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GREENWASHING IN NORDIC ELECTRICITY COMPANIES

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Abstract

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Abstract

Sustainability is a growing megatrend regardless of industry. The majority of modern firms, especially electric utility companies tend to market themselves as sustainable or environmentally friendly. Therefore, it is essential to recognize if the marketing is objective.

The purpose of this thesis was to study Nordic energy companies' green marketing and its reliability. The theoretical framework was formed on information gathered from literature and internet sources such as case companies' reports and external organizations' websites. The evaluation of case companies' marketing statements was based mostly on environmental rankings and case companies' sustainability data. The research was based on both quantitative and qualitative methods.

The results of this study propose that there are distinct elements of greenwashing in some of the case companies' marketing, yet all the case companies do not perpetrate greenwashing. From consumers' perspective, it is extremely challenging to recognize which marketing statements are reliable. Although, firms consent to follow green marketing regulations there are signs of greenwashing. Therefore, it should be contested if there is enough regulation for green marketing.

Keywords

Corporate sustainability, environmental marketing, green marketing, greenwashing

CONTENTS

1. INTRODUCTION

In recent years, sustainability has become a megatrend cross-industries. It is nearly impossible to browse organizations' marketing materials without finding references to sustainability or sustainable development regardless of the industry. The majority of modern companies are communicating their green values and emphasizing their environmental friendliness throughout various marketing channels. It is feasible to achieve a competitive advantage with environmental marketing that persuades some businesses to highlight their ecological objectives more than is factual.

As the energy sector is the most polluting industry in the world, it is controversial when the energy companies are marketing themselves as environmentally friendly. Can energy companies truly be ecological or are they creating a polished brand image with misleading advertising?

This thesis purpose is to evaluate green marketing in the largest Nordic electricity companies. The intention is to find out if the companies' marketing communication is transparent and trustworthy or are they successfully misleading and greenwashing. The demonstration is determined by evaluating case companies' green values and goals, and how they appear in their online marketing.

This research will be structured into six parts, which are the introduction, theoretical framework, research methodology, the results of research, conclusions, and discussion.

The first part, the introduction, consists of presenting the research problem and research questions. The introduction will define the reasoning why the research of the particular problem is demanded. The theoretical framework will cover the topics of sustainability, green marketing, and greenwashing. The definitions and history of green marketing and washing are examined, in addition to different sustainability measuring tools. The research methodology part introduces the research methods and tools that are used in the empirical part of the study. Additionally, the reliability of the evaluation tools and the thesis is reflected. Results of the research will present the case companies and evaluate their marketing communication concerning sustainability. Analyzing the case companies' marketing phrases found from online and annual reports furthermore comparing them to their sustainability results and rankings will form an appraisal of the reliability of their communication. Additionally, external research organizations' results are utilized in the evaluation. The conclusions will consist of a summary of the work and compare the case companies' marketing integrity to each other.

Since the Nordic energy companies are heavily advertising themselves as sustainable, I chose the largest electric utility companies from the Nordic countries (excluding Iceland) for my case companies' empirical study. By evaluating Fortum, Vattenfall, Statkraft, and Ørsted marketing communication and its reliability, allow us to form a vision of greenwashing in the electricity marketing in the Nordic utility market.

2. SUSTAINABILITY

The idea of sustainable development is argued to being originated in 1987, once the difficulty was mentioned the primary time at the United Nations Brundtland Commission (Ministry of the Environment 2021). Thereupon, sustainable development was outlined as progress that aims to satisfy the requirements of today's society while not divesting future generations' ability to meet their own needs (UN 1987.)

It has not been possible to establish an equally clear definition of sustainable development that takes into account all industries and operating environments, and its content depends to a large extent on the company in question. There are many different definitions of sustainable development in the literature. (Montiel & Delgado-Ceballos 2014, 11.)

Over the years, sustainable development policy has developed into an increasingly diverse and comprehensive package, but from the outset, it has focused on the equivalent three themes: environmental, economic, and social sustainability, called the Triple Bottom Line. The Triple Bottom Line theory was developed by John Elkington to extend sustainable development beyond mere economic metrics. Previously, the measurement focused only on assessing adverse economic effects, such as company's returns to its owners and investors. The concept extended the examination of the impact of a company's operations as well as its social consequences to the social consequences in its operating environment. The three dimensions of the triple bottom line are also referred to as 3P's; people, planet, and profits. (Montiel & Delgado-Ceballos 2014, 11.)

The most important theme can be argued to be the environment, as biodiversity and the functioning of ecosystems are basic fundaments for all human activities. Another aspect of sustainable development is economic sustainability, which is defined as balanced economic growth where businesses are solvent. The third key theme is social and cultural sustainability, and from its point of view, the aim is to guarantee humane conditions for all in the future. (Ministry of the Environment 2021.) The idea of Triple-Bottom line is to emphasize the relationships among the three main elements with Venn's diagram (Figure 1). Operating at the intersection of the figure, where all three goals are satisfied is optimal but if one of the main elements is neglected, it cannot be considered as sustainable. Environmental and social elements conclude to bearable operations implying that the operation is environmentally and socially considered as satisfying but cannot be continued in economic terms. In comparison, social and economic elements lead to equitable operations but cannot be continued for long periods due to environmental consequences. Lastly, the pair of environmental and economic elements confirm the operations as viable which signifies as possible but not ideally continuous.

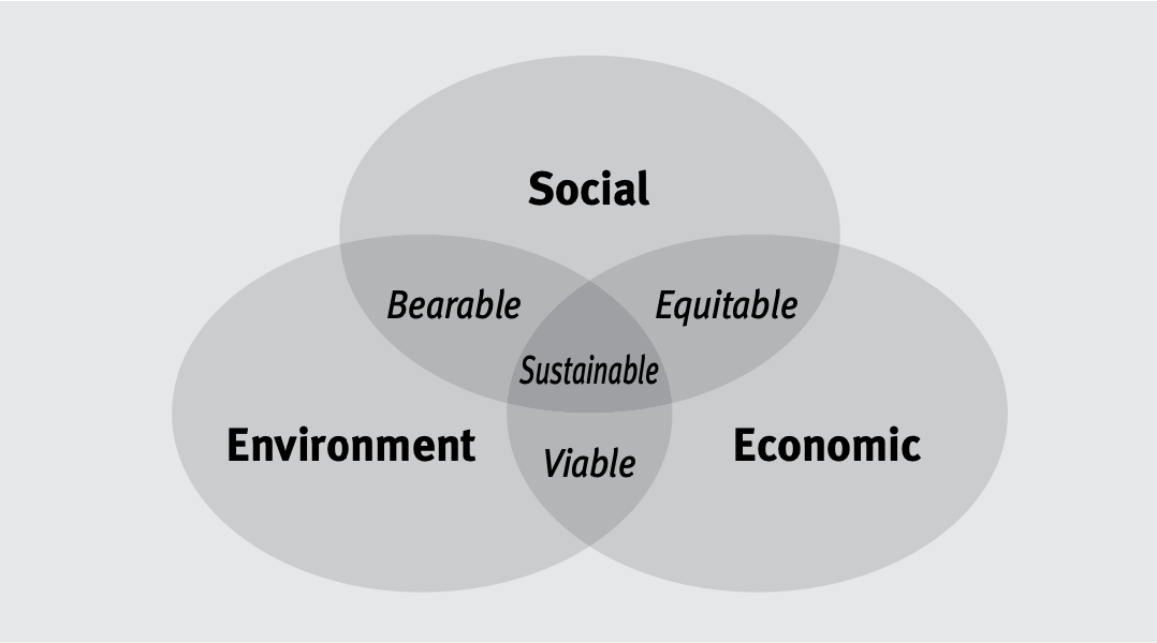

FIGURE 1: The Triple Bottom Line (Rogers & Hudson 2011, 4).

Business sustainability can be also referred to as corporate sustainability. Responsible business means implementing the principles of sustainable development in business. Corporate responsibility most often refers to a variety of voluntary actions by which a company implements its social responsibility based on stakeholder expectations (Harmaala & Jallinoja 2012.) The Commission of the European Communities (2001) determines corporate responsibility as a concept whereby companies integrate social and environmental concerns in their business operations and their interaction with their stakeholders voluntarily. Companies use a lot of the concept of corporate responsibility when planning, evaluating, developing, and, above all, communicating their responsibility actions that go beyond legal provisions and are voluntary (Harmaala & Jallinoja 2012).

There have been endeavors to make the principles of sustainable development an absolute value for all business operations. For Nordic companies, liability issues are for instance largely self-evident due to legislation, but there is also a lot of voluntary activity. However, many other industrialized countries do not have similar legislation. (Pohjola 2003, as cited in Sairanen, 2017, 14.) Although more and more laws and regulations are being created, their development and implementation are slow. As a result, corporate responsibility remains often superficial and instrumentalized, and the line between environmental marketing and greenwashing easily disappears in such situations. In addition to legislation, the aim is to reduce superficiality through smoother and faster supervision and various guidelines and reporting models. (Sairanen 2017, 14.)

2.1 Social responsibility

Social responsibility affects the people who are tied to the company's operations, primarily the personnel. Among other matters, employee well-being, the improvement of occupational safety as well as the training of the personnel beyond legislation and collective agreements are considered as social responsibilities. From the perspective of society, companies can also be thought to have a responsibility, for example, as a promoter of employment and as a minimizer of the effects of job

losses. There are also indirect effects from companies' operations, for instance, on the personnel of associates and subcontractors and the raw material producers. (Harmaala & Allinoja 2012.)

