in 2021 (Ibid.; Westander & Risberg, 2022).

Lack of coordination with national authorities further results in goal conflicts. For example, the Swedish Defence's secret flight protection zones made them veto 21 offshore wind projects between 2017 and March 2023, while 13 were partially or fully approved (Westander, 2022). Offshore wind power competes with a multitude of national interests as shown in Figure 4. When presenting recommended locations for offshore wind power development in 2023, the Swedish Energy Agency (2023, p.4) stated that it was impossible to identify Swedish sea areas with no or low conflicts of interest.

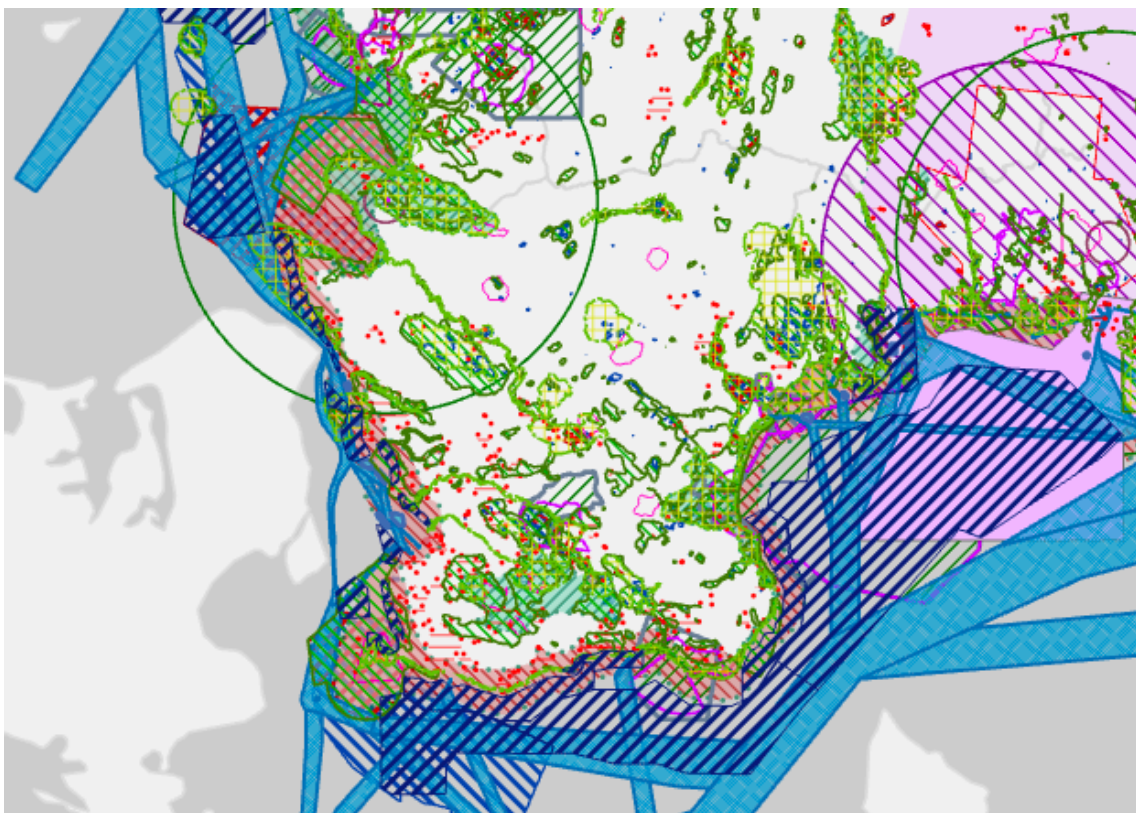


Figure 4: National Interests Competing with Offshore Wind Power in Skåne.

Colored areas represent national interests in Swedish law: Fishery, outdoor recreation, nature protection, cultural environment protection, sea-based transportation, Swedish Defence protection zones, coastal protection zones, and Natura 2000 areas. Source of map: Swedish Housing Agency (2023).

Many authorities are in some way influencing the permit process, from the Swedish Energy Agency, the Swedish Environmental Protection Agency and the Swedish Sea and Water Agency, the Swedish Defense, the Swedish Geology Assessment Office, to the Land and Environment Courts and the County Administrative Board, and municipalities or the government. These authorities often lack joint strategies for where wind power should be developed, and have different competences, wait-times, and criteria for assessing projects (Confederation of Swedish Enterprise, 2023, p.38). This complex network of authorities leads to long and complicated processes that often end in rejected permit applications (Kinning, 2022).

As many suitable land areas in Skåne are either already developed for wind power or not approved for wind power by municipalities, developers are turning to sea to compete over the most profitable sites. Wind power at sea allows for taller wind turbines that produce more electricity while bothering fewer locals, although wind power on land remains more profitable due to lower costs (Kinning, 2021). While high electricity demand in Skåne and Sweden drives large investors to fund offshore wind projects, this increases the number and sizes of permit applications, resulting in more sea-landscape conflicts and more work to process permits (Swedish Sea and Water Authority, 2023). Furthermore, developers sometimes compete over the same sites (Ibid.). The one who first submits and gets approved permits will be the one developing, resulting in a race between companies to first submit robust permit applications and get approval from decisionmakers. This may push out smaller companies lacking the resources of larger developers (Lindeblad & Lindahl, 2017).

Finally, grid transmission capacity and connections must be built and expanded to transfer electricity from offshore wind projects. This requires infrastructure investments by the Swedish Energy Grid Authority and wind power developers (Nordling, 2016). Sweden’s transmission grid is sometimes many years behind on these key investments due to lack of funding, many wind power projects wanting connections, and delayed transmission infrastructure, which risks further delaying a national large-scale wind power transition (Ibid, p. 41).

Altogether, it can take more than 15 years for offshore projects to acquire permits (Kinning, 2021) as seen in Table 7. Laws regulating wind power permits are complex and struggle to keep up with a growing wind power sector and its fast technology development (Swedish Sea and Water Authority, 2023). All this makes it difficult for companies to know if their application will be approved and if the project still will be profitable once permits are acquired, and for authorities to predict and assess future developments at sea.

Table 7: Phases of Offshore Wind Power Development in Sweden.

<i>Phase</i>	<i>Years</i>	<i>Tasks</i>
1. Early phase / Investigation phase	2-3	Sea bottom investigations, location inventorying, and other studies of the area. Requires examination permit. Creates application to connect to the electricity transmission grid.
2. Consultation phase / preparation phase	1	Conducting consultations with authorities, organisations, and the public. Environmental risk assessments and technical reports are created as basis for permit application.
3. Permit process	1.5-15	Developer applies for several permits from various authorities depending on the location, such as Natura 2000 permit, sea floor cable permit, environmental permit, and transmission grid connection permit.
4. Procurement phase / planning phase	1-1.5	Starts when all necessary permits are acquired. The project is planned, funded, and procured.
5. Construction phase	2-3	Wind park is built at sea and connected to the national grid.
TOTAL TIME	12.5-17.5	

Interpreted from Kinning (2022, p. 4).

7. Results and Analysis

7.1 Documented Path Development of Offshore Wind

Historical developments are necessary context to understand current offshore wind power paths in the region. Strategically sampled reports of wind power and the energy system are analyzed from the year 2000 to March 2023, and in the following section, key events from these reports and outlined strategies are described, connected to path development, and put in a timeline. The periods in path development are separated by critical junctures, which are defining moments when shifts significantly restructure regional development (Capoccia & Kelemen, 2007). Path types are used to describe path tendencies in the periods between junctures, when a sector's, region's, or organization's choices are more restricted by historical decisions and established structures (Ibid.). Connections between key events and policies, critical junctures, and path types in Skåne are summarized in Figure 5 and further explored below.

7.1.1 Critical Juncture 1: National Target for Offshore Wind

The first critical juncture in the timeline is described in Report 1, when national politicians in 2002 presented a new target for expanding offshore wind power. National offshore wind power was to be expanded with 10TWh per year to 2015. This was expected to increase conflicts over sea use (Report 1). Furthermore, in 2003, energy certificates were nationally introduced to strengthen the profitability of renewables (Report 1). Due to this, the expected increase in wind power exploitation and sea conflicts in Skåne was predicted to become problematic for permit authorities and planners (Report 1). Energy certificates was a national scheme that initially helped make renewable energy investments profitable, making it an attractive investment and eventually a self-sustained industry (Report 1). This would be defined as path extension since it was an *“incremental sector change within the current system”* (Table 3).

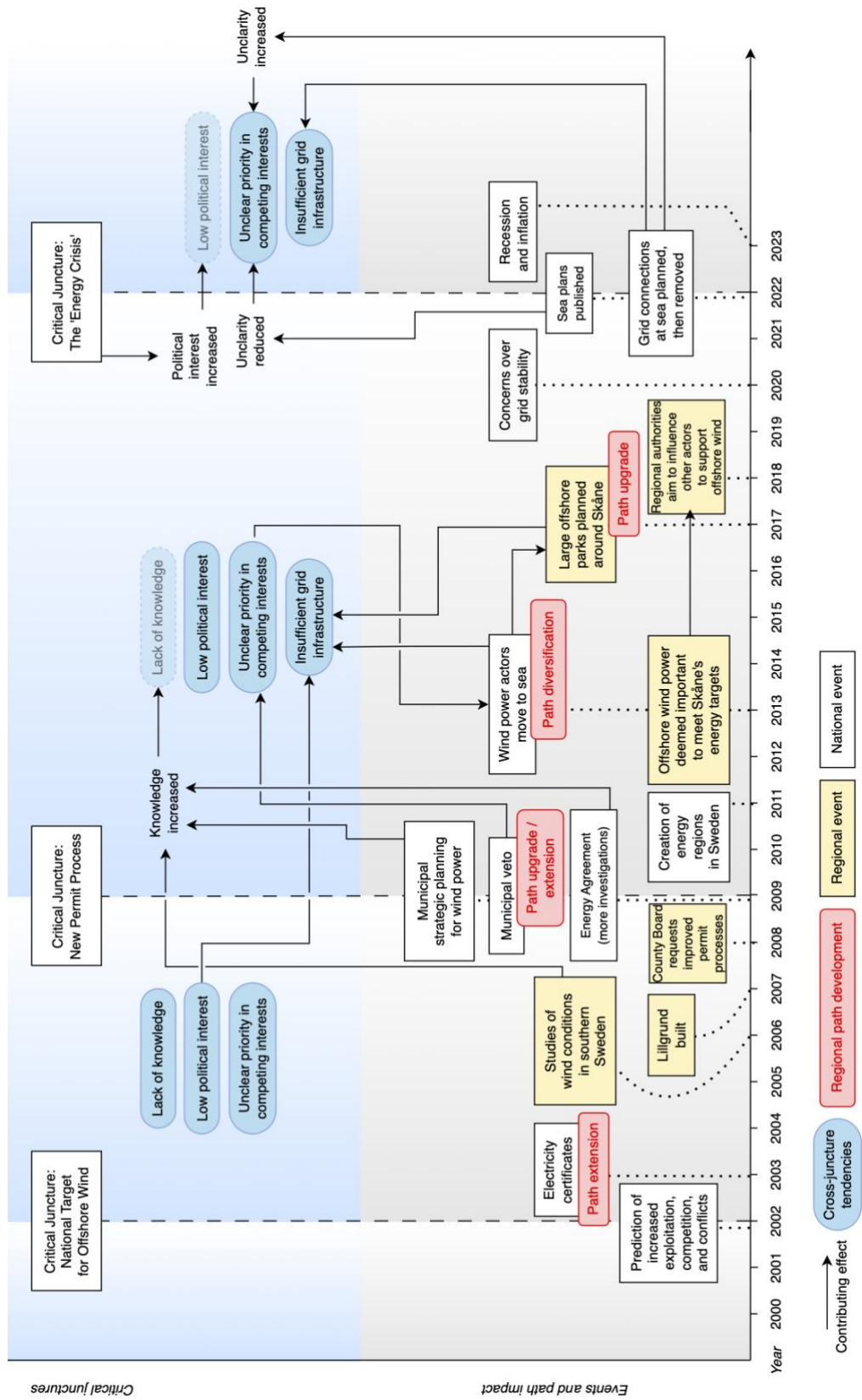


Figure 5: Path Development of Offshore Wind Power in Skåne.

Timeline compiled by author, based on reports and policies in Appendix 2 and 3.

While the new political engagement set up a development of increased competition at sea, a historical lack of institutional support inhibits changes despite politicians now engaging to develop offshore wind power. Previous low political interest in wind power had preserved complicated and inefficient permit processes, a lack of wind power knowledge among authorities, and a lack of clarity in how this national goal should be broken down regionally (Report 1). Despite these challenges, Vattenfall's offshore project Lillgrund succeeded in acquiring permits and was in 2007 the first offshore wind power park built around Skåne and the biggest in Sweden (Report 2).

7.1.2 Critical Juncture 2: New Permit Process

To change the permit processes hindering developments, the County Administrative Board (2009) and Region Skåne in 2008 recommended the government to simplify permit processes for wind power. In 2009 this was met with a new critical juncture: the permit process for wind power development was overhauled nationally (Report 2). While the number of involved authorities decreased, the rehaul also created a municipal veto. This required municipal approval for wind power permits and became a significant hurdle for many developments (Report 2; Westander & Risberg, 2022). Municipalities were furthermore for the first time required to develop municipal plans for wind power (Report 2). This shift is a critical juncture for offshore wind in Skåne since it majorly impacted both public and private actors, nationally, regionally, and locally.

Since public and private actors went through large changes to adapt to new institutional conditions where municipalities had increased power (Report 2), this development can be categorized as a path upgrade due to causing major organizational restructuring. However, these new rules limited the structural changes that wind power development could have brought the region. Path extension represents incremental sector changes within a current system, and the municipal veto enforced that future developments would be slow instead of taking advantage of the strong market interest for offshore wind power.

Unclear legal priorities between conflicting interests in locations remained a hindrance in permits for authorities and market actors in the growing wind power sector, according to the County Administrative Board of Skåne in 2013 (Report 3). Unpredictable institutional conditions thus continued to play a role to extend an existing path, even though regional authorities increased their knowledge about wind power impacts through various investigations (Report 3). While the Liberal-Conservative political bloc between 2009-2019 established an Energy Agreement to support wind power through energy certificates and continued investigations, no national strategy was established to change institutional conditions or further clarify prioritizations between interests around wind power (Swedish Government Office, 2008; Report 2; Report 6; Report 7).

