

Corporate Social Responsibility and Renewable Energy Companies

A Comparison of Practice and Policy in Energy Companies in

Iceland and the United States



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**Corporate Social Responsibility and Renewable Energy
Companies**

***A Comparison of Practice and Policy in Energy
Companies in Iceland and the United States***

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Thesis for MS Degree in Environment and Natural Resources

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Foreword

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Abstract

This thesis examines the environmental aspects of corporate social responsible (CSR) in renewable energy companies and how that connects to governmental policy in both Iceland and the United States (US). In order to examine and compare CSR in the two countries a literature review focused on the history of CSR, characteristics of each country, environmental and climate policy of each country, and CSR in the energy sector in general. This revealed that there was little prior research in the area of CSR for renewable energy companies so two renewable energy companies were chosen from each country. The two major Icelandic companies, Orkuveita Reykjavíkur and Landsvirkjun were chosen and used to determine the relevant US companies, Calpine and Idaho Power, through a comparison of the amount of renewable energy they produced. Once the companies were chosen, a content analysis was performed to look for keywords identified in the Global Reporting Initiative and UN Global Compact standards in publicly available documents from each company. Interviews were done at the Icelandic companies to provide further insight into their CSR. The results showed that CSR in Icelandic companies was more connected to the companies' core business and was more in line with global standards. The CSR in the US companies varied greatly between the companies but was overall less focused on global standards and had a much more intense focus on the role that government regulation played in making their business more difficult.

Table of Contents

Figures	viii
Tables	viii
1 Introduction	1
2 Literature Review	5
2.1 Background of CSR	7
2.2 The Importance and Advantages of CSR	9
2.3 CSR and Policy	10
2.4 CSR Reporting and Assessment Frameworks	11
2.4.1 ISO 26000 Standard on Social Responsibility	11
2.4.2 ISO 14001 Environmental Management	12
2.4.3 Global Reporting Initiative (GRI)	12
2.4.4 United Nations Global Compact	13
2.5 Climate Change and CSR	13
2.6 Environmental and Climate Policy in Iceland	15
2.7 Environmental and Climate Policy in the United States	16
2.8 CSR in the Energy Sector	18
2.9 CSR in the Nonrenewable Energy Sector	19
2.9.1 Current State of CSR in the Nonrenewable Energy Sector	20
2.9.2 CSR Focus in Nonrenewable Energy Companies	21
2.9.3 Consumer Influence over CSR in the Nonrenewable Energy Sector	21
2.10 CSR in the Renewable Energy Sector	23
3 Research Methods	25
3.1 Research Question	25
3.2 Country Comparison	25
3.3 Case Selection	29
3.3.1 Companies in Iceland	29
3.3.2 Companies in the United States	32
3.4 Analysis of CSR in Published Documentation	35
3.5 Interviews	39
4 Results	43
4.1 Content Analysis	43
4.1.1 Orkuveita Reykjavíkur/Orka Náttúrunnar, Iceland	46
4.1.1.1 Summary of Relevant Documents	47
4.1.1.2 Coding Results from NVivo	48
4.1.1.3 CSR Characteristics	49
4.1.2 Landsvirkjun, Iceland	50

4.1.2.1 Summary of Relevant Documents	50
4.1.2.2 Coding Results from NVivo	52
4.1.2.3 CSR Characteristics.....	52
4.1.3 Calpine Corporation, US.....	53
4.1.3.1 Summary of Relevant Documents	53
4.1.3.2 Coding Results from NVivo	58
4.1.3.3 CSR Characteristics.....	58
4.1.4 Idaho Power Company, US	59
4.1.4.1 Summary of Relevant Documents	59
4.1.4.2 Coding Results from NVivo	66
4.1.4.3 CSR Characteristics.....	67
4.2 Interviews of the Icelandic Companies.....	67
4.2.1 Summary of the Interview with Festa, the Icelandic Center for CSR ...	68
4.2.2 Summary of the Interviews with OR and ON.....	72
4.2.2.1 Summary of the Interview with Orkuveita Reykjavíkur.....	72
4.2.2.2 Summary of the Interview with Orka Náttúrunnar	74
4.2.3 Summary of Interview with Landsvirkjun	75
5 Discussion.....	79
5.1 Assessment of CSR from the Content Analysis.....	79
5.1.1 Assessment of CSR at Orkuveita Reykjavíkur	80
5.1.2 Assessment of CSR at Landsvirkjun.....	81
5.1.3 Assessment of CSR at Calpine	84
5.1.4 Assessment of CSR at Idaho Power.....	87
5.1.5 National Differences in CSR in the Renewable Energy Sector between Iceland and the US	88
5.2 Assessment of CSR from the Interviews	90
5.2.1 Festa	90
5.2.2 Orkuveita Reykjavíkur	91
5.2.3 Orka Náttúrunnar.....	92
5.2.4 Landsvirkjun	92
5.2.5 Overall Trends in CSR in Icelandic Renewable Energy Companies	93
6 Conclusion.....	95
References.....	97

Figures

Figure 1. Carroll's CSR Pyramid.....	7
Figure 2. Map of Landsvirkjun's Power Stations.....	28
Figure 3. Map of OR's Power Stations.....	29
Figure 4. Map of Calpine's Power Stations.....	32
Figure 5. Map of Idaho Power's Service Area.....	33

Tables

Table 1. Information Describing Selected Energy Companies.....	34
Table 2. Summary of the GRI Guidelines for Quality Reporting.....	38
Table 3. Summary of Nodes Coded in all Documents.....	41
Table 4. Summary of Available Documents and Nodes by Company.....	41
Table 5. Assessment of the Quality of CSR/Sustainability Reporting.....	41
Table 6. Nodes and Node Density by Company and Country.....	42
Table 7. Summary of Nodes Coded OR/ON Documents.....	46
Table 8. CSR Characteristics at Orkuveita Reykjavíkur.....	46
Table 9. Summary of Nodes Coded in Landsvirkjun Documents.....	49
Table 10. CSR Characteristics at Landsvirkjun.....	50
Table 11. Summary of Nodes Coded in Calpine Documents.....	55
Table 12. CSR Characteristics at Calpine.....	56
Table 13. Summary of Nodes Coded in Idaho Power Documents.....	64
Table 14. CSR Characteristics at Idaho Power.....	64
Table 15. Summary of high and low rates of nodes coded	75

1 Introduction

Corporate Social Responsibility (CSR) is of increasing importance within the business sector. It generally involves the practice of taking social and environmental responsibilities beyond what is required by law through both the daily operations and philanthropic activities of the company while still creating a positive financial outcome (Blowfield & Murray, 2014). CSR can be beneficial to corporations, consumers, and society as a whole for a number of reasons. First of all, CSR can fill in gaps where government regulation has fallen short. Additionally, CSR can be an economically sound strategy to save money on daily operations and attract more customers due to consumer demand for sustainable and socially conscious business practices.

CSR is defined by the International Standards Organization (ISO) as the “responsibility of an organization for the impacts of its decisions and activities on society and the environment, through transparent and ethical behavior that: contributes to sustainable development, including health and the welfare of society; takes into account the expectations of stakeholders; is in compliance with applicable law and consistent with international norms of behavior; and is integrated throughout the organization and practiced in its relationships,” (ISO 26000 - Social Responsibility, 2010).

CSR is becoming increasingly important as the major issues facing humankind are increasingly cross-border issues. Climate change, population growth, and human rights are not going to be solved by any country or government individually. Businesses provide another opportunity for combating large issues, such as climate change, which is most relevant to this analysis. Businesses have the opportunity to address climate change and other large issues through CSR.

Frequently, business and environmental goals are pitted against each other. “Strong business opposition against mandatory reduction of greenhouse gases¹ in the US has contributed to the deadlock in the negotiations of an international climate treaty” (Hsu & Wang, 2013, p. 203). However, from a business perspective, there are

¹ Greenhouse gases as defined by the United Nations Framework Convention on Climate Change are gases that absorb infrared radiation in the atmosphere including water vapor, carbon dioxide and methane (UNFCCC, n.d.).

opportunities for companies to take advantage of that arise from the challenges of climate change. For example, companies that develop green capabilities by reducing risks, costs and anticipating governmental regulation stand to profit by working towards environmental goals. Furthermore, action against climate change can improve a firm's image and its relationship with customers, government and employees (Hsu & Wang, 2013).

Ultimately, business profitability and continued existence are threatened by the development of climate change. In fact, businesses have the resources, international influence and self-motivation to make progress on climate change. Meanwhile, governments have consistently struggled to reach actionable plans to combat climate change (Korngold, 2014). This is not to say that all businesses are doing a good or even adequate job of preventing and mitigating climate change, but merely have the opportunity to do so. In fact, most companies are doing very little long-term planning when it comes to emissions reduction and climate change. In fact, while 82% of companies have set absolute emissions reductions targets, only 20% of those targets go to 2020 or beyond (Korngold, 2014).

Renewable energy companies provide a unique opportunity to examine CSR since they inherently exist at the intersection of business and sustainability, since their business is focused in a way that is much more environmentally conscious since they are focused on harnessing renewable sources of energy rather than fossil fuels. This could give them unique CSR opportunities, or the opportunity to ignore CSR since their business is already more sustainable than energy companies using nonrenewable sources.

In order to understand how the environmental aspects of CSR in renewable energy companies interact with governmental policy in both Iceland and the United States, this thesis begins by examining the existing literature. The literature review focuses on how CSR interacts with policy, how CSR influences climate change policy and corporate actions to combat climate change, and how renewable energy companies are currently using CSR. Thus the research question itself is: How do company level corporate social responsibility policies in the renewable energy sector interact with national level environmental and climate change policies in the United States and Iceland?

After examining the relevant literature, I move into the research methods, which is a content analysis of documents from two renewable energy companies in both countries. The four selected companies are Landsvirkjun and Orkuveita Reykjavíkur in Iceland and Calpine Corporation and the Idaho Power Corporation in the United States. The content analysis itself draws on existing models created by various authors (Danilet & Mihai, 2013; Metaxas & Tsavdaridou, 2012; Trapp, 2012) working within the CSR field. The data is then analyzed using the qualitative data analysis software, NVivo. A secondary analysis of only the Icelandic companies is done to assess the characteristics of CSR in Icelandic renewable energy companies through interviews with representatives from the companies assessed.

As CSR becomes a larger part of modern business, it is of utmost importance to begin to understand how CSR works (or doesn't work) in conjunction with government policies. Additionally, seeing CSR in the context of companies that are already conceivably "good" for the environment will provide insight into how genuine CSR in the renewable energy sector is, or if it's used as a greenwashing tool for companies with negative impacts to slide their environmental sins under the rug. Understanding what role business can play in combating climate change is an extremely important part of global climate change mitigation and adaptation since businesses are such large and influential players on the world stage.

2 Literature Review

Throughout much of recent history, businesses have faced criticism for the lack of consideration for environmental and social impacts of their business. However, in the past twenty years or so, there has been a gradual shift within the business community to make social and environmental benefits work together with their profit-making activities. This has led to an increase of triple bottom line accounting where companies consider their economic, social, and environmental costs and profits (Kleine & Hauff, 2009). In fact, more and more, companies are shifting from the traditional financial reporting models to new forms of reporting that include the triple bottom line and thus embrace the practices of CSR (Bonsón & Bednárová, 2014). There are many frameworks and reporting standards that have been developed to help companies implement CSR including the Global Reporting Initiative, UN Global Compact, Carbon Disclosure Project (CDP), and ISO standards.

Despite its fairly long history, CSR is not easily defined. Most corporations, governments, and organizations geared towards CSR has its own definition. Many of the early definitions were viewed through the lens of the well-known Brundtland Commission definition of sustainable development. The Brundtland Commission defines sustainable development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (UN World Commission on Environment and Development, 1987, p. 41).

CSR definitions frequently include the basic principles of the Brundtland Commission, including the definition from the World Business Council for Sustainable Development: “For the business enterprise, sustainable development means adopting business strategies and activities that meet the needs of the enterprise and its stakeholders today while protecting, sustaining, and enhancing the human and natural resources that will be needed in the future” (International Institute for Sustainable Development, Deloitte & Touche, & World Business Council for Sustainable Development, 1992). Other scholars have confirmed that business CSR definitions were leaning on the principle of sustainable development (Keeble, Topiol, & Berkeley, 2003).

However, many recent definitions of CSR have included no direct references to the Brundtland definition of sustainable development but have still embodied similar language. “Corporate sustainability can accordingly be defined as meeting the needs of a firm’s direct and indirect stakeholders (such as shareholders, employees, clients, pressure groups and communities), without compromising its ability to meet the needs of future stakeholders as well” (Dyllick & Hockerts, 2002, p. 131). A third definition distances itself even further from the Brundtland definition by defining CSR as a company’s voluntary activities “demonstrating the inclusion of social and environmental concerns in business operations with stakeholders” (Marrewijk, 2003). Finally, the European Commission defines CSR as “the responsibility of enterprises for their impact on society. CSR should be company led. Public authorities can play a supporting role through a smart mix of voluntary policy measures, and where necessary, complementary regulations” (European Commission, 2014).

Recently, with the publication of the Sustainable Development Goals, new goals, targets and definitions of sustainable development have emerged. The goals include targets related to health, poverty, education, energy, economic growth, and equality. The ones most relevant to this analysis include goal 7, “Ensure access to affordable, reliable, sustainable and modern energy for all”, goal 13, “Take urgent action to combat climate change and its impacts”, and goal 17, “strengthen the means of implementation and revitalize the global partnership for sustainable development” (UN, 2015).

For the purposes of this research, the ISO 26000 standard definition (as defined in the introduction) will be used for a number of reasons. First of all, ISO provides a number of standardized measures in various fields and topics, meaning that it is an internationally recognized way of defining various concepts, such as CSR in this case. Additionally, the CSR definition provided by ISO is comprehensive and combines elements of many other definitions.

The literature review proceeds to discuss the background of CSR, the importance and advantages of CSR to businesses, CSR and policy, CSR reporting and assessment frameworks, and climate change and CSR. The section concludes with a focus on CSR in the energy sector, CSR in the nonrenewable energy sector, and then CSR in the renewable energy sector.

2.1 Background of CSR

In the early days of CSR, Milton Friedman famously argued that “there is one and only one social responsibility of business—to use its profits so long as it stays within the rules of the game, which is to say, engages in open and free competition without deception or fraud” (M. Friedman, 1970).

Since Friedman’s comments, CSR and related terms have been heavily debated and subjective topics, but it is clear that there is increasing pressure from both customers and employees for firms to take part in CSR actions (McWilliams & Siegel, 2000). The increasing influence of CSR is clear in the way that corporate discussions around CSR have shifted—first the focus of these discussions was why companies should pursue CSR but recently it has shifted instead to how companies should pursue CSR (Forbes & McIntosh, 2011).

However, that does not mean that CSR is universally implemented in an effective manner. Increasingly public polls in the United States and elsewhere indicate that the public is losing confidence in big business which further indicates the pressure firms are facing to donate money to charities, protect the environment and solve social issues in their communities. When firms do behave responsibly, one study found that 80% of consumers had a more positive image of the firm (Mohr, Webb, & Harris, 2001).

However, not all CSR activities are created equally. One typology of CSR defined by Trapp (2012) identifies three different generations of CSR. The first generation of CSR is concerned with complying with the law based on a narrow concern for the financial benefits of the most immediate stakeholders. Companies with second generation CSR expand their concerns to include the well-being of a more inclusive set of stakeholders including people outside of the company (families of employees, local communities, etc.). This demonstrates that the company is thinking beyond a focus solely on profit. Finally, in third generation CSR, a company is ethically motivated to address global issues that may not be directly related to their staff and local community, but that affect humankind more broadly. This includes issues such as climate change, ozone depletion, and labor standards throughout the supply chain (Trapp, 2012).

One of the foundational concepts of CSR, the pyramid of corporate social responsibility, was introduced by Carroll in 1991. Carroll (1991) argues that CSR needs to

be framed in a way that the entire range of business responsibilities are included. He introduces four main categories of necessary CSR components which include economic responsibilities, legal responsibilities, ethical responsibilities and philanthropic responsibilities.

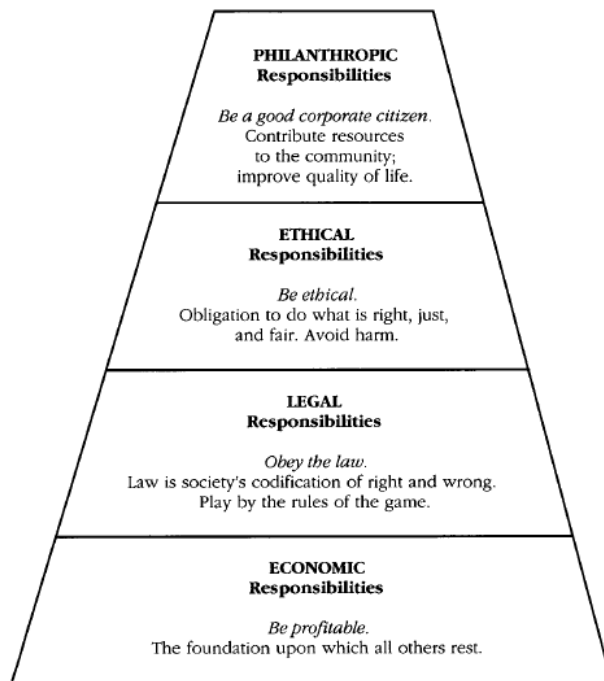


Figure 1. Carroll's CSR pyramid. Carroll's (1991, p. 42) pyramid includes the economic, legal, ethical and philanthropic responsibilities of companies.