Varying from one country to another, corporations may have very different legal obligations and societal role expectations. In welfare states, such as the Nordics, many social obligations, such as human and labor rights, occupational safety, and well-being, are regulated by law. In addition, in the Nordic countries, companies, public authorities, and the trade union movement negotiate and agree on many rules and practices centrally. In many other developed countries, a large part of the obligations imposed on companies by the state are within the scope of voluntary action by companies. In comparison, the developing countries' legislation and administration are in progress and corporations have the opportunity to implement social responsibility measures based on their own choices. Priorities of social responsibility in developing countries can include improving working conditions, setting basic pay levels, and preventing human rights issues such as child labor. (Harmaala & Allinoja 2012.)

2.2 Environmental responsibility

Environmental responsibility can be defined as a company's efforts to operate in the best possible way for the environment. Companies have responsibility for the direct environmental impact they cause which includes the protection of water, air, and soil, the reduction of greenhouse gas emissions, the safeguarding of biodiversity, the efficient and sustainable use of natural resources, the reduction of waste, and the management of health and environmental risks from chemicals. Environmental protection has expanded from reducing emissions to managing and minimizing the environmental impact of a product and its entire life cycle. Since companies are outsourcing and using associates for their operations, the importance of indirect environmental impacts has increased that companies attempt to manage their partners' environmental impacts. The companies should aim to take the environmental impacts into account already in the production process, its design and development as well as in the collaboration with associates. (Harmaala & Allinoja 2012.)

Criteria for a company to be environmentally responsible is that it is aware of the environmental impact of its operations, knows and complies with the legislation, continuously develops its operations, identifies the needs for change, and takes them into consideration. Key areas of environmental legislation include climate and water protection, waste and recycling, increasing eco-efficiency and energy use. Additionally, issues related to product design, packaging, and product labeling are regulated. (Harmaala & Allinoja 2012.)

Environmental responsibility can be seen in practice as the development of production processes, property management, the development of office environments, and product and service development. Some companies are developing technologies and solutions that improve the environmental performance and eco-efficiency of the customer's production process. Ensuring the traceability of raw materials and managing the logistics chain are also important issues. (Harmaala & Allinoja 2012.)

2.3 Economic responsibility

For a business to operate responsibly locally and globally, it is a necessity to operate profitably. The conditions for corporate responsibility are based on the company's competitiveness and financial performance for instance strong cash flow and efficiency. For a business to achieve corporate sustainability profit distribution and targets are defined. Among other subjects, questions such as what kind of profitability is desirable and achievable, in addition, when and how much dividends are paid to shareholders. (Harmaala & Allinoja 2012.)

Corporate sustainability includes the idea that a company should be viable, especially in the long term. The company must determine subjects considering for instance cash flows, whether to invest in projects that aim for maximum results in the present calendar year, or projects that yield subsequently. When companies strive for sustainability, operations can be considered from the perspective of future generations. To achieve financial responsibility, companies can contribute to the economic conditions and competitiveness of local areas through purchases, investments, and various joint projects, such as the construction of schools or ports which are considered as creating economic well-being in the surrounding society. Equality of investments in the operating environments has also to be examined to obtain financial responsibility from a corporate responsibility perspective. (Harmaala & Allinoja 2012.)

Legislation concerns are in a large part of financial responsibility. Laws and regulations are considered as the bare minimum level of corporate responsibility. Legislation varies between countries which complicate international corporations' operations and the performance of financial responsibility. For instance, by following closely taxation and employer contributions have major impacts on companies' economic responsibility. (Harmaala & Allinoja 2012.)

2.4 Stakeholder theory

Stakeholder theory is one of the extensive approaches in social, environmental, and sustainability management research (Montiel & Delgado-Ceballos, 2014, 12). Stakeholder theory is well established and developed in the management literature because of its descriptiveness, accuracy, usability, and normative validity. One frequently used and general definition for stakeholders is "those groups and individuals who can affect or be affected" by the actions connected to value creation and trade (Freeman, Harrison, Wicks, Parmar & de Colle 2010, 9). Without stakeholders' support a company cannot and does not exist (Freeman et al. 2010, 32).

Therefore, the involvement of stakeholders is a crucial part in order for a company to achieve its own goals, such as value creation, growth, and stability. Thus, challenges can occur since companies have to identify the most important stakeholders as well as which stakeholders to invest in to gain the most profit and value. (Mehtäläinen & Miettinen 2014, 13).

Stakeholder theory has been widely utilized in corporate sustainability research as managers are pressured by stakeholders to determine the targets, scope, and responsibilities of businesses. For acquiring a competitive advantage, the satisfaction of stakeholders' expectations is crucial. Companies' management has the responsibility to take both shareholders' and stakeholders' interests into account when implementing their strategies. (Antolín-López, Delgado-Ceballos & Montiel 2016, 8).

Stakeholders can be broken down into internal and external stakeholders. When recognizing stakeholders, their influence and interests must be taken into account. Based on this analysis, the company can create strategies to work with different stakeholders. Therefore, companies have begun to pay more attention to stakeholder expectations and have found that meeting those expectations is essential to achieving both sustainable development and strategic business goals. With increasing pressure from different stakeholders, there are enlarging amount of organizations auditing and reporting on their sustainability performance. (Ballou, Heitger, Landes & Adams 2006, 65.)

One of the main presumptions of stakeholder theory is that the stronger the relationship a company creates with external stakeholders, the better it will be able to achieve the business goals it has set, for example, to increase competitiveness. According to the stakeholder theory, companies will not be able to meet targets such as maximizing shareholder value if they are not taking the interests of key stakeholders into account. For companies to generate long-term economic value for owners, stakeholders, and society, it is necessary to be able to create environmental and social value. (Ballou et al. 2006, 65.)

3. MEASURING SUSTAINABILITY

Adherence to the principles of sustainable development creates a lot of positive added value for the company. Therefore, it would be important for a company to have effective principles in place to detect and measure the value of sustainable development arising from its operations. With indicators that monitor business activity, the company can set goals for itself and monitor its implementation. The information provided by the indicators makes it easy to report on the company's activities in the context of sustainable development. However, there are a significant number of unresolved challenges in measuring the value of sustainable development today. (Mehtäläinen & Miettinen 2014, 28-29.)

According to Searcy (2012, 240), corporate sustainability is fundamentally a complex problem due to the ambiguity and confusion of definitions. It is also very difficult to come up with an accurate definition common to all companies on how the value of sustainable development can and should be measured and sustainable initiatives should be tailored to suit local needs (Searcy 2012, 240). A well-designed and functional performance measurement system for measuring the value of sustainable development consists of indicators that provide the company with important and useful information to support the management, control, and planning of its operations (Tangen 2005, 48-49). The measurands should support and guide the company's operations in both the short and long term, taking into account all three aspects of sustainable development (Searcy 2012, 240).

Sustainable indicators must be measured by both quantitative and qualitative once defined. In most cases, access to data is not the main problem. The essential difficulties relate to selection, interpretation, and the use of indicators. (Moldan, Janoušková & Hak 2011, 7.)

Different stakeholders such as business academics, investment rating agencies, multilateral organizations, and non-governmental organizations have developed their corporate sustainability performance measurement metrics to assess companies' sustainability and performance comprehensively. These indicators measure the responsibility and engagement of businesses to corporate sustainability. (Antolín-López et al. 2016, 8).

Montiel & Delgado-Ceballos (2014, 15) state that in measuring the value of sustainable development, the environmental responsibility component is the easiest to measure due to the numerous existing indicators. Based on their observations, measuring the value of the areas of economic and social responsibility is the most challenging. (Montiel & Delgado-Ceballos 2014, 15). To inform and guide investors about financial and sustainability performance, rating agencies are essential. Stakeholders such as business academics, executives, and governments are nowadays relying on rating agencies' data although the rating systems have been initially designed for investors' usage. (Antolín-López et al. 2016, 9). Several firms seek help to measure sustainable development from external operators with complete definitions and scales for determining value. The benefit from external organizations is that they can compare the results obtained with other businesses in the field. The most prominent value measurement organizations are Kinder, Lyndeberg, and Domini (KLD), the Dow Jones Sustainability Index (DJSI), and the Global Reporting Initiative (GRI) (Montiel & Delgado-Ceballos 2014, 15-17).

3.1 Global Reporting Initiative

Global Reporting Initiative (GRI), is a nonprofit organization that maintains the most comprehensive sustainability reporting standards globally. GRI aims to guide firms to create standardized sustainability reports (Montiel & Delgado-Ceballos 2014, 18.) A common reporting standard makes corporate responsibility reports more reliable and easier to compare (GRI 2021.)

The GRI was established in Boston in 1997 to create the first corporate responsibility control system to ensure that companies operate responsibly concerning the environment. Later, the GRI was extended to social, economic, and societal problems. The first GRI standards (G1) for corporate responsibility reporting were published in 2000. Since then, the standards have been updated and expanded several times. With the help of GRI indicators, a company can report, for example, its water or energy use in a comparable way. (GRI 2021.)

The GRI can be considered generally accepted since there has been seen exponential growth globally since 2000 in the number of businesses approving GRI standards and releasing corporate sustainability reports. Since the GRI operates jointly with the United Nations, its reporting criteria can be seen as more accurate. GRI guidelines can be used in various ways, but the GRI standards are the most common nowadays. For instance, companies can designate to use GRI for informal reference or to apply them cumulatively. The shift from informal to formal, in accordance with GRI standards, is advanced as transparent reporting, reporting coverage across the company, and reporting structure. (Ballou et al. 2006, 66.)