Despite regional strategies from 2013 and onwards aiming to increase offshore wind to reach climate goals, municipal decisionmakers did not always agree (Regional Board of Skåne, 2013; Regional Board of Skåne, 2018; Skåne Wind Power Academy, 2021). Local strategic planning in Skåne varied in acceptance of wind power and was mostly focused on wind power on-land (Skåne Wind Power Academy, 2021). Instead, municipal resistance to wind power, the municipal veto, and growing land-use conflicts caused institutional hurdles for on-land development and made wind power developers move projects offshore (Report 6). Developers adapted their business arrangements to better fit projects to the increased competition, constant technology development and growing interest conflicts (Report 6).

The shift from on-shore to offshore is a type of path diversification, which is defined as *“existing activities and knowledge recombining to diversify the sector”* (Table 5). The move to sea was eventually embraced nationally in the 2020’s through national sea plans, which recommended suitable areas for offshore wind power around the region (Report 4; Sea and Water Authority, 2022). This was prefaced by a regional push in 2018, where the County Administrative Board of Skåne and Region Skåne together aimed to influence local and national decisionmakers to improve conditions for offshore wind power (County Administrative Board of Skåne, 2018).

As market interests continued to grow offshore, planned wind power turbines and parks became bigger, larger, and more profitable with new technology and locations at sea towards 2017. This however made projects more expensive to build. It was therefore in 2017 considered unclear to what degree offshore wind power projects could be realised in Skåne (Report 4). New technology developments further caused projects to be bigger and taller, requiring more investigations, permit processing and negotiations with local municipalities (Report 6). The fast technology development in offshore wind represented a path upgrade for the sector, as uptake of new technology enabled them to plan for more profitable and productive wind parks without need for public subsidies. Wind power projects and competition around Skåne were increased radically with new possibilities of profit of new technology in the late 2010's and 2020's, yet still slowed by unpredictable permits and municipal vetoes (Report 4; Report 6).

In 2020, limitations of the electricity transmission grid were given attention in a report by Svenska Kraftnät (Report 5), as many wind power projects were planned along Swedish coasts. A growing electricity production from wind power brought up issues of how the frequency in power lines could be sustained with wind-dependent production, and the grid did not have space to transfer all electricity from potential wind parks who wanted grid connections (Report 5). Limited grid capacity and infrastructure therefore impact connection permits for developers (Report 5; Report 6).

7.1.3 Critical Juncture 3: The Energy Crisis

2021-2023 are the years of the energy crisis in Europe. The Ukraine-Russia war and high prices of oil and gas combined with limited transmission grid capabilities and low production in the south to dramatically raise electricity prices in southern Sweden, with potential to severely impact businesses and employment (Report 6; Report 7).

Furthermore, large industry investments in Sweden are increasingly at risk due to lacking sufficient electricity production. All this strengthened public engagements to increase fossil-free energy production in Sweden and Skåne (Report 6; Report 7). The crisis further made electricity production from wind power highly profitable, which grew market interests for wind power at sea (Report 6; Report 7). The energy crisis was a critical juncture for wind development in Skåne as it brought a new political discourse, new national and regional goals, and renewed engagement for the wind power sector both nationally and regionally (Report 5 and 8).

To stimulate offshore wind development, energy grid connections at sea were planned to be nationally funded in 2022 (report 6) which could have caused a path extension where wind power companies would have. After the election the same year, the new government however plan to retract this decision (Report 8). With the ongoing economic recession and inflation in 2023, rates and costs of constructing offshore wind parks may have increased for companies, but simultaneously the Energy Crisis has increased profits for wind parks due to high electricity prices (Report 8). It is continually unclear what role wind power will have in responding to the energy crisis. To realize offshore wind parks around Skåne, permits are needed, and that process is still halted by a lack of prioritization between national, regional, and local interests. Authorities on different scales are continually disagreeing on what role offshore wind power should have in Skåne and Sweden, and what they should do to enable a faster or more predictable offshore wind expansion (Report 8).

Despite multiple market reports emphasizing that Sweden needs investments in both wind and nuclear power to meet demand for industrial expansion, political engagement is currently focused on nuclear energy over wind power (Report 6; Report 7; Report 8). The larger outcome of the energy crisis as a critical juncture therefore remains to be seen. It is likely that incremental changes through path extension are not sufficient to develop offshore wind power fast enough to meet the growing electricity demand in Skåne and Sweden (Report 8). Developing new institutional conditions with supportive regulations and incentives can enable stronger market developments in the form of a path upgrade. It is also possible that path creation, where new activities are created with new knowledge, is enabled by new communication strategies or technology that can solve conflicts like bird protection and wants to preserve the look of the landscape (Report 8). Technological developments in the wind power sector are today not sufficiently utilized due to lacking coordination between laws, permits, and technology – and due to this, turbines are commonly built smaller and less efficient than what is possible with modern innovations. Future expansion of electricity storage infrastructure and related energy industries such as hydrogen production could also fundamentally change conditions for wind power in the region (Report 8).

7.2 Actor Perceptions of Path Development

In this section actor perceptions of path development are presented based on interviews with local and regional actors. Figure 6-10 portray events that actors highlight as significant in regional development, categorized as green (enabler for growth), red (obstacle), or yellow (mixed/low impact). Thereafter, actor interpretations of developments are described in-depth per actor group and finally summarized in a table.

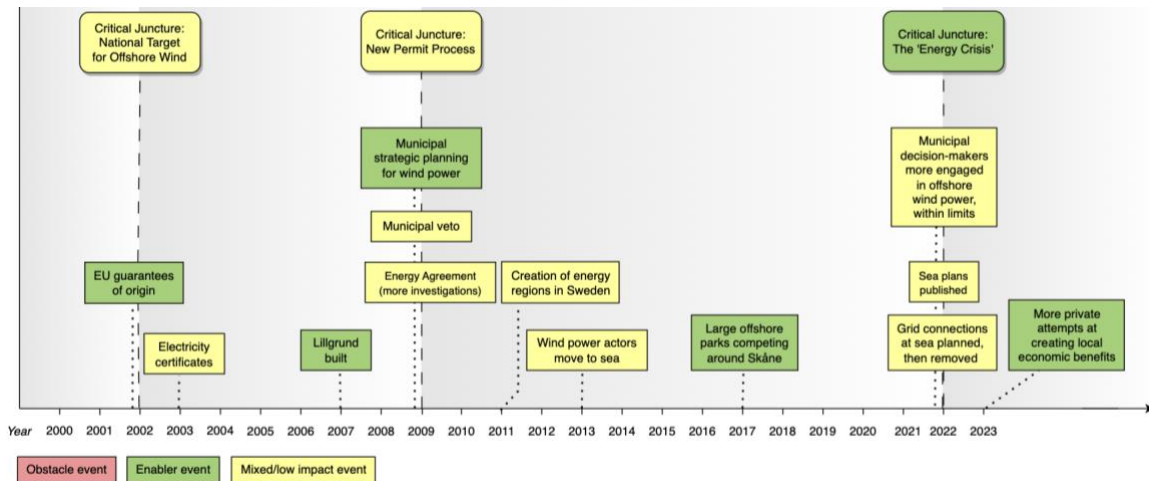


Figure 6: Municipal Public Actors' Key Events and Perceptions.
 Compiled by author, based on interviewee D & interviewee E (2023).

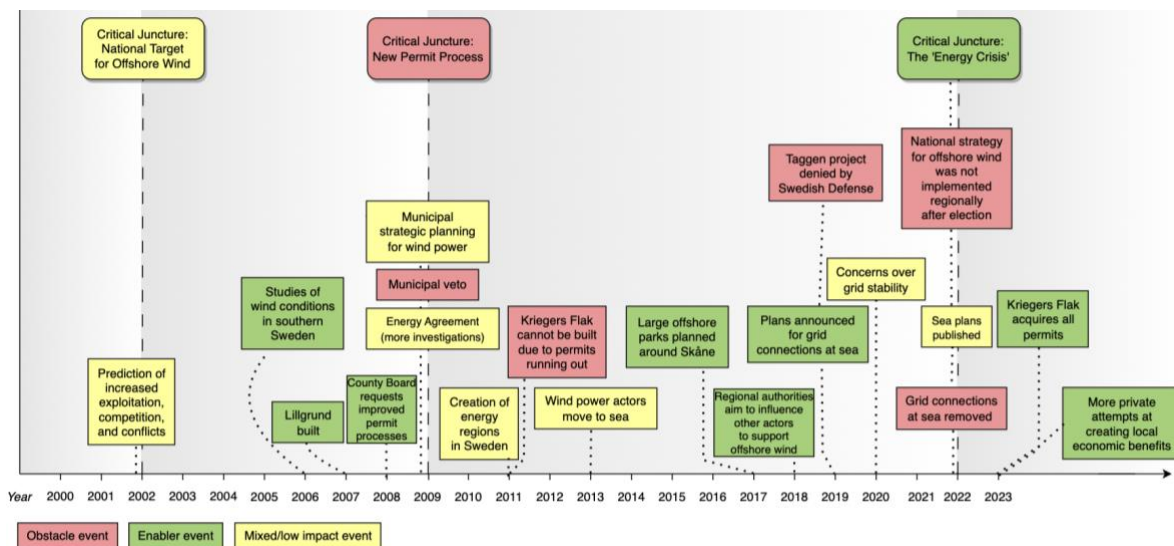


Figure 7: Regional Public Actor's Key Events and Perceptions.
 Compiled by author, based on interviewee F (2023).

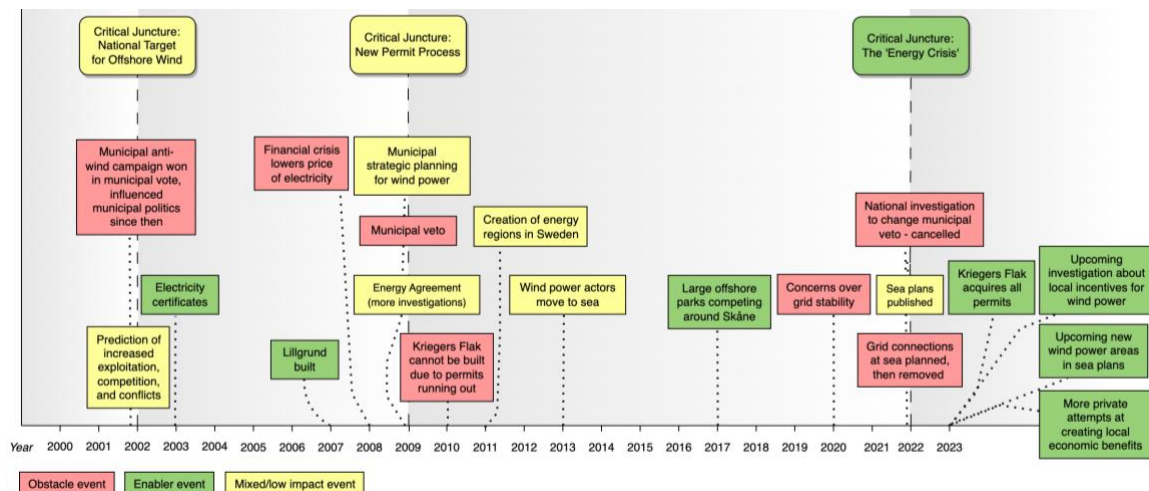


Figure 8: Incumbent Firms' Key Events and Perceptions.
 Compiled by author, based on Interviewee A, interviewee B & interviewee C (2023).

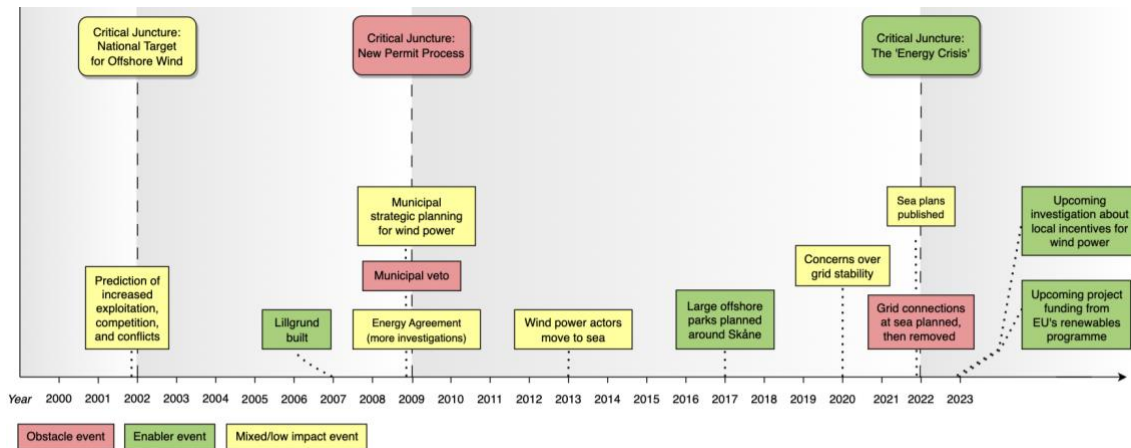


Figure 9: Facilitating Actor's Key Events and Perceptions.
 Compiled by author, based on interviewee G (2023).

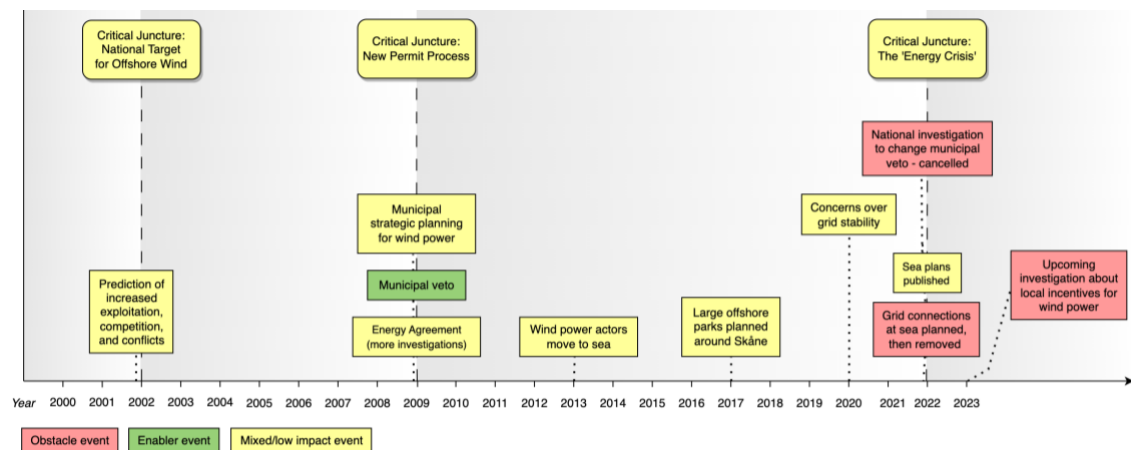


Figure 10: Fringe Actor's Key Events and Perceptions.
 Compiled by author, based on interviewee H (2023).