The base of the pyramid includes the economic responsibilities of companies. Businesses exist to provide goods and services to society, which means that companies have the economic responsibility to do this successfully. Secondly, a company has legal obligations to work within the laws and regulations as set by the governments of the locations in which they operate. These obligations represent the minimum obligation businesses have towards society, their employees and the environment.

The third layer of the pyramid is the ethical responsibilities. These responsibilities include following the ethical expectations of society even when those expectations are not set in law. Not following ethical obligations can create public backlash that is harmful to the company. However, ethical responsibilities frequently change based on location and throughout time, making them difficult to follow. Finally, the company has philanthropic responsibilities which includes the company's contributions to programs or organizations that promote "good" within society. Companies are not considered to be unethical if they are not philanthropic, which is why it is placed on the top of the pyramid. Philanthropic activity helps to make business a good corporate citizen of the society in which it exists (Carroll, 1991) .

As CSR becomes more widespread, consumers are increasingly aware of many CSR issues. A 2006 study concluded that consumers do not blindly accept CSR initiatives as

sincere actions and will respond accordingly by either rewarding the firm for an effective policy or punishing the firm for its act of greenwashing (Becker-Olsen, Cudmore, & Hill, 2006). Greenwashing is the act of misleading consumers about environmental aspects of a company's practices (Parguel, Benoît-moreau, & Larceneux, 2011). The fact that consumers will reward or punish firms for greenwashing demonstrates the importance of consumer perception and confidence and stresses the importance of avoiding greenwashing when engaging in CSR (Becker-Olsen et al., 2006).

2.2 The Importance and Advantages of CSR

Throughout CSR's history, there has always been a debate surrounding how CSR impacts a company's profits. Notably in the development of viewing CSR as a profitable business activity, in 1995, an article was published arguing that it was possible to be both environmentally friendly and competitive (Porter & Linde, 1995). Prior to this development, the general assumption in the business community was that CSR activities would detract from the business and take away profit-earning potential rather than contributing to it (Friedman, 1970).

Today, many chief executive officers (CEOs) and scholars argue that CSR is profitable for companies. There is a very strong business case for all varieties of CSR including things such as environmental stewardship, pollution control, sustainable development, human rights and more (Vogel, 2005). A 2002 survey found that 70% of global chief executives believed that CSR was vital to the profitability and success of their corporations and 91% believed that CSR created shareholder value (Vogel, 2005). A more recent survey done by the Carbon Disclosure Project (CDP) of 379 of the Global 500 companies found that 81% of companies said that climate change presented a physical risk to their business, 83% said that it posed a regulatory risk and 63% said it posed a reputation and change in customer behavior risk. Additionally, 96% of companies have either board or senior executive oversight over climate change initiatives, which indicates its importance in the business world. In fact, 78% of businesses surveyed have integrated climate change into their business strategy (Korngold, 2014).

Porter and Kramer (2006) argue that CSR has become an inescapable facet of modern business, and that one of the things holding back CSR is that frequently business

and society are pitted against each other instead of viewed as an interdependent system. Additionally, companies are pressured to think of CSR in generic terms, rather than in innovative ways that will be most relevant and applicable to the performance of their own firm (Porter & Kramer, 2006).

However, the empirical evidence about the profitability of CSR is mixed. Vogel (2005) argues that CSR is better understood as one dimension of corporate strategy rather than a standalone concept. For example, in the case of brand misconduct, CSR can be highly effective in both preventing and dealing with the fallout of these crises. CSR alone is not determining the profits of a company, but it greatly influences how different parts of the corporation function, such as crisis management (Huber, Vollhardt, Matthes, & Vogel, 2010). There are different levels of CSR within a firm, and CSR across firms varies greatly (Vogel, 2005). Despite the fact that the business case for CSR has resulted in different outcomes, it is still evident that CSR is an important part of business and is not going away any time soon, especially since it is so highly viewed as important for companies by CEOs.

One study of company profitability and CSR found that companies that are effective in addressing climate change generate superior stock performance. The study compared companies that were placed on the Climate Disclosure Leadership Index (CDLI) to the Global 500 and found that companies on the CDLI had returns of 67.4% compared to the Global 500 companies who had returns of 31.1% (Korngold, 2014). Furthermore, carbon reduction activities in general are producing an average return on investment of 34.3%, which indicates that these sorts of activities are both profitable and beneficial for the environment (Korngold, 2014).

2.3 CSR and Policy

Many definitions specify that CSR actions that a company takes must be voluntary in order to qualify under their CSR programs (McWilliams & Siegel, 2000). Following governmental regulations is not enough to determine a company's responsibility. However, it is still important to examine the ways in which CSR interacts with policy, going both directions. Firms have the ability to influence governmental policy and governmental policy is very important in shaping the behavior of firms. CSR can be used

as a political strategy to help create regulatory barriers to prevent other firms from imitating the original corporation (McWilliams & Siegel, 2000).

Historically, CSR of firms has been greatly shaped by the national institutions in the country in which the firm operated. This is logical since the governance system in the country of operation would have great influence over the firm in terms of regulations, and there would be certain societal expectations of the company. However, since companies are increasingly globalized, national institutions could play less of a role in the future in shaping CSR reporting and policy within companies (Young & Marais, 2012).

2.4 CSR Reporting and Assessment Frameworks

There are a number of local, national and international standards that exist to provide guidance on how to implement and assess CSR. The most prominent of these reporting and assessment frameworks include the ISO 26000 standard on social responsibility, the ISO 14001 standard on environmental management , Global Reporting Initiative (GRI), and the United Nations Global Compact, These organizations help to provide accountability and create more consistent ways of comparing CSR across countries and industries. The following section goes through each of these reporting and assessment frameworks in more detail.

2.4.1 ISO 26000 Standard on Social Responsibility

The ISO 26000 standard is the standard for guidance on social responsibility developed by the International Organization for Standardization. The ISO 26000 standard identified several principles of social responsibility including human rights, labor practices, the environment, fair operating practices, consumer issues, and community involvement and development. These categories are all broken down into sub-issues to provide greater guidance for companies to implement an effective CSR strategy (ISO 26000 - Social Responsibility, 2010).

In this case, the issue areas categorized under the environment principle are most relevant. The four issues chosen as focus areas under the environment principle are prevention of pollution, sustainable resource use, climate change mitigation and adaptation and protection of the environment, biodiversity and restoration of natural habitats (ISO 26000 - Social Responsibility, 2010). The ISO standard for guidance on social

responsibility provides a useful tool for companies to evaluate and monitor their CSR practices and creates an easy avenue for accountability.

2.4.2 ISO 14001 Environmental Management

The ISO 14001 standard is another of the ISO family of standards. This one is focused on environmental management. The 14000 series of ISO standards includes guidelines to help companies become more sustainable. This standard is designed to help companies develop environmentally sound management systems for the benefit of both their business, their customers and other stakeholders. ISO 14001 does offer certification for companies in compliance with the standards, but it is not mandatory (ISO Central Secretariat, 2009). The environmental management standard is useful in addition to the ISO standard on social responsibility, since it focuses on sustainability and environmental aspects of a company, which is a main focus of this research.

2.4.3 Global Reporting Initiative (GRI)

Another reporting framework that can be used to assess CSR is the Global Reporting Initiative (GRI). GRI is an international non-profit organization working with sustainability reporting as a way for corporations and other organizations to become more sustainable. GRI has developed the Sustainability Reporting Framework that provides guidance to organizations on how to report their economic, environmental and social impacts. The goal of the organization is to make sustainability reporting standard for all companies and organizations (GRI, 2014).

GRI's suggestions for sustainability reporting include discussing the economic, environmental and social impacts caused by a company's daily activities while also presenting the organization's values, governance model and shows the link between strategy and its commitment to a sustainable global economy. The sustainability report is a platform for communicating sustainability information—both positive and negative (GRI, 2014).

The GRI has 6 principles for defining reporting quality which are balance, comparability, accuracy, timeliness, clarity and reliability. On their website, they define the principle, show how to apply the principle and how to test for its accuracy (GRI, 2013).

2.4.4 United Nations Global Compact

The UN Global Compact is a voluntary initiative that is based on commitments by CEOs to implement sustainability principles within their company that help to support UN goals. The Global Compact is described as the world's largest corporate sustainability initiative and has over 12,000 signatories in 170 different countries from all sectors. The Global Compact has ten principles divided into four main categories: human rights, labor, environment, and anti-corruption. The human rights category includes two principles instructing businesses to support and respect internationally proclaimed human rights and make sure they are not complicit in human rights abuses (United Nations, 2013).

The second category, labor, includes four principles that ask businesses to uphold the freedom of association and recognize the right to collective bargaining, eliminate compulsory labor, avoid child labor and eliminate discrimination. The environment category includes three principles encouraging business to support a precautionary approach to environmental problems, promote greater environment sustainability and support the development of environmentally friendly technologies. Finally, the category for anti-corruption works on ensuring that companies are engaging in practices that do not involve corruption (United Nations, 2013).

2.5 Climate Change and CSR

The environmental dimensions of CSR are especially important to consider when looking at one of the biggest challenges facing businesses (and society) in the upcoming years, climate change. Climate change is playing an increasingly important role in business competition and there is a great need for businesses to take action sooner rather than later. "Companies that persist in treating climate change solely as a corporate social responsibility issue, rather than a business problem, will risk the greatest consequences," (Porter & Reinhardt, 2007, p. 22). Up until the end of the 20th century, companies focused on business strategies that frequently opposed climate change regulations. However, since then, more market responses are emerging to confront climate change and reduce greenhouse gas (GHG) emissions via product and production efficiency improvements and emissions trading (Kolk & Pinkse, 2005).

Companies are slowly moving away from anti-climate change positions. For example, companies are leaving organizations such as the Global Climate Coalition which was established in 1989 to represent companies with major fossil fuel use or production and to lobby Congress to prevent regulation of fossil fuels. Industry in the United States also challenged the legitimacy of global climate organizations such as the International Panel on Climate Change (IPCC) and other scientific bodies (Kolk & Pinkse, 2005). Within Europe, there was resistance to climate change legislation from industry, but it was not as strong as resistance in the United States. In fact, in Europe, companies were more likely to engage in participatory and preemptive approaches than their counterparts in the US. Overall, industry had substantial influence over early climate policy and regulation (Kolk & Pinkse, 2005).

While businesses do face much uncertainty when it comes to climate change regulations, the overall trend seems to be moving away from command and control towards more flexible mechanisms. When given options on how to handle climate change and emissions reductions, companies have a number of options. First of all, they can choose to incorporate climate change into their business strategy through innovation. Alternatively, they can choose what Kolk and Pinske (2005) call “compensation” strategies which involves actions such as buying carbon credits so the main core of their business and strategy remains unaffected.

Companies themselves are also moving towards voluntarily adopting climate change strategies and supporting the international negotiations working to lower carbon emissions. From a purely economic perspective, there is an opportunity for companies to seize economic advantages by addressing climate change through reducing risks and costs, anticipating regulation, and other strategic behaviors (Kolk & Levy, 2001).

In December of 2015, the 21st conference of the parties (COP) of the United Nation Framework Convention on Climate Change (UNFCCC) will meet in Paris, France with the goal of reviewing the UNFCCC’s implementation and to achieve a legally binding universal agreement on climate, with the specific aim of keeping global warm below 2° Celsius. The organizers of COP 21 are also stressing the role of business in addressing climate change and creating partnerships to do so (UNFCCC, 2015).

2.6 Environmental and Climate Policy in Iceland

Iceland's most significant governing body for environmental and climate issues is the Ministry for the Environment and Natural Resources, which was founded in 1990, and is the youngest ministry in the Icelandic administration. There are many agencies under the Ministry for the Environment and Natural Resources including the Environment Agency of Iceland, Iceland Construction Service, Iceland Forest Service, Institute of Freshwater Fisheries, Planning Agency, and Recycling Fund of Iceland. The major issue areas that are addressed by the Ministry for the Environment and Natural Resources include supervising affairs that pertain to nature in Iceland, conservation, outdoor recreation, protection and hunting of animals, pollution prevention, planning and settlement affairs, environmental studies and surveillance, among a few other things (The Ministry for the Environment, n.d.).

The major policy decision made by the Ministry for the Environment and Natural Resources have been guided by the principle of sustainable development. Some of the major laws enacted by the Ministry include the Conservation Act, the Act on Hygiene and Pollution Prevention, the Act on Environmental Impact Studies, the Food Act, Act on Genetically Modified Organisms, the Land Surveying and Cartography Act, the Planning and Settlement Act, and the Act on Preservation and Hunting of Wild Birds and Wild Mammals (The Ministry for the Environment, n.d.).

In terms of climate change, Iceland is in a unique position since 99% of its electricity and 70% of its total energy are renewable and due to the fact that there is a large potential for vegetation and soil to sequester carbon. In a report published about Iceland's Climate Change strategy in 2007, there are five main objectives described. First, Icelandic government will fulfill its international obligations according to the UNFCCC and the Kyoto Protocol. Secondly, greenhouse gas emissions will be reduced. Thirdly, the government will attempt to increase carbon sequestration from the atmosphere through afforestation, revegetation, wetland reclamation and changed land use. Fourthly, the government will foster research and innovation in fields related to climate change and finally, promote exportation of Icelandic expertise in fields related to renewable energy and climate technology (The Ministry for the Environment, 2007).

Under the Kyoto Protocol, greenhouse gas emissions from Iceland may not increase more than 10% over and above 1990 levels and must remain within approximately 3,800 thousand tons of carbon dioxide equivalents per year. Additionally, it is authorized under the Kyoto Protocol to emit additional carbon dioxide from new heavy industry if that industry meets certain conditions, though the emissions may not exceed 1,600 tons per year (The Ministry for the Environment, 2007). In short, Iceland is allowed to increase its greenhouse gas emissions under the Kyoto Protocol.

On an international level, Iceland is part of the European Economic Area, and is party to over 20 international conventions in the field of environmental affairs (this excludes conventions on fisheries and the utilization of resources). Some of the most relevant international conventions are the UNFCCC, Convention on Biological Diversity, UN Convention to Combat Desertification, Ramsar Convention on Wetlands, Montreal Protocol on Substances that Deplete the Ozone Layer and the Stockholm Convention on Persistent Organic Pollutants (The Ministry for the Environment, 2002)

2.7 Environmental and Climate Policy in the United States

Environmental and Climate Policy is more complicated largely due to the size difference between the two countries, and the additional layers of policy in the United States. The main national governing body for environmental policy in the US is the Environmental Protection Agency (EPA). The EPA was created in 1970 with a mission to protect both human health and the environment. The current EPA priorities include working towards a sustainable future, launching a new era of state, tribal, and local partnerships, protecting water, taking actions on toxics and chemical safety, addressing climate change and improving air quality, and making a visible difference in communities (US EPA, n.d.).

The history of environmental legislation and policy in the US started after the publication of *Silent Spring* by Rachel Carson in 1962. After this, Americans were aware of the impact of their actions on the environment and the US government entered a historic period of enacting significant environmental legislation. In the time between the 1960s and 1980s, many groundbreaking pieces of legislation were passed including the Clean Air Act, Wilderness Act, Endangered Species Act, Clean Water Act, and more

legislation addressing pollution, hazardous and toxic chemicals, ocean pollution, land degradation and energy use (Harris, 2009).

One of the major US successes on an international level was the implementation of the Montreal Protocol on Substances that Deplete the Ozone Layer. In a similar vein as the Montreal Protocol, the 1990s and beyond brought more of a focus on international issues that no country alone could successfully address. At the 1992 Rio Earth Summit, the Bush administration opposed any climate treaty that would require the US to reduce its greenhouse gas emissions. In the modern era of environmental policy, the US's position has been characterized by seeking to limit the domestic impacts of international environmental agreements and protecting US industry from international governance while still exporting the US environmental regulations to other regions of the world (Harris, 2009).

There has been very little real commitment on climate change from the US government, and in light of the failures on a national scale, many individual states have emerged with their own action on climate change (McCarter & Smith, 2004). In fact, deciding who should implement climate policy in the US is a complex question since the country has many subunits with highly different energy and emissions profiles and different economic conditions. However, 73% of Americans believe that the federal government has at least some responsibility for enacting climate change policy (Lachapelle, Borick, & Rabe, 2012). Sub-national climate change policies have both advantages and disadvantages. For example, policies on a smaller scale have the ability to be adapted to regional differences. However, there are no enforcement mechanisms for smaller climate change policies like there would be on a national level (Fisher & Costanza, 2005). In fact, some authors argue that there is increasingly reliance by the national government on corporate environmentalism (Ching-Hsing & Abdoul, 2015).

The current administration, headed by President Obama has set forth some climate change reduction goals. In 2013, President Obama announced his climate action plan which includes the commitment to reduce greenhouse gas emissions by 26-28% below 2005 levels by the year 2025. There has been progress in the direction of these goals through various government agencies and pieces of legislation (Gutin & Ingargiola, 2015).

2.8 CSR in the Energy Sector

Focus on CSR is increasingly common in the energy sector especially due to the fact that it is no longer possible for companies in the energy sector to only focus on returns for shareholders, other stakeholders are exerting increasing pressure. In fact, many governments and societies are working to ensure that energy companies and other companies utilizing natural resources are looking ahead to the long-term future and have a clear strategy for how they will operate both profitably and responsibly (Streimikiene, Simanaviciene, & Kovaliov, 2009).