Corporate sustainability can be segregated into three areas by the GRI. The areas are economic, environmental, and social. The economic area consists of economic performance, market presence, and indirect economic impacts. The environment includes materials, energy, water, biodiversity, emissions, effluents, and waste as well as products and services, compliance, and transport. The social area covers labor practices and decent work, human rights, society, product responsibility. Analysts recognize GRI to be a prominent protocol for constructing sustainability reports and for evaluating firms' sustainability reports. (Montiel & Delgado-Ceballos 2014, 18.)

GRI Standards are the newest GRI guidelines that have been used since 2018. The standards consist of three specific topics: GRI 200 (economic), GRI 300 (environment), and GRI 400 (social) (Herremans 2019, 29.)

FIGURE 2: GRI Standards (@GRI_Secretariat 2016).

3.2 Environmental management systems and ISO 14001

An environmental management system (EMS) is characterized as a structure for measuring environmental impacts, setting goals as well as formulating and implementing action plans, and monitoring results. There are many formal EMS standards such as ISO 14001 and the Environmental Management and Audit System (EMAS). The benefit from using EMS is the resulting certificate which is a positive statement to stakeholders. ISO 14001 is the most used EMS for business whereas EMAS is more used by public sector organizations. (Kane 2009, 45.)

According to Worthington (2013, 175), an efficient EMS constructs from three main points:

- Comprehensiveness – cover all organizational activities;
- Understandable – people are aware of their duties;
- Openness – open to review and continuous improvement;

All businesses have different EMSs but most of them have similar basic elements particularly when applied to existing standards for instance EMAS and ISO 14001. EMS common elements can be considered as a 4-phased cycle; plan-do-check-act. (Worthington 2013.)

Firstly is the planning phase which normally starts with an initial review or baseline study to assess the firm's activities and their impact on the environment. Furthermore, an environmental policy that concerns the company's activity is formulated. The second phase of the cycle is the do-phase which is normally located after planning. The simplified doing phase is implementing policy into practice, revolving around issues such as training needs, communication systems, and auditing. The third part is the check-phase which focuses on observing the progress of the EMS. The result from the checking phase is in many cases a report which offers alternative solutions to fix weaknesses and set out a timetable for implementation. The closing part is the act-phase which is dependent on the information of the report from the check-phase. If the firm's operations are needed to be adjusted, the management will make changes to discover a way to meet the targets. (Worthington 2013, 176-181.)

3.3 Key Performance Indicators

Key Performance Indicator (KPI) can be defined as an indicator of the performance of a specific business condition that is linked to strategy by setting solid goals (Knura 2013, 25.) According to Kane (2009, 51), KPIs are the easiest way of defining impacts, but it is difficult to trade between different parameters. For instance, how to compare water pollution with carbon emissions.

Potential indicators include solid waste arisings either in terms of volume or mass; consumption of gas, oil, and electricity; hazardous waste arisings – volume; the Biological/Chemical Oxygen Demand (BOD/COD) of effluent; data from monitoring of stack emissions, for example, particulates; consumption of water. (Kane 2009, 51.)

3.4 The Greenhouse Gas Protocol

The Greenhouse Gas Protocol (GHG Protocol) is a comprehensively utilized international accounting tool for determining and measuring greenhouse gas emissions. With the GHG Protocol tool, an

organization registers all greenhouse gas emissions which occur from their operations in addition to the information on how management is seeking to decrease them. In addition, the organization presents data of what are the effects of climate change on the operations and how the organization aims to confront the effects. The GHG Protocol structure consists of three categories which are called scopes.

Scope 1 emissions are the direct emissions that occur on-site as a result of the company's operations. Scope 1 emissions potentially hold the production of electricity, heat, or steam; physical or chemical processing; transportation of materials, products, waste, and employees as well as fugitive emissions. (World Resources Institute & World Business Council 2004, 25.)

Scope 2 includes indirect emissions related to the purchase of energy from production. For instance, the production of acquired power that is used in its owned or controlled equipment or operations. (World Resources Institute & World Business Council 2004. 25.)

Scope 3 are the other indirect greenhouse gas emissions that generate from the end-use of products sold and the acquisition of goods and services. These emissions form from the infusion and manufacturing of acquired supplies, transport- and electricity-related activities which are not covered in scope 2, leased assets, franchises, and outsourced activities as well as the use of sold products and services, and waste disposal. (World Resources Institute & World Business Council 2004, 25.)

3.5 Carbon Disclosure Project

Carbon Disclosure Project (CDP) is a not-for-profit organization that administers the worldwide disclosure system for investors, businesses, cities, states, and regions to handle their influence on the environment. During the recent two decades, CDP has constructed a structure that has led to an unprecedented commitment to environmental issues worldwide. (CDP s.a..)

In 2000, the CDP was launched in the United Kingdom to collect data related to climate from companies and make it publicly available to enable climate-related investors to execute decisions and to encourage companies' management to do environmentally friendly arrangements inside the responding firms. The CDP collects data on behalf of institutional investors. The CDP delivers an Information Request annually to businesses across the world inquiring for data about greenhouse gas emissions, emission reduction goals, climate change risk and management strategies, and development possibilities. (Andrew & Cortese 2011, 7.) Based on the data acquired, CDP forms a score of the company. CDP evaluates businesses' effects on forests, water security, and climate change.

3.6 Sustainalytics

Sustainalytics is an independent international producer of environmental, social, and corporate governance research and ratings, headquartered in Amsterdam, Netherlands (Sustainalytics s.a..) Sustainalytics calculates environmental, social, and governance (ESG) scores for every company and uses a simple average to obtain a company's overall result. Scores range between 1 and 100, higher figures are linked with better ESG principles. The ESG score reflects the company's ability to deal with current ESG issues, focusing on the following aspects to resolve scores:

• Preparedness: Evaluation of active management systems and policies to support managing ESG risks.

• Disclosure: Whether company reporting meets international best practice standards and is transparent concerning ESG issues.

• Performance: ESG performance based on quantitative metrics and evaluation concerning the analysis of controversial issues the company may have been linked to. (Davis Polk & Wardell 2017, 7.)

The relative score estimates a company relative to its industry peers. Sustainalytics provides a relative position in the industry, for instance, 1 out of 70 would indicate that a company is a top-rated company in its industry. (Filbeck, Filbeck & Zhao 2019, 10.)

4. GREEN MARKETING AND GREENWASH

For several centuries, the impact of businesses on the environment has been discussed. The priority of the topic has been varied considerably depending on one era to another. Nonetheless, the most recent and possibly most essential trend in responsibility can be considered to have commenced at the turn of the 1960s and 1970s, when the protest movement started to question the purposes and practices of industrialized society. At the same time, there was a considerable debate about the looming environmental crisis, which had been predicted by years of neglect of environmental responsibility. (Peattie 2001, 129-130.)

The first "ecological marketing" workshop was held by The American Marketing Association (AMA) in 1975. The AMA workshop brought together academics, practitioners, and politicians to study marketing's effects on the climate. (Polonsky 1994.)

The AMA workshop formed an early definition of green marketing which consists of three key components, 1) it is a subset of the overall marketing activity; 2) it examines both the positive and negative activities; 3) a narrow range of environmental issues are examined. According to Polonsky (1994), the description is a convenient place to start, but redefinition is needed to gain a broader definition.

4.1 Definition of green marketing

Polonsky (1994) addressed that the definition of green marketing is a broad variety of operations, for instance, product modification, changes in the production process, and modifying advertising. Green Marketing forms from all activities created to produce and simplify any exchanges intended to satisfy human needs or wants, such that the satisfaction of these needs and wants occurs, with minimal negative effects on the environment (Polonsky 1994.)

Green marketing can be also referred to as ecological marketing, environmental marketing, and responsible marketing. These terms are concentrated on the exchange process of choices and decisions with a condition that exchange takes environmental harm into consideration and minimizes it. A valid definition of green marketing, therefore, has to combine transformative change that generates value for individuals and society, as well as for the environment. (Polonsky 2011, 1311.)

Environmental marketing can also be considered as a company's strategy to market its environmentally friendly operations to express its interest in environmental concerns. Since the subjects have a powerful effect on consumers' observations and lifestyles, advertisers should delicately promote their green products that the consumers do not think that they are deceived by false marketing. (Aji & Sutikno 2015, 439.)

Competitive advantage is achievable through green marketing, which is a necessity for today's companies. Companies strive to develop their corporate and product image as well as operations following stakeholder expectations. Emphasizing corporate responsibility exposes a company to reputational risk, while potentially increases business return expectations. The reputation risk often materi-

alizes when a company's actions conflict with its declared corporate responsibility from the stakeholders' point of view. Practically it occurs if stakeholders feel that the company communicates more positively than its operations are. (Harmaala & Allinoja 2012.)

4.2 Greenwashing

Since green marketing enables an opportunity to competitive advantage, companies can use it unjustly. In many cases, exaggerated marketing statements of environmental friendliness are greenwash. One definition for greenwash is that it consists of various ways of communication that deceive consumers into finding a company's environmental performance, practices, or products exceedingly positively. (Lyon & Montgomery 2015, 225). Although consumers observe greenwashing more easily it still increases, since there is a growing demand for environmental products. Therefore, consumers' skepticism toward companies that are exploiting green trends is increasing (Pomering & Johnson 2009, 423.) In some cases, businesses use greenwash to selectively publish positive data about their environmental or social performance. Companies can avoid admitting the negative impacts on the environment in order to increase positive brand image (Lyon & Maxwell 2006, 6).