7.2.1 Municipal Public Actor Perceptions

Municipal interviewees describe a sense of currently being disconnected from national and regional policies regarding wind power, while not taking an active role in its development. National planning and direction are described as ineffective while national and regional targets are sometimes perceived as out-of-touch. As a result, municipal strategic planning for wind power is low priority, under-developed, and not up to date.

“When [national authorities] set a goal that we will have this much wind power in Skåne. There was a response in recent years from the County Administrative Board that was like ‘no, it isn’t possible’. You can say that we should build 100 wind power plants this year, but you can’t fit them anywhere. Then they get pumped out to sea.” (Interviewee E)

Municipalities perceive their role in wind power permits as significant but their agency in the regional sector smaller. They may have a role as gatekeeper with the municipal veto, but those decisions are described as determined by local environmental impacts and opinions of local voters. While other actors want them to consider the regional and national benefits of wind power and energy production, the municipality's interests are local impacts. This leads to wind power being determined by local political interests rather than costs and benefits for the region. Generally, local inhibitors for wind power development are therefore identified as local resistance and a lack of political interest locally.

"There isn't much interest for issues at sea, despite being a coastal municipality." (Interviewee E)

"It is not technology but psychology and groupthink that is controlling it all." (Interviewee E)

Overall, municipalities perceive that wind power is increasingly harder to build due to increased local resistance and a lack of suitable sites. The smaller municipality handles permits by considering local environmental impacts, while the larger municipality is developing a long-term wind power strategy with a team for renewable energy production. The municipal veto is however not perceived to have significant impact on offshore projects since both municipalities support developments at sea. 'Anti-wind' municipalities in the region are frowned upon by the interviewees, and the veto is understood as a resource for local self-determination that also can be used for political interests. Other policies influencing wind power are national planning regulations for municipal planning.

"The risk for a veto should be small. It's harder for the municipality to use its veto if the area is already approved for wind power in the municipal master plan." (Interviewee D)

"[Other municipality] says no, they say no to everything in the subject of wind power. So they haven't been a model for us." (Interviewee E)

Market actors are considered to have the most active influence. It is often first when companies apply for permits that decisionmakers and local politicians take a stand and get informed about wind power development. Companies are also increasingly introducing local economic benefits for wind power in municipalities. The recent energy crisis is further supporting local engagement for wind parks offshore where they are less of a disturbance for local homes and infrastructure.

“Thanks to the energy crisis, the regional Effect Commission, all of that, it might have created pressure for the issue.” (Interviewee D)

“When you present [timelines], that’s not the way you experience reality on my level or in my role. I work with puzzles. It’s radon measurements, polluted grounds, wind power processes. It’s development areas, it’s sewers, individual sewer inspections. [...] Wind power is only relevant in that precise moment.” (Interviewee E)

7.2.2 Regional Public Actor Perceptions

There has been a continual lack of national support to work regionally with wind power issues. When the national government announced plans to expand transmission grids at sea in 2019, market actors saw it as a positive sign and sent in several large permit applications while regional and national actors were unprepared for the workload. The sudden number of applications, sometimes in the same location, make it harder to predict impacts and to confidently provide permits. In comparison to municipal interviewees, the regional public actor perceives a greater need to improve conditions in wind power development while also lacking resources to do so. As an actor that processes permits, they have a clearer idea of transitions and conflicts in the regional sector. The actor therefore identifies that a lack of top-down control and coordination in permit processes is inhibiting development in the timeline.

“When the previous government announced to make grid connection fees free, around 2019. Then we saw a sudden increase in applications for investigation permits and similar things. [...] It was a clear signal. I experienced actors interpreted it as ‘it’s happening, let’s go.’” (Interviewee F)

“It’s easy to get a false idea of the impacts that ongoing projects will have on the environment [...] One can feel, as permit manager, that there are many very large projects to handle that could have negative impacts.” (Interviewee F)

Developing offshore wind is essential for Skåne’s energy and climate goals, but there is a disconnect between regional needs and the resources and steering provided nationally. As early market actors developed projects in Skåne, regional actors initiated to create *“methods, standards and initiatives that then got developed on a national level”* (Interviewee F) to support planning and development. A national strategy for sustainable wind power development was made two years ago, but then the previous government’s energy platform got retracted while the opposition’s budget was voted in nationally, and no regional budget or assignment was therefore provided to implement the strategy. The regional actor therefore processes wind power permits while needing to choose between competing interests, without clear direction in how to prioritize between them in the region.

There is no national assignment to work with [wind power] but permit applications are coming anyway and they need to be handled without a steering strategy. [...] The opposition’s budget was voted in and then everything was removed, so there was no money.” (Interviewee F)

Regional authorities aim to provide information to help municipalities make decisions regarding wind power because even if permits are provided, municipalities may still end projects with their veto. Permits can also be mis-timed which can stop projects that regional actors spent time and resources investigating. Some examples are the offshore projects Taggen, Blekinge Offshore and Kriegers Flak around Skåne, which all failed due to unaligned permits from various authorities.

“Taggen and Blekinge Offshore – it was very close, Blekinge Offshore was around a lot of activities up in north-eastern Skåne. And Taggen also got very far” (Interviewee F)

7.2.3 Incumbent Firm Actor Perceptions

Incumbent firm interviewees describe a development where market powers have been the large factor for continued development. Support from public actors has been lacking with unreasonably slow lead-times for permits. A growing local resistance against wind power is enforced by a continued lack of top-down prioritizations between interests, the spread of misinformation, and some public decisions such as the municipal veto are perceived to worsen conditions for wind power development.

“The challenge in offshore wind power is to make all necessary permits align. First the large permit for the park itself and then for the transmission grid connections.” (Interviewee A)

“You meet a lot of misinformation [...] many myths circulate about wind power, for example about microplastics taken completely out of context. [...] Another myth is that we would be getting a bunch of subsidies.” (B)

Decisions about offshore wind projects are being made on a municipal level due to the implementation of the municipal veto. This was introduced after an addition to the permit process overhaul of 2009 by the Swedish Municipalities and Counties with no investigation or consequence analysis. It is described to negatively impact a sustainable wind power development ever since by making projects of national significance dependent on local interests.

“What does it mean for the climate? What does it mean for Europe’s independence from Russian gas? What does it mean for energy provision in entire Energy Area 4? But the perspective in [municipality] is, how will it look from the beach? Where do our voters live? The opinion of 20 voters that don’t want it in their landscape view, comes before all else. (Interviewee C)

Since market actors are perceived as main drivers in the sector, profitability is essential. Offshore wind parks have become more profitable with technology development and current high energy prices. Developers are moving offshore and competition is growing. The bottleneck is permits, which take longer to process with many active projects. The further out from the shore the easier it is to get municipal approval, but this also makes projects more expensive due to having to fund the transmission grid connection to land. The current system where multiple companies can apply for permits in the same site also make development more risky, since the cost of environmental investigations might not lead to acquired permits.

“There is a massive, almost extreme demand for renewable energy. [...] There are tens of millions being invested in offshore wind. The problem is the long leadtimes for the permitting.”

(Interviewee B)

“There are many years of investigations for environmental assessments and other things before permit applications can be sent in. Then, two companies might apply for permits for the same site which risks many years of work and large sums of money.” (Interviewee A, incumbent firm)

When Svenska Kraftnät announced they would provide some grid connections at sea for free, it was therefore welcomed from the sector. After the 2022 election, the new government is however expected to retract this plan due to retracting the previous government’s energy platform. This is seen as another sign of the political instability that characterizes wind power politics nationally. Developers seek stability and profitability while national politicians struggle to agree on how to move forward with the sector.

“It’s been so unclear from the sector’s perspective, you just want to have stable conditions. First they say that they will provide connections and then they take it away” (Interviewee B)

“The only thing you know for sure is that if you build wind power or nuclear power, it will take longer than one term of office to get it built. If the rules change after each election, then nothing at all will get built.” (Interviewee C)

The energy crisis combined with growing environmental awareness and sudden exponential need for energy due to electrification of Swedish industries and society, is now expected to change political discussions locally and nationally. Recent national sea plans and upcoming investigations about local incentives for wind power provide new possibilities, but wind power is still deprioritized in environmental investigations as climate-benefits or the need for energy production are not prioritized over other interests such as fishery or environmental protection in Swedish environmental law.

Public opinion is perceived as slowly turning around. The high energy prices are creating a self-interest in wind for locals, together with a national investigation about local incentives for accepting wind power. Regional authorities have started initiatives like the Energy Commission that may enable new collaborations for the sector. It is however unclear whether the government will change the municipal veto or offer more direction in conflicts of interests around wind power projects.

“Especially with the energy prices, people are starting to re-think. You see politicians changing opinion, KD are shifting and are talking more wind power together with the Moderates. We’ll see if something happens.” (Interviewee A)

7.2.4 Facilitating Actor Perceptions

The facilitating actor describes that for a long time, the entire energy market was low in activities for new projects. Sweden had over-production of energy which made energy prices too low. The lack of activity and interest provided less opportunities for them to apply for resources to arrange support projects for the sector. The implementation of energy certificates however opened possibilities for the sector in the early 2000’s through financing, and wind power has kept growing and developing technology since then. Today it is perceived as a competitive and quickly developing industry to such a degree that long-term strategies and scenarios struggle to predict developments in the sector.

“The markets for renewables keep having record-breaking production years and reduced costs, so it has become far more competitive than anyone could’ve hoped. This makes it difficult to create strategies forward, or to follow the strategies we would’ve made back then” (Interviewee G)

Recently, conversations about wind power have opened up between decisionmakers previously stuck in old disagreements, re-engaged by the recent energy crisis. These conversations are however continually restrained by old political conflicts where wind power is sensitive. New initiatives are coming from companies in the form of local incentives for wind power, and national investigations are being done may lead to changes in laws or regulations. Instability in institutional support for the sector is also growing due to market uncertainty about what the new government will decide regarding wind power developments, and how it will impact existing projects. In general, the actor perceives current opportunities for institutional change – if decisionmakers are willing to act.

“Instability in the sector has not been this significant in a long time since we just had a shift in government, and we don’t know what side the new government is standing on.” (Interviewee G)

“They don’t want to take a role or talk about energy issues since that leads to renewables and that leads to wind power. You notice very clearly with politicians in [municipality], that energy is not considered a municipal issue.” (Interviewee G)

The long-term lack of national engagement and strategic leadership in wind power development strikes the facilitating actor as un-explainable since the need to increase production in the energy system has been known for a long time. One perceived reason is the considerable lack of understanding in society about how energy production works, and its costs and benefits.

“We have nuclear power being decommissioned, starting to reach its technological end of life. Why has not more happened nationally, strategically? (Interviewee G)

7.2.5 Fringe Actor Perceptions

The fringe actor is an organization for locals with the purpose of protecting Swedish seas and landscapes. They perceive is a currently growing commercial interest for wind power parks offshore, and pressure is growing for public actors to approve these projects. They also describe a *“power imbalance between impacted locals and large wind power companies”* (Interviewee H).

On one hand, the wind power industry has benefited from business incentives and is gaining support by providing economic benefits to municipalities. Big investments from developers and the energy crisis push authorities to support wind parks. Positive aspects of wind power shape the prominent narrative in media, and job creation from wind park development is a political selling point. Through these tools, the actor perceives that market actors wants to establish wind power across the country by dismantling institutional inhibitors that so far have held back these developments.

“The government was about to provide free connections to the grid for offshore wind power. And recently they were going to investigate removing the municipal veto and making The Defense less meddlesome. And the species protection. Things they’ve attacked are things that saved Swedish landscapes and seas from wind power when municipalities couldn’t.” (Interviewee H)

The actor also describes a lack of understanding of the real impacts of wind power, resulting in municipalities, the County Administrative Board, and other authorities making decisions without knowing how it will impact locals or the energy system. Profits are prioritized over experiences of locals, who then organize so local politicians use their municipal veto. Due to a lack of knowledge among decisionmakers, the *“dark side of wind power developments”* (Interviewee H), meaning negative impacts on locals, nature, and landscapes, easily go unheard unless locals speak up. Wind power developers on the other hand claim that Sweden’s rigorous environmental laws require them to spend years making studies and producing *“hundreds of pages”* (Interviewee C, 2023) for an environmental impact assessment that is provided to decisionmakers.

“Facts about wind power is wind power’s greatest enemy. If everybody knew as much as we do, wind power would never be considered at all.” (Interviewee H)

Finally, the fringe actor identifies a continual lack of assigned responsibility for the development of wind power and energy production in the country. The energy sector was deregulated in 1996, and now there is no national organization, *“everything is happening at once and nobody knows what is going on”* (Interviewee H, 2023). They perceive that wind power companies do not want responsibility for local impacts and national politicians do not understand how developments are impacting people. All this creates negative impacts on locals and the landscape.

“Is there anyone in Sweden with responsibility for electricity production? [...] Individual actors don’t have any responsibility, wind power companies come and go as they wish, they don’t want responsibility.” (Interviewee H)

7.2.6 Comparing Perceptions of Path Development

To compare the described actor perceptions of path development, Table 8 summarizes perceptions of key enablers, key obstacles, perceptions of future direction in path development, and the main spatial focus (local, regional, or national) per actor group. The actors tend to focus on policies and events on scales that impact themselves, and pay more attention to specific events than general, long-term developments of the sector or in the region. They therefore tend to have a less strong awareness of regional developments. Due to a lack of significant shifts or clear direction, the development path is perceived less as a trajectory and more like a *“gray mess”* (Interviewee F, 2023) of actors pulling in different directions. For the future development of the sector, they all sense an uncertainty – on one hand, the energy crisis as a critical juncture is expected to shift political positions with new engagement in energy issues, but on the other hand, signals from the national government have been unclear whether they want to support the wind power industry’s development.

Table 8: Summary of Actor Perceptions of Regional Path Development.