As mentioned earlier, the linkage between CSR and the financial performance of a firm is still debated. Within the energy sector, CSR strengths and concerns have differing impacts on the firm's financial performance (either positive or negative). Obviously this depends on the performance measure chosen. However, previous studies have argued that the energy sector is a frontrunner in CSR and related issues (Pätäri, Arminen, Tuppur, & Jantunen, 2014).

Within the energy sector, the newer energy companies are more likely to be closely tied to sustainability and CSR, but that doesn't mean that older companies are not participating in CSR (Toufic Mezher, Samer Tabbara, & Nawal Al-Hosany, 2010). In terms of CSR strategy, the most effective strategy is one that involves the core operations of the business, this is true in all sectors, including the energy sector. Within the energy sector in particular, CSR strategies should work to find energy sources that have a minimal environmental and social impact while assuring access to reliable and affordable energy in a way that is equitable (Pätäri et al., 2014).

Throughout the literature there are numerous case studies of CSR in the energy sector. For instance, case studies have been done in Sweden, Romania and Greece (Danilet & Mihai, 2013; Metaxas & Tsavdaridou, 2012; Schultz & Wehmeier, 2010; Trapp, 2012). The case studies done in Sweden included analyzing company reports, campaign materials, external evaluations from newspapers, blogs, non-governmental organization (NGO) websites, company press releases and interviews (Schultz & Wehmeier, 2010; Trapp, 2012). Trapp (2012) found that the government was increasingly leaving societal issues to the authority of corporations. In this case, the Swedish energy company Vattenfall addressed climate change unilaterally with no collaboration from government

or civil society. Trapp (2012) concluded that it may be difficult for profit-seeking businesses to persuade stakeholders that they are genuinely concerned about environmental and social issues that have traditionally been dealt with by the government or civil society.

In Romania, Danilet and Mihai (2012) examined the CSR of several energy companies. They examined CSR materials available online from three different companies and analyzed them based on the presence or absence of a section devoted to CSR, presence or absence of CSR reports in a downloadable format, presence or absence of a sustainability report and identification of topics in CSR reports.

The case study in Greece found that the major obstacles to success for CSR coming from the energy sector were the difficulties of complying with laws and regulations, the small size of companies, and the state not undertaking initiatives to help CSR implementation in energy companies. This study was carried out through case studies of three power companies involving an examination of their energy output, size, foundation, business plan and CSR (Metaxas & Tsavdaridou, 2012).

2.9 CSR in the Nonrenewable Energy Sector

While the main focus of this research is on the environmental aspects of CSR in the renewable energy sector, it is still important to understand how the renewable energy sector fits into the larger energy sector as a whole. The nonrenewable energy sector provides an interesting comparison, and this section helps to explore CSR as applied in energy companies engaged in burning fossil fuels.

Since CSR is most effective when being used in the core operations of a business, what happens when CSR is done in heavily polluting industries, especially in the nonrenewable energy sector? This section explores the CSR practices of nonrenewable energy companies and evaluates whether or not they can truly be classified as meaningful and effective CSR strategies based on the polluting nature of their industry (Frynas, 2010). To better understand CSR in the nonrenewable energy sector, this section first examines the current state of CSR in energy companies, discusses the current CSR focus on social issues over environmental issues, and finally considers consumer desires and behaviors.

2.9.1 Current State of CSR in the Nonrenewable Energy Sector

As it stands, the traditional nonrenewable² energy sector has significant environmental impacts in many areas. First of all, large areas of land are needed for electricity production. This is true in the case of both renewable and nonrenewable energy. Obviously, this varies greatly across different types of electricity production. The impact on land being used when constructing a dam is very different than land used to mine coal for a coal-fired power plant. Additional impacts include the consumption of natural resources, transportation of fuel, the production of greenhouse gases and the various byproducts and waste produced through energy production (Kundu, 2014).

There is a considerable amount of CSR going on within the nonrenewable energy sector already. In some cases, BP is seen as one of the leaders in CSR, despite the fact that their main operations are almost entirely dependent on nonrenewable fossil fuels (Frynas, 2010). Naturally, their status as a leader in CSR can be debated, depending on what definition of CSR is used. Oil companies in particular are quick to publicize their CSR and environmental progress whenever possible. However, many people may not take these CSR claims seriously due to the massive carbon emissions that come from the industry, CSR can be interpreted as being disingenuous (Frynas, 2010).

In fact, Frynas (2010) argues that it is actually because of the polluting nature and the overall negative environmental impacts of the oil and gas industry that nonrenewable energy companies have become such champions of CSR. The negative attention from extractive and polluting activities drives them towards methods of compensation for their negative activities, such as CSR. CSR can help to clean up their public image and be a profitable strategy in the long run. The focus on CSR in the nonrenewable energy industry, especially on an environmental front has led to some improvements within the oil industry—there are overall fewer oil spills and the volume of these spills has decreased. Even within individual companies, there have been great reductions in greenhouse gas emissions. However, the question remains—even if these industries do everything in their power to become as sustainable as possible, the consumption of oil and gas is

² This includes energy generated from oil, natural gas, coal, and other fossil fuels.

inherently unsustainable and harmful to the environment, meaning that it is questionable whether or not the core of their business fits within the framework of CSR (Frynas, 2010).

In Europe as a whole, CSR in nonrenewable energy companies varies greatly (Danilet & Mihai, 2013). There has been a large focus on CSR in the European energy sector and how these actions go beyond compliance with regard to the normal regulatory expectations of companies (which is in fact a basic part of the definition of CSR in any sector, making it less impressive). However, unsurprisingly, CSR in Europe is not wholly consistent between different companies since there are many companies in different industries, countries and cultures. Overall, energy companies are taking CSR seriously due to the high visibility of the sector (Bakhtina & Goudriaan, 2011). This still does not mean that companies are seriously addressing the issue of the polluting nature of their business.

2.9.2 CSR Focus in Nonrenewable Energy Companies

Despite some progress in environmental performance of companies, there does seem to be a tendency for energy companies to spend more time focusing on social issues rather than environmental ones, which shies away from the core of their business. In one case study done of Greek energy producers conducted by Mextaxas and Tsavdaridou (2012), researchers found that the companies were much more focused on social issues than environmental ones. This is logical, since if the company focused too much on the environmental aspects of their work, they would come face to face with some very difficult inconsistencies in their business practices to resolve. In the case study of Greek energy producers, in situations in when environmental impacts were considered, the aspects that were most widely addressed were things like waste management and increasing energy efficiency within the company's daily operations. While these issues are still important to consider, they do nothing to address the biggest environmental impacts of nonrenewable energy companies and are not necessarily a part of their core business (Metaxas & Tsavdaridou, 2012).

2.9.3 Consumer Influence over CSR in the Nonrenewable Energy Sector

Consumer behavior and expectations is a key component to CSR policies. One case study done by Putzer, Pavluska and Törocsik (2013) examined energy companies in Hungary

and found that despite the high price of energy, Hungarian families were not very energy conscious and had ambiguous feelings towards changing their energy consumption behaviors. Even in cases where individuals were environmentally inclined, they were still consuming high amounts of nonrenewable energy. This showed that Hungarian households were not willing to put a value on responsible performance of their energy companies, so there was limited incentive for the energy producers to undertake thorough and responsible environmental actions (Putzer, Pavluska, & Törocsik, 2013). In the case of the Hungarian energy companies, it is easy to doubt the effectiveness of CSR policies due to a lack of one of the key drivers (consumer demand) and their dependence on fossil fuels. While this case is not applicable to all regions of the world, it does offer a few important lessons—consumer behavior and expectations are important, and are an important driver of CSR, especially when increased costs are involved.

In another study of consumer behavior related to energy in the United States, consumers were resistant to hard policy (where the government dictated strict environmental regulations) but were much more receptive to soft policy where market mechanisms became more important in changing behavior (Attari et al., 2009). This shows that there is a great opportunity for environmental change to be done by companies rather than governments, which complicates the results of the Hungarian study. Of course like any CSR policy, there are many drivers and barriers. In this case, government regulation and consumer desires combine to act as a driver for CSR and put pressure on energy companies to engage in more sustainable energy production.

CSR in nonrenewable energy companies is complex and multifaceted. Various case studies indicate that many companies are more focused on social issues than environmental issues, while at the same time some of the largest and most polluting industries are leading the way in CSR. Consumer preferences and behavior are another way to help determine whether or not there is a chance for nonrenewable energy companies to engage in meaningful CSR.

However, until these companies are really focusing on the core operations of the business and what is causing the majority of environmental impacts, it is difficult to take their CSR strategies seriously. Especially when compared to renewable energy companies, who have environmental CSR much more built into the core business of their

daily operations, nonrenewable energy companies have a difficult time of portraying sincere efforts in environmental aspects of CSR. However, that does leave renewable energy companies with little incentive to actively pursue the environmental aspects of CSR, since the core of their business is already viewed by consumers and regulators as environmentally friendly, when in reality there are more aspects of their daily operations that could benefit from CSR.

2.10 CSR in the Renewable Energy Sector

Within the literature about CSR in the energy sector, there is little information about Iceland and the United States, and the renewable energy sector in particular, therefore suggesting a gap in the literature. The renewable energy sector poses a particularly interesting area of study since companies within the sector may have less of an impetus to pursue CSR—their actions are already viewed as environmentally positive resulting in less public scrutiny of their actions. This comparison offers a number of large challenges since the countries are not comparable in size. Iceland's energy sector³ is well-known for being almost entirely renewable, operating almost entirely on hydropower and geothermal (Askja Energy, n.d.).

The United States on the other hand, generates a smaller percentage of its energy from renewable sources. In 2014, approximately 67% of the energy generated in the United States was produced from fossil fuels (coal, natural gas and petroleum). The remaining 33% was generated by nuclear, hydropower, biomass, geothermal, solar and wind (U.S. Energy Information Administration, 2015).

In this study, the relationship with renewable energy companies and governmental policy is explored. This relationship is only explored on a national level to allow for a fair comparison of Iceland and the United States. Understanding this relationship helps to give some clarity to whether government drives the development of renewables and CSR or if the companies themselves are driving governmental policy to combat climate change.

³ Meaning heat, light, and electricity. The transportation sector is not included.

3 Research Methods

This thesis aims to examine CSR policies and their connection to policy in closer detail while comparing companies in two countries—the United States and Iceland. Comparing these companies in two countries will offer an interesting comparison of CSR—one country where renewable energy is the norm and another where fossil fuels dominate the market still. This section details the main research question of this thesis, provides an in depth comparison of the two focal countries, discusses country and company selection, and finally dives into the content analysis and interview methods used once the companies were chosen.

3.1 Research Question

The main research question explored was: How do company level corporate social responsibility policies in the renewable energy sector interact with national level environmental and climate change policies in the United States and Iceland?

Examining this from a policy angle helped to highlight ways in which business and government work together (or don't work together) to help mitigate and adapt to climate change. Seeing the role that corporations can play in shaping policy is beneficial because it could help to explain some of the frustrations in international policymaking, or could offer a path forward to a world in which environmental goals and business practices were not at odds with each other. Understanding the role that business plays in contributing to or solving climate change issues could provide a path forward for taking concrete steps for other businesses or policymakers to make a substantial contribution to meeting Intergovernmental Panel on Climate Change's (IPCC) target goal of keeping warming under two degrees Celsius, which is the generally accepted target set forth by the IPCC (IPCC, 2014).

3.2 Country Comparison

This study aims to compare two countries in different regions that have not received much comparative attention and provide insight into both regions for things that could be done differently to maximize profitability and minimize climate impact. Iceland and its Nordic neighbors rank highly in sustainability indices. There are many examples of

successful renewable energy industries in Iceland and the neighboring Nordic countries like hydropower and geothermal power in Iceland, wind power in Denmark, and hydropower in Norway (Shankleman, 2013). Studying examples from other regions will help to give insight and new approaches to climate change, which is an inherently global problem.

Iceland's role is particularly important in energy development. Despite the fact that Iceland is a very small country, Iceland has a remarkable history of taking advantage of the available resources and developing renewable energy through both hydropower and geothermal generation. Almost all of the heat and electricity used in Iceland is derived from renewable sources. Iceland provides a great opportunity to understand the relationship between the energy sector, policy, CSR, and climate change mitigation. Furthermore, the Icelandic NGO, Festa Miðstöð um Samfélagsábyrgð (Center for CSR in English), which was founded by six Icelandic companies in 2011 (including the national power company Landsvirkjun), provides another interesting area of study that could yield valuable information about CSR and policy that could be applicable elsewhere (Festa, 2014).

Iceland is currently the world's largest green energy producer per capita. In fact the current hydropower and geothermal resources produce almost 100% of Iceland's consumption of electricity and around 85% of Iceland's total consumption of primary energy. Within that energy production, about 20% comes from hydropower and 65% comes from geothermal sources. Iceland has yet to meet its full potential in the area of wind power and there are currently two wind turbines being tested by Landsvirkjun, the Icelandic national power company to examine feasibility of wind energy production (Askja Energy, n.d.). Due to the success of the two pilot wind turbines (which have significantly exceeded capacity expectations, especially when compared to the rest of the world), there are ten more planned in Iceland by 2017 (Fontaine, 2015).

Due to the abundance and ease of access of renewable energy in Iceland, energy prices are comparatively low to other countries. Compared to the other member countries of the Organization for Economic Cooperation and Development (OECD), Iceland has much lower electricity prices. This means that there is great possibility for

expansion of electricity production for export (although there are numerous logistical hurdles to cross before that can be viable) (Askja Energy, n.d.).

Despite the fact that nearly all of Iceland's heat and electricity comes from renewable sources, there is less development in the transportation sector. There is a small movement towards bio methane and green methanol production, specifically by the waste management company, Sorpa. There is furthermore very little development in infrastructure for electric vehicles, which is another area that could see growth in the future (Askja Energy, n.d.).

There are two major Icelandic energy companies, and one energy company owned by a Canadian firm, Alterra Power. The two Icelandic energy companies are Landsvirkjun, which is owned by the Icelandic state and Orkuveita Reykjavíkur and its subsidiary, Orka Náttúrunnar, which is owned by several Icelandic municipalities, mainly the Reykjavík municipality. Landsvirkjun and Orkuveita Reykjavíkur are the main focus of this analysis since they are the largest players in the Icelandic energy field. In addition to the two main companies and the one mostly owned by Alterra Power, there are several much smaller companies including HS Veitur, Norðurorka, Orkubú Vestfarða, Orkuveita Húsavíkur and Rarik. The smaller companies are all owned by either the state or municipalities (Askja Energy, n.d.). More information about Landsvirkjun and Orkuveita Reykjavíkur will be provided in the next section.

The United States is a massive contributor to greenhouse gas emissions and one of the world's largest economies. In 2014, the United States had the second highest greenhouse gas emissions behind China. When examining the history of greenhouse gas emissions, the US has the largest total greenhouse gas emissions of any country (Ge, Friedrich, & Damassa, 2014) Examining the connection between CSR, climate change and policy could help to contribute to a greater understanding of factors that could drive the US to higher levels of sustainability and answer questions of increasing frustration with US climate change policy (Friedman, 2010).

In terms of size alone, the United States and Iceland are very different, which complicates the comparison and creates the need for several strict parameters to compare them more fairly. Due to the size differences, it is possible to conduct state by state analysis as well as national analysis when looking at energy in the United States,

since states differ significantly. However in this case, national policy and trends were mainly be examined. Firstly, the energy sources are very different in the two countries. The United States does produce energy from geothermal and hydropower, but those two fuel sources combined make up less than 10% of US energy production. Unlike Iceland, the US also uses coal, oil, natural gas, and nuclear for its electricity and heat production (Ratner & Glover, 2014).

Currently, about 40% of the energy that is consumed within the United States comes from petroleum. This has remained largely unchanged since the 1950s, but there is starting to be a slow decline in petroleum usage. However, the transportation sector is almost totally dependent on oil, which is similar to Iceland. The United States has also been exploring new sources of oil in recent years through shale oil (Ratner & Glover, 2014). Since 1950, energy consumption in the US has rapidly increased. In terms of electricity consumption in particular, annual power generation is ten times larger today than what it was in 1950 (Ratner & Glover, 2014). This has significant ramifications for energy policy and climate change. To that end, there has been recent development in renewable energy within the United States. In 2014, about 10% of total US energy consumption was of renewable energy (U.S. Energy Information Administration, 2015).

One of the most prominent sources of renewable energy in the United States other than hydroelectric generation, is ethanol used for transportation. Approximately 10% of gasoline consumed in 2011 in the United States was an ethanol blend. In addition to ethanol, wind energy production capacity has been significantly increasing in the past several years. As of 2013, around 4% of US electricity was produced from wind energy (Ratner & Glover, 2014).

Unlike Iceland, the United States does not have a few national or municipal power companies. Currently, 80% of the electricity in the US is produced by private utilities (owned either by investors or independent power producers). The other electricity producers include federal agencies such as the Tennessee Valley Authority, Bonneville Power Administration and municipal utilities and utility cooperatives (Thomson Reuters, 2015). The largest electricity generating company in the US based on megawatts, is Duke Energy which produces 57,500 megawatts of energy. The top 20 largest US energy companies all produce more than 10,000 megawatts (DiSavino & O'Grady, 2014). More

information about the US companies is contained in the next section. The fact that most US energy companies are private while the Icelandic companies are nationally or municipally owned is important to keep in mind.