In many instances, using terms as carbon neutral, net-zero, and CO2 free can be considered as greenwash. There is no centralized function to ensure that carbon neutrality means the same from producer to producer. Some companies use terms such as "zero-carbon", "carbon-free" or "carbon neutral" as an equivalent for net-zero. Meanwhile, specific companies state they are aiming for net carbon neutrality, they are only discussing the emissions that occur directly from their operations (Scope 1 & Scope 2). For instance, some oil corporations have targets to achieve carbon neutrality from oil and gas wells but do not contain the greater quantity of the emissions from the customers burning the fuel (Scope 3). According to the Carbon Disclosure Project's (2021) Global Supply Chain Report 2020, emissions from a businesses' supply chain are seen to retain 11.4 times higher than its operational emissions which are over two times higher from past estimations.

While companies are not able to eliminate specific emissions, they use carbon offsets to compensate them. Carbon offsetting can be done for instance, by helping various projects such as reforestation, or capturing methane pollution at landfills, or creating carbon sinks. It can be argued if offsetting is a valuable method for reducing emissions since offset programs that grow for instance forests can be extremely challenging to trace. Additionally, there is a possibility for deforestation or forest fires. Since offsets are considered an inexpensive solution, some organizations are not driven to reduce emissions as much as possible since it might be more effortless to compensate for polluting by paying (Peters 2021.)

4.2.1 Seven sins of greenwashing

One of the best-known studies on greenwashing is The Six Sins of Greenwashing (TerraChoice 2007) which was further updated into The Seven Sins of Greenwashing. Based on the work, a list of the most common characteristics or manifestations of greenwashing in marketing communications has been compiled. A simplified list of TerraChoice has spread across the internet and is used globally as a tool to identify and discuss greenwashing. Based on the survey results conducted by

Terrachoice (2007), all but one of the 1019 products reviewed, committed at least one of the sins of greenwashing. It signifies nearly without exceptions, companies perpetrate greenwashing.

As an evaluation tool, the list is rather simple: the fewer characteristics that suit a company or commodity, the better. The more features that go hand in hand with the marketing communications under consideration, the more deliberate and serious the greening. The sins are listed below as follows:

- The sin of the hidden trade-off: The product is alleged to be environmentally friendly based on a narrow set of attributes without attention to other important environmental issues.
- The sin of no proof: The product is claimed to be environmentally friendly without easily accessible supporting information or with a lack of reliable third-party data.
- The sin of vagueness: The product is claimed to be environmentally friendly with a claim that is poorly defined that its real meaning is probably misunderstood by consumers.
- The sin of worshiping false labels: The product is labeled as environmentally friendly or with a third-party endorsement whereas the endorsement does not exist.
- The sin of irrelevance: The product is alleged to be environmentally friendly but is unimportant or unhelpful for consumers.
- The sin of lesser of two evils: The product is claimed to be more environmentally friendly than another misleading the consumer from the larger environmental impacts of the product's category.
- The sin of fibbing: The product is claimed to be environmentally friendly with false claims. (Terrachoice 2007.)

4.2.2 The consequences of greenwashing are negative

Misleading and ambiguous advertisements of products and their association to environmental features create genuine consumer confusion. The confusion will occur as the consumer does not recognize if the product is truly environmentally friendly or entirely contrary. Due to this distraction consumer's attitude shifts to negative about the product's environmental features. An example is an observation that the company's green campaign is not to create awareness of environmental issues yet only a part of the business' marketing strategy. (Aji & Sutikno 2015, 438.)

A further impression is that, in promoting environmentally friendly products, the business is rather interested in profit orientation and not purely by environmental concerns. Regardless of the situation, advertisers have to endeavor to build consumer impressions that are positive since impressions of greenwashing can harm people's attitudes toward a company (Peattie, Peattie & Ponting 2009, 276). Eventually, the perceptions created by deceptive advertisements can sabotage the market since consumers become so incredulous of green products (Polonsky, Landreth Grau & Garma 2010, 53).

Compared to any other way of communicating, consumers are the most mistrustful about advertising (Obermiller, Spangenberg & MacLachlan 2005, 7.) According to Ottman, Stafford & Hartman (2006, 25), consumers do not often have the proficiency or skill to authenticate the environmental and consumer values of green products, which leads to skepticism. Skeptical consumers are more

presumably to react negatively to advertising (Obermiller et al. 2005, 8.) Due to consumers increasing interest in the reliability of advertisements, consumers are extremely analytical in assessing ads. Advertising that emphasizes the righteousness of a product, especially concerning environmental friendliness is not easily trusted by consumers. Perceptions about advertisements form a very influential role in customer choices about buying which verifies that customer trust issue is relevant and crucial. (Aji & Sutikno 2015.) Obermiller et al. (2005, 11) state in their study that the proposed relationship between advertisement and buying intention does not occur when customers are skeptical about the advertisement.

4.3 Nordic energy

Nordic companies have fended excellently at business rankings since the early 2010s and are considered as some of the most sustainable in the world. Particularly, some of the successful sustainable companies are energy companies that utilize Corporate Social Responsibility (CSR) in their business model. CSR can benefit companies to engage and process the Sustainable Development Goals (SDGs) and even achieve carbon-neutrality in the long term. Especially in the energy sector, the usage of CSR is critical since the transition towards green energy has a direct and indirect influence on accomplishing most of the SDGs (Latapí, Jóhannsdóttir, Davíðsdóttir & Morsing 2021, 1.)

The overall share of renewables in the energy supply in the Nordic region was 40% by 2018, while it was only 15% in the European Union 27 countries (Nordic Energy Research 2020). Furthermore, the Nordic countries have stated to decarbonize their energy systems entirely by 2050 at the latest and to achieve a position as the most sustainable region globally by 2030. Norway has set goals to be climate neutral in 2030, while Finland's target is to accomplish zero net emissions in 2035, Sweden in 2045, and Denmark in 2050. (Rosenberg 2019.) Power generation differs between the Nordics. Denmark has gained a reputation for its visionary adoption of wind energy, Finland and Sweden bioenergy, and Norway hydroelectricity. (Sovacool 2017, 569.)

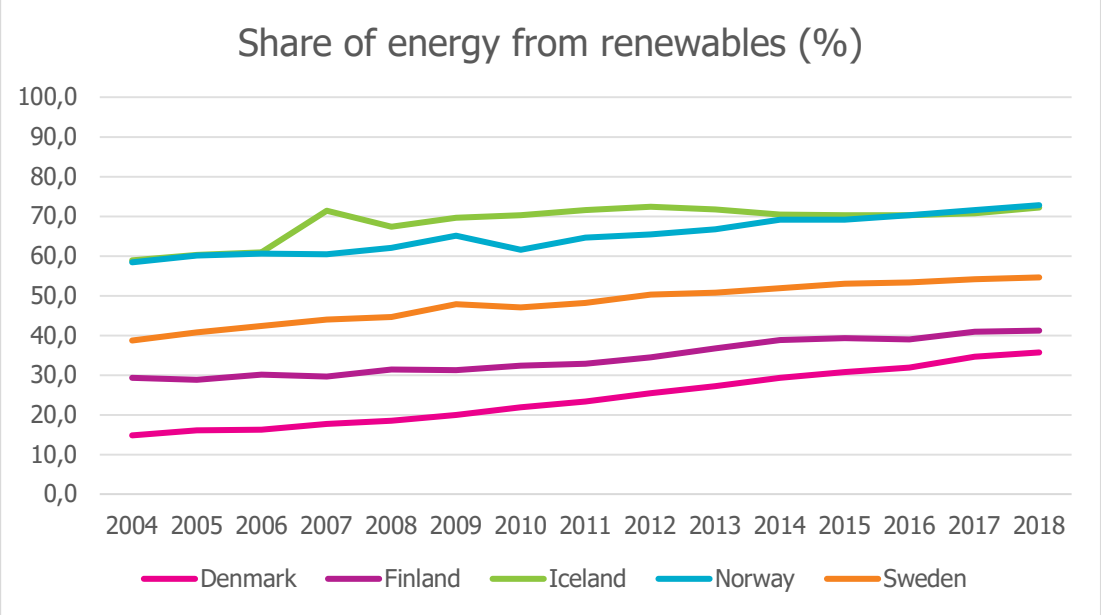

FIGURE 3. Share of energy from renewables (%) (Eurostat 2021)

All five Nordic countries have increased their share of renewable energy for years. Energy is the most central among the many sectors covered by emission reduction targets and increasing renewable energy generation is one of many actions available to governments to reduce emissions in energy. The development and implementation of renewable energy technologies are high on the political agenda in the Nordic region and are seen not only as a climate initiative but as a driver for increased energy security and industrial development (Nordic Energy Research 2020.)

As mentioned previously, from 2010 to 2020, Nordic companies have been recognized as leaders in the adoption of environmentally friendly business models and have placed at the highest rankings of sustainability ratings. For instance, Corporate Knights Global 100 ranking which consists of the world's most sustainable corporations, contains 14 Nordic companies in 2021 (Corporate Knights 2021). In addition, Nordic countries are recognized as developed economies and possess some of the highest living standards, while having some of the highest energy consumption per capita in Europe as a result of their energy-intensive industries and their sparsely populated areas (Aslani Naaranoja & Wong 2013, 498.) However, the CO2 intensity of Nordic countries' total primary energy demand has been decreasing steadily.

Specifically, Denmark has agreed to achieve zero net emissions in 2050, but in addition, the government has promised to phase out all coal-fired power by 2030. The government has made a contract that aims for renewable energy to cover 100% of electricity and 55% of overall consumption by 2030. Additionally, by 2030, 90% of district heating is produced from non-fossil sources and the sale of new petrol and diesel cars are planned to end. Demark can be already seen as a global leader in wind energy and it retains the highest share of wind electricity of any IEA country. Due to Denmark's agile domestic power system and the level of interconnection, the country is identified as an international pioneer in integrating variable renewable energy while preserving an extremely stable and secure electrical-power grid simultaneously. (IEA 2021a.)