<i>Actor type</i>	<i>Scale of attention</i>	<i>Key enablers</i>	<i>Key obstacles</i>	<i>Future direction</i>
Incumbent firms	<ul style="list-style-type: none"> Local: their own projects and local political mindsets. National: permit conditions impacting their projects. 	<ul style="list-style-type: none"> Strong offshore competition. Good technological development. The energy crisis. Upcoming national investigations. Private proposals for local incentives. 	<ul style="list-style-type: none"> Municipal anti-wind campaigns. Financial crisis 2008 Mis-matched permits. Myths and misconceptions. Policy uncertainty. 	<ul style="list-style-type: none"> Hope that energy crisis, national investigations, and local incentives can change national and local policies. Unsure about government's plans.
Public policy actors (local)	<ul style="list-style-type: none"> Local: voter opinion and environmental impacts. 	<ul style="list-style-type: none"> Energy certificates. Mandated local strategic plans. The energy crisis. Local economic benefits. 	<ul style="list-style-type: none"> The municipal veto. Lack of municipal interest and knowledge. 	<ul style="list-style-type: none"> Energy crisis freeing up political conflicts. Might not change much locally.
Public policy actor (regional)	<ul style="list-style-type: none"> Local: development in individual projects. Regional: development of energy production. National: steering documents and budgets. 	<ul style="list-style-type: none"> Regional organization to create planning materials. Strong offshore competition. Successful projects. Private proposals for local incentives. 	<ul style="list-style-type: none"> The municipal veto. Failed offshore projects. Regional and national attempts to support wind power set back by changes in government. 	<ul style="list-style-type: none"> Uncertainty in national directions leads to uncertainty in regional steering and permit processing. National support is late to match private and regional demand.
Facilitating actor	<ul style="list-style-type: none"> Local: wind power development in anti-wind municipalities. Regional: conflicts and shifts in needs. 	<ul style="list-style-type: none"> Strong offshore competition. Good technological development. The energy crisis. Private proposals for local incentives. 	<ul style="list-style-type: none"> The municipal veto. Lack of knowledge about significance of energy production. Lack of resources for wind power support regionally. 	<ul style="list-style-type: none"> Energy crisis is opening conversations, but still restrained by old conflicts. Decisionmakers need to act quicker. New upcoming EU funding programmes.
Fringe Actor	<ul style="list-style-type: none"> Local: municipal decision-making and local resistance. National: wind power lobbying for policies and attention in media. 	<ul style="list-style-type: none"> The municipal veto provides local self-determination. 	<ul style="list-style-type: none"> National attempt to change municipal veto. Proposal for free grid connections. Local incentive schemes are 'bribes' for municipalities. 	<ul style="list-style-type: none"> Worry that wind power lobby steers political discussions to less nature protection and local influence. Likely more wind power in the future due to powerful private interests.

Compiled by author, based on interviews in Appendix 5.

7.3 Actor Strategies for Influencing Policies in Path Development

Actors can use their agency to strategically influence policies and policymakers according to their interests. Approaches for doing so look different between actor types as seen in Table 9, as they have different capabilities and interests to influence policies at different scales. Strategies to influence policies can be conducted alone or in collaboration with others, and goals to influence policies are commonly in conflict with other actors' interests as portrayed in Table 10.

7.3.1 Goals and Approaches for Strategies

Actor goals for changing policies are diverse as their interests vary and policies affect them differently. Generally, their goals can be categorized as making policies less restrictive for regional wind power development (for incumbent firms, the regional public policy actor, and the facilitating actor), or more restrictive by granting local control over wind power development (for the fringe actor). Local public policy actors sit between these categories. On one hand, they want to retain control over developments along their coasts to prevent disturbances for locals, but on the other hand, they have an interest in developing wind power offshore as it contributes to their climate work while being perceived as less of a local disturbance than wind parks on land are.

Policies targeted to influence change include elements of the permit process, such as the municipal veto or the role of the Swedish Defense, with the intention of 1) making permit processes less restrictive for current projects, 2) making the permit system more time and resource effective with an auction-based system, or 3) preserving and extending current limitations for wind power such as species and nature protections. Actors also target municipal policies and local political stances for wind power developments, to either influence them towards letting projects forward or to encourage the use of the municipal veto. Regional policies are perceived as being less influential and are therefore not a target for change from other actors.

“In most other European countries, you have a system where the state selects sites suitable for wind power. They have a discussion with the Defense, the Environmental Protection Agency, other interests, look at energy grid connections. Then you tell the companies to bid on the site. [...] I think it would be better.” (Interviewee C, incumbent firm)

Table 9: Actor Goals and Approaches for Changing Policy.

<i>Aspect of strategy</i>	<i>Incumbent firms</i>	<i>Public policy actors (regional and local)</i>	<i>Facilitating actor</i>	<i>Fringe Actor</i>
Goal	<ul style="list-style-type: none"> • To improve conditions in permit processes. • To get municipalities to not use their veto. 	<ul style="list-style-type: none"> • To improve conditions for wind power to achieve regional and local climate and energy strategies. • (Local) To have wind parks offshore that do not disturb locals. 	<ul style="list-style-type: none"> • To increase energy production in the region. • To emphasize the needs of the region, rather than individual stakeholders. 	<ul style="list-style-type: none"> • To stop wind power developments that are negatively impacting locals and the landscape. • To join hands with all stakeholders against wind power companies. • To engage new members.
Approach	<ul style="list-style-type: none"> • Companies influence locally or nationally, have less engagement in regional decisions. • Being transparent, available, and inclusive to stakeholders in permit processes. • Proposing private initiatives for local economic incentives. • Historically focusing on well written permit applications, now they have more resources for marketing and communicating needs outwards. • Starting to propose local economic incentives for municipal support, since public actors have not created this. 	<ul style="list-style-type: none"> • A growing proactivity where public actors look to other countries for policy solutions. • Giving input in national decisions in referrals (remitter). • (Regional) Advocating nationally for an auction-based permit system and more resources for wind power permits. • (Regional) Developing planning resources and in-partial forums for information and discussion with actors. • (Local) Directing wind power in master planning to prevent municipal vetoes. • (Local) Being a ‘passive receptor’ of wind power projects. 	<ul style="list-style-type: none"> • Arranging activities that enable dialogue between stakeholders. • Setting the agenda in wind power discussions through activities and reports, based on societal needs. 	<ul style="list-style-type: none"> • Helping locals influence municipal politicians to stop local wind power projects. • Writing debate articles in newspapers, sending information to decisionmakers, speaking in TV and radio to influence decisions. • Responding to referrals (remitter) in national decisions. • Talking to local and regional politicians, national when possible. • Talking with and visiting wind power developers to learn. • Countering the national debate shaped by wind power lobbyists.

Compiled by author, based on interviews in Appendix 5.

Strategies for influence consist of actors talking to decisionmakers, voicing their needs, building relations, and explaining how their intentions benefit larger society. These externally aimed communication strategies have ramped up in the latest years of the energy crisis and sudden explosion of offshore wind applications, when resistance of locals together with overwhelmed permit authorities caused increased conflicts and dissatisfaction with current systems for wind power development.

“We are bigger and have more resources today. We used to only have one guy working with communication for all projects. [...] We’re in reference groups with national agencies, trying to create better conditions.” (Interviewee B, incumbent firm)

While wind power companies used to focus on internal activities by drafting an attractive permit application, they now have more resources and interest in voicing their problems with policies around permits. Regional public policy actors, facilitating actors, and fringe actors further use communication strategies to promote what changes they think are needed to enable more sustainable energy production (with or without wind power) and a more orderly permit process. Regional communication efforts by the regional public policy actor and the facilitating actor are however held back by being project funding dependent. Local public policy actors influence policies the least, perhaps because current wind power policies grants municipalities the most power.

7.3.2 Conflicts and Collaborations for Strategies

Opposing goals in strategies for influencing policies can create conflicts, but common interests lead to collaborations. Locally, conflicts of interest occur between incumbent firms (wind power companies), fringe actors (local population) and local public policy actors (politicians) around decisions for planned development projects in an area. Wind power companies want local politicians to approve the project while fringe actors want them to use their veto. Often politicians listen more to local voters. This might be due to a mismatch in interests – while locals focus on protecting local landscapes and what might be considered Not-In-My-Backyard arguments, wind power developers instead present arguments about climate change or the energy production’s significance for regional energy prices. The industry has also shifted to offer local economic benefits such as lower energy prices, to influence municipalities towards acceptance.

“Everyone says we need a lot of renewable energy for fossil-free steel, and municipalities want to be 100% renewable. So here’s a project we can build. We come with a solution.” (Interviewee B, incumbent firm)

Incumbent firms describe a silent pro-wind majority in many municipalities according to surveys, but since they do not mobilize, communicate, or protest like fringe actors in the anti-wind movement, local politicians don’t hear their perspective. Wind power companies’ historical lack of engagement with local opinion may have contributed to this tendency, and historical decisions against wind power are used as political motivation to stop projects today. Local resistance makes it harder for wind power companies, facilitating actors, or regional public policy actors to influence local wind power policies. In certain municipalities, wind power politics and energy issues are so politically sensitive that they’re now taboo.

Table 10: Actor Conflicts and Collaborations for Changing Policy.

<i>Aspect of strategy</i>	<i>Incumbent firms</i>	<i>Public policy actors (regional and local)</i>	<i>Facilitating actor</i>	<i>Fringe Actor</i>
Conflict	<ul style="list-style-type: none"> • Municipal vote saying no to wind power is still used today to motivate stopping projects. • The pro-wind majority does not protest for the cause, need to mobilize and communicate. • Municipalities focus on NIMBY-issues while wind developers want to talk climate impacts and regional energy production. • Companies are not trusted when speaking against misinformation about wind power. • National actors focused on land-based when offshore was growing, not in tune with modern wind developments. • Auction-based permit systems are best for society but not necessarily for wind companies. 	<ul style="list-style-type: none"> • Regional targets have many goal conflicts and regional authorities must balance between interests without clear prioritization. • No organizational responsibility for wind power issues makes decisions people-dependent. • Municipal wind power plans have often become irrelevant. • Municipalities act according to their own interests, unaffected by regional or national goals and strategies or larger-scale impacts. • Municipalities sees the issues of the veto but want to keep it for their own benefit. • Locals often do not agree regarding wind power, there can be a range of local opinions. 	<ul style="list-style-type: none"> • Politicians used resistance against wind power to win elections, makes it harder to enable discussions around wind power. • Fast market developments in wind power make it hard to design scenarios and strategies that hold up over time. • Hard to create conversations when wind power and energy issues have become political taboo in some municipalities, among politicians, locals, and public servants. 	<ul style="list-style-type: none"> • There is a general lack of competence around wind power in regions and municipalities, leading to less informed permit decisions. • National parties supporting wind power get very disliked by locals who are against wind power projects. • There is no clear national coordination for energy production. Svenska Kraftnät has responsibility over the energy grid but cannot design where production is, that is done by the market.
Collab- oration	<ul style="list-style-type: none"> • Local benefits help both municipalities and companies to benefit from wind power. • Companies work together and influence though the national sector organization Swedish Wind Power. • Large industrial actors speaking for the need of wind power during the energy crisis to politicians and media, gave a national understanding of the potential of wind power. 	<ul style="list-style-type: none"> • Regional authorities aim to lead, coordinate, and collaborate with public actors for sustainable energy production, with a neutral platform and supporting information. • Regional authorities and the private sector tell national actors that current policies are not sufficient for energy developments. • Municipalities network in Climate Municipalites, but not very actively. • Regional authorities have low influence on municipalities. 	None described.	<ul style="list-style-type: none"> • Helping locals influence municipal politicians to stop local wind power projects. • Tries to talk to and meet with wind companies to understand projects and to enable understandings between actors. • The Swedish Defense have stopped many projects in the Swedish economic zone where municipal veto does not apply, important for limiting wind power.

Compiled by author, based on interviews in Appendix 5.

“A referendum was triggered in [municipality] about wind power [...] It was a large campaign from the opponents and nothing at all from the sector, which made us lose [...] I’m convinced that the majority was pro-wind, and if something small had been done, we would’ve won”
(Interviewee C, incumbent firm)

Collaborations between actors are used to strengthen common interests, and collaborations have developed as conflicts grow around wind power developments. Incumbent firms have collaborated for their interests through their trade organization Swedish Wind Power, and local public policy actors may network for collective energy interests with other municipalities. Regional public policy actors do not have much direct influence on external policies but have had collaborations with regional actors in southern Sweden to acquire national influence and help support the wind power sector. The fringe actor collaborates with locals to voice issues against wind power in media and political decision processes. Incumbent firms do not experience many private interest conflicts despite the hard competition in the sector, but on the other hand also do not collaborate much regionally. Instead, they prefer to focus on developing their own projects.

In the wake of the 2021-2023 energy crisis, with growing competition and conflicts of interests over wind power sites, communication strategies and collaborations have adapted to energy issues becoming relevant for wider society. Wind power companies combined communication approach with large Swedish industrial companies, and together argue publicly about the need for national policies to allow increased development of wind power in Sweden, to enable expansions of energy-dependent industries and transition to climate-friendly industrial technologies. Incumbent firms are now also reaching out for collaboration with locals and municipalities, by offering local economic benefits such as lower energy prices for locals close to wind power parks. Common interests are thus established between local public policy actors and incumbent firms for more beneficial wind power policies. Overall, interviewed actors are experiencing increasingly open conversations around wind power policies.

I experience a slightly increased openness in these issues and slightly more contact with decisionmakers about energy questions. But it's far from an open and clear dialogue. There are still many political lock-ins that have existed for a long time.” (Interviewee G, facilitating actor)

Conflicts also appear within actor groups, between municipalities, regional authorities, and the government, as priorities in local, regional, and national politics and decision-making are not uniform. Conflicts further appear internally, for example between local politicians and public servants or between public workers and chief positions. One municipality describes how public servants worked to develop municipal wind power strategies in their master plan to make it harder for politicians to use the veto, and both local and regional public policy actors express that certain people in leadership positions limited attempts to work strategically with wind power. Collaboration can also happen within actor groups, such as the Region and the Regional Administrative Board working together to implement an Energy Commission to solve regional energy needs.

While there are many conflicts, there are shared interests that bring engagement in more collaborations. While regional authorities do not have much formal control over local decision-making, incumbent firms wish that regional public policy actors would be more involved in local discussions by highlighting regional needs and benefits. National and regional public policy actors could work together in countering myths and disinformation around wind power, and incumbent firms could merge efforts more locally to handle issues like the lack of wind technicians in the region. Finally, both fringe actors and facilitating actors believe that public policy actors need to work more cohesively to enhance general knowledge about wind power's significance in the energy system and the environment, to enable policymaking that understands the significance of energy production offshore.