3.3 Case Selection

3.3.1 Companies in Iceland

Since Iceland is a small country, the selection of energy companies is small. The two main energy companies within Iceland are Landsvirkjun and Orkuveita Reykjavíkur/Orka Náttúrunnar. These two companies both operate almost entirely on renewable energy. Since these are the only major energy companies within the country, they represent Iceland in the comparison.

Landsvirkjun is owned by the Icelandic state and produces the majority of the country's electricity. Two-thirds of Iceland's electricity is produced by Landsvirkjun's 13 hydropower and two geothermal stations. Landsvirkjun is continuously expanding its operation. The most recent power plant opened was the Búðarháls Hydropower Station which began operations in 2014. Landsvirkjun has also begun to explore wind power in Iceland by operating two wind turbines (Landsvirkjun, 2013).

Landsvirkjun's total production for 2013 (the most recently available data) was 12,843 gigawatt hours, and its nameplate capacity⁴ is 1,390.4 megawatts. Of the energy that Landsvirkjun produces, 85% is utilized by energy intensive industries and the remaining 15% is divided between smaller companies and domestic use. In terms of how energy is produced by Landsvirkjun, the vast majority is hydropower and a much smaller percentage is geothermal. Hydropower accounts for 96% of Landsvirkjun's production (Landsvirkjun, 2013). Figure 2 includes a map of Landsvirkjun's power plants. Hydropower projects are marked in blue and geothermal projects are marked in orange.

The other relevant Icelandic energy company is Orkuveita Reykjavíkur (OR) and its subsidiary, Orka Náttúrunnar (abbreviated as ON, and called ON Power in English, but

⁴ Nameplate capacity is the amount of energy that a company can produce based on the available resource and equipment.



Figure 2. Map of Landsvirkjun's Power Stations (Landsvirkjun, n.d.)

directly translated as “Our Nature”)⁵. OR began as a water utility when it was founded in 1909. By 1978, the geothermal heating of Reykjavík was essentially completed (Orkuveita Reykjavíkur, 2013). Since its founding, OR has expanded, now it operates as a public utility that provides electricity, geothermal water for heating and cold water for consumption. The company split into two separate entities in 2014. Orkuveita Reykjavíkur maintained the utility services and Orka Náttúrunnar took on the competitive electricity producing side of the business. The two entities still share many services such as technical support, customer service, human resources, and environmental management.

The company’s operations reaches 67% of Iceland’s population in 20 different communities (Orkuveita Reykjavíkur, n.d.-a). The company operates two geothermal plants for electricity generation, Nesjavellir which was completed in 1998 and Hellisheiði in 2011 (Orkuveita Reykjavíkur, 2013).

OR has two geothermal plants. The Hellisheiði plant is located at the Hengill geothermal area, which is a volcanic ridge in Southwest Iceland. The current production capacity is 303 megawatts of electricity and 133 megawatts of thermal energy (Orkuveita Reykjavíkur, n.d.-b). The other plant owned and operated by OR is Nesjavellir Geothermal

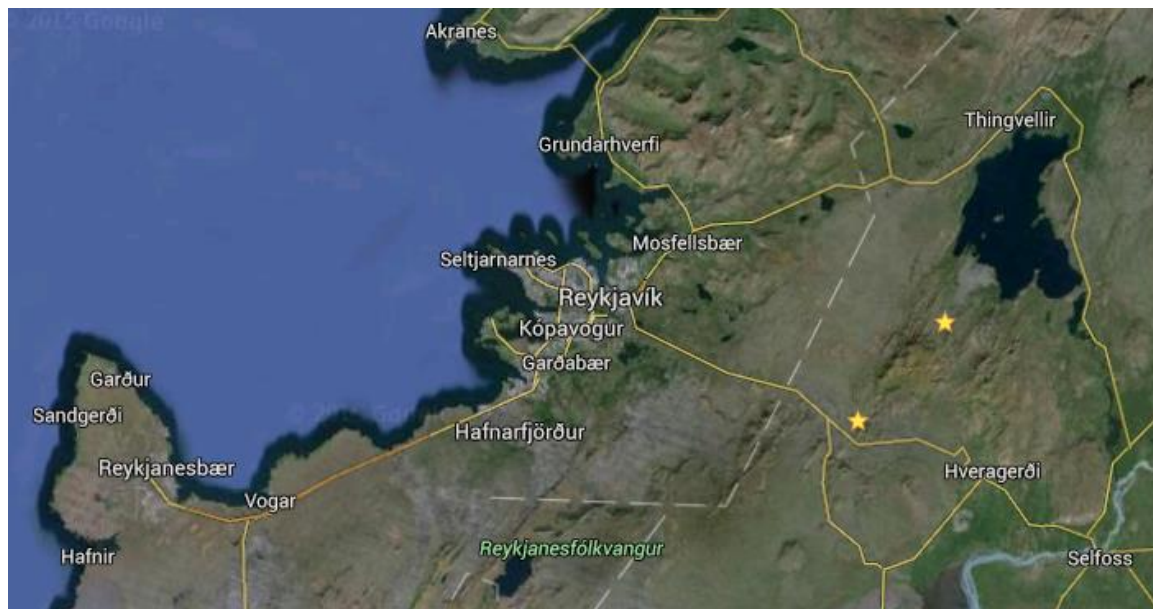


Figure 3. Map of OR's Power Stations (Google, n.d.)

⁵ For simplicity's sake and due to the recent separation of Orkuveita Reykjavíkur into Orkuveita Reykjavíkur and Orka Náttúrunnar, they will both included under the umbrella of OR unless explicitly stated separately.

plant which is also located in the Hengill geothermal area. Nesjavellir's capacity is 120 megawatts (Orkuveita Reykjavíkur, n.d.-c). Figure 3 contains a map of Orkuveita Reykjavíkur and Orka Náttúrunar's power plants.

3.3.2 Companies in the United States

Within the United States, there are thousands of energy companies, but few are producing exclusively renewable energy. In order to provide for the most accurate comparison, companies of a similar size in terms of renewable energy production to the two companies in Iceland were chosen. Naturally, the Icelandic companies were chosen first due to the fact that there are so few of them. The Icelandic companies were used to search for comparable US companies. This was done by looking for US companies with both a similar energy mix and energy output. A database from the United States Energy Information Administration with data from 2011 listed all operating power stations in the United States by type and also included information about which companies owned the power station and how much electricity was produced (U.S. Energy Information Administration, 2011). Since Iceland has a mix of geothermal and hydropower plants, one company from each of those categories in the United States was chosen. This is not a perfect comparison since not many companies have the exact same energy mix, size, and customer base but under the given circumstances it was the best available comparison.

The spreadsheet of information from the United States Energy Information Administration listed energy generation by source⁶. To select the hydropower plant, the hydropower facility that produced roughly the same amount of electricity as Landsvirkjun was chosen. One of the dams operated by the US Bureau of Reclamation as part of the Grand Coulee Dam produced an equivalent amount of power to the hydropower in Iceland, but due to the fact that it was part of a much larger project and governed in a

⁶ The spreadsheet was too large to be attached as an appendix, but it is available online from the US Energy Information Administration.

very different way than other power projects in the United States, it was not chosen⁷. Instead, a slightly smaller project was chosen. The chosen hydropower project was operated by Idaho Power and had a nameplate capacity of 225 megawatts. The geothermal plant was selected in the same manner. The end result was the Geysers Power Co LLC's geothermal plant in Sonoma, California, owned by Calpine Energy, which had a number of projects, the largest with a nameplate capacity of 138 megawatts, which was most similar to the geothermal production of OR (U.S. Energy Information Administration, 2011).

The selected geothermal project, The Geysers, is owned by Calpine Corporation. The total area of The Geysers is 45 square miles along the Sonoma and Lake County border in California. It is the largest complex of geothermal power plants in the world and Calpine is the largest geothermal producer in the United States. The area has 14 power plants and has a capacity of 725 megawatts of electricity. For the region in which The Geysers operate, they provide nearly 60 percent of the average electricity demand of northern California (Calpine, 2012). Calpine Corporation itself is one of the largest energy producers in the United States (DiSavino & O'Grady, 2014).

Calpine was founded in 1984 and owns and operates power plants in 18 states of the United States and Canada. As of the 2014 Annual Report, Calpine had 88 power plants and one under construction. Calpine's primary methods of production are geothermal and natural gas (3% of the company's total production is from renewables, and the vast majority of this comes from The Geysers⁸. Using these production methods, the company has a nameplate capacity of around 27,000 megawatts (Calpine Corporation, 2014).

As a comparison point with Iceland's hydropower resources, the Idaho Power Company was chosen. Idaho Power was incorporated in 1998 (but Idaho Power itself has existed locally since 1916) and generates, transmits, distributes, and sells/purchases electricity. Idaho Power operates mostly in Idaho, but also has service areas extending

⁷ The Grand Coulee Dam is operated by the U.S. Bureau of Reclamation which does not function in the same way as a company, it would have been an unfair comparison to compare an entity that didn't fit under the umbrella of corporate social responsibility due to not being a corporation in any way.

⁸ The remaining 4 megawatts comes from a small solar generation project

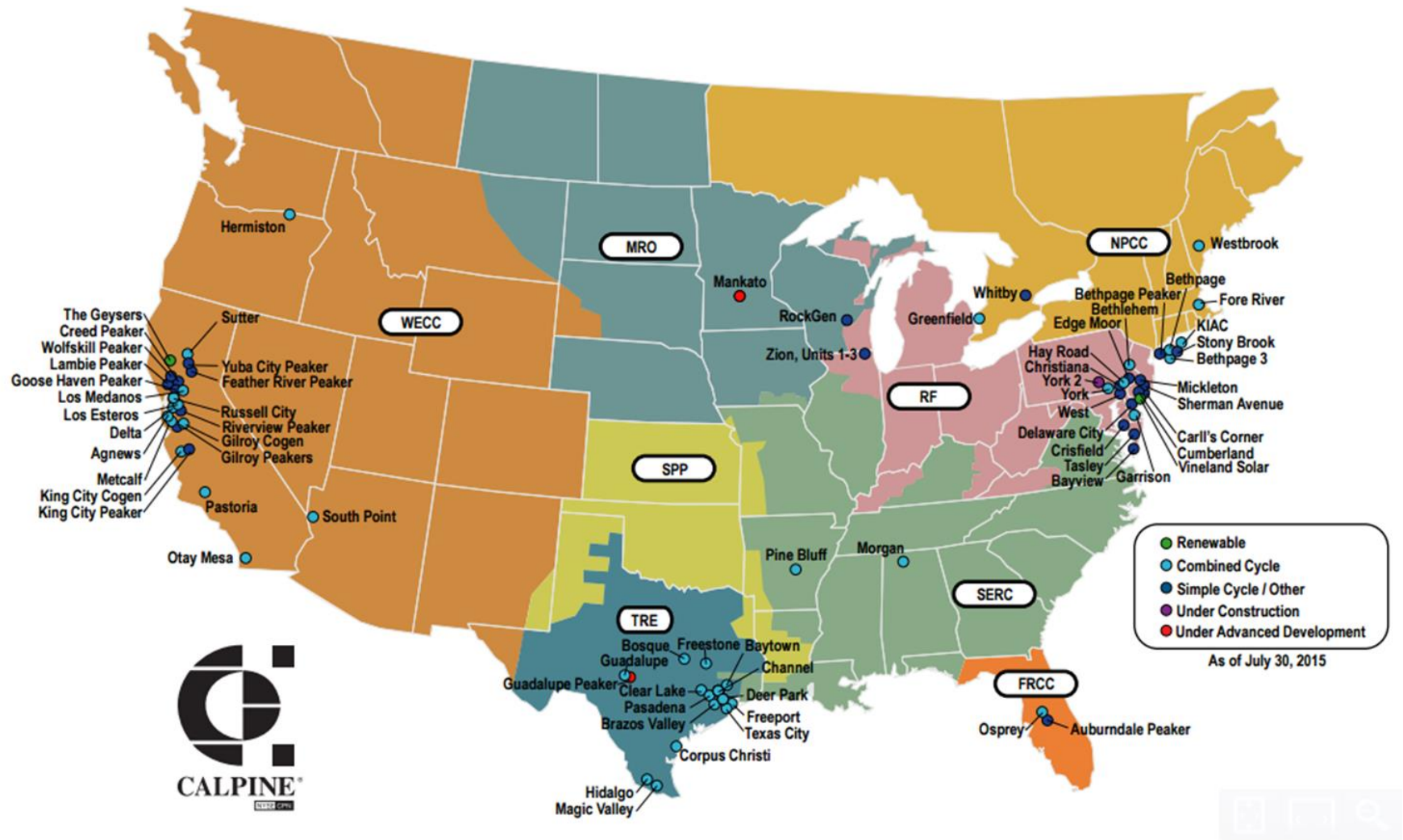


Figure 4. Map of Calpine's Power Stations (Calpine, 2015)

into Oregon. The company has a nameplate capacity of 3,594 megawatts, much of which is generated through hydropower (IDACORP, 2014).

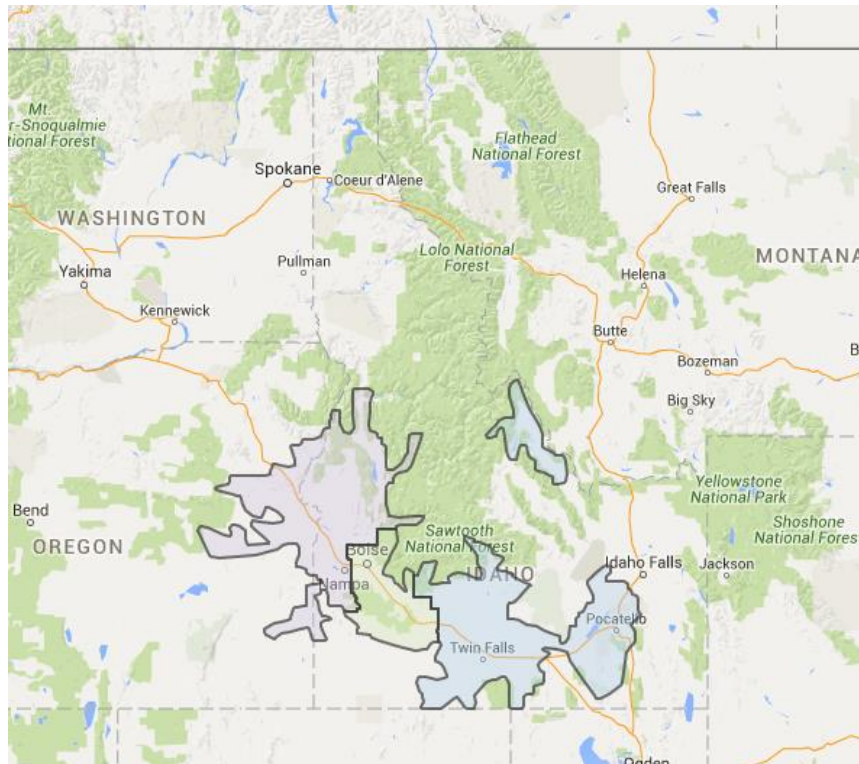


Figure 5. Map of Idaho Power's Service Area (Idaho Power, 2015).

Idaho Power has 17 hydroelectric projects, which accounts for 43% of their resource portfolio (including energy purchased). Idaho Power's energy mix includes 35% coal which comes from three jointly owned coal plants, 11% purchased wind power, 8% natural gas, and 3% purchased geothermal and other (IDACORP, 2014). Figure 4 contains a map of Idaho Power's service area.

Table 1 below includes basic information about the four selected companies including nameplate power generating capacity, number of employees, locations, methods of production, and preliminary information about their CSR and/or sustainability reporting, which is to be discussed in detail in the results and discussion sections later on.

3.4 Analysis of CSR in Published Documentation

The first portion of data collection and analysis included gathering many written materials from each of the selected companies. These written materials included annual reports, CSR/Sustainability reports, and CSR/sustainability information when published on

Table 1. Information Describing Selected Energy Companies.

	Type of Company	Location	Energy Production Method	Nameplate Capacity	Number of Employees	Types of CSR/Sustainability Reporting
Landsvirkjun	Electricity Production	Iceland	100% Renewable: 16 power stations (13 hydropower, 2 geothermal, 1 wind)	1390.4 MW	247 full time employees, but 516 including summer staff and students	Annual Report, Environmental Reports published as PDFs in past, now published as interactive website, Global Compact Report
Orkuveita Reykjavíkur and Orka Náttúrunnar	Electricity Production, Electric Utility, Heat and Water Utility	Iceland	100% Renewable: Mostly Geothermal for both hot water/district heating and electricity generation, small amount of hydropower	Geothermal capacity for electricity: 423 MW, Geothermal capacity for hot water: 433 MW, Hydropower Capacity: 11.4 MW	420 permanent employees	Annual Report, and Environmental Report
Idaho Power Company	Electricity Production	Idaho and Oregon, United States	17 hydroelectric generating plants, natural gas-fired plants and shares of three jointly-owned coal-fired plants plus wind and geothermal purchased from other companies to fill demand needs	3,594 MW	Approximately 2,000	Annual Report and Sustainability Report, 57 supplemental sustainability reports on specific CSR issues, Environmental issues detailed on website, CDP disclosure
Calpine Corporation	Electricity Production	Corporate office in Texas, services offered in 18 U.S. states and Canada	88 natural gas and geothermal power plants (14 of which are geothermal)	27,000 MW	Approximately 2,000	Annual Report, Environmental and Sustainability sections of website

websites when not available in report form. The materials were gathered and inputted into NVivo, a qualitative data analysis software. NVivo's main functions include analyzing unstructured data, coding text, providing visualizations and other similar analyses. Before the materials were analyzed in NVivo, they were carefully read and notated to designate the main themes. Then, they were analyzed in NVivo. The documents included were all publications from the company that addressed their CSR, sustainability or environmental behavior. All sources of information were considered due to the fact that different types of information may have been published in different locations for different audiences. Furthermore, different companies use different terminology for similar concepts. This method ensures that all aspects of the CSR of the energy companies gets considered.