Norway is an international supporter of slowing climate change and is pledged to environmental sustainability while being one of the greatest power exporters globally. Norway has determined an aspiring goal to decrease its greenhouse gas emissions by 40% of 1990 levels by 2030. Achieving the goal is demanding because Norway's electricity supply and usage of energy in buildings are at present mostly carbon neutral. Norway can be considered as a great example for advancing effective cross-border market integration, as the Nordic market is turning more unified with neighboring markets. Due to Norway's high levels of interconnection and great hydropower fleet, the country can offer the region a large source of inexpensive, effortless, and zero-carbon power generation. Despite Norway being a global leader in electric vehicles, the country needs a great effort to meet its ambitious targets. Oil and gas production and manufacturing have a large potential to develop. For instance, public sector investments in energy R&D and carbon capture projects would be influential in meeting the targets. (IEA 2021c.)

Of the Nordic countries, Finland has the second most ambitious target of decarbonizing the economy with a 2035 net-zero target. There has been a great development, particularly in power generation due to large shares of nuclear, hydro, and bioenergy. Usage of fossil fuels has declined notably during the past years, yet Nordic conditions; the cold climate, long distances, and energy-

intensive industries complicate the country's energy transition. The major sectors for Finland to proceed on developing its sustainability and meeting its ambitious national climate targets are especially transport and industry. According to IEA, for Finland to meet its 2035 climate neutrality target, the country needs courageous renewals s and technological upgrades in energy markets. At this moment, Finland has one of the leading positions of IEA countries in public and private expenditures on energy research, development, and demonstration. The country is also an international leader in biofuels manufactured from wood, particularly biodiesel. (IEA 2021b.)

Sweden is recognized as an international leader in decarbonization and has targets to cut greenhouse gas emissions by 59% by 2030 in comparison with 2005. Additionally, Sweden plans to achieve a carbon-neutral economy by 2045. Sweden became the first country to utilize carbon pricing and now has the highest carbon price in the world, which has been verified to be efficient at driving decarbonization. The electricity supply in Sweden is mostly based on hydro and nuclear, along with increasing input from the wind. Bioenergy-based district heating and heat pumps cover most of the heating. A large part of Sweden's greenhouse gas emissions originates from the transport sector, which still is dependent on oil, yet the government aims to decrease transport emissions by 70% from 2010 to 2030 and is backing transport decarbonization through electrification and advanced biofuels. In addition to the decarbonization of transportation, Sweden has projects that support industrial decarbonization for instance the project of producing hydrogen-based steel. (IEA 2021d.)

The European Union has been ambitious to achieve sustainability. As a part of the European Green Deal, the European Commission introduced in September 2020 to lift the 2030 greenhouse gas emission cutting target to at least 55% compared to 1990. Key targets for 2030 consist also 32% share of renewable energy. In addition, the EU Emissions trading system is the cornerstone of driving greenhouse gases down. Governments must invest in greener choices and energy business is a key driver for reducing emissions. EU also aims to be the first climate-neutral continent by 2050. (European Commission s.a.)

5. METHODOLOGY

This chapter concludes different research methods used in this thesis and answers to questions, how and why. Firstly, quantitative and qualitative research methods are introduced. Secondly, the evaluation tools and the reliability of the tools are discussed. Lastly in this chapter is evaluated the reliability of this research.

5.1 Research methods

The distinct difference between quantitative and qualitative research can be defined as the quantitative data is information about quantities while qualitative is the process of collecting and analyzing non-numerical data (Rutberg & Bouikidis 2018, 209). With this raw distinction, this research relies mostly on qualitative data. Quantitative data is utilized in comparing companies' greenhouse gas emissions and ISO 14001 certificated electricity. Environmental, social and governmental (ESG) data can be considered as combined data of qualitative and quantitative approaches (Orsagh 2019).

The qualitative research is conducted by analyzing the marketing communication of the case companies. Comparing companies' marketing statements to their present evaluated sustainability and near future targets allows forming an image of the companies' integrity in green marketing. The structure of the results of the research consists of the summary of the case company, secondly, the strategy and goals are introduced, and lastly is the comparison of how the companies have managed in different metrics.

As the theoretical part determined the difference between green marketing and greenwashing, it assists to carry out the research. The analysis aims to find out how environmental marketing is reflected in practice and whether the case companies are transparent with their marketing. When the research subject is a phenomenon of marketing communication and not for instance financial solidity, observational and comparative research is the most suitable choice.

The research is carried out by analyzing case companies' sustainability and annual reports and comparing the data to external organizations' evaluations. I found this to be the best manner to evaluate case companies' statements objectively and to achieve an answer to the research question: Are the Nordic energy companies marketing statements transparent and trustworthy?

5.2 Evaluation tools

As the aim of the study is to evaluate companies' marketing communication and compare it to the companies' corporate sustainability operations, external organizations' evaluation is utilized. In addition, greenhouse gas emissions intensity is examined. The evaluation tools for this research were introduced in the environmental impacts evaluation tools and organizations chapter.

Firstly, in the evaluation part of the research is environmental, social, and governmental (ESG) based metrics; Sustainalytics and CSRHub. These tools are designed for investors' portfolio risk management thus are not the best metrics for the evaluation of environmental sustainability. Although, these metrics were chosen for the research since it endorses possible findings considering the sustainability of the case companies.

The second comparison tool of the companies' environmental impacts is Carbon Disclosure Project's Climate Change 2020 rating. As CDP collects quantitative data of emissions it is a reliable rating to compare companies to each other. Additionally, the ratings are recent from 2020, which verifies the reliability. The disadvantage of this rating is that it must be applied by requesting CDP itself thus there are no ratings for each company.

The greenhouse gas emissions (CO2) intensity is the third tool that relies purely on quantitative data. Climate Change 2020 rating includes CO2 intensity but comparing this metric individually between the companies allows us to form a conclusion of the reliability of companies' marketing statements. The data is collected from the case companies' annual and sustainability reports which have to be considered as reliable and accurate as possible. Yet, that cannot be verified by the resources used in this thesis. There is also confusion in the indicator since some of the companies tend to use scope 1 and scope 2 emissions while some companies rely purely on scope 1 emissions. Scope 3 emissions are nearly impossible to evaluate accurately and that is why there are little data on it in the companies' reports.

Lastly, the amount (%) of ISO 14001 certificated electricity produced is presented. Although the data of Environmental Management Systems are mostly internal, ISO 14001 is a certificate that verifies the sustainability of the produced electricity. Sustainability reports normally include the amount of ISO 14001 certificated electricity produced.

The plan is to use these evaluation tools to compare the case companies' marketing statements to the figures from the external organizations' tools and company reports. The emphasis is on the annual and sustainability reports content. Slogans that firms use in their marketing and the targets they are pursuing are evaluated.

5.3 Reliability and ethics of the research

The data of this research is from online sources as the internet is currently the most important and versatile communication channel. Annual reports, sustainability reports, and companies' websites offer a lot of data, but there is no certainty of objectivity. Articles are also utilized which offer third-party data of the companies.

According to Finnish National Board on Research Integrity (TENK s.a.), the research methods applied for data acquisition, research, and evaluation, conform to scientific criteria and are ethically sustainable. In other words, the data collected is communicated with integrity and accuracy as far as possible. Determining the repeatability of the research is that the results conducted from research would be the same if repeated under the same conditions. (TENK s.a.) Since this research is based on my findings and analysis of the case companies' marketing statements it can be disputed if the results would be purely identical. Based on the data collected from external sources and companies' reports in this research the results would be identical if repeated shortly. There is rapid development in the companies' sustainability strategies and marketing statements which implies that if the research is carried out in for instance two years, the conditions have changed.

6. RESULTS OF RESEARCH

This chapter consists of the results of the research. For the case companies' assessment, the structure formulates firstly of summary of the company including strategy and targets. Secondly, is the ratings and data from external organizations as well as companies' greenhouse gas emissions intensity. Lastly, is the analysis of the data and comparing it to the firms' marketing statements. After assessing case companies individually, a comparison is formed to create an overall image of the environmental sustainability of the companies.

6.1 Fortum

Fortum is the leading energy company in Finland, with a focus on the production of electricity, district heating and cooling, electricity sales, and smart solutions for the future. Fortum's key markets consist of Nordic and Baltic countries in addition to Russia, Poland, and India. With 119 hydropower plants, 26 CHP, and an increasing solar and wind sector, Fortum is the 3rd largest power generator in Nordic countries. (Fortum s.a.).

In March 2020, Fortum closed a purchase to become the primary proprietor in Uniper. As the greatest owner with 75% of shares in Uniper, Fortum consolidates Uniper as a subsidiary as of 31 March 2020. Despite Uniper being a subsidiary of Fortum, it is still listed in Germany, and therefore reports its sustainability processes and reports independently. (Fortum Oyj CDP Climate Change Questionnaire 2021.)

Fortum is the 3rd largest CO2-free power generator in Europe as well as the 3rd largest power generator in Europe and Russia. Due to the transaction of becoming the majority owner of Uniper, Fortum became also the 4th largest gas storage operator in Europe. (Fortum Investor Relations and Financial Communications 2021, 5.)

According to Fortum's purpose statement, their goal is to drive the change for a cleaner world. Their goal is to secure a rapid and reliable transition to a net-zero economy by producing green energy and sustainable solutions. The goals consist of four points which are to transform their operations to net-zero, enhance and increase CO2-free power generation, gain an advantage of a powerful position in gas to enable the energy transition, and partner with industrial and infrastructure customers. Their target is to become carbon neutral in all activities by 2050 and their European sector in 2035 at the latest. (Fortum 2021, 24.)