“Knowledge about energy and energy production is incredibly low for a county so dependent of cheap energy that Sweden is. [...] Nobody has a full understanding of the whole energy system and what energy production means.” (Interviewee G, facilitating actor)

7.4 Actor Adaptations to Policies in Path Development

Actors in wind power development must also adapt to existing policies and the business conditions they shape to achieve goals in the sector. To do so, they adapt operations to fit what is required by the circumstances. Policy impacts however vary between actor types, and the way actors adapt, alone or in collaboration with others, varies as portrayed in Table 11. Adaptation occasionally leads to internal or external conflicts due to goal conflicts between the actor and the influencing policy (Table 12).

7.4.1 Goals and Approaches for Adaptations

Actor goals for adapting to policies are centred around attaining wanted outcomes by adjusting their operations to less-than-ideal policy conditions. Incumbent firms and fringe actors adapt to limiting conditions in the permit processes, while the regional public policy actor and the facilitating actor adapt to conditions for funding to work with wind power issues. Local public policy actors adapt their operations to national strategic planning regulations around wind power.

Incumbent firms and public policy actors spend significant resources adapting to challenging permit processes. The municipal veto often means that developers place parks further out at sea to not bother locals, or even outside the municipal territory in the Swedish Economic Zone to bypass the veto – which makes transmission grid connections to land far more expensive. Developers then spend years on investigations for the required environmental assessments, and sometimes wait years to submit permit applications until the municipality's politicians are likely to not use their veto.

Table 11: Actor Goals and Approaches for Adapting to Policies.

<i>Aspect of adaptation</i>	<i>Incumbent firms</i>	<i>Public policy actors (regional and local)</i>	<i>Facilitating actor</i>	<i>Fringe Actor</i>
Goal	<ul style="list-style-type: none"> • Adapting operations to make permit applications that meet demands in the permit process and are profitable. 	<ul style="list-style-type: none"> • (Regional) Acquiring funding to handle wind power strategically. • (Local) Following planning rules for wind power developments. 	<ul style="list-style-type: none"> • Being able to flexibly respond to shifting energy needs in the region. 	<ul style="list-style-type: none"> • Adapting support of local resistance according to their ability to influence the permit process.
Approach	<ul style="list-style-type: none"> • Placing projects further out at sea. • Recalculating project costs after free grid connections were retracted. • Diversifying to solar energy, energy storage, offshore wind. 	<ul style="list-style-type: none"> • Developing strategic planning for wind power due to high energy prices. • (Regional) Applying for temporary project funding for wind power activities due to lacking budget. 	<ul style="list-style-type: none"> • Applying for project funding to start supporting activities for renewable energy in the region. • Adapting supporting activities for wind power actors to funding conditions. 	<ul style="list-style-type: none"> • Protesting parks that are being planned while standing back on protesting projects that are already built.

Compiled by author, based on interviews in Appendix 5.

Once applications are submitted, the regional public policy actor has insufficient resources to process large amounts of offshore wind applications and lacks national and regional coordination for how conflicting interests around wind power should be prioritized. They therefore take longer to process each permit. By experiencing a “big gray mess” (Interviewee F, 2023) of offshore projects coming up around Skåne, permit authorities might also overestimate environmental impacts which increases the risk of denied permits. In summary, wind power companies and permit authorities sense a lack of control and oversight in the current permit process and primarily adapt by taking more time in the permit process and waiting for the right timing in the local political discourse.

“Existing laws and regulations aren’t designed to handle what they’re now being used to handle. You’d think that not just regional actors, but also national agencies could be louder about preferring a different approach.” (Interviewee F, regional public policy actor)

Actors strive to relieve these issues through internal means. The private sector is diversifying to more easily developed sectors such as solar energy and from on-shore to offshore wind power. Meanwhile, regional policy actors have developed their own planning tools and put together an energy commission to develop a regional action plan. The fringe actor also adapts its operations to the permit process. Since parks cannot be stopped locally once all permits are given, local movements against wind power projects focus on influencing decisionmakers before permits are given.

Adaptations due to budgets are also required by the regional public policy actor and the facilitating actor. Lack of national funding for working with wind power means they cannot effectively fund strategic ventures to organize regional wind power developments. To do do this work, they must have project-based ventures that are funded by outside sources, often national or regional financiers or the EU. This leads to regional strategic wind power programmes being shaped by what financiers think is important in the region, rather than the actors themselves. Time-limited projects are less suited to handle issues long-term and can struggle to adapt for sudden events like the energy crisis.

Local public policy actors see themselves as less proactive in designing policies. Instead, they reactively adapt to conditions and demands as they arise. While they have power over permits and municipal planning, wind power strategies for municipal planning were typically not developed until required by national mandate in 2009 and are now often outdated or ineffective for offshore wind developments. There is also a perception that local voter opinion and landscape conditions limit local decision-making more than regional or national goals or policies do.

“Regional authorities have no influence on us at all. We take care of ourselves. [...] We are an independent authority that makes a judgement by looking at environmental assessments, the landscape, and planning regulations.” (Interviewee D, local public policy actor)

7.4.2 Conflicts and Collaborations for Adaptations

A significant source of conflicts for the actors is the political debate around wind power in the latest years, which has been characterized by polarizing wind power developments against nuclear energy support between the party blocs, nationally but also regionally and locally. Incumbent firms and public policy actors agree that this debate gets in the way of constructive solutions for the energy system.

“When we created planning materials for wind power to add to the master plan, we experienced some delays. People in [municipal] leadership positions didn’t always agree. The work with wind power is driven by individuals.” (Interviewee D, local public policy actor)

Table 12: Actor Conflicts and Collaborations in Adapting to Policies.

Aspect of adaptation	Incumbent firms	Public policy actors (regional and local)	Facilitating actor	Fringe Actor
Conflict	<ul style="list-style-type: none"> • Moving projects further out at sea lead to more expensive grid connections. • Political wind vs nuclear debate gets in the way of constructive solutions. • Companies move offshore where development is more expensive since on-land gets blocked by vetoes. • Competition between permits at sea creates years of investigations that may not pay off. • Climate and energy interests come after all other local interests. 	<ul style="list-style-type: none"> • National political conflicts create inconsistent institutional support. • National wind power planning is not implemented regionally with a budget. Regional goals are then created without regional action plans. • Certain public sector leaders have not approved of wind power, therefore regional and local planning were not as well implemented as it could have been. 	None described.	<ul style="list-style-type: none"> • While some members think wind power suits some locations, some are against it everywhere. Their statement is therefore that no wind power should be developed.
Collaboration	<ul style="list-style-type: none"> • Holding obligatory consultations (samråd) to adapt projects to needs and demands of authorities and locals. 	<ul style="list-style-type: none"> • Regional and national permit administrators meet and share knowledge regularly. • Regional authorities collaborated to create planning materials, Effect Commission. 	<ul style="list-style-type: none"> • Regional funding is important for suddenly needed support in the region, which existing funding programmes are not flexible enough to fund. 	<ul style="list-style-type: none"> • Working with locals to protest developments in the most effective ways.

Compiled by author, based on interviews in Appendix 5.

Since public institutions often lack national mandate to work extensively with wind power, strategic aspects of wind power planning are primarily organized by individuals in the organization and become dependent on those individuals. This makes public policymaking lack long-term consistency and coordination. National political platforms further lack cross-bloc collaboration, resulting in national energy strategies being inconsistent or non-existent. One key example is how the government announced free transmission grid connections in 2019 which instigated many new permit applications for offshore around Skåne. These connections then got cancelled after the 2022 election. Inconsistent policy conditions make it difficult for market actors to adapt and predict changes in permit conditions, and for local and regional public servants to design steering documents for wind power developments to make up for the lack of national direction.

Incumbent firms and the regional policy actor agree that in Sweden and Skåne, there is in general a lack of cross-actor collaboration to adapt to the growing need of sustainable energy production due to not agreeing on the common benefits that can be brought with wind power developments. Politicians on local and national levels are perceived as not supportive of the wind power industry, and public-private collaborations for regional wind power development struggle to develop in Skåne despite having positive examples in other Nordic countries. To make up for this, regional public policy actors have recurrently initiated collaborations intended to further local energy production, such as funding the Energy Commission to support local energy production as a response to the energy crisis, or creating wind studies for southern Sweden.

“In Finland or Norway, politicians see that this is good for local industries. They want to make Norwegian and Finnish companies the best in the world [at wind power]. That perspective is completely missing in Sweden, it’s just ‘are you coming here and destroying my view!’ “
(Interviewee B, incumbent firm)

Wind power companies engage with authorities during obligatory consultations in the planning process (samråd), to predict and solve conflicts. However, they do not collaborate much with individual competitors when adapting to permit and development conditions – with competition over permits in certain areas, it is largely each company for itself. Conversely, fringe actors argue that companies do not adequately listen to local desires and values. When incumbent firms propose local economic incentives to prevent use of the municipal veto, the fringe actor perceives it as a form of bribery directed towards decision-makers. Peripheral actors strive to advocate for local values, which vary from opposing wind power in particular places to opposing it everywhere. Their main cause for adaptation is also the interests of their members. Rather than assessing each case to determine the feasibility of wind power development, they have chosen a stance where they oppose development of wind power anywhere in Sweden.

Potential collaborations for adapting to current policies include more extensive public-private and local-regional engagements for supporting energy production in Skåne. This would be a regional adaptation to the current lack of national direction to support development of the wind power sector and the energy demand in the region. New potential conflicts may however occur if the national permit process system would be changed into an auction-system, which the regional public actor would prefer. Such a change would improve coordination and enable more effective use of resources across the whole wind power sector, but also require further adaptations for incumbent firms who already have sunk millions into investigations for permits in the current system. It could potentially also require local public actors to adapt to changes in their currently free use of the municipal veto, which could further induce conflict between local and national interests in wind power development.

8. Discussion

8.1 Where are Opportunity Spaces for Change?

Opportunity spaces are occasions when conditions enable actors to change the trajectory of a development path. Local public actors, facilitating actors, and fringe actors claim to not have thought of regional wind power development as a continual timeline, instead having a shifting focus on projects or specific issues over time. All actors however have a conception of events that influenced the sector's development and growth, and they perceive their own influence in contributing to individual events. By looking at timelines, interviewees experience a stronger ability to define tendencies over time and what role they have in these developments.

Opportunity spaces are limited to certain times and locations and are connected to the abilities of actors. For offshore wind power in Skåne, opportunity spaces are described to occur:

- Locally, when wind power projects cause negotiations between local public actors (municipalities), fringe actors (locals protesting wind power development), and incumbent firms (wind power companies).
- Regionally, when facilitating actors and regional public actors produce information material, arrange conversations between actors, or voice regional needs nationally.
- Nationally, when public actors consider new investigations, laws, regulations, or policies that might change national conditions for wind power actors.

The sector's path development is currently at a critical juncture in path development, induced by the energy crisis that started in 2021 due to the Ukraine-Russia war and upcoming electrification of Swedish society and industries. This means that local, regional, and national institutions may be more accepting towards institutional changes, formally in terms of policies and regulations, and informally in terms of political positions and personal beliefs regarding wind power.

8.2 Who Has Change Agency?

Wind power companies are historically seen as driving actors behind wind power development, and therefore had significant agency in shaping its trajectory. As the sector developed, their agency is however becoming more restricted. While profitable business conditions, strong competition, and innovative technologies have potential to enable structural changes in the sector, their agency as private actors is limited by cumbersome, outdated, or non-existent regulations in public planning and permits.

On the other hand, wind power companies are increasingly visible in media, presenting local economic incentives, and voicing their policy interests to decisionmakers. This mirrors the strategies of fringe actors such as local wind power resistance groups, who also strive to talk to decisionmakers and be seen in media to voice their interests. With increasing local resistance to wind power projects and a current regional and national growing demand for energy production, these approaches grant incumbent firms and fringe actors more 'informal' change agency in policymaking.

Interviewees claim that mainly national and local public actors have agency to change current developments in the sector, since they have authority to implement wind power steering documents and regulations that can reduce political instability and prioritize between conflicting interests around wind power. National politicians are further blamed for not utilizing their agency, as they have long remained inactive instead of strategically handling interest conflicts, organizing the recent influx of permit applications, or planning for future developments of energy production in Sweden. Regional public authorities and facilitating organizations lack formal agency over decision-making on local or national scales, but achieve agency by creating conversation forums and developing regional knowledge which can open discussions around conflicts. However, due to not having budgets to work with wind power issues long-term, they are dependent on short-term project funding from external sources to provide such forums or materials. They also lack power to influence national or local policymaking beyond providing information and support. This reduces their ability to capture opportunity spaces to change conditions in the region.

“There is both a business opportunity and benefits for society in wind power. [...] We need to keep those separate.” (Interviewee G, facilitating actor)

Both economic and non-economic impacts of wind power play a role when actors choose to act – or not to act – on opportunity spaces in the sector. Economic factors such as local economic benefits are believed to increase local acceptance of wind power, and national politicians cancelling free transmission grid connections was perceived as a let-down as it unexpectedly increased costs for developers. The high energy prices have also been a significant motivator for politicians to engage in wind power development. On the other hand, conflicts around wind power’s negative local impacts versus benefit to energy production and the climate transition, are shaped by *“soft values”* (Interviewee E, 2023) such as political ideologies or group identities. While using economic arguments, decisions may be shaped by personal ideals and political positioning more than economic cost-benefit analyses.

9. Conclusion

This thesis explores how regional and local actors perceive the path development of offshore wind power in Skåne between 2000 and March 2023, how they have adapted to policies in path development, and how actors strategize to influence policymaking for their benefit. Path development and actor perceptions were studied using thematic analysis of development reports, strategic steering documents, and interviews with local and national wind power actors. Interviewed actors include wind power companies, a regional authority, municipalities, a facilitating support actor, and an organization supporting local anti-wind power movements. The results contribute to path development literature by exploring often-unseen interactions between policies and actors. By outlining how actors shape a perceived path trajectory through their adaptations and strategies for influence in a sector characterized by conflicting interests, this thesis develops understandings of agency in opportunity spaces for path development in a region.

9.1 What has Characterized the Development Path of Offshore Wind Power in Skåne?

The development path is mainly characterized by a long-term public institutional inaction, while the private sector has undergone significant developments in technology, resources, and profitability since the 2000's. Three critical junctures for path development are identified: 1) National target for offshore wind, when energy certificates were implemented nationally and initially made wind power investments more profitable; 2) a new permit process, which implemented the municipal veto which since has been a major hurdle for developing wind power parks; and 3) the energy crisis, when high energy prices combined with new demand for regional electricity production which provided new political motivation to support offshore wind power development.