Other authors have done similar types of analysis but on different companies in different sectors and in different parts of the world. Garre-Rubio et al. (2012) used the ISO 26000 standard keywords to code corporate websites to compare them to each other and see the similarities and differences in their CSR. A similar method was used in this case, with the keywords for coding and description of categories that materials were coded into attached in Appendix 1, also derived from the ISO 26000 standard and the UN Global Compact CSR standards. Instead of examining all aspects of CSR, this study only looks at those that are environmentally themed since that is the main focus of this research. Unlike Garre-Rubio et al. (2012), this research follows in the methodology of Trapp (2012) in examining company reports, and company press releases in addition to examining the company websites. Trapp's (2012) method included gathering relevant company documents that were publicly available to perform an analysis of the company. Examining a wider scope of company created material will give the best possible analysis of CSR at each of the energy companies.

This methodology is also very similar to that done by Danilet and Mihai (2012), in which they performed a content analysis of CSR reports and content available online. Their main criteria included the presence or absence of a section devoted to CSR, the presence or absence of a CSR format in downloadable format, the presence or absence of a sustainability report, and identification of topics in CSR reports. This methodology was applied to the cases of the renewable energy companies in Iceland and the US.

Finally, Metaxas and Tsvdaridou (2012) provide a methodological example of how to compare different companies in the energy sector. They outlined the amount of production, size, foundation, business plan and CSR followed by a comparative analysis of the three cases. An adaptation of this table can be seen in Table 1 as it outlines basic information for the companies selected in this case.

Within NVivo, the query function was used to identify the keywords that were created into nodes. Nodes are essentially categories for different criteria, and is the terminology used by the NVivo software. The nodes for this case are identified and explained in Appendix 1. For almost all of the keywords, the query was set up to identify all occurrences of the word and words with the same root⁹. After the query identified all instances of the desired word, it categorized them into different nodes. After the program automatically categorized everything in all of the documents, it was necessary to double check and also to find instances that had the same meaning but lacked the exact keywords and code these by hand. The documents all got an additional read through and when one of the relevant topics came up, the entire paragraph was coded into the appropriate node. After coding the documents into nodes, it was possible to compare the frequency, length, and presence of certain environmentally and climate change related CSR topics to compare how renewable energy companies are treating CSR issues.

In addition to analyzing the nodes coded, a method based on the GRI Reporting Principles for Defining Report Quality and an article by Moore and Poznanski (2015) was used to assess the state of reporting in each of the companies. It is important to note that none of the companies in the analysis are part of the GRI, so their reporting is not designed specifically to fit its standards, but the GRI reporting principle still provide a valuable framework for understanding how effective the CSR and sustainability reporting of each of these companies. In their article, Moore and Poznanski (2015) had students rate the reporting of Wal-Mart (as an example company) on a scale of 1 to 5. The lowest score, 1, indicated that the report did not comply, 2 indicated sporadic compliance, 3 indicated

⁹ For example, if the word desired was “sustainability” it would also code “sustainable.” The few exceptions to this were the cases in which a phrase was used, and in order to maintain the integrity of the meaning, only exact matches were coded.

somewhat complied, 4 indicated complied, and 5 indicated went beyond mere compliance based on the GRI Reporting Principles. Table 2 includes a summary of the GRI Reporting Principles for Defining Report Quality, their definitions, how to apply them and how to test them. In this case, a similar method was applied to each of the four companies in order to provide a more robust framework for analyzing their CSR. Appendix 3 contains the individual scores from this assessment.

3.5 Interviews

In addition to the content analysis done of each company, four interviews were carried out to add a layer to the assessment of CSR in Icelandic renewable energy companies. Due to time, location, and access limitations the interviews were not used as a primary source of comparative analysis, but rather as a secondary one to provide deeper analysis of the Icelandic renewable energy companies on their own, without the comparison to US companies. Comparison was not appropriate since interviews were only conducted with the Icelandic companies, not the US ones.

Interview questions were created after a careful reading of each company's website and online published materials, such as annual reports, environmental reports, and CSR reports. The interview questions were divided into several main categories beginning with background information, and moving onto questions about their reports specifically, their relationship with policy and the government, their relationship with the public, reporting standards used, and drivers of CSR/environmentally friendly activities. The interviews were designed to be semi-structured interviews with broad pre-written questions in each of the categories, but with room to ask about additional topics that arose during the process of the interviews. Appendix 2 includes the planned interview questions.

During interviews, an audio recorder was used to record the contents of the interview in addition to notes taken during the interview. After the interview, the contents of the audio recorder were transcribed and analyzed in the context of the other

Table 2: Summary of the GRI Guidelines for Report Quality (Adapted from GRI, 2013)

Reporting Principle	Definition	How to Apply the Principle	How to Test the Principle
Balance	The report should reflect positive and negative aspects of the organization's performance to enable a reasoned assessment of overall performance	<ul style="list-style-type: none"> • Avoid selections and omissions • Include favorable and unfavorable results • Information that can influence the decisions in proportion to their materiality • Distinguish between factual information and organization's interpretation 	<ul style="list-style-type: none"> • Discloses favorable and unfavorable results • Information presented in a way that shows positive and negative trends in performance • Emphasis on various aspects is proportionate to relative materiality
Comparability	The organization should select, compile and report information consistently. Information should be presented in a manner that enables stakeholders to analyze changes in the organization's performance over time and to compare to other companies	<ul style="list-style-type: none"> • Should be able to compare economic, environmental and social performance • Consistent reporting is needed to benchmark performance • Changes in method, reporting period or content should explain 	<ul style="list-style-type: none"> • Information can be compared on a year to year basis • Performance can be compared with appropriate benchmarks • Variation in reporting periods is explained • Report uses generally accepted protocols for compiling, measuring and presenting information
Accuracy	Information should be sufficiently accurate and detailed for stakeholders to assess the organization's performance	<ul style="list-style-type: none"> • Accuracy depends largely on methods 	<ul style="list-style-type: none"> • Indicates data that has been measured • Data measurement techniques are adequately described and are replicable • Indicates when data has been estimated • Qualitative statements are valid on the basis of other reported information and available evidence
Timeliness	Organization should report on a regular schedule to allow for informed decision making	<ul style="list-style-type: none"> • Should commit to a regular reporting schedule • Consistency in the frequency of reporting and length of reporting periods is important 	<ul style="list-style-type: none"> • Information has been disclosed while it is recent • Collection and publication of key performance information is aligned with the reporting schedule • Information clearly indicates the time period to which it relates, when it will be updated and when the last updates were made
Clarity	Information should be available in a way that is understandable and accessible	<ul style="list-style-type: none"> • Desired information should be easily accessible • Should be presented in a manner that is comprehensible • Graphics and consolidated data tables may help • Should not be too detailed or insufficient 	<ul style="list-style-type: none"> • Contains the level of information necessary but avoids excessive detail • Specific information is easy to find • Avoids technical terms, jargon, and acronyms • Data and information is available to stakeholders
Reliability	The organization should gather, record, compile, analyze and disclose information and processes used in the preparation of a report that can be subject to examination	<ul style="list-style-type: none"> • Stakeholders should be confident that a report can be checked to check the veracity • Statements are supported by available documentation 	<ul style="list-style-type: none"> • Scope and extent of external assurance is identified • Original source of the information in the report can be identified • Reliable evidence to support assumptions or calculations • Representation is available from the original data or information owners.

documents published by the companies¹⁰.

Four interviews were conducted, three with representatives of the Icelandic energy companies and one with Festa, the Icelandic Center for Corporate Social Responsibility. Both Orka Náttúrunnar and Orkuveita Reykjavíkur were interviewed in addition to Landsvirkjun. The individuals represented from each corporation included the environmental manager of Landsvirkjun, the marketing manager of Orka Náttúrunnar, the managing director of Festa, and the head of environmental affairs at Orkuveita Reykjavíkur.

¹⁰ The transcripts and interviews were not created with the intention of being shared publicly, just for the aid of this research so the transcripts are not included in the appendices. It is also important to note that the interviews were conducted in English, which Icelanders are nearly all fluent in, but it is not their native language.

4 Results

The results of the study are divided into two broad sections, one for the content analysis with the comparative analysis of both the Icelandic companies and the US companies. The second half focuses on the interviews, which were conducted with Icelandic companies to provide a more in-depth case study of Icelandic CSR in the renewable energy sector and how it connects to policy. The absence of interview with the US companies was due to lack of access to the US companies since the study was conducted in Iceland.

4.1 Content Analysis

The available information and documents available from each company varied widely, each company's section below includes what documents were available and discusses the type of information contained in the reports. In total, 27 documents from the four companies, Orkuveita Reykjavíkur/Orka Náttúrunnar, Landsvirkjun, Calpine, and Idaho Power were analyzed, ranging from annual reports to individualized sustainability topics on single issues. For each company, there is a summary of the relevant documents followed by the results of the coding in NVivo and finally a description of the characteristics of their CSR, as adapted from Metaxas and Tsavdaridou (2012) and Danilet and Mihai (2013).

Overall, the most commonly addressed topics based on the nodes developed based on the ISO 26000 and Global Compact keywords were policy, climate change, resource use, pollution, waste, sustainability, and transportation. These results are contained in Table 3. The rest of the issues (restoration, conservation, natural habitat, biodiversity, procurement, external reporting, sustainable development and precautionary) all had fewer than 100 mentions in all of the materials combined. Precautionary notably was only mentioned once in the documents from all of the companies¹¹. Table 6 includes a summary of the nodes by company and the frequency at which they appeared (the number of pages of text divided by the number of nodes for each keyword).

¹¹ Precautionary in this sense is being used in the context of the precautionary principle as described in Principle 7 of the U.N. Global Compact.

Table 3. Summary of Nodes Coded in all Documents

Node	Number of times coded	Node	Number of times coded
Policy	395	Conservation	77
Climate change	346	Natural habitat	67
Resource use	329	Biodiversity	51
Pollution	234	Procurement	51
Waste	220	External reporting	37
Sustainability	160	Sustainable development	9
Transportation	124		
Restoration	79	Precautionary	1

Table 4 includes the total number of nodes per company, number of pages of text, number of documents on how many nodes per page each company had on average. Each of the companies had roughly the same number of pages, despite the fact that the number of relevant documents ranged from 2 to 19, indicating that while companies had different styles of reporting and sharing their CSR results, they all shared roughly the same amount of information.

Table 4: Summary of Available Documents and Nodes by Company

	Landsvirkjun	OR/ON	Calpine	Idaho Power
Number of documents	3	2	3	19
Pages of text	228	214	200	299
Total Nodes coded	566	408	641	545
Node Density (average nodes per page)	2.48	1.91	3.21	1.82

Additionally, the quality of reporting for each company was analyzed as described in the methods section based on GRI reporting guidelines and the work of Moore and Poznanski (2015). Table 5 contains the scores for each of the six principles (balance, comparability, accuracy, timeliness, clarity and reliability) and the average total score.

Table 5: Assessment of the Quality of Sustainability/CSR Reporting

	OR/ON	Landsvirkjun	Calpine	Idaho Power
Balance	3.3	3	1.3	2.3
Comparability	3.8	4.3	3.3	4
Accuracy	3.8	3.5	3	3.8
Timeliness	3.7	4	4	4
Clarity	3.5	4	3	4
Reliability	2.8	3.5	2.5	2.8
Total Score	3.5	3.7	2.8	3.5

Table 6. Nodes and Node Density by Company and Country (high scores are marked in green, and low scores marked in red)

Node	Total References in all Documents	References in Landsvirkjun Documents	References in OR/ON documents	Total References in Icelandic Companies	Node Density in Icelandic Companies	References in Calpine documents	References in Idaho Power documents	Total References in US Companies	Node Density in US Companies
Biodiversity	51	8	0	8	0.018	0	43	43	0.086
Climate Change	346	63	23	86	0.195	179	81	260	0.521
Conservation	77	10	24	34	0.077	6	37	43	0.086
Natural Habitat	67	19	7	26	0.059	2	39	41	0.082
External reporting	37	27	1	28	0.063	0	9	9	0.018
Policy	395	88	84	172	0.389	86	137	223	0.447
Pollution	234	34	76	130	0.294	72	32	104	0.208
Precautionary	1	1	0	1	0.002	0	0	0	0
Procurement	51	2	12	14	0.032	36	1	37	0.074
Resource Use	329	74	69	143	0.324	141	45	186	0.373
Restoration	79	23	27	50	0.113	7	22	29	0.058
Sustainability	160	69	5	74	0.167	19	67	86	0.172
Sustainable Development	9	7	2	9	0.020	0	0	0	0
Transportation	124	9	29	38	0.086	61	25	86	0.172
Waste	220	132	49	181	0.410	32	7	39	0.078

4.1.1 Orkuveita Reykjavíkur/Orka Náttúrunnar, Iceland

The case of Orkuveita Reykjavíkur and Orka Náttúrunnar yielded two total documents, the OR 2014 Environmental Report and 2013 Annual Report. Since the split of the two companies is so recent, the operations of Orka Náttúrunnar are still included in Orkuveita Reykjavíkur's reports when it comes to environmental issues. Additionally, many of ON's existing publications do not exist in English yet. Both company's websites were examined to find documents and any other relevant environmental information. All of OR's environmental information was contained in the downloadable reports, and there was little information in English from Orka Náttúrunnar, which makes sense since the environmental operations are still covered by the parent company. This section includes a summary of the documents analyzed, the coding results from NVivo and the CSR characteristics present in the company's published documentation.

As a company, Orkuveita Reykjavíkur values foresight, integrity and efficiency. They participate in the Icelandic Customer Satisfaction Index and initially earned high rating, but sank during the 2008 economic collapse, but have been significantly and rapidly improving since then. OR had the largest improvements on the index from 2012-2013. The company ran into some financial trouble in which OR had to take loans from the three municipalities that owned it in order to meet its obligations. After this trouble, the company appointed a committee to assess why and how they ran into this financial trouble and fix it going forward. After this analysis, the conclusion was that the purpose of OR was too unclear, the governance was not ideal, its penchant for investment was too great and the profitability of its investments were not sufficient. Following this, the board approved a new business strategy and created performance indicators to determine how they company was doing at following the strategy and demands of the owners (Orkuveita Reykjavíkur, 2013).

Within the new business strategy created by OR after their financial difficulties, there are four categories of key performance indicators including the company's operations, the company's services, the company's employees and whether operations are beneficial to society and the environment (Orkuveita Reykjavíkur, 2013). These new indicators provide better opportunities for the company to evaluate their performance and create public transparency.

4.1.1.1 Summary of Relevant Documents

The main features of the 2014 Environmental Report included sections on responsible resource management, value of utility operations, impacts of emissions and discharge, impact on society, operations, production, own use, and carbon footprint. Within the section about responsible resource management, the report discusses both high and low temperature geothermal areas, greenfields, and conservation of potable water. The value of utility operations section is fairly straightforward. Within the report, the section about the impact of emissions and discharge addressing the handling of disposal water, hydrogen sulfide and other geothermal gases (including carbon dioxide), seismic activity associated with re-injection of geothermal water, discharge of water from sewage treatment plants, and discharge of drainage through overflows.

In the next section, OR's environmental report addresses the impact of their operations on society by discussing both the dissemination of geothermal knowledge and their procurement. Next, the operations of the company are discussed which includes waste, transportation, structures and general maintenance. Finally, the last three sections include energy production, the company's own use of resources, and the company's carbon footprint.

Within these sections, some of the most notable features of the report to examine in regards to the environmental aspects of CSR include the highlighted accomplishments from 2014 which include OR's hydrogen sulfide abatement project at Hellisheiði, their vegetation reclamation around their power plants, the success of CarbFix¹² in mineralizing carbon and storing it in bedrock, procedural improvements to reduce the likelihood of seismic activity from re-injection from the geothermal process, and charging stations for electric cars opening.

The report also highlighted challenges from 2014, which is also important to consider when looking at the environmental aspects of CSR. In 2014, OR identified several challenges including the responsible resource management of geothermal production in

¹² CarbFix is a project where OR collaborates with researchers to investigate ways of sequestering carbon dioxide in the basalt and removing it from the atmosphere.

the Hengill area¹³, the need to improve the management of the re-injection of disposal water, continuing work on hydrogen sulfide abatement, and decreasing surface discharge of disposal water.

The report also addresses the company's connection to policy, both governmental policy and company-wide environmental policy. In terms of governmental policy, the report states that the company is adhering to all statutes and regulations that apply to its operations. As far as company-wide environmental policy goes, OR's environmental and resources policy is set out based on the guidelines in the report. Other important features of the report to note include OR defining responsible resource management in the context of sustainable development¹⁴. Finally, the environmental report was focused entirely on how the company's core operations and their main profit-making activities impact both the environment and society, rather than on external tangentially or non-related activities.