Fortum's strategy to handle its environmental impacts consists of transforming its activities to carbon-neutral to slow down climate change. They are also investing in renewable energy production and clean gas as well as improving resource efficiency, recycling, and recovery through circular economy services. Also improving air quality and managing hazardous waste is part of their solution to decrease environmental impacts. Constant improvements in energy efficiency and mitigation of their environmental impacts in their operations advance Fortum to achieve its goals. (Fortum 2021, 6.)

6.1.1 Fortum's sustainability data

Fortum's rating in Sustainalytics ESG Risk Rating is 22.6 which implies medium ESG risk. Fortum's Top Material ESG Issues are corporate governance, emissions, effluents and waste, carbon in their operations, and community relations. In the industry group ranking Fortum places 80th out of 613 utility companies. (Sustainalytics 2021a.)

In CSRHub's Corporate Social Responsibility (CSR) and Environment, Social, Governance (ESG) Metrics Fortum scored 94%. According to CSRHub, two special issues affect the company. Fortum is a labor unions supporter and a sustainable forestry supporter. (CSRHub 2021a.)

Carbon Disclosure Project's Climate Change rating for Fortum in 2020 was A-.

According to Fortum's annual report (2021), their greenhouse gas emissions (CO2) intensity was 287 gCO2/kWh. The figure includes only scope 1 emissions and is reported using Global Reporting Initiative's (GRI) standards. Scope 1 accounted for approximately 63% of total greenhouse gas emissions and Scope 3 circa 36%. Scope 1 emissions were 49.0 million tonnes, scope 2 emissions 0.8 million tonnes while scope 3 emissions were 27.8 million tonnes. Scope 3 emissions originate mainly from fossil energy sources. (Fortum 2021, 37.) The data signifies that Fortum's CO2 intensity is much larger than the company has stated in the GRI report since scope 3 has not been accounted for. Additionally, Uniper is consolidated from Q2/2020 which confirms that the emissions were even higher in 2020. Fortum has reported that 99.9% of their electricity is ISO 14001 certificated (Fortum 2021, 86.)

6.1.2 Fortum's marketing statements and evaluation

Fortum has two different slogans or statements which are widely used in their marketing material from annual reports to their websites. Statements are: "For a cleaner world" and "The third-largest CO2-free power generator in Europe".

For a cleaner world: The slogan for a cleaner world has an optimistic view on the issues of power generation. As Fortum's goal is to transform its operations to carbon neutral by 2050, it can be argued to be a relevant statement. For instance, the consolidation of Uniper can be considered as an acquisition of a fossil fuel-based company and transforming it into a greener business model. In comparison, it can be argued that the statement is vague and does not express if the company is transforming and how.

The third-largest CO2-free power generator in Europe: After the consolidation of Uniper, Fortum did become the 3rd largest CO2-free power generator in Europe. The fact is effective to use in marketing communication, but it hides a major issue behind it. Fortum is one of the most polluting companies in Europe at the moment (YLE 2019). A study by Climate Action Network (CAN) Europe alleges that Fortum is involved in energy production that is connected to hundreds of premature deaths annually in Europe due to its share in Uniper. For this particular reason, it delays efforts to mitigate climate change. The study is part of Europe Beyond Coal, an initiative backed by various non-governmental organizations, including, for instance CAN, Greenpeace, the WWF, Friends of the Earth, and the European Environmental Bureau. (YLE 2019.)

Marketing statements that Fortum is using, create a greener image of the company as it truly is at the moment. Fortum has ambitious goals in the future, but it must be weighed if it is ethical and economically beneficial to exploit controversial advertising until the company achieves the environmental targets. A considerable amount of Fortum's marketing consists of visions of the future and today's problems are not as widely discussed. According to Fortum's 2020 annual report, the company follows the regulations for green marketing. Therefore, there is certainly an urgency to examine if there is sufficient regulation for environmental marketing.

Fortum has also stated that 96 percent of its power generation in the EU is CO2-free. However, this does not cover its heat production which is heavily reliant on coal in its operations in Russia, India, and Norway. Neither Uniper's energy production is counted into 96% which is questionable since one-third of that is produced with coal with a quarter of that from high-emission brown coal. (YLE 2019).

Publicly, Fortum has been accused of greenwashing multiple times by several different influencers and environmental movements such as Greenpeace and Extinction Rebellion. Recent critique has been mostly from the Uniper acquisition but YLE's investigative journalism tv-show MOT found out Fortum's issues considering plastic waste recycling. Fortum has previously stated that 75% of recycled plastics which are handled by their factories are reused for new products, but the legitimate amount was only 37% in 2019 (Miettinen 2020). Fortum's communicated number of reused plastics does not match reality even closely which can be found out as greenwash. Another issue about Fortum's greenwash was found during the research since, after the consolidation of Uniper, Extinction Rebellion activists washed Fortum's headquarters windows with green water. Since Fortum became one of the most polluting companies in Europe, the activists became frustrated with Fortum's greenwash (Extinction Rebellion Finland 2021.)

6.2 Vattenfall

Vattenfall AB is a Swedish, fully state-owned electric utility company founded in 1909. Vattenfall's key markets are in addition to Sweden; the Netherlands, Germany, Denmark, and the United Kingdom. Vattenfall produces electricity from various energy sources, such as hydro, nuclear, wind, solar, biomass, waste, coal, and natural gas. The company is one of Europe's largest producers and retailers of electricity and heat with approximately 20 000 employees. (Vattenfall 2021a, 4).

Until 2016, Vattenfall possessed highly polluting lignite operations in Germany, but the business was sold to Czech energy company EPH to decrease Vattenfall's emissions (Vattenfall 2016). Nevertheless, Vattenfall's generated electricity and heat in Germany and the Netherlands are still heavily dependent on fossil fuels.

Vattenfall's purpose statement is to "Power Climate Smarter Living". Their strategy to achieve climate-smart living is through driving decarbonization with their customers and partners and connecting and optimizing the energy system. Vattenfall also plans to achieve a secure fossil-free energy supply and deliver high-performing operations with empowering their people at the same time. (Vattenfall s.a..)

Vattenfall has stated that the company will pursue these points with a strong market position and a wealth of growth opportunities. Vattenfall will also continue to invest in the growth in renewable production, especially in wind power. Additionally, they plan to phase out fossil fuels. In Germany, Vattenfall plans to phase out coal completely in 2030, and in the Netherlands, this was achieved already in 2020 (Vattenfall Roadmap s.a.).

In addition, Vattenfall aims to become climate neutral in the Nordic region by 2025, including its heat business and the operations will be fossil-free in Sweden by 2021. Vattenfall has also decided to tighten its emission reduction targets by aiming for a net-zero by 2040. The new targets are designed to help keep global warming at 1.5 degrees Celsius and have been endorsed by the Science-Based Targets Initiative (SBTi), which provides external assessment services in line with the latest climate research (Vattenfall 2021b.)

Such as every utility company, Vattenfall faces problems with environmental impact and their responsibility is to minimize the impacts. Their strategy to reduce environmental impacts is to phase out remaining fossil-based production according to their ”roadmap”. As well as Fortum, Vattenfall invests heavily in renewable energy as well as develops new technology to fasten the energy transition to more sustainable energy. They also collaborate with associates to phase out fossil fuels in sectors like industry and transport by utilizing fossil-free electricity. Lastly in Vattenfall’s strategy, they mention that they are just one player among many and invite everyone to join them on the journey towards fossil-free living. The statement of being just one player among others gives the impression that the company is transferring responsibility to others. As one of the largest electricity producers in Europe, Vattenfall’s strategy has an effect on other companies’ strategies as well.

6.2.1 Vattenfall’s sustainability data

Vattenfall’s rating in Sustainalytics ESG Risk Rating is 23.2 which implies medium ESG risk. The company’s Top Material ESG Issues are corporate governance, community relations, resource use, and carbon in their operations. In the industry group ranking Vattenfall places 88th out of 613 utility companies. (Sustainalytics 2021d).

In CSRHub’s Corporate Social Responsibility (CSR) and Environment, Social, Governance (ESG) Metrics Vattenfall scored 90%. CSRHub does not mention any special issues which would affect Vattenfall. (CSRHub 2021d.)

Carbon Disclosure Project’s Climate Change rating for Vattenfall is A in 2020. The rating A is the best possible in CDP’s ranking. Vattenfall has been given the ”A” rating for its climate efforts for two consecutive years by CDP. Only about 3% of the companies assessed by CDP have received the ”A” rating in 2020.

Vattenfall’s annual report reveals their greenhouse gas emissions (CO2) intensity which was 97 gCO2/kWh. The figure includes scope 1 and scope 2 emissions and is reported following Global Reporting Initiative’s (GRI) standards. To reduce CO2 emissions, Vattenfall is converting coal-fired power plants into gas-fired plants. From Vattenfall’s electricity generation 99,9% was ISO 14001 certified. (Vattenfall 2021a, 26.)

6.2.2 Vattenfall's marketing statements and evaluation

Vattenfall uses mostly one slogan in their marketing communication which is "fossil-free living within one generation". The statement is accurate and achievable if Vattenfall continues reducing its emissions. Fossil-free living is a target that should be obtained at some point. However, "within one generation" is rather imprecise. Vattenfall discusses a lot zero emissions through large investments in renewable energy and phasing out fossil fuels. Although the impreciseness of the statement, Vattenfall's investment plans considering fossil-free living are at a good pace. Vattenfall issued their second green hybrid bond of 500 million euros in 2020, which is planned to invest in renewable energy and new energy solutions such as wind farms and e-mobility (Sielinou 2020.)