During this time, interest conflicts around wind power development have limited radical path shifts in policymaking. Shifts have largely consisted of incremental changes within the current system, despite significant market developments in the private sector, and actors therefore tend to perceive the development path less as a trajectory and more as a “*gray mess*” (Interviewee F, 2023) of actors and policies pulling in different directions.

9.2 How Do Local, Regional, and National Policies Shape the Development Path of Offshore Wind Power in Skåne?

Policy developments – and lack of policy developments – in the sector have been protested and demanded by local, regional, and national actors since the 2000’s up until now. A lack of knowledge among policymakers has over time combined with political polarization of wind power to create long-standing interest conflicts in permit processes and policymaking locally and nationally, which have made politicians avoidant to implement policy changes to support the growing wind power market. One example is the municipal veto which was implemented in the national permit reform of 2009 to satisfy municipal interests, and in 2021 was used to block 76% of wind power permits. Municipalities often lack strategic plans in decisions for offshore developments, instead being guided by impacts in the landscape and local voter opinion. This is due to now local interest in offshore wind power development, combined with a lack of national regulation of local wind power policymaking. Regional authorities and the facilitating support actor in turn strive to enhance local understandings of the need for energy production, but lack resources in the form of financial long-term support.

National policymaking has lagged behind the needs of permit authorities, who need more resources and national support to catch up on a sudden influx of permit applications for offshore developments. The wind power market is developing faster than regulations can adapt with a lack of top-down organization and oversight, and policymakers often do not have full knowledge of needs and possibilities in the energy system. These conditions create gaps in policy between local, regional, and national authorities, further caused by the fact that no actor has full responsibility for the development of sustainable energy production in Sweden and Skåne. With the energy crisis now causing high energy prices and industries demanding more energy production, actors hope that some conflicts might be solved in upcoming policy changes.

9.3 How are Perceived Policy Conditions Reflected in Local and Regional Actor Perceptions, Adaptations, and Strategies Surrounding Policies?

Interviewed actors perceive that the national government has long failed to assign strategic responsibility for the development of energy production, which has shifted the power over offshore wind power developments to local policy conditions rather than regional or national policies. The energy crisis as a critical juncture is an opportunity to re-shape these institutional conditions for offshore wind power. Their perceptions however differ in how policy-related conflicts should be resolved, notably regarding the long-contested municipal veto for permits in the Swedish territorial zone, the lack of national coordination in permit processes and energy infrastructure development, and the priority of energy production and climate benefits compared to local interests.

Actors must adapt to policies to follow regulations in permit procedures and to achieve goals despite being limited by policymaking. These adaptations are also lined with conflicting interests, since conflicting interests cause actors to hinder each other in attempts to achieve their goals in the sector. While competing companies do not have much conflict besides competing for permits, it is instead interest conflicts between local and national policymakers, and between anti-wind locals and pro-wind companies and regional and national policymakers, that cause issues for actors to achieve their goals in sea landscapes of competing interests. A significant source of debate for actors is the political debate around wind power in the latest years, which has been characterized by polarizing wind power developments against nuclear energy between the party blocs, nationally but also regionally and locally. Incumbent firms and public policy actors agree that this debate gets in the way of constructive solutions for the energy system.

Communication and knowledge-sharing are the main tools actors use to strategically influence policymaking and decisions for wind power. Attempts to influence other actors are typically restricted by other actors exerting their influence with opposing interests. This is combined with decisionmakers often lacking interest and knowledge of wind power development conditions and the energy system, and so after years of actors pushing for policy changes in permits, not much response has been given from politicians or policymakers nationally or locally. Regional authorities and facilitating support organizations are more attuned to needs in the regional sector but lack resources and institutional agency to shape local or national policies. It is instead external and economic influences that are now creating new engagement for policy changes, in the shape of the energy crisis, the climate transition, and energy demands for industrial developments.

9.4 Policy Recommendations

Nationally, a long-term, cross-party agreement for the future development of energy infrastructure would enable predictability and stability in wind power policies, according to interviewed private and public actors. Further national guidance and support in local and regional decision-making was also requested, both to provide more resources and to clarify and raise the priority of energy production and climate interests against and other, local interests. This may however require changes in the municipal veto, which would impact the sense of self-determination in municipalities. Furthermore, several interviewees recommend that the permit process should transition to an auction-based system to handle the current lack of energy system coordination and oversight – although this may worsen opportunities for profit, short-term increase uncertainty among private actors, and reduce municipal control over projects along their coasts.

Many interviewed actors lack awareness of how regional actors jointly shape Skåne's development over time. Regional forums where actors with conflicting interests can meet and discuss may be important to further a sense of regional identity in the sector. Highlighting regional benefits could foster more cross-actor collaborations and develop a joint identity for stakeholders in Skåne's energy production. Finally, private actors could engage more locally to gain support, through open discussions about mutual local benefits and by finding ways to enhance local values such as self-determination and nature experiences.

Since March 2023 when material was collected for this thesis, national investigations have been published. These include new recommended areas for offshore wind, which could not identify any sites without conflicts of interest (Swedish Energy Agency, 2023), and an investigation for local reimbursement for wind power which could not propose significant policy changes due to its many assignment restrictions (Jönsson, 2023). Finally, the government approved permits for two offshore wind parks around Skåne: Galatea-Galene and Kattegatt Syd (Silverberg, 2023). These developments can be understood as steps in the government's slow turn towards wind power to handle Sweden's and Skåne's energy demand, and conflicts that frame such attempts. It remains to be seen if national policy changes will follow.

9.5 Avenues for Further Research

While this thesis investigates actors relevant for regional path development, there is potential to study national public policy actors to better understand conflicts in national policymaking. They include the government and national politicians, but also public agencies such as the Swedish Energy Agency, the Environmental Protection Agency, and the Swedish Defence. Furthermore, to reduce dependence on Russian fossil fuels and speed up the transition to a fossil-free economy, the European Parliament is negotiating wind power policies for the development plan RepowerEU (European Commission, 2022). Here is potential to investigate how European policies influence European wind power actors, and to study wind power companies' agency in decision-making in the European Union.

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Interviewee B (2023). Incumbent actor. Interview conducted 11th of April 2023 on Zoom. 52 minutes. Recorded.

Interviewee C (2023). Incumbent actor. Interview conducted 21st of April 2023 on Zoom. 59 minutes. Recorded.

Interviewee D (2023). Local public policy actor. Interview conducted 4th of April 2023 on Teams. 1 hour 0 minutes. Recorded.

Interviewee E (2023). Local public policy actor. Interview conducted 6th of April 2023 on Zoom. 59 minutes. Recorded.

Interviewee F (2023). Regional public policy actor. Interview conducted 5th of April 2023 on Zoom. 1 hour 9 minutes. Recorded.

Interviewee G (2023). Facilitating actor. Interview conducted 3rd of April 2023 on Zoom. 1 hour 1 minute. Recorded.

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Appendix

Appendix 1: Semi-Structured Interview Guide.

Introduction (5 minutes)

- You will be anonymous. Is it alright if I record this interview? (Otherwise take notes.)
- The thesis explores the development of conditions for offshore wind power in Skåne, more specifically how various actors have experienced this development. This means that I am interested in your subjective perspective.
- About the process: I will show two timelines of the development for offshore wind power and ask about how your organization experienced the events in the timelines.

Background of interviewee (5 minutes)

- What is your role in your organization?
- How long have you worked/been active in your organization?
- How is your organization practically working with offshore wind power today?
- What is your organization's aim in offshore wind power?

Timeline: Historical developments in Skåne (10-15 minutes)

- Quickly going through content
- Do you agree with this timeline? Anything missing or should be described differently? How/what/why?
- According to your experiences, how was your organization affected throughout these shifts?
- How do you think your organization might have contributed to these shifts? (on your own or with other actors)

- What did you organization do? What was the setoff factor for doing what you did? (ask for concrete examples)

Timeline: Strategic shifts that have affected Skåne (10-15 minutes)

- Quickly going through content
- Do you agree with this timeline? Anything missing or should be described differently? How/what/why?
- According to your experiences, how was your organization affected throughout these shifts?
- How do you think your organization might have contributed to these shifts? (on your own or with other actors)
- What did you organization do? What was the setoff factor for doing what you did? (ask for concrete examples)

Final Reflections (5-10 minutes)

- As we now have looked back on how your organization has approached various conditions, do you believe that your organization has had its own strategies behind how you approach municipal, regional, national governance in wind power? What strategies? Why/why not?
- How do you wish that public strategies for wind power development should develop in the future – locally, regionally, nationally? (Ideal future scenario)

End (2 minutes)

- I have now asked all my questions. Do you have anything else you want to bring up on the subject?
- It was very interesting to hear your perspective! Thank you for participating.
- The thesis will be finished in beginning of June, I would be glad to send you a copy.
- Have a nice day!

Appendix 2: Summary of Development Reports, 2000 – March 2023.

No.	Report	Year	Publisher	Content
1.	<i>Vindkraft I Skåne: Analys och konsekvenser.</i> [Wind Power in Skåne: Analysis and Consequences.] 56 pages.	2003	Swedish Environmental Protection Agency	Due to national energy politics leading to expected increase in wind power in skåne, this report presents an information base of potentials and consequences of wind power in Skåne. Presents national goals for wind power.
2.	<i>Styrmedel för havsbaserad vindkraft.</i> [Incentives for Offshore Wind Power.] 58 pages.	2009	Swedish Energy Agency	After wind power in Sweden being deprioritized for 30+ years, political interest has recently grown as seen in new targets for developing wind power. To support the development of wind power offshore, this report outlines existing incentives and suggests further incentives to reach these targets.
3.	<i>Vindkraft I Skåne – Analys och konsekvenser av olika scenarier.</i> [Wind Power in Skåne – Analysis and Consequences of Different Scenarios.] 56 pages (part 1) + 62 pages (part 2).	2013	County Administrative Board of Skåne	Part 1: Summary of potential scenarios for windpower in Skåne at the time. Part 2: Facts and outline of potential and regulations for wind power at the time.
4.	<i>Havsbaserad vindkraft – potential och kostnad.</i> [Sea-Based Wind Power – Potential and Costs.] 139 pages.	2017	Swedish Energy Agency	Investigation of the potential market for offshore wind power in Sweden, and an analysis of how a potential Swedish increase in wind power may impact socioeconomically as work opportunities and investments.
5.	<i>Scenario för det skånska elsystemet – Elproduktion idag, 2030 och 2040.</i> [Scenario for the Scanian Energy System – Energy Production Today, 2030 and 2040.] 16 pages.	2020	Region Skåne	Overview of lacking energy production capacity in Skåne and how this will impact companies and populations in the region. Outlines future scenarios with potential energy investments.

6.	<i>Långsiktig marknadsanalys 2021.</i> [Long-Term Market Analysis 2021.] 118 pages.	2022	Svenska Kraftnät	Presents Svenska Kraftnät's long term scenarios for the Nordic energy system up to 2050 to identify future needs and challenges.
7.	<i>Energiläget i Skåne – lägesrapport hösten 2022.</i> [Energy Situation in Skåne – Status Report Autumn 2022.] 20 pages.	2022	Skåne Effect Commission	Summary of the lack of production behind soaring electricity prices in Skåne. Outlines short-term regional solutions to handle the European energy crisis in the Ukraine-Russia war together with Scania's dependence on importing electricity to meet demand.
8.	<i>Startprogram för mer vindkraft.</i> [Start Programme for More Wind Power.] 74 pages.	2023	Confederation of Swedish Enterprise	Outlines current conditions of onshore and offshore wind power in Sweden and suggests proposals for how the government should act in the next year to promote increased development of wind power. Current challenges to wind power development are described as polarized discussion and local resistance, and solutions include simplified permit processes and more governmental support for wind power such as subventioned network connections and forward-thinking strategies.

Reports selected and compiled by author.

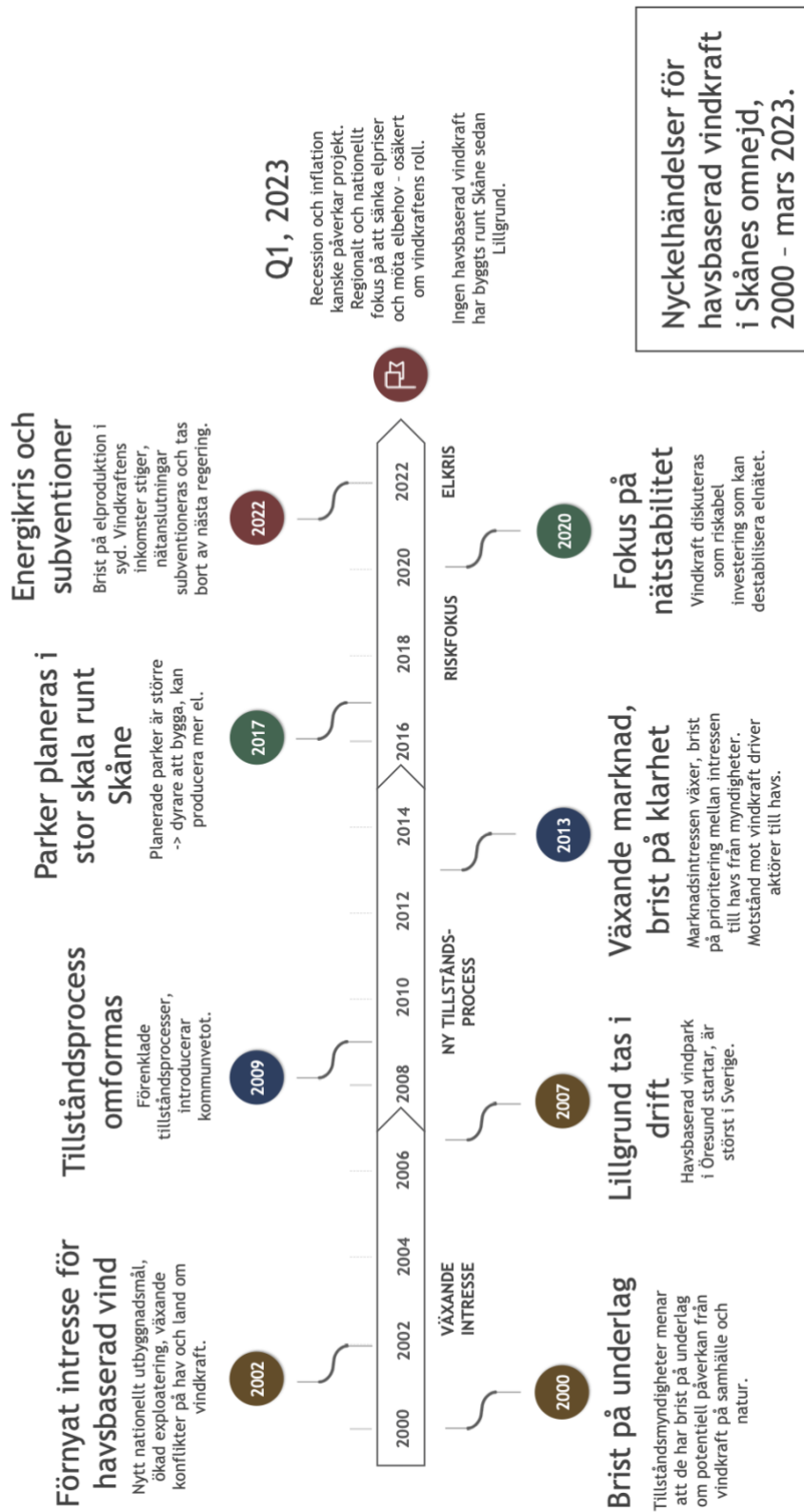
Appendix 3: Compilation of Steering Documents, 2000 – March 2023.