The 2013 Annual Report was naturally much broader in its focus, since it is designed to address all aspects of the company. The report included a section that had highlights of the environmental report, but included mentions of sustainability and resource use at the beginning of the report in the introductory statements.

In addition to its internal reporting, OR participates in external reporting by certifying their operations in accordance with the ISO 14001 standard, which is the environmental management system. The company also keeps accounts on its performance in line with the regulation used by the company on green accounting.

4.1.1.2 Coding Results from NVivo

In the content analysis of both of the OR documents, the most commonly discussed environmental CSR topics were policy (with 84 nodes), pollution (76 nodes), resource use (69 nodes), waste (49 nodes), transportation (29 nodes), and restoration (27 nodes). The remaining nodes included conservation (24 nodes), climate change (23 nodes), procurement (12 nodes), natural habitat (7 nodes), sustainability (5 nodes), sustainable

¹³ This is the area in southwestern Iceland where OR's two geothermal plants, Hellisheiði and Nesjavellir, operate.

¹⁴ Specifically in line with sustainable development as defined by the Brundtland Commission.

development (2 nodes), external reporting (1 node), and both biodiversity and precautionary had zero nodes. Table 7 lists the nodes in order of how frequently they occur with the number of times a passage of text was coded using that node for Orkuveita Reykjavíkur.

Table 7. Summary of Nodes Coded OR/ON Documents

Node	Number of times coded	Node	Number of times coded
Policy	84	Procurement	12
Pollution	76	Natural Habitat	7
Resource Use	69	Sustainability	5
Waste	49	Sustainable Development	2
Transportation	29	External Reporting	1
Restoration	27	Biodiversity	0
Conservation	24	Precautionary	0
Climate Change	23		

4.1.1.3 CSR Characteristics

Table 8 lists the characteristics of the CSR and environmental reporting as adapted from several previous studies. It summarizes the forms in which CSR exists for Orkuveita Reykjavíkur which provides important information on how the company views CSR and environmental issues. As seen by the results of the table, Orkuveita Reykjavíkur was quite focused on the environmental aspects of CSR, and in fact used environmental/sustainability terminology instead of CSR. OR's CSR had characteristics that fit into almost all of the categories analyzed (presence/absence of external reporting, presence/absence of CSR report, presence/absence of sustainability or environmental report, and presence/absence of report in downloadable format). The company takes part in external reporting/certification through the ISO 14001 environmental management system, report on their CSR in multiple formats, have an environmental report and have it available in a downloadable format.

Table 8. CSR Characteristics at Orkuveita Reykjavíkur

External Reporting or Certification?	Structure of CSR Reporting	Presence of CSR report?	Presence of sustainability or environmental report?	Presence of CSR report in downloadable format?
Yes, ISO 14001, Environmental Management System	Included in annual report, and standalone report	No CSR specific report	Yes, environmental report	Yes, environmental report available in downloadable format

4.1.2 Landsvirkjun, Iceland

Landsvirkjun had a total of three relevant published documents. These included Landsvirkjun's 2013 Annual Report (the most recently available), the 2012 Environmental Report (the most recently available downloadable report), and the 2014 report to the UN Global Compact on Landsvirkjun's progress. Landsvirkjun advertises itself as being a leader in sustainable use of renewable energy while striving to seek out innovations in the field. Additionally, Landsvirkjun has a clear policy on CSR and declares itself committed to maximizing the positive impact of business on society and the environment. Landsvirkjun's new CSR policy was implemented in 2013. The 2013 Corporate Governance Objectives included implementing a code of conduct.

4.1.2.1 Summary of Relevant Documents

The 2013 Annual Report opens by discussing renewable energy and sustainability and Landsvirkjun's contribution to addressing these issues. The second topic addressed in the report is the newest hydropower station and a discussion of its size, location, and purposes. The document then transitions into Landsvirkjun's mission and objectives. "At Landsvirkjun, our role is to maximize the potential yield and value of the natural resources we have been entrusted with, in a sustainable, responsible and manner," (Landsvirkjun, 2013, p. 3). The next section of the report moves to a discussion about open communication and transparency. After that, the report describes Landsvirkjun's value of effective corporate governance, the importance of increasing the value of natural resources. In this section, Landsvirkjun stresses the importance of its role in society and how implementing a social responsibility policy is a priority and shows its commitment to Iceland's natural resources. This section includes a passage that addresses the connection that Landsvirkjun has to the government, which is examined in detail in the discussion section.

The following sections go through the composition of the board, corporate structure, energy generation and business opportunities while also discussing the outcome of an external hydropower assessment that was performed. Next, the Annual Report discusses Landsvirkjun's dynamic marketing efforts, operations and maintenance and provides more information about hydropower projects including information on

external certifications, potential power projects and how projects can be done while working in harmony with society.

The next relevant section of the report is the discussion of the verification and implementation of a code of conduct. Landsvirkjun's code of conduct was published and implemented in December 2013 and includes nine categories such as the health and safety of employees, the importance of integrity and respect in communication and the handling of confidential information and conflicts of interest. The reports states that the first three months of 2014 will give employees the opportunity to provide feedback on the code of conduct and then it will be made public¹⁵. The report concludes with consolidated financial statements.

The second document that was analyzed from Landsvirkjun is the 2012 Environmental Report. Landsvirkjun has published environmental reports since 2006. This report contains relevant environmental information and is interspersed with photographs and information on the birds of Iceland. One of the first sections with general information on the environmental aspects of Landsvirkjun's operations includes a wish to be a leader in environmental matters and the goal of becoming carbon neutral.

The first part of the report contains general information regarding the company's operations and the environmental management system, the second part describes the monitoring of non-atmospheric emission environmental aspects, the third part focuses on GHG emissions, hydrogen sulfide emissions, and Landsvirkjun's carbon footprint.

The environmental aspects that are considered include waste and recycling, water supply utilization, water steering, carbon dioxide and methane emissions, erosion and sedimentation, hazardous materials, emissions from electrical equipment, fuel, land reclamation and re-forestation, land disturbance and interaction with the ecosystem and nature, condensed and separated water, geothermal utilization, noise, and gas from geothermal power stations.

The third document that was analyzed regarding Landsvirkjun's operations was the 2014 report to the United Nations Global Compact about Landsvirkjun's progress on

¹⁵ Both the employee code of conduct and supplier code of conduct have subsequently been released to the public.

the Global Compact goals and targets, since Landsvirkjun is part of the Global Compact. This report included a letter from the CEO, a section about Landsvirkjun, Landsvirkjun's CSR policy, human and labor rights, the code of conduct, a section on the environment, a section on their sustainability initiative, a section on anti-corruption and a concluding section on other important CSR work.

4.1.2.2 Coding Results from NVivo

The coding from the Landsvirkjun documents revealed that most commonly addressed CSR topics were waste (132 nodes) and policy (88 nodes). The other most common topics were resource use (74 nodes), sustainability (69 nodes), and climate change (63 nodes).

Table 9. Summary of Nodes Coded in Landsvirkjun Documents

Node	Number of times coded	Node	Number of times coded
Waste	132	Natural Habitat	19
Policy	88	Conservation	10
Resource Use	74	Transportation	9
Sustainability	69	Biodiversity	8
Climate Change	63	Sustainable Development	7
Pollution	34	Procurement	2
External Reporting	27	Precautionary	1
Restoration	23		

The rest of the topics had fewer occurrences with pollution having 34 nodes, external reporting had 27, restoration had 23, natural habitat had 19, conservation had 10 nodes, transportation had 9, biodiversity had 8, sustainable development had 7, procurement had 2, and precautionary had 1. Table 9 lists the nodes coded in order of how many times they occurred in the texts from Landsvirkjun.

4.1.2.3 CSR Characteristics

Table 10 includes a summary of the characteristics of CSR present in Landsvirkjun's published documentation. Landsvirkjun participates in a number of external reviews and reporting schemes including following the Hydropower Sustainability Assessment Protocol from the International Hydropower Association, the UN Global Compact, ISO 14001, and they have their environmental report reviewed by EFLA Consulting Engineers.

Landsvirkjun reports on aspects of CSR in both its annual report and an environmental report. Previously, the environmental report was available as a standalone document, but in recent years it has transitioned to being an online report, meaning that there is a website with detailed environmental information rather than a separate document.

Table 10. CSR Characteristics at Landsvirkjun

External Reporting or Certification?	Structure of CSR Reporting	Presence of CSR report?	Presence of sustainability or environmental report?	Presence of CSR report in downloadable format?
International Hydropower Association, UN Global Compact, ISO 14001, review by EFLA Consulting Engineers	Published in annual report, on website. Environmental reporting available on a detailed and thorough webpage	No	Yes, Environmental Report	Previously was available in downloadable format, but has switched to a web-only format

4.1.3 Calpine Corporation, US

Calpine had three sources of information to examine for the content analysis including their 2014 Annual Report, the environmental/CSR sections of their website¹⁶, and a brief document on their emissions. Calpine's goal is "to be recognized as the premier power generation company in the US as measured by our employees, shareholders, customers and policy-makers as well as the communities in which our facilities are located. We seek to achieve sustainable growth through financially disciplined power plant development, construction, acquisition, operation and ownership" (Calpine Corporation, 2014, p. 20).

4.1.3.1 Summary of Relevant Documents

The 2014 Annual Report from Calpine starts with a summary of the company's locations and basic operating data. This introductory section includes a letter to shareholders that included a large section on environmental trends, which was mostly focused on environmental regulation and laws. The second section of the report was a government

¹⁶ Calpine had no standalone environmental, sustainability, or CSR report so information was compiled into a document from all of the relevant web pages.

form marked as 10-K¹⁷. The most relevant portions of that section discussed risk assessment and management of geothermal resources including re-injection of waste water and seismicity concerns.

The third part of the report addresses business and strategy. There is a substantial section discussing environmental issues including Calpine's environmental profile, their commitment to environmental leadership and stewardship through electricity generation, greenhouse gas emission reduction, and protection of land and water resources. A large focus of the environmental discussion includes how the company and its operations will be impacted by increased environmental and climate change regulations.

The Annual Report goes on to go through the operations on a state by state basis. In this summary of operations, Calpine includes what services they provide to different stakeholders and include a discussion of natural gas and oil prices. The next section addresses regulation again. The report argues that Calpine will be favorably impacted by current regulatory and environmental trends due to the nature of their power plant portfolio. They highlight the increased need for flexible power due to increased reliance on renewable energy, discuss the start of development of solar generation on individual customers' roofs, and point out that the environmental permitting requirements for new projects are increasingly complex and stringent. Finally, Calpine notes that there is a great deal of future uncertainty regarding environmental changes and regulation, especially in light of climate change.

The next section of Calpine's 2014 Annual Report discusses competition, marketing, hedging, optimization activities, customer information, and a description with location of all power plants. Of the 27,000 megawatts that Calpine produces, 729 megawatts are renewable. Most of those 729 megawatts are produced by their geothermal plants, an area called The Geysers located in California. The section proceeds to explain the basic principles of how geothermal works and includes a discussion of re-

¹⁷ 10-K is the form that companies based in the United States must fill out annually as part of their annual report, as required by the Securities and Exchange Commission. The 10-K provides an overview of the company's operations, and financial status (SEC, 2009).

injection. After describing how geothermal electricity generation works, Calpine goes on to detail the leases and legal issues associated with their geothermal fields.

The next section is entirely about environmental challenges as it addresses Calpine's emissions and presents their environmental profile. The section begins with information about Calpine's environmental record being widely recognized, specifically through the US Environmental Protection Agency's (EPA) Climate Leaders Partner. This means that they have a stated goal to reduce greenhouse gas emissions. Calpine became the first power producer to become a Climate Action Leader. Their 2013 greenhouse gas emissions totaled 45 million tons. This section also includes information about the greenhouse gas emissions of the individual power generating stations as well as water conservation and reclamation efforts.

The next section addresses the governmental and regulatory matters that affect Calpine's business. This section is very detailed and thorough as it goes through many categories of environmental matters on different levels including national air emission regulations by type, regional and state air emission regulations by type. The section also addresses renewable portfolio standards and other environmental regulations that impact daily operations such as laws regarding water. After the discussion of regulatory matters, the Annual Report mentions employees and basic information about their employees. The final sections address fuel sources, the future outlook, financial statements, liquidity, taxes, capital resources, and risk management, with an emphasis on financial risk.

The second set of information analyzed from Calpine was the portions of their website that addressed environmental issues and CSR. There was no standalone sustainability, CSR, or environmental report available, rather just a collection of pages on their website. Their coverage of CSR issues starts with a page entitled "Our Commitment" that discusses Calpine's commitment to fully demonstrate the claims they make about ethical standards and integrity through performance in key areas such as corporate governance, environmental responsibility and safety practices. In this part of their website, Calpine claims to be the most environmentally friendly power plant operator in the world and the largest, cleanest most fuel-efficient operator of gas-fired power plants

in North America. This section also discusses the role of Calpine's board and its composition and responsibilities.

Then next page is called "Environmental, Health and Safety." This page states that Calpine is the largest producer of geothermal energy in North America and that the company believes it is possible that corporations can be financially successful while still serving as leading stewards of the environment. On this page, Calpine discusses its environmental program. The first program that the website features is a lawnmower buyback program designed to remove old polluting gasoline lawnmowers and replace them with clean, cordless electric mulching lawnmowers. The company offers money to people to help them with the purchase of a better lawnmower. The next project highlighted is a program called "Our City Forest" in which Calpine provides funding for planting trees and education. Through the program they have planted over 20,000 trees.

The next project that Calpine brings up is the Calpine Hildalgo Citrus Grove. This project is a research and development project with the Sustainable Agronomic Education Association. Through the Calpine, Hildalgo Citrus Grove, the company helps to manages a citrus grove for research and education while donating profits to local charities. Calpine also has numerous environmental partnerships with local organizations. One of these is the Metcalf Energy Center Ecological Preserve in which Calpine purchased 131 acres of wildlife habitat and donated it to the Land Trust of Santa Clara County with a land management endowment. The second partnership is called the Regional Habitat Conservation Program which provides funding for new permanent habitat land in association with the development of a new Calpine facility that will benefit fox species as well as the California condor. The final partnership is with local authorities in California to use recycled water in numerous plants in California.

The next portion of this website section discusses health and safety performance and then moves on to address Calpine's policy on climate change issues. Calpine states that they are committed to building clean, efficient power plants that will reduce carbon dioxide emissions and to collaborate with policymakers to reduce carbon emissions within the energy industry as a whole. According to Calpine, electricity generation is the single largest source of man-made carbon emissions in the US and it is imperative to find ways to reduce emissions within the electricity sector. The company argues that the

fastest and most efficient way to reduce carbon emissions is by updating old power plants that are fossil fuel based and replacing them with more efficient plants or more renewable resources. They also state that voluntary programs alone won't accomplish a significant reduction in greenhouse gas emissions so Calpine supports efforts at the national, regional, and state levels that include carbon emission reductions.

The environmental and CSR portions of Calpine's website also include a page that addresses Safety, Health and Environmental Policy as well as a discussion of their volunteering efforts which includes various races to raise money for charity. Additionally there is a page on Environmental Stewardship which describes how Calpine sponsors a nationwide Earth Day initiative where employees volunteer to plant trees, build nature trails, clean highways and more. The website also details other volunteer efforts including volunteer work with children's charities, hospitals and more. Finally, there is a section that addresses safety and integrity at Calpine followed by their purchasing methodology and invoice payment.

The third document from Calpine that was relevant to this project was their emissions and environmental profile document. The emissions and environmental profile is a brief two page document that summarizes Calpine's most relevant environmental impacts. The first section discusses Calpine's role as an EPA Climate Leaders Partner, which was also described in their annual report. The report goes on to discuss how Calpine certifies their greenhouse gas emissions inventory annually with the California Climate Action Registry (since 2003). This document also includes a short section on their natural gas generation with information on their air pollutant emissions, rates from natural gas-fired power plants compared to the average rates from coal, oil and natural gas-fired plants. Calpine then goes on to describe the existing geothermal plants as well as their pollution and greenhouse gas emissions.

The final portion of the emissions and environmental portfolio document discusses Calpine's water conservation and reclamation efforts which include a discussion of the re-injection of geothermal water, cooling water for natural gas-fired power plants, and water reclaimed and then used for cooling and boiler makeup throughout its operations.

4.1.3.2 Coding Results from NVivo

The most commonly coded node for the documents from Calpine were climate change, with 179 nodes coded and Resource Use with 141 nodes coded. Next, came policy (86 nodes), pollution (72 nodes), transportation (61 nodes), procurement (36 nodes), waste (32 nodes), sustainability (19 nodes). Finally, the CSR topics with the least amount of information were restoration (7 nodes), conservation (6 nodes), natural habitat (2 nodes), and biodiversity, external reporting, precautionary and sustainable development all had zero mentions within Calpine's documents. Table 11 summarizes these results in order of most commonly coded nodes to least commonly coded for the documents analyzed from Calpine.

Table 11. Summary of Nodes Coded in Calpine Documents

Node	Number of times coded	Node	Number of times coded
Climate Change	179	Restoration	7
Resource Use	141	Conservation	6
Policy	86	Natural Habitat	2
Pollution	72	Biodiversity	0
Transportation	61	External reporting	0
Procurement	36	Precautionary	0
Waste	32	Sustainable Development	0
Sustainability	19		

4.1.3.3 CSR Characteristics

Table 12 summarizes the CSR characteristics of Calpine. Calpine had more limited CSR documentation than the other companies. First of all, Calpine has published its greenhouse gas emissions for a number of years, and has reported them to the California Climate Action Registry. However, that is the only formal external reporting that they mention in regards to their CSR and environmental actions. Secondly, there is no standalone environmental, sustainability or CSR report or a substantial section of their website that addresses these issues. There is some discussion of these in the annual report, but the available information on CSR and environmental issues online is fairly limited.