Vattenfall has also a project HYBRIT with steel manufacturing company SSAB and LKAB to produce the world's first fossil-free steel. As the steel industry creates large emissions it is a significant breakthrough for reducing carbon emissions globally. (Vattenfall 2021c).

Vattenfall is green marketing its operations and there is no clear indicator of greenwashing. Their sustainability data is transparent as it includes a ten-year overview of data. The company has decreased its emissions and reports the figures in an easy-accessible and clear manner. Scope 3 emissions are also included which is not self-evident.

6.3 Statkraft

Statkraft AS is a Norwegian state-owned electric company established in 1986 with roots from 1895. The company produces hydropower, wind power, solar power, gas-fired power, and supplies district heating. Operations of Statkraft are global within 18 countries in Europe, Asia, and South America.

Statkraft has built up a flexible portfolio of hydropower with acquisitions and is now Europe's largest renewable energy company with a 92% share of green energy. The key operations are to develop and operate renewable energy assets, buy and sell energy and additionally, all of their growth investments are purely in renewables. (Statkraft 2021, 41.)

Statkraft's strategy consists of four points which are optimizing and expanding their hydropower portfolio, advancing as a wind and solar power developer, increasing customer business, and developing new business initiatives. Statkraft is committed to sustainability and responsible business practices. (Statkraft 2021, 55.)

A part of Statkraft's vision is to be one of the world's leading renewables companies by 2025. The company has developed a business strategy to reach its goals. According to the company's 2020 annual report (2021, 41), one of the enablers of the strategy is how Statkraft operates as a company. As Statkraft has committed to sustainability and responsible business practices, the company strives to create shared value for society and the environment as well as at the same time for the company. (Statkraft 2021, 41.)

In recent years, Statkraft has developed its sustainability strategy even further. The company is reflecting its objectives to the United Nations' Sustainable Development Goals. The company's ambition is to contribute to combating climate change by expanding access to renewable energy

and by supporting the improvement of sustainable communities. Statkraft also observes other responsible operations, such as equality, health and safety, biodiversity, and human rights. (Statkraft 2021, 40.)

The sustainability target that Statkraft has decided is to maintain its position as Europe's largest renewable power generator, and at the same time be among the top three most climate-friendly large European- based power generators. The company also aims for carbon neutrality by 2040 for direct, scope 1 greenhouse gas emissions. (Statkraft 2021, 12.)

6.3.1 Statkraft's sustainability data

Statkraft's score in Sustainalytics ESG Risk Rating is 15.9 which is considered as low ESG risk. Statkraft's top material ESG issues are corporate governance, product governance, community relations, and business ethics. In the industry group ranking Statkraft places 19th out of 613 utility companies. (Sustainalytics 2021c.)

In CSRHub's Corporate Social Responsibility (CSR) and Environment, Social, Governance (ESG) Metrics Statkraft scored 97%. CSRHub does not mention any special issues which would affect Statkraft. (CSRHub 2021c.)

Carbon Disclosure Project does not have data from Statkraft from 2020. Although there is no data from 2020, Statkraft has submitted its data to receive a score for Climate Change 2021 rating.

According to Statkraft's annual report (2021, 55), the company's greenhouse gas emissions intensity was 28 gCO2/kWh. The figure includes scope 1 and scope 2 emissions and is reported following Global Reporting Initiative's (GRI) standards. Most of the GHG emissions came from a gas-fired generation in Germany. In addition, there are also emissions from company-wide combustion of fossil fuels and the combustion of plastics in district heating plants. As Statkraft's portfolio is dominated by renewable and low-carbon assets, the average GHG emissions from the company's electricity generation are low in comparison to other utility companies. Statkraft does not estimate Scope 3 emissions since the reported figures are from business travel only. (Statkraft 2021,55.) Reports did neither include data of ISO 14001 certificated electricity generation.

6.3.2 Statkraft's marketing statements and evaluation

In Statkraft's marketing communication, the statement "Europe's largest producer of renewable energy" is used often. The statement is clear and based on solid facts. It does not include any controversial connotation. As their strategy includes adherence to the title and continuous green investments are carried out to maintain the position, I did not find elements of greenwashing. Additionally, the annual report does not include statements that could be categorized as greenwash. The annual report is transparent and does not attempt to withhold essential subjects.

6.4 Ørsted

Ørsted A/S is a Danish electricity and heat producer and retailer. It was established in 1973 with a different name Dansk Olie & Naturgas A/S (Danish Oil and Natural Gas), which was also known as DONG. As the name states, DONG was running on fossil fuels, and in 2008, the company announced

that it will start transforming from a fossil fuel-based to a renewable energy company. Heavy investments in the development and build-out of offshore wind farms and converting coal- and gas-fired power stations to sustainable biomass made DONG one of the world's fastest-growing energy groups. As they divested the oil and gas business in 2017 to focus entirely on green energy, DONG changed its name to Ørsted. (Ørsted s.a..)

Ørsted key activities consist of developing, constructing, owning, and operating wind and solar farms as well as energy storage facilities. They also possess and operate bioenergy plants. Further to their generation operations, Ørsted participates in cooperations and advances projects related to the production of renewable hydrogen. (Ørsted 2021a, 11.)

Ørsted is also the largest offshore wind constructor in the world and possesses a large market share in its operating areas which consist of the United Kingdom, Europe, North America, and Asia (Ørsted 2021a, 11.) Ørsted ranked the most sustainable energy company in the world in 2020. In 10 years timeframe, Ørsted has developed from one of the most polluting energy companies in Europe to be the world's most sustainable energy company in the Corporate Knights Global 100 Index. (Ørsted 2021b, 9.)

Ørsted is organized into three business units which are offshore wind including hydrogen business, onshore wind including solar PV portfolio and lastly, markets and bioenergy division. The company's target is to phase out coal in 2023 and become a fully carbon-neutral company within scopes 1 and 2 by 2025. (Ørsted 2021b, 9.) The strategy to Ørsted to reach net-zero emissions is stated to be achieved by growing the construction of clean power generation. The strategy also consists of accelerating phase-out of fossil-fueled power generation and growth of green electrification in sectors that are currently operated by fossil fuels. (Ørsted 2021b, 7.)

The offshore wind market is constantly growing and Ørsted is building farms progressively worldwide. In addition to offshore wind farms, Ørsted is building hydrogen infrastructure in Europe. As onshore renewable energy is the largest non-fossil energy source in the world, Ørsted is strongly taking part in the onshore wind business. Although Ørsted's portfolio includes CHP plants, they operate with a low carbon footprint. Ørsted's green transition is advancing according to their plans since they completed the conversions of their coal-fired units to renewable biomass. The company's target is to achieve net-zero in its CHP operations by 2025. Natural gas is a fossil fuel and the company has planned to gradually phase out it from the energy mix as well. Ørsted has stated that the company will not extend or form new long-term natural gas purchase agreements. (Ørsted 2021b, 35.)

Ørsted has recently launched a supply chain decarbonization program to decrease scope 3 emissions. The offshore wind supply chain includes carbon-intensive activities, particularly the use of energy-intensive construction materials, such as steel, aluminum, and copper, as well as fuel for offshore construction vessels. The company's goal is to reduce scope 3 emissions by 50% between 2018 and 2032. (Ørsted 2021b, 21).

6.4.1 Ørsted's sustainability data

In Sustainalytics ESG Risk Rating Ørsted scored 20.5 which is found as medium risk. Ørsted's top material ESG issues are corporate governance, product governance, community relations and emissions, effluents, and waste. The company ranked 57th of 613 utility companies. (Sustainalytics 2021b).

In CSRHub's Corporate Social Responsibility (CSR) and Environment, Social, Governance (ESG) Metrics Ørstedl scored 87%. According to CSRHub, Ørsted is a labor unions supporter which affects the company's rating positively. (CSRHub 2021b.)

In 2020 Carbon Disclosure Project's Climate Change ranking Ørsted scored A for the second time consecutively.

According to Ørsted's sustainability report 2020, the company's greenhouse gas emissions intensity decreased by 11 % to 58 g CO2e/kWh in 2020. The figure includes scope 1 and scope 2 emissions and is reported following Global Reporting Initiative's (GRI) standards. The company aims to reach 10 g CO2e/kWh in 2025. Despite the marginal increase in their direct carbon emissions in 2020, Ørsted stated to be on track to phase out coal in 2023. In Ørsted's sustainability report (2021b, 32), Scope 3 carbon emissions are evaluated and reported (25,3 Mt CO2e). From Ørsted's total produced energy, 100% is ISO 14001 certified.

6.4.2 Ørsted's marketing statements and evaluation

Ørsted is using the statement "The most sustainable energy company in the world" in its marketing materials. As stated previously, Ørsted has achieved the most sustainable energy company title for three consecutive years in Corporate Knights Global 100. A Canadian company, Corporate Knights is a publishing and research firm which analyses publicly available data on financial and sustainability indicators with companies over 1 billion USD in revenue. The data is based on indicators considering environmental, social, governmental, and economic performance.

The annual and sustainability report creates an image of Ørsted as transparent and trustworthy. The company seems to be avoiding statements that could potentially be marked as greenwash. The transformation of Ørsted was extremely rapid from the oil and gas business to renewables and it should be emphasized. The company had reduced its coal consumption by 91% in 2019. Ørsted is also continuously investing heavily in the growth in renewables and the targets are ambitious but achievable.