<i>Policy</i>	<i>Timeframe</i>	<i>Scale</i>	<i>Target actors</i>	<i>Incentives</i>
Swedish Government Office (2008). <i>En sammanhållen klimat- och energipolitik</i> . [A Cohesive Climate and Energy Policy Platform.]	2008-2020	National	All levels of public sector involved in planning or permits for wind power.	Proposes new goals for developing wind power on land and at sea, better network connections with neighboring countries in Östersjön to make offshore wind power more profitable, investments in wind power technology development, and a simplified planning process for wind power (also introduces the municipal veto in municipal seas). Taxes and subventions are to be used to support market shifts towards fossil-free energy alternatives.
Swedish Government Office (2009). <i>En hållbar energi- och klimatpolitik för miljö, konkurrenskraft och trygghet</i> . [Sustainable Energy- and Climate Agreement for Environment, Competitiveness, and Safety.]	2009-2019	National	Agreement for politicians in the centre-right party bloc “the Alliance” in the national Riksdag.	Clarifies long-time goals for energy politics to provide predictability in the energy sector. Sets goal of 50% renewable energy to 2020 and to develop wind power further to reduce dependence on existing energy sources. Aims to develop the energy certificate system, increase cross-country EU energy investments, simplify the planning process, and further consider conditions for wind power such as network connections.
Sea and Water Authority (2022). <i>Havsplaner för Bottniska viken, Östersjön och Västerhavet</i> . [Sea Plans for the Gulf of Botnia, the Baltic Sea and the Western Sea.]	2022-2030	National	National, regional, and local authorities that plan, give permits, develop or administer sea areas.	Represent state interests in the sea in particular areas, to help guide decision-making and predictability. Sets goal of increased renewable energy production at sea. Points out areas around Skåne suitable for wind power according to national interests.

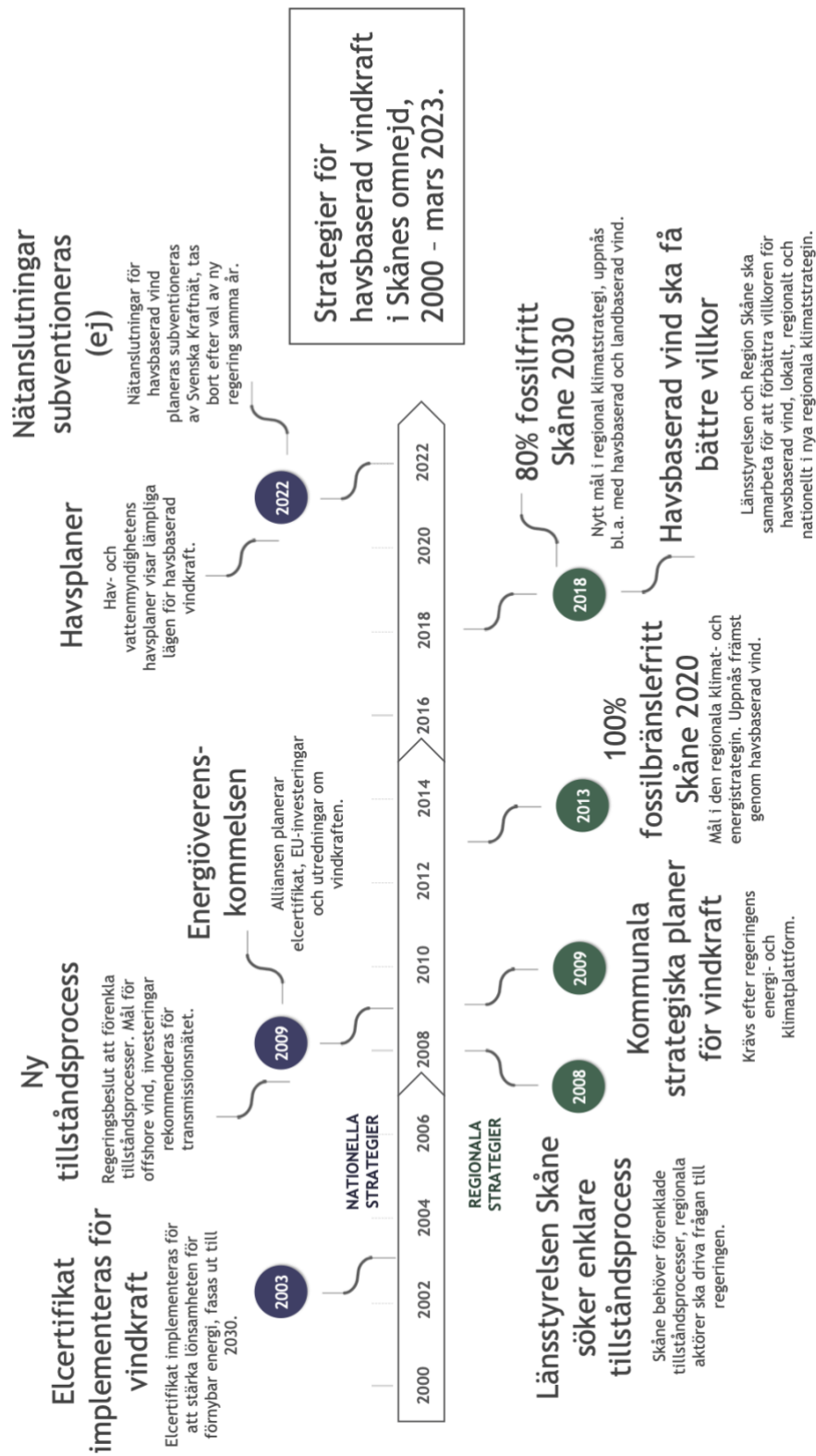
County Administrative Board of Skåne (2013). <i>Klimat och energistrategi för Skåne</i> . [Climate and Energy Strategy for Skåne.]	2008-2018. Updated 2013 to show progress in climate and energy goals.	Regional	Regional public actors, municipalities, companies, and energy companies.	Points to means of control on national, regional, and local levels, such as carbon dioxide taxes and subventions for wind energy for users and producers. Municipalities should provide strategic plans to show opportunities for wind power development. Local and national initiatives should be made to simplify permit processes for renewables. All municipalities should have plans for reducing their climate impact. The private sector is encouraged to participate in environmental initiatives.
County Administrative Board of Skåne (2018). <i>Klimat- och energistrategi för Skåne</i> . [Climate- and Energy Strategy for Skåne.]	2018-2030	Regional	The Regional Board, Region Skåne, and other regional collaborations .	Provides key targets for climate and energy toward 2030 for regional actors to work toward. One of the targets is: “improve conditions for wind power” – in particular at sea.
Skåne Wind Power Academy (2021). <i>Kommunplaner</i> . [Municipal Plans.]	2000-2021 (varies when strategies were made between municipalities)	Local	Wind power developers, municipal planners processing wind power permits.	Approaches by municipalities range from pointing out certain areas as suitable for wind power, to avoiding wind turbines in certain areas, to not encouraging offshore wind power anywhere. Openness to offshore wind power depends on which municipality has written the plan and what local parties were in rule when it was written.

Categorization of policies interpreted from Kurikka et al, 2022, p.6. Policy selection made by author.

Appendix 4: Timeline Tools in Interviews – Swedish Version.



Timeline made by author as a tool in interviews, based on reports in Appendix 2.



Timeline made by author as a tool in interviews, based on steering documents in Appendix 3.

Appendix 5: Compiled Coding Results from Interviews.

<i>Theme</i>	<i>Incumbent firms</i>	<i>Public policy actors (regional and local)</i>	<i>Facilitating actor</i>	<i>Fringe Actor</i>
Enabler perception	<ul style="list-style-type: none"> Acceptance is high towards already existing wind power parks, is promising for the future and shows a good example of how it can be beneficial for sea floors (A, B) Energy price conditions creates boost in interest for wind power across the board, forums like the Skåne Effect Commission are created. Wind power is more relevant for decision-makers, wider population (B, C) The fact that wind power gets little subsidies means that it is a mature, competitive sector on its own (C) 	<ul style="list-style-type: none"> EU energy certificates are more profitable than Swedish ones for municipalities owning wind power (D). The energy crisis and climate crisis has recently renewed municipal and regional interest in renewables (D, E). When municipality is made involved and gain from wind power developments, politicians become more positive (E) Real market attention came in 2019 when government announced energy grid connections offshore – clear national signal (F) 	<ul style="list-style-type: none"> Energy certificates opened business possibilities for renewable energy production (G) There have been many national investigations into how to increase wind power developments. Some of these might eventually result in law and policy changes that can give positive effects (G) 	<ul style="list-style-type: none"> Many large projects are being planned around Skåne currently due to large market interests, especially with EU pressure to increase renewables (H) An imbalance in power between large companies and impacted locals results in large parks being planned despite local resistance (H) Wind power has been enabled by many subsidies, and recently almost got free grid connections at sea (H) Was investigated nationally if municipal veto and the defence's permit roles should be changed/reduced (H) Media prefers to talk about the positive sides of wind power, reflects a general perception. Local resistance is run by NIMBY tendencies, they do not resist wind power in general but do not want it close to them, rather than understanding all the negative sides of wind power (H)
Obstacle perception	<ul style="list-style-type: none"> There is a struggle to time all permits to each other, as they sometimes run out before another is given and in relation to grid connections. This has ended projects (A, B) wind power is today not restricted by technology, but by the permit process (C) Permits take way too long to get and tend to get bounced around between authorities. Lack of organization, communication, investigation regarding veto (B, C) Permits are becoming more and more complicated to get (B) Ending the grid expansion at sea made projects more expensive and is risking some projects' realization (A, B, C) 	<ul style="list-style-type: none"> Regional authorities struggle to process the massive amount of work to process permits that is required today, and when companies are in the same area it doubles the work without results. This creates a sense of many parks being planned despite all not being able to be built due to infrastructural limitations. This creates aversion to false risks and more denied permits, when real impacts at sea are typically lower than expected (F) A lack of predictability of the wind power expansions create worry for authorities and make their work harder, not just companies (F) Currently, large energy deficits and insufficient energy 	<ul style="list-style-type: none"> Insecurity for developments grew since there just was a national election where the new government does not have a clear position in wind power yet (G) Energy issues were not really discussed before 2016 maybe – was not considered an issue, energy prices were cheap, low market activities around wind power, overproduction of energy nationally. Then there were less opportunities for developing wind power, less profits for companies (G) 	<ul style="list-style-type: none"> The environmental party is one of the parties that have stopped wind power projects around Skåne – what does that say about its environmental impact? (H) By trying to remove the municipal veto and introduce local economic incentives, local democracy is being dismantled and bribed (H) Municipalities are becoming more aware of the negative impacts of wind power (H) Since energy gets exported to other countries, is increased production really the

	<ul style="list-style-type: none"> • Changes at the county administrative boards made them lose key wind power competence which caused problems when large parks were planned and submitted permit requests (A) • Sweden has not had much business incentives compared to Denmark- therefore sector developed slower. Certificates do not impact current development, though people think it is subsidized (B, C) • There is a large amount of misinformation around wind power in Sweden, that decisionmakers often believe in. Gets in the way of the real issues around wind power (B, C) • National, regional, and local policies are too disconnected, there is no common path forward (B) • Letting markets develop too long without intervention now makes it hard to change things (C) 	<p>grids prevent necessary developments and give less hope for the future of wind power (D)</p> <ul style="list-style-type: none"> • There is a NIMBY-tendency where nobody wants it in their waters, which makes everybody suffer (E, F) • The lack of capacity in the energy grid is a bottleneck for wind power development at sea, it is hard to proactively time these developments with uncertain project timelines (F) 	<ul style="list-style-type: none"> • There are national intentions to build nuclear power instead of wind power, but that does not have a realistic time horizon to meet demand for energy in time. We have barely had any reasonable national energy strategies, and there has been no functional national discussion around this issue (G) • Wind power projects have become far cheaper, more profitable, more competitive over time (G) • The lack of awareness of costs and benefits in energy production results in decisions being made (or not being made) without understanding the economic impact. Politicians are making decisions without looking at the data (G) 	<p>main purpose of companies? Perhaps it is rather to sell the energy for high prices (H)</p> <ul style="list-style-type: none"> • There is no clear national planning for energy production, just doing everything at the same time with no coordination. Individual companies have no responsibility for national needs, although they might feel like they do a little bit. Svenska Kraftnät has responsibility over the grid but cannot design where production is, that is done by the market (H) • Wind power production is unpredictable, cannot respond to the energy demand all the time (H) • Rare species protection and The Swedish Defense have stopped projects when municipalities cannot (H) • Jobs from wind power projects usually come from companies from other countries, does not create many local jobs (H)
Neutral/ mixed perception	<ul style="list-style-type: none"> • It is great that regional authorities want to support wind power but it also needs to happen in municipalities, region does not have much power (B, C) • The 2008 finance crisis and low energy prices made wind power unprofitable which made companies downscale and be less active. They have bounced back as building wind parks became cheaper but it influenced developments for a time (B) • There were not as many protests from locals when Lillgrund was built. Nowadays it is more complicated – social media has made it easier to run a resistance campaign (A) • With high energy prices, national politics are changing to be more interested in wind power. Remains to see what outcome that will have (A, C) • Worries around grid stability with wind power are exaggerated– is relevant but 	<ul style="list-style-type: none"> • Current municipal wind power planning supports developments at sea, since land-conditions does not work for wind development (D, E). Yet municipal master plans are often not updated for offshore wind interests, just on-shore (F) • Regional targets about climate/fossil neutrality are more visions than realistic goals a lot of the time. • The current ruling national party is slowly becoming more pro wind power after being against it (D). • The energy crisis has increased pressure on decisionmakers to enable wind power, but economic instability increases unpredictability of developments (D). • Before municipal veto the municipality struggled to impact wind power development due to municipal planning not being able to 	<ul style="list-style-type: none"> • Since investments in wind parks are not based on 'normal' bank loans but rather other markets, the current recession does not necessarily impact finances of wind power projects (G) 	<ul style="list-style-type: none"> • There is a lack of facts in wind power discussions. Often people just think and hearsay instead of looking at facts. Locals often investigate projects more, local politicians are often too busy to make fact-based decisions. If more people had all the facts, wind power would not be an alternative in many cases (H)