Table 12. CSR Characteristics at Calpine

External Reporting or Certification?	Structure of CSR Reporting	Presence of CSR report?	Presence of sustainability or environmental report?	Presence of CSR report in downloadable format?
Report GHG emissions to California Climate Action Registry	Published in annual report, some information on website	No	No, limited information published online	No

4.1.4 Idaho Power Company, US

Idaho power had the most thorough documentation of its CSR and sustainability practices with 19 relevant documents including the annual report, sustainability report, Carbon Disclosure Project (CDP) inventory plus 16 of the 57 supplementary sustainability reports that were most relevant to the study. Idaho Power values integrity, safety and respect. Its vision is “to be regarded as an exceptional, independent, integrated electric utility,” and its mission is to “prosper by providing reliable, responsible, fair-priced energy services, today and tomorrow,” (IDACORP, 2014, p. 5).

4.1.4.1 Summary of Relevant Documents

The first relevant document, the 2014 annual report, begins with a letter to shareholders which included examples of national recognition, for example, Idaho Power ranked number 17 on a list of the 40 best energy companies in the United States. The company also mentions their unwavering commitment to being good corporate citizens, but there is no direct mention of their environmental impacts, policies or priorities. Next, the report moves into their 2014 financial results before shifting into a section entitled “Diverse Resource Portfolio Brings Security and Stability” in which Idaho Power discusses its stability as a company due to the diverse nature of their resource base for power generation. Idaho Power has partially been using renewable energy resources for nearly a century. The report states that their commitment to green energy started with hydroelectric power and continued with purchase agreements with a large scale wind project and two geothermal plants. Currently, 60% of Idaho Power’s power is renewable, with plans to expand that percentage planned. Currently, Idaho Power has 17 hydroelectric stations along the Snake River. Additionally, Idaho Power produces energy using coal and natural gas.

This section also delves into the Public Utility Regulatory Policies Act which is a national law enacted in 1978 that requires Idaho Power to buy energy from qualified renewable projects. In line with this, Idaho Power had contracts for more than 460 megawatts of new solar energy generation.

The report goes on to explain Idaho Power's emission reduction strategy. Since 2009 Idaho Power has had a policy to voluntarily reduce the company's carbon dioxide output per megawatt below 2005 levels. The emissions reduction target is to reduce carbon dioxide intensity by 10-15% below 2005 levels for the period between 2010 and 2015. The report also states that the company is among the lowest carbon emitting utilities in the United States and talks about its capital expenditures and its integrated resource plan to develop the most cost-effective and responsible methods of providing for the future demand for electricity.

The next several sections address Idaho Power's strong regulatory framework, fixed cost adjustment, power cost adjustment, net power supply expenses, low rates for customers as well as a description of their customers. The report continues with a discussion of load and rate base growth opportunities, information about the board of directors, and a list of facilities with their nameplate capacities.

The next section is a government form, the 10-K which includes a wealth of operating information. The first relevant portion deals with Idaho Power's business strategy, which they self-define as including responsible planning, responsible development and protection of resources and responsible energy use. They discuss their hydroelectric generation by describing the size of their hydropower producing generators (17 projects with a nameplate capacity of 1,709 megawatts). They also provide information on their coal and natural gas power plants and on the energy purchased from other companies. The next relevant section of the 10-K form is the resource planning section which details energy efficiency and demand response programs. Idaho Power has 19 energy efficiency programs which have reduced their energy usage by approximately 125,000 megawatt hours.

The next relevant section is about environmental regulation and costs. Idaho Power states that it is subject to a broad range of national, state, regional and local laws in order to protect, restore, and enhance the quality of the environment in which they

operate. However, they do state that environmental regulation very much impacts their operations due to the cost of installation and operation of equipment and facilities required for compliance with environmental regulation. They state that environmental expenditures will remain high for the foreseeable future and they continue to prepare for potential legislation that may restrict greenhouse gas emissions and has included their emissions intensity as part of their annual reporting since 2010. They are also part of the Carbon Disclosure Project (CDP), an international project focused on transforming the way business is conducted in order to prevent climate change through helping companies track, disclose, and reduce their greenhouse gas emissions (CDP, 2015).

The next sections of the 10-K form include information about the executives of the company and risk factors. Much of the section on risk factors addresses regulation and the cost of regulation. The report moves on to highlight new advances in power generation, energy efficiency or other technologies that impact the power utility industry and that could decrease revenue. They discuss a slate of issues that could decrease their revenue including factors leading to lower hydroelectric generation, hydroelectric license renewals, seasonal fluctuations, complying with renewable portfolio standards legislation, volatility in the markets, and downgrade of their credit rating. Additional factors that Idaho Power includes as potentially contribution to a decrease in revenue includes fossil fuel dependence, nationally mandated purchases of power from renewable energy projects, legal and regulatory proceedings, and changes in tax laws and regulations.

The next sections of the document include sections on properties, legal proceedings, mine safety disclosures, related stockholder matters, selected financial data, management's discussion of financial condition, results of operation and an executive overview. This part of the report also includes further discussion of regulatory and environmental compliance costs, water management and relicensing and a summary of 2014 Financial Results. Next, the report addresses liquidity and capital resources, and regulatory matters again.

The next section details the company's procedures and policies regarding environmental matters. The first portion of this section is largely about various environmental regulations. It then moves to a discussion of endangered species and

fisheries matters, climate change and the regulation of greenhouse gas emissions, Clean Air Act matters, regulation of coal combustion residuals, regulation of polychlorinated biphenyls, and Clean Water Act matters.

The report concludes by mentioning the company's critical accounting policies and estimates, recently issued accounting pronouncements, quantitative and qualitative disclosures about market risks, financial statements and concludes with supplementary documents.

The next document relevant to the analysis of Idaho Power is the 2014 Sustainability report, entitled "Above the Lines." The introduction to the report includes their goal of fostering strong and enduring financial, environmental and social stewardship and to illustrate how their daily operations align with customers' needs, shareholders' interests and employees' well-being. They mention that one of their goals is to show how they do more than is asked by stakeholders by going beyond expectations and working "above the lines" as the title of the report suggests.

The next section is entitled "About Us" and includes the customer profiles, vision, values and mission. It also includes information about their resource portfolio and a discussion of their fuel mix and hydropower resource. Next, the sustainability report includes a letter from the CEO which mentions that Idaho Power is among the cleanest energy generating companies in the nation and is working on becoming even more sustainable.

The bulk of the report comes in the form of a discussion on Idaho Power's sustainability platform, which is made of five elements and different focus areas each year. The five elements are balanced and responsible management, operational excellence, environmental stewardship, engaged and empowered workforce, and strong community partnerships. The first element is balanced and responsible management which includes focus areas on integrity, transparency, disclosure, profitability, relationships, communication, and accountability. After defining the focus area, the report sets out concrete tasks in pursuit of these goals and reports on their progress.

The second element of the Idaho Power sustainability platform is operational excellence which includes ingenuity, innovation and efficiency in daily operations through effective investment, efficiency, performance, impact and engagement. This element

includes the carbon dioxide reduction goals of Idaho Power. The third element is environmental stewardship which has the stated goal of reducing the company's environmental footprint and continuing the tradition of environmental stewardship through focus on water, conservation, longevity, leadership, responsibility and shared resources. This includes support for alternative transportation focusing on cost-effective and sustainable solutions to preserve the ecosystem of the Snake River and Eastern Snake River Plain Aquifer, erosion and internal environmental efficiency.

The fourth element of the sustainability platform is engaged, empowered workforce. The goals of this element include providing a high performance culture that respects and empowers employees, encourages engagement, values safety and promotes the company as a good employer through their safety performance, well-being of employees, professional development, rewards and engagement. The fifth element of the sustainability platform is strong community partnerships in which Idaho Power wants to practice intentional and responsive community involvement, support outreach and demonstrate the values of a high quality of life, understanding, partnership and prosperity. The remainder of the sustainability report is featured articles that address various community and environmental projects that Idaho Power has undertaken throughout the year as well as awards that the company has received.

The next relevant documents to the analysis of Idaho Power are the 57 supplemental sustainability documents. Only 16 of the 57 documents were relevant, and the documents varied widely in their length and content¹⁸. Some were published into individual files even though they contained a single sentence, and others were several pages. The first document that was applicable to this analysis was the supplementary report of energy efficiency initiatives which included a description of energy efficiency programs that included financial incentives for irrigation customers, energy efficiency for new and existing homes through efficient appliance, building techniques, insulation and more and incentives for industrial and commercial customers for energy efficiency in their operations. The second supplementary report that applied to this case was the one

¹⁸ Relevant in this case meaning that it addressed an environmental aspect of CSR, or policy or government connections. Supplemental documents that were focused on social issues were disregarded.

detailing Idaho Power's efforts regarding stream and river gauging kayaks to continuously monitor the outflow, inflow and storage in the waterways and dams they operate. They have over 100 flow gauges in addition to measurements taken from their custom kayaks.

The third relevant supplementary report addresses Idaho Power's recycling assets. The company tries to reuse, repurpose or recycle all damaged or obsolete equipment and gives a table showing how much of different materials they recycle, reuse or repurpose by year. The next pertinent report details the company's participation in public policy and states that Idaho Power engages in national, state and local public policy discussions on many issues. Their advocacy and positions are based on costs to customers and shareholders, the reliability of their service and their responsibility to the environment, employees and communities within in which they operate.

The next document that contained relevant information on Idaho Power's CSR was the one that addressed the company's cloud seeding¹⁹. Idaho Power does cloud seeding to sustain current Snake River flows to create more snowpack that in turn creates more runoff to provide hydroelectric generation. They do this both from ground units and a few cloud seeding planes. One of the most important supplementary documents is the one that addresses Idaho Power's sustainability critical success factors. The sustainability critical success factors include financial strength, customer satisfaction, operational excellence, safe, engaged and effective employees. The company formed a sustainability council in 2010 and developed their sustainability platform plan in 2011.

The next supplemental report to provide important information was the one addressing electric vehicles. The document acknowledges that Idaho as a state and Idaho Power have been slow to adopt electric passenger vehicles. Idaho Power started preparing for electric vehicles in 2009 by conducting research on how electric vehicles would impact the grid and has started with a few electric vehicles and charging stations within their own operations. The next relevant report was also highly relevant to this research as it addressed the potential implications of climate change. The company is likely to be affected by any climate change regulatory scheme, especially seeing as it is

¹⁹ Cloud seeding is the practice of releasing a chemical, silver iodide, into the atmosphere in order to create a larger volume of precipitation (Moseman, 2009).

already required to follow Oregon's Renewable Portfolio Standards for its operations in the state. The company also faces risks from weather changes, changes in snowpack and thus flow for hydroelectric generation. Climate change is not without opportunity though. There are opportunities for the company in carbon taxes, cap and trade legislation and product efficiency regulations and standards.

Closely linked to their supplemental report on climate change, Idaho Power also has a supplemental sustainability report on initiatives to reduce greenhouse gas emissions. Idaho Power established its goal to reduce carbon dioxide emissions intensity in 2009. The original target was to reduce emission to 10-15% below 2005 levels between 2010 and 2013 and this was achieved. However, within their emissions accounting, they did not include electricity that they purchased from other companies to supplement their own production. Additionally, they did end up extending this emissions intensity reduction goal through 2015.

There were several documents that addressed various species and habitats including the one that addressed raptor protection. In this document the company detailed how it had closely examined the relationship between raptors and distribution lines in order to design them in a way that would avoid electrocutions. Another report detailed how the company adheres to the Endangered Species Act. Idaho Power works to minimize its impacts to nationally listed plant and animal species that are protected under the Endangered Species Act. They create plans to minimize or avoid impacts to species on this list in the areas in which they operate.

In line with the other supplemental sustainability reports on the impact that Idaho Power has on local ecosystems, there is a report addressing the water bodies affected by discharge at hydroelectric facilities. This document describes the measurements of water quality in the water bodies where Idaho Power operates hydroelectric facilities, the population of aquatic animals, flood control from their dams as well as pollution from their operations. The next document addresses habitat protection with a discussion of the land that the company owns and protects (27,360 acres) which hosts habitat that is important for a number of species under the Endangered Species Act.

The supplemental sustainability report that follows contains information on the environmental disclosure management approach of Idaho Power. The report states that

scientific research and assessment is done by the company in order to protect and maintain the areas that Idaho Power impacts with their operations. These analyses include river gauging, testing and improving infrastructure, assessing and improving community relations and examining how environmental regulations impact the operations due to cost.

The final two relevant supplemental reports address biodiversity. The first, addresses the impacts to biodiversity specifically and delves into how both power generation and transmission impact biodiversity. The report describes how Idaho Power cooperates with state and national agencies on land management in different types of habitat areas while discussing specific species. Their overall goals are to minimize health risks, use natural resources wisely and efficiently, protect vulnerable species, avoid spills, emissions or discharges that violate regulations/permits, and comply with all laws and company policies relating to environmental protection.

The final pertinent supplemental sustainability report addresses biodiversity of original habitat and mitigation. In this report, Idaho Power states that it takes its role as a steward of the environment seriously and therefore makes extensive efforts to operate its power plants in an environmentally sound manner. To do this they make sure to do careful multi-year studies on hydroelectric projects in particular and have specific mitigation efforts for specific pieces of land.

The final relevant document from Idaho Power was its 2014 Carbon Disclosure Project responses. This document included both the questionnaire and answers. Most of what was described in this document was also detailed in Idaho Power's other reports, but there were a few notable answers. First of all, they claimed no opinion on climate change agreements or legislation. Similarly, they made no comment on the 2 degree target set by the IPCC as the goal for staying under in climate change mitigation efforts.

4.1.4.2 Coding Results from NVivo

Table 13 includes the results of the coding of the Idaho Power documents. The most commonly discussed issue within the Idaho Power documents was policy with 137 nodes coded. Next came climate change (81 nodes), sustainability (67 nodes), resource use (45 nodes), biodiversity (43 nodes), natural habitat (39 nodes), conservation (37 nodes), pollution (32 nodes), transportation (25 nodes), and restoration (22 nodes). The

least commonly occurring nodes were external reporting (9 nodes), waste (7 nodes), procurement, (1 nodes), and sustainable development and precautionary were both never mentioned.

Table 13. Summary of Nodes Coded in Idaho Power Documents

Node	Number of times coded	Node	Number of times coded
Policy	137	Transportation	25
Climate Change	81	Restoration	22
Sustainability	67	External reporting	9
Resource Use	45	Waste	7
Biodiversity	43	Procurement	1
Natural Habitat	39	Sustainable Development	0
Conservation	37	Precautionary	0
Pollution	32		

4.1.4.3 CSR Characteristics

The characteristics of CSR in the documents from Idaho Power are listed in Table 14. Idaho Power does participate in external reporting through the Carbon Disclosure Project (CDP). Their CSR reporting includes an annual report, sustainability report, supplemental sustainability reports, and the CDP questionnaire with their carbon disclosures. They do not have a CSR specific report, but their sustainability reports are all available in a downloadable format.

Table 14. CSR Characteristics at Idaho Power

External Reporting or Certification?	Structure of CSR Reporting	Presence of CSR report?	Presence of sustainability or environmental report?	Presence of CSR report in downloadable format?
Yes, Carbon Disclosure Project (CDP)	Published in annual report, in sustainability report and in supplementary sustainability reports	No	Yes, plus supplemental reports and CDP disclosures	Yes

4.2 Interviews of the Icelandic Companies

To gain a better understanding of CSR in Icelandic renewable energy companies, interviews were conducted with four representatives, three from the relevant energy companies and one from Festa, an organization focused on CSR in Icelandic companies.

The following sections contain the information gained from the interviews. Each section is a summary of what the interviewee stated during the interview and represents their personal opinions with no other external research or citations.

4.2.1 Summary of the Interview with Festa, the Icelandic Center for CSR

The information contained within this section is a summary of the interview conducted with the managing director of Festa.

Festa, miðstöð um samfélagsábyrgð, is an independent non-governmental organization (NGO) that was founded in 2011 by six companies including Landsvirkjun to help companies implement CSR. The original goal of Festa was to raise awareness of CSR amongst companies in Iceland and to raise awareness of CSR among the general public and in government. After the first year, the founding companies decided to expand the organization, and now Festa has 60 member organizations from all sectors of Icelandic society. Festa members include many types of groups including municipalities and companies.

Festa's work is subdivided into three general parts, media outreach, events and networking, and connecting. The first pillar of Festa's operations includes media outreach in which the organization works to promote awareness of CSR and sustainability through their website, Facebook, mailing lists, newspaper articles, and more. This work is largely carried out to share best practices, ideas, and tell stories on CSR and how companies are actually participating. Festa's work on media outreach includes examining both the trends of companies and government policies and legislation in Iceland and the countries that Iceland compares itself to, which includes the Nordic countries, European countries, the US and Canada.