6.5 Comparison of the case companies

The table below concludes the research of the case companies' sustainability data which enables us to form a comparison of the companies' environmental sustainability to another. Since this thesis's purpose is to consider the environmental aspect of greenwash and ESG consists of environmental, social, and governance it is not as a relevant evaluation metric as CO2 intensity. Additionally, there is a large disagreement considering the reliability of ESG reporting.

TABLE 1. Comparison of the case companies' sustainability based on figures from 2020.

	Environmental sustainability indicator				
Case companies	Sustainalytics	CSRHub (ESG)	CDP Climate Change 2020	GRI - CO2 Intensity	ISO 14001
Fortum	22,6	94 %	A-	287 gCO2/kWh	99,90 %
Vattenfall	23,3	90 %	A	97 gCO2/kWh	99,20 %
Statkraft	15,9	97 %	-	28 gCO2/kWh	-
Ørsted	20,5	87 %	A	58 gCO2/kWh	100 %

As the table above illustrates, Fortum retains the highest CO2 intensity of the case companies. Truly the quantity of Fortum's CO2 intensity is higher since the other case companies' figures include scope 2 while Fortum includes merely scope 1 emissions. In addition, Fortum's recent consolidation of Uniper is accounted for from Q2 to Q4 which signifies that Uniper's emissions are not included from the entire calendar year. Although Fortum's CO2 intensity is considerable, the company has succeeded in the CSRHub comparison better than Ørsted which can be challenged since in Sustainalytics score Fortum did not overtake Ørsted. Both evaluation methods are based on ESG, which forms a controversial image of sustainability evaluation. In the other metrics than CO2 intensity, Fortum does not stand out and is performing efficiently.

Vattenfall possesses the second-largest CO2 intensity due to its coal and gas power generation. The company has created ambitious targets for reducing greenhouse gas emissions in the near future. In Sustainalytics comparison Vattenfall has not succeeded as well as the other companies but CSRHub ranks the company higher than Ørsted. Additionally, Vattenfall has achieved the best CDP Climate Change rating A.

Statkraft has succeeded in all of the metrics excluding CDP rating and ISO 14001 certificated electricity since there was no data available. The lowest CO2 intensity is Statkraft's since 92% of its energy comes from renewables.

Ørsted instead has great figures excluding CSRHub. The company's CO2 intensity is surprisingly high since Ørsted produces 90% of its electricity from renewables.

All the case companies are planning to phase out coal shortly but Fortum, Vattenfall, and Ørsted are still dependent on gas in their CHP plants. The companies have made promises that they phase out fossil fuels, but the promises are purely dependent on green hydrogen. According to International Energy Agency, most hydrogen is currently produced through emissions-intensive natural gas reforming and coal gasification (IEA 2020). It indicates that there is a lot of research and development to be done to be environmentally friendly using hydrogen.

The history and diminishing part of Vattenfall and Ørsted include fossil fuels but both firms have used different methods to decrease the emphasis. Vattenfall's procedure was to sell its lignite operations to another firm that continues the operation. Vattenfall achieved its targets to decrease emissions, but the emissions remain in EPH's figures which indicates that there is no global societal gain. It is highly arguable if the procedure was the most constructive while the company could have transformed the power plants to a greener alternative which is part of Vattenfall's strategy at pre-

sent. Ørsted instead ran down its oil and gas business and transformed to green alternatives. Fortum is also linked to this discussion since the company has been considerably criticized for the Uniper acquisition. Fortum's vision to transform coal and gas into greener alternatives is extremely ambitious.

During the research, recent greenwash accusations were entirely about Fortum. I found an article considering Vattenfall's win of The Climate Greenwash Award in 2009, but the company has developed considerably since then. Vattenfall won with 39% of the vote for portraying itself as a climate champion while lobbying to continue business as usual. In the same vote, Ørsted (previously DONG) received 14,4% of the votes (The Ecologist 2009). During the research, greenwashing claims of Statkraft could not be found.

7. CONCLUSION

This chapter concludes the overall outcome of the research. The case companies Fortum, Vattenfall, Statkraft, and Ørsted advertise themselves as green and environmentally friendly. Some of the companies have better control of their environmental impacts and marketing regarding the subject.

Nearly every company perpetrates greenwashing when marketing itself as green or environmentally friendly. In this paper, it was found that from the case companies Fortum is the most controversial with their marketing statements while Statkraft can be considered the most transparent and trustworthy. The allegation "The third-largest CO2-free power generator in Europe" can be found in nearly every Fortum's marketing material. Indeed the statement is true but it covers an immense issue behind it. The fact that Fortum is at the same time one of the most polluting firms of Europe with operations that affect to entire nation's health is alarming.

Furthermore, Vattenfall possesses also fossil fuel operations which are planned to phase out in the near future. Comparing Vattenfall's declaration of "fossil-free living within one generation is more subtle and does not emphasize their current state of environmental sustainability. Since the statement is slightly vague it can be disputed being greenwashing.

As Statkraft is Europe's largest producer of renewable energy and there are no coal operations, their CO2 intensity was the lowest from the case companies. Based on the statements found for this research, there were no elements of greenwashing in Statkraft's marketing.

Ørsted is the leading wind power contractor and the most sustainable company in the world. In addition to Statkraft, Ørsted was not identified as a greenwasher based on their marketing statements.

Since all the case companies are aiming for carbon-free operations, it can be concluded that although there are elements of greenwashing, the overall image of the Nordic energy sector is in a good shape from the perspective of environmental sustainability. Case companies are designing their targets according to the Paris Agreement to decrease emissions and create a sustainable future. Additionally, large investments are made continuously in the green transition which emphasizes the pioneer position of Nordic countries' energy sector. Nevertheless, how carbon-free operations are achieved is an essential matter. Companies use terms such as net-zero and carbon-free society in their marketing constantly and it is nearly never clear how net-zero is achieved. If carbon offsets are used, it does not equal cutting emissions. Since when utilizing offsets widely, companies can continue polluting and buy their carbon emissions to meet the zero target. Simultaneously, it is not measurable if the investment goes into the proper use and on the right scale. Scopes that are adopted in the annual and sustainability reports can be confusing to consumers. Scopes 1 and 2 are generally reported attentively but scope 3 emissions are practically impossible to track accurately. Companies tend to have different practices of reporting the emissions although they might be using widely accepted Global Reporting Initiative's standards.

There are many unsolved issues considering sustainability reporting and its transparency. From the perspective of consumers, it is nearly impossible to recognize trustworthy marketing statements

without further researching and evaluating. A large share of the external organizations' data is created for investors which do not serve consumers. Annual reports and websites include a lot of marketing terms and figures which are used to create the best image of the company that is possible. There is no certainty that consumers can evaluate which of the data is purely true and which marketing messages cover issues. For instance, Fortum stated in the 2020 annual report that they follow the regulations for green marketing. Should it be acceptable that Fortum communicates being one of the greenest firms in Europe while being one of the most polluting at the same time? Thus, it can be disputed if there is enough regulation for green marketing. Discovering the case companies' negative impacts on the environment is complicated and nearly everything that is considered negative is tried to compensate as promises for the future.

8. DISCUSSION

This thesis purpose was to find out if Nordic Energy companies perpetrate greenwash in their marketing communication. The aim was to research if the marketing statements are misleading and inaccurate.

I find that this thesis presented the theory considering sustainability, green marketing, and greenwashing extensively. The main theories were introduced and evaluated utilizing various usage of e-articles and e-books. The results of the research were reliable on third-party data and companies' reports which allowed to form an image of the companies' sustainability. My analysis of the marketing statements on the other hand is not purely objective although the intention was to aim for objectivity. Problems occurred as trying to find data that are not included in the case companies' materials. Fortum was the only company that had several recent greenwash allocations. In addition, the research concentrated on greenhouse gas emissions does not give a full picture of environmental impacts such as biodiversity issues considering the construction of hydro and wind power plants. In addition to the environmental aspect, sustainability consists of social and governmental subjects which were not included in the thesis for the tight schedule.

A large issue of using organizations such as Carbon Disclosure Project, CSRHub, and Sustainalytics' free data is that the companies show merely the ranking, and the rest of the data is chargeable. This research did not have funding thus research remains perfunctory. Additionally, the ESG ratings are updated several times in a year which implicates that the ratings in this research might not stay up to date.

Fortum's Uniper acquisition made evaluation confusing since the figures do not match the whole calendar year. In addition, there is a wide discussion of ESG figures in general since ESG data is mostly reported by the companies themselves and thus can be modified to create a beneficial image for the company. ESG is designed for creating an investment risk profile and that is why it is not the best evaluation tool for sustainability. Another aspect of the reliability of the thesis is that there is no data of what the companies are secretly lobbying for.

8.1 Further research

Further research in this particular subject is a possibility since many other companies are also marketing themselves as environmentally friendly. There is a lot of ignorance considering greenwashing and it is extremely complicated to find reliable data to form opinions of the companies' marketing statements. In further studies, sustainability evaluation tools could be reconsidered and chosen better. In addition, using paid third-party data and companies' internal data could be beneficial for finding out more profound results.

8.2 Self-evaluation

As I remember, I have always been interested in sustainability and the environmental impacts of companies. Therefore, I chose a subject that connects sustainability and marketing which was fascinating. Despite the issues considering sustainability and the measurement tools, I enjoyed writing

the thesis. It was extremely hard to find proper tools which present businesses' sustainability accurately. There is a lot of different definitions for sustainability and no single holistic tool for measuring environmental impacts which became an issue at times. Additionally, I find that the data available did not author me to claim companies unsustainable. Sustainability is a large field that is growing constantly, and I consider that understanding the entirety completely is nearly impossible. Despite the issues considering the subject, I learned a lot about green marketing and the issues considering it as well as of the Nordic energy markets.

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