	<p>other countries have solved it, there are techniques that can be implemented. I sometimes taken out of proportion (B, C)</p> <ul style="list-style-type: none"> • Sea plans were good initiative but not sufficient to meet lack of national control and strategic planning, due to not marking enough areas for the need of energy and for market interests. It is too hard to find areas without interest conflict. Being in these maps is significant for permits (B, C) • Municipal planning do not sufficiently take offshore wind into account in an applicable way, due to the time they were made (C) 	<p>predict where future projects would come up (E, D)</p> <ul style="list-style-type: none"> • The changed permit process did not improve, has always been bad. Once municipalities have veto they want to keep it (D, E) • Wishes to protect municipal cultural landscape has stopped projects on-land, instead the municipality prefers wind power at sea. (E) • Has not noticed an increase in market interests for wind power offshore before now (E) • The municipal veto did not fundamentally change the municipal permit process – they still do an assessment, just that the municipality does not have to motivate the outcome (E) • Grid network stability or expansion, nor economic impact has not had a role in municipal decisionmaking for wind power. The debate is rather formed from “soft values” (E) 		
Strategy goal	<ul style="list-style-type: none"> • To get more permits and projects approved (A, B, C) • To be able to develop wind power in the most suitable areas (C) • To take part in the climate transition (C) 	<ul style="list-style-type: none"> • (Municipal) To support wind power development and have clear intentions towards developers (D) • (Municipal) Have wind parks that are less visible, out at sea, to not upset locals or the landscape (E) • (Regional) To realise the regional climate and energy strategy (F) 	<ul style="list-style-type: none"> • To increase energy production in the region (G) • To emphasize the energy needs of the whole region, not just individual stakeholders (G) 	<ul style="list-style-type: none"> • Ideally, to stop wind power projects where they do not belong in the landscape. In principle, to prevent all wind power projects since it is hard to make specific judgements of locations (H) • To engage new members (H)
Strategy approach	<ul style="list-style-type: none"> • Current strategy of decisionmakers is to say no to wind power (B, C) • Regional authorities are not meant to influence individual municipalities, therefore, regional authorities do not speak directly to municipalities about energy issues (A, C) • Companies cannot affect much regionally, they aim to change things locally or nationally due to having projects in different places in Sweden (A, B) • Company strategy in permits is to always be transparent, available and include all interested parties. That way they hope to find solutions to conflicts (A, B) • Companies have historically focused on making a good application more than marketing and public opinion (A, B) 	<ul style="list-style-type: none"> • (Regional) Currently there is more proactivity among actors. Increasingly taking inspiration from other countries instead of looking inwards (F) • Regional authorities have advocated nationally for an auction-based system to handle the messy permit system (F) • Due to lack of knowledge and lack of national engagement, regional authorities created their own information material for wind power (F). • Regional authorities are asking government for more budget to handle wind power development. Due to lack of budget they are turning to project financialization to work more to strategize around developments (F) • Market actors initially developed solutions for local benefits, then stopped. Public actors did not pick this up, has 	<ul style="list-style-type: none"> • Conducting activities and projects to enable dialogues between stakeholders, while trying to set the agenda regionally/ nationally (G) • Developers are starting local incentives to get municipal support for wind power development (G) • As a project-financed organization, the focus in wind power issues is dictated by what members and financing organizations prioritize. This leads to a ‘wide net’ of engagements that vary over time (G) • Politicians use resistance against wind power to win 	<ul style="list-style-type: none"> • When supporting locals against a project, it is easiest to have an impact on projects in the territorial zone by influencing politicians to use the municipal veto (H) • Writing news articles locally, regionally, nationally, sending facts and reports about wind power to decisionmakers, speaking in TV and radio are ways to try to affect decisions around wind power (H) • Through influence of their members they have mostly affected opinions locally, but also nationally in permit processes (remisser, public opinion). It is harder to reach national politicians (H)

		<p>not been anyone's responsibility (F)</p> <ul style="list-style-type: none"> • After a wind park was established in the municipality, political interest may have reduced since they could show off an existing park (D). • Public servants worked to include wind power areas in the municipal master planning to prevent municipal vetoes (D). • There is ongoing municipal coordination for wind power development and strategic policymaking (D). • The municipality influences national decisions through referrals/remisser (D). • Wind power politics are shaped by "soft values": identities, ideologies, perceptions of local opinion. Arguments from the national debate are used to justify the position. Economic aspects for the municipality are not considered (E) 	<p>elections. After the election, many have nuanced their opinions (G)</p>	<ul style="list-style-type: none"> • The wind power industry has strong lobbyists that are shaping the national conversation (H)
<p>Strategy conflict</p>	<ul style="list-style-type: none"> • Lack of wind industry engagement in public opinion led to growing local resistance. Early municipal voting on wind power resulted in failed project due to lack of industry engagement. This is still used as motivation to stop wind power in some municipalities (C) • Wind power resistance typically comes from a small but loud minority. The pro-wind majority will not go out and protest if no wind power is built. Pro-wind actors need to mobilize and communicate better (A, C) • Municipal politicians stop projects from being tested in the environmental court despite not being the ones conducting the environmental investigation. This makes the discussion NIMBY-driven (B) due to the municipal veto (C) • Companies struggle to fight misinformation around wind power due to not being perceived as 'believable' (B) • National support for wind power did not focus on offshore, was behind market developments (A, B) • Auction-based permit systems are best for society but not necessarily for individual wind companies (C) • Energy areas in Sweden were created to make more 	<ul style="list-style-type: none"> • There are many target conflicts within regional strategies due to having many missions at once. Developments are limited by many things beyond technology (F) • Municipal wind power plans were made before offshore was big, do not give direction for offshore development (E) • Decisions for wind power are based on impacts on residents, landscape views, where buildings are (D, E). • Wind power is only relevant in short periods on an inspection/ infrastructure/ permit level. Municipalities lack time to research it themselves. Due to this, they do not see large scale impacts of decisions (E) • Wind power strategy is still motivated by individuals in municipalities more than organizational responsibility, results in struggles to make decisions and discussions happen (D) • Even if national or regional decisionmakers or other municipalities make strategies, this will not influence wind power strategies in municipalities. They act according to their own interests (E). • The municipality does not want to take on more than 	<ul style="list-style-type: none"> • It is hard to make strategies for the future since wind power technology and conditions are quickly changing. Therefore, long-term energy strategies are sometimes avoided (G) • Some local politicians avoid energy politics due to energy discussion leading to renewables which leads to wind power, which is political taboo locally. Then you cannot have a conversation about wind power (G) 	<ul style="list-style-type: none"> • Due to the amount of permit applications, regional authorities at the county administrative board do not have time to in-depth investigate each application. There is a general lack of competence around wind power in the regions in Sweden (H) • National parties that support wind power get very disliked by locals in the countryside (H) • There is no clear national planning or coordination for energy production. Individual companies have no responsibility for national needs, although they might feel like they do. Svenska Kraftnät has responsibility over the energy grid but cannot design where production is, that is done by the market (H) • Jobs from wind power projects usually come from companies from other countries, does not create many local jobs (H)

	<p>electricity production more profitable in low-producing areas, but permits prevent more production. Therefore energy becomes more expensive (B)</p>	<p>other municipalities. On the other hand, they realize it is unfair how little Skåne is building in comparison to northern Sweden (E)</p> <ul style="list-style-type: none"> • Locals often do not agree regarding wind power at sea – some think it is beautiful, some think it is ugly, blinking, not Swedish (foreign wind companies) (E) • Due to anti-wind power municipalities there is a regional and national discussion of removing the veto and provide local benefits instead. That might have positive impact but the municipality wants to keep it. Other values of locals come before economic local benefits according to the municipality (E) 		
<p>Strategy collaboration</p>	<ul style="list-style-type: none"> • By providing local benefits to municipalities that often struggle economically, both can benefit from wind power with work opportunities, taxes, lower energy prices, enable electrification and so on. Is all about affecting public opinion (A, B, C) • When a municipality is made involved and gain from wind power developments, politicians become more positive (E) • Sometimes companies can speak with national politicians and other large players (A) • Wind companies primarily voice their interests through their sector organization Swedish Wind Power (A, B) • Large industries speaking out for the need of wind power during the energy crisis to politicians and media, created a national understanding of the economic and climate need of wind power (C) 	<ul style="list-style-type: none"> • Regional authorities aim to lead, coordinate, and collaborate with other actors in the region around sustainable energy production (F) • Pushes from county board and private sector that current strategies are not sufficient made national authorities initiate more direction through sea plans. But this is coming too late for the sector (F) • The municipality networks in the Climate Municipalities to work for better regulations in renewables, but could do more (D) • Regional authorities have no influence on municipal decision-making, and it would not interest the municipality if they tried (E) • The county board provides support and a neutral platform for wind power actors (F) • The municipality does not intentionally copy the wind power policy of other municipalities, but is aware of other municipal strategies (E) 	<ul style="list-style-type: none"> • Municipal planning tries to account for future developer needs to enable future developments (D) 	<ul style="list-style-type: none"> • Their strategy is to make friends with all stakeholders and get them to join their side against the wind power companies that are trying to trick and misdirect any critique against wind power (H) • Tries to talk to and meet with wind companies, to understand projects, how they work and to enable understandings between actors (H) • Rare species protection and The Swedish Defense have stopped projects when municipalities cannot (H)
<p>Adaptation goal</p>	<ul style="list-style-type: none"> • Designing well done permit applications that have a high chance of success (A, B, C) 	<ul style="list-style-type: none"> • To reach municipal sustainability goals by developing renewables (D, E) • (Municipal) Have wind parks that are less visible, out at sea, to not upset locals or the landscape (E) • To reach regional energy and climate goals by developing renewables (D, E) 	<ul style="list-style-type: none"> • To flexibly respond to changing energy issues in the region (G) 	<ul style="list-style-type: none"> • To support local resistance against wind power according to the needs of locals and members (H)
<p>Adaptation approach</p>	<ul style="list-style-type: none"> • Projects are planned further out at sea because there is less local resistance (A, B, C) • Ending the grid expansion at sea means companies had to 	<ul style="list-style-type: none"> • When a national plan was made for wind power development, it was not implemented regionally after the election and thus they had 	<ul style="list-style-type: none"> • Local incentives are being funded by the market since national government does not want to (G) 	<ul style="list-style-type: none"> • Once a park is built, it is too late to protest. Therefore locals stop protesting when the

	<p>recalculate costs and may lead to cancelled projects (A, C)</p> <ul style="list-style-type: none"> • Since the government does not want to fund wind power incentives, companies have started to work more with local economic incentives to get acceptance from municipalities (A). • Companies used to be smaller due to having less resources, but now many are bigger and more active due to better business cases, and can work more with public opinion (B) • Due to local resistance to wind power on-land, many wind companies have diversified to other sectors such as solar energy and offshore wind (B) • National decision-makers stopped changes in municipal veto due to preferring local incentives, which pushes private actors towards funding local incentives themselves (C) 	<p>no budget to implement its contents (F)</p> <ul style="list-style-type: none"> • After attempts to enable wind power projects on land around the municipality failed, less projects have tried (D). • The municipality started working more strategically with wind power after the municipal veto, to improve predictability and prevent the municipality from stopping projects in the future (D) • The energy crisis and climate crisis has recently renewed political interest due to high energy prices, resulting in more strategic planning and organization for renewables regionally and in municipalities (D) • The municipality has not worked with wind power, but rather been a passive receptor for local development. They are not anti wind power, just inactive in its development (E) • Local decision-making for wind power is at the end of the day based on what voters tell politicians (E) 	<ul style="list-style-type: none"> • Due to the energy crisis not being possible to predict, it was not possible to prepare fully for. Now conditions need to adapt to high demand, but not many resources are given to do so. Available project money for renewables is often EU-based or regional (G) 	<p>decision is made and adapt to it (H)</p>
Adaptation conflict	<ul style="list-style-type: none"> • Projects moving further out at sea to get approved permits lead to more expensive energy grid connections for developers (A, B, C) • Current wind vs nuclear power political debate is destructive for developing the energy system (C) • Large increase of municipal resistance, lack of collaboration with military, more profitable technology, and few areas far away from homes lead companies to plan wind power at sea despite there still being places on-land that technically could be exploited (B) • Allowing competition between companies at sea causes more work for companies that might not pay off. Takes many years of investigations and investment (A, C) • Swedish Defense is a bottleneck for wind power, they cannot be negotiated with. Poor communication and hard to get a hold of, causes problems for permits. They are not solution-oriented (A, B) • Currently, climate and energy interests are considered last after every other interest and there is no organization for prioritizing between energy 	<ul style="list-style-type: none"> • National political conflicts around wind power hinder developments due to lack of consistent institutional support for the sector (D). • There is more engagement regionally than nationally. Regional authorities have mission to strengthen wind power but got no budget from national authorities to do so. Instead, they make regional targets that lack a realistic action plan to become realized (F) • Some high level decisionmakers in regional and local offices have not been very interested in wind power strategies, and due to this, public wind power planning is not as well implemented as it could have been. This makes permits more unpredictable (D, F) 	-	-

	interests. E.g., Fishery is prioritized over the climate (B, C)			
Adaptation collaboration	<ul style="list-style-type: none"> • Advisory sessions with authorities and locals (samråd) are a way to adapt projects to local, regional, national demands (A, B) • It is important that municipalities feel benefited from having wind power, so companies in the territorial zone can get permits approved (A, C) 	<ul style="list-style-type: none"> • Regional and national wind power permit workers meet and get educated to increase their knowledge and competences twice a year (F) 	<ul style="list-style-type: none"> • Regional funding is surprisingly important for adapting quickly to changes, which existing projects often cannot do. Often the region gives funding for handling more time-sensitive energy issues in Skåne (G) 	-

Compiled by author from interviews. Letter in parenthesis corresponds to an interviewee.