The second pillar of Festa's operations includes events and networking. Festa is a network of companies so they plan meetings for members as well as conferences on specific CSR topics and for specific industries. The third pillar of Festa's work is connecting. Festa's work regarding connecting includes having a dialogue with authorities in order to advocate for a clear vision and strategy on CSR by the Icelandic authorities. This means that Festa talks to industry associations, companies, and government authorities, such as

the city of Reykjavík. The goal of the connecting pillar is to advocate for an open dialogue on sustainability and CSR in Iceland.

Festa is committed to adapting policies and trends relevant to the reality in Iceland, rather than directly copying them from other countries. Due to both the natural environment and economic environment, Iceland is very different than many other countries. For example, when it comes to climate change, Iceland has been doing better than many other countries in terms of renewable energy development, which gives the authorities a different type of environmental policy than in other countries that have different challenges.

Festa's relationship with the government and policy includes advocating for a CSR policy through meetings with various representatives of the government. They draft policies, suggestions for laws and offer their feedback on proposed policies. Overall, Festa is advocating for a holistic vision of the Icelandic government on CSR and sustainability for companies in Iceland. However, so far there has been little movement by the government. There has been progress in opening up the dialogue, but they have not reached the goal of having a bill passed or law changed. In addition to working within Iceland, Festa collaborates with other similar organizations such as CSR Europe which is an umbrella organization for national agencies like Festa. Festa also has informal cooperation with their partners in the Nordic countries. Additionally, Festa cooperates with universities in Iceland to promote research.

The history of CSR in Iceland is a little difficult to explain since the concept has been evolving and changing from fragmented issues into being a larger umbrella concept that captures environmental, social, and governance issues. In Iceland, the environmental and social issues have long, but largely separate issues. For example, in the 1900s a woman living on a farm next to the waterfall Gullfoss worked to protect it from a dam being built. Even back then people were arguing about how much humans should interfere with nature. On the side of social issues, there was a lot of early movement on women's rights and labor rights in Iceland. However, CSR as a whole concept is very new in Iceland, and Festa has been a big part of developing the concept of CSR in Iceland. Much of the development of CSR came after the 2008 financial crisis in Iceland. After the crash, there has been a significant shift in Icelandic CSR to a focus on how companies

operate and creating shared value, rather than just donating money to external causes. Early CSR in Iceland was similar to early CSR in the US where the only focus was on how companies spent their money on philanthropy. However, it is much more important that companies change their internal processes and operations rather than donating money. As CSR has evolved in the US, it has also evolved in Iceland

Within the renewable energy sector, one of the biggest challenges from a CSR perspective is resource use, how the companies are using water, building dams, and how effective the geothermal wells are. There are challenges both environmentally and socially. For example, there has been a lot of public discussion and controversy over hydropower projects. Initially, hydropower projects had to take advantage of economies of scale to build large dams and power stations and then find larger buyers to buy a bulk of energy in order to build up enough infrastructure so that the general public could get affordable energy. However, people are increasingly unhappy with this argument and are concerned with how these big operations effect society and nature.

The dialogue around resource use for renewable energy is very vivid in Iceland. It's open and largely unstructured and filled with groups of people with vested interests that are arguing. Therefore, one of the challenges is for energy companies to be open and transparent to make it possible for people to draw their own conclusions about renewable energy and the impacts that it has on both society and the environment. Unfortunately, all of the impacts are not fully clear, which makes this a difficult feat. In terms of the geothermal energy production, it's clear that much of it is very much in the experimental stage. There are unknown factors when it comes to knowing how long the geothermal wells will be productive. The predictions made so far have proven to be wrong, and the geothermal wells have been less productive than hoped. Additionally, there is little known regarding the health impacts of geothermal production. In fact, there is even some discussion over whether or not geothermal is truly going to be a renewable resource.

Renewable energy companies are one of Festa's largest member targets due to the fact that CSR and sustainability are so closely linked to their core purpose and very directly impacts both the environment and society. In fact, it's hard to imagine these companies operating without a focus on CSR.

When companies choose to become members of Festa they sign a code of conduct promising that they will implement CSR strategies within their companies with integrity, meaning without greenwashing, as well as paying an annual fee. As members they participate in meetings and events to present their way of doing CSR. Festa does not advocate any specific CSR reporting framework but rather encourages companies to report and do so in a transparent way. Festa hosts trainings and workshops on some of those frameworks, like the GRI, ISO 26000, and the UN Global Compact. Festa encourages companies to look into industry specific certifications and reporting schemes as well.

The companies that join Festa have a myriad of motivations for becoming part of the organization. Some of them join since they believe that it is a good management framework to help them become a better company, raise morale and make their operations more transparent. Other companies join to avoid risk, and some join because they have had problems in the past and see joining Festa as a good step towards improvement. Of course, there are some companies who have always been running their business in an ethical way and there are others who are viewing a Festa membership more instrumentally, in that joining Festa will help them build a positive image (as part of a marketing strategy). One of the most interesting motivations for engaging in CSR as part of Festa is the companies that view CSR as an opportunity for innovation and entrepreneurship to strengthen their business on the basis that the global trend is moving towards sustainability and transparency.

One of the challenges with an organization like Festa, is that it's possible for companies to participate in Festa as a greenwashing strategy. For now, Festa is still in a grace period for members since the organization is so young. There are naturally always some gray areas. Of course, Festa is not setup as a watchdog organization since they are an association of the companies. Therefore, Festa believes that it is more important that the media, public, and activist groups will be playing more of a watchdog role through being critical, pointing fingers, and participating in an objective and professional dialogue about CSR. However, Festa does press companies to avoid greenwashing, since that is a danger to effective CSR. When evaluating CSR, it's very difficult to evaluate how responsible a company is. Even if a company has the best CSR report and the most appealing advertisements, they may not necessarily be the most responsible.

4.2.2 Summary of the Interviews with OR and ON

The CSR of the two companies is still largely linked since the companies divided so recently, but the results of the interviews are reported separately for clarity. The first section is a summary of the interview conducted with the environmental manager of OR, the parent company of ON. It is important to note that the work of the environmental manager of OR also applies to the operations of ON since there is collaboration between the two companies. The second section is a summary of the interview done with the marketing manager of ON, which only applies to ON, not OR.

4.2.2.1 Summary of the Interview with Orkuveita Reykjavíkur

The environmental division of OR consists of one person, the environmental manager. However, within the company there is an environmental board that includes the CEO, representatives from both OR and ON, and the environmental manager. Within OR, the environmental manager works with many people and environmental issues are clearly integrated into the company's structure and operations. Additionally, the company's mission statement consists of three values that the company try to incorporate into all of their work: integrity, efficiency, and foresight. When the company adopted these values, the CEO had a meeting with every single member of the company to make sure everyone understood them and used them to guide their work within the company.

The largest challenges facing OR and ON are resource use and hydrogen sulfide abatement from the geothermal plants in the Hengill area. Additionally, they are focused on reclaiming the land that has been negatively impacted by building power plants. On the public utility side of the company, one of the largest challenges is protecting the potable water resources as the city expands.

When considering the impacts of climate change and how that impacts the planning for the company, there is a unique challenge in the form of electric car use in the capitol area. The impact would be large on the company's operations, but it would be wise to use electric cars in Iceland since energy is being produced in a renewable way, according to the interviewee. ON has already started building electric car charging stations and working on calculating whether or not the electrical system will be able to support electrical cars and creating a smart grid system. ON has been buying electric cars to both test the infrastructure and see if using electric cars in the Reykjavík area is viable.

OR's relationship with the government is largely shaped by the fact that it is mainly owned by the city of Reykjavík and the municipalities of Akranes and Borgarbyggð. There is an owner's policy that defines how the company should operate. Additionally there is an overall policy for the company from the board and then the environmental policy. As far as a relationship with the national government, OR follows all of the rules, laws and regulations as put forth by the government and to hopefully go beyond that. Sometimes, the relationship with the government goes the other way as well meaning that in 2010, when the government was implementing a regulation on hydrogen sulfide emissions, OR had the opportunity to comment on that policy. They have the ability to comment on any law or regulation that is relevant to them, as with any other stakeholder in Iceland.

OR has been using the ISO 14001 standard since 2005 and believes that it has provided a useful framework since it helps to identify aspects of the company's operations that they can control, measure and report. The environmental report is vital because telling the owners and community what the main environmental aspects of the company's operation is very important, as is telling them what the company is doing to address the issues. They have been looking into other CSR measures such as becoming part of the Global Reporting Initiative and joining Festa.

While it is important for the general public and government to pay attention and understand the environmental policy and plan of the company, it is most important for people within the company to pay attention and be aware of the environmental report and what the company is doing and can do better. One way OR has been working to increase internal awareness of the environmental report is by having the report available on every coffee table in the company since it was evident that people were not looking at it online and this has helped to increase environmental awareness within the company.

OR first considered joining Festa in 2010, but since they were in economic trouble after the crash, they decided that it would not be responsible to spend their money and energy on something other than staying afloat and correcting their debt. Now, OR is reconsidering joining Festa.

OR's motivations for being responsible are largely due to the fact that their product is so vital for well-being and activity in the community that if they are able to

make their product sustainable, it will help to make the other companies more sustainable and responsible through their use of the product.

In addition to operating as a utility company, OR has been working on experimental projects to sequester carbon. This was a logical next step for them since they had been developing in a way that lowered their carbon dioxide emissions from the beginning. The project, CarbFix, involves injecting carbon into basaltic rock formations underground to fix it place for thousands of years²⁰. So far, 80-90% of the carbon injected has been sequestered. They have now moved on to experimenting with this method for hydrogen sulfide emissions as well.

4.2.2.2 Summary of the Interview with Orka Náttúrunnar

As stated earlier, much of the environmental and CSR policy for ON is the same as for OR. The greatest difference between the two companies is that ON is in competition an OR is not, since ON has to compete for its customers on the electricity market. ON is the second largest energy company in Iceland, but only has 63 employees, so they still use many services from their parent company including technical support, customer service, human resources, and environmental and quality management.

At ON, the environmental policy is developed at a management level and the environmental policy is integrated into many parts of the company. People are well-informed of environmental policies and considering the environment is part of the DNA of the company.

The most common pressure that ON faces from the public is in regards to the recent construction of their Hellisheiði geothermal plant. The public is concerned about the restoration of the land in that area, and the ongoing progress of that project. Additionally ON has faced some public concern about hydrogen sulfide emissions but they company has changed the way that they inform the public about hydrogen sulfide emissions so the process has become more transparent. ON was not doing anything wrong, according to the interviewee, but they were simply not informing the public very well about their emissions. ON also conducts annual surveys to see how much the public

²⁰ Sequestering carbon underground would prevent it from remaining in the atmosphere and contributing to climate change.

know about the company's, and a large percent don't have a great understanding of what ON is doing, so that's a place for ON to work on improvement. There are opportunities to improve communication.

Another facet of public communication is informing the public of new projects, such as the development of fast charging electric chargers. Electric cars in Iceland are very logical since energy here is greener than in many countries. ON also uses their Facebook page frequently to get feedback from consumers and share their activities and allow for dialogue.

The company's energy is renewable, and their motivation to be environmentally friendly is very connected to the core of their business, and has always been a part of their business model (even as a part of OR). Through ON's marketing, the company has developed tools to help customers assess how much electricity they are using and trying to reduce their impact, despite the fact that this technically encourages people to use less of ON's product. ON believes they are the only company in Iceland to be encouraging people to use less electricity. In fact, ON believes that encouraging people to conserve energy will give them a competitive advantage since consumers will view ON as an ethical company that cares about protecting Iceland's natural resources.

4.2.3 Summary of Interview with Landsvirkjun

The information in this section is a summary of an interview with the environmental manager of Landsvirkjun.

At Landsvirkjun, the environmental department has around eight or nine people, including an environmental manager that oversees the department. The company is fully owned by the government since it is the national power company of Iceland. The company does not work to pass any laws, but when bills go through the Icelandic Parliament, Alþingi, Landsvirkjun has the chance to give comments and opinions on the laws, which everyone in Iceland has the opportunity to do. Landsvirkjun's operations are very heavily influenced by government policy, specifically in regard to laws and regulations that govern their operations.

Landsvirkjun has published a comprehensive environmental report since 2004. In addition to their overall environmental reporting they have a specific initiative in east

Iceland regarding sustainability as they develop hydropower projects there called The Easter Iceland Sustainability Initiative²¹. Additionally Landsvirkjun cooperates with the International Hydropower Association to develop sustainability protocols for their hydropower projects and to assess their existing hydropower projects. These are helpful tools for Landsvirkjun's business since they help to identify gaps in their reporting and operation that they want to address.

Recently Landsvirkjun switched the format of its environmental report from a print document/digital PDF to a website. This decision was made to increase accessibility of the environmental reports. Since changing to a website, they have gotten more people looking at the website and more responses and feedback on their report than previously. Additionally, Landsvirkjun is in the process of making the first interactive online environmental impact assessment (EIA) in an effort to give the public even more of a chance to interact, share feedback, and make the project better.

Landsvirkjun's motivation to work towards being environmentally friendly is that it is a part of their daily operations and a necessary thing to do. It's part of laws and regulations and as important as everything else they do. Landsvirkjun also collaborates on green accounting with the other energy companies in Iceland so they can easily account for the environmental impacts of energy companies in Iceland and compare to other companies and see how the nation as a whole is doing.

Right now, the largest environmental priorities of the company are upgrading the environmental management system in accordance with the new ISO 14001 standard that was launched in the fall of 2015. In addition, Landsvirkjun is are working on improving consultation and communication with stakeholders in communities affected by their energy projects. In the past, Landsvirkjun has struggled to have an efficient structure for their communication with stakeholders. Due to their past experiences, Landsvirkjun is now working to create more effective communication and consultation so that their projects may develop in a better way. If everyone who is interested shares their feedback, the project will develop in a better way.

²¹ This is a joint project with Alcoa, a light-weight metals (including aluminum), engineering and manufacturing company.

Landsvirkjun's biggest environmental success is the recognition of Blanda as one of the best run hydropower stations by the International Hydropower Association. Due to the success of Blanda, they are now working on bringing their other projects to the same level. Still, using resources responsibly is one of the largest challenges and opportunities, since the resources belong to the nation.

The largest public pressures that Landsvirkjun faces is the pressure to not build any more power plants in Iceland. There are many people in Iceland who are very much against the company harnessing more energy. Ultimately though, that's a political decision to be made by the government, and Landsvirkjun is putting forward the interest of the company in the proper way, according to the interviewee. On a global scale, Landsvirkjun feels a responsibility to provide renewable energy since many countries are not currently producing renewable energy on this scale. Of course, this needs to be done in a sustainable way.

5 Discussion

The discussion is divided into several main sections. First, the significance of the results from the content analysis of published documentation from the four companies is discussed. Next, the results are compared by country. The third section includes a discussion of the results from the interviews.

5.1 Assessment of CSR from the Content Analysis

This first section of includes an assessment of the CSR from each of the companies analyzed. After breaking down the results by company, information is compared by country. Table 15 includes a summary of Table 6 from the results section with only the high and low scores for each company and country.

Table 15. Summary of high and low rates of nodes coded for each company, country, and overall

Group	High	Low
All Companies	Policy	Precautionary
Iceland	Waste	Precautionary
US	Climate change	Precautionary and sustainable development
Landsvirkjun	Waste	Precautionary
OR/ON	Policy	Biodiversity and precautionary
Calpine	Climate change	Biodiversity, external reporting, precautionary and sustainable development
Idaho Power	Policy	Precautionary and sustainable development

Several common themes arise from the assessment of the high and low rates of nodes coded. First of all, the precautionary principle is low in all four companies. Sustainable development is similarly low in three of the four companies. Policy is a commonly occurring node in both countries, and waste comes up as a high node in the Icelandic companies. These results will be more thoroughly discussed in the coming sections.

5.1.1 Assessment of CSR at Orkuveita Reykjavíkur

The CSR of Orkuveita Reykjavíkur Orka Náttúrunnar had the fewest total nodes coded of any company (408), and the second lowest node density (1.91 nodes per page). However, the numbers don't tell the entire story. All of the documentation provided was easily accessible to the public. Both the environmental report and annual report were deeply focused on the core of the business—energy generation and utility operation. This was evidenced by a clear discussion of the very real and important impacts of their operations throughout their reporting including detailed information on sulfur dioxide emissions from geothermal generation, carbon footprint information, water pollution information, and resource use. There were also examples of the company putting a very strong emphasis on efforts that go beyond the usual expectations of an energy company through their CarbFix project to sequester greenhouse gases.

OR's reporting also includes information on their environmental management system in accordance with the ISO 14001 standard which indicates their further commitment to environmental issues since they are not relying only on internal guidance. External guidelines and verification help to add credibility to any company's claims.

Perhaps most persuasive is that OR's CSR is coming from a place of genuine effort is the fact that their reporting includes past mistakes and challenges going forward. Providing this information shows that company is not just about beautifying the business. They discuss their previous financial challenges, as well as resource use challenges that are ongoing, including decreasing capacity of geothermal operations.

Also notable in OR's CSR efforts is the fact that they discuss their impacts on the environment and society outside of their environmental report by also discussing them in the annual report. This indicates that it is not a side project, but more well-integrated into their entire operations. It is important to note that these conclusions are based fully on information that is publicly available, which means that information available internally within the company could indicate that the environmental focus is done for public image.

The final important result to discuss from OR is their connection to policy. Policy was the node that was most frequent in their documents, indicating that it is important for the company. They discussed both their internal environmental policy and their

connection to external policy. Since the company is mainly publicly owned, OR has strong ties to the government. In discussion of their connection to national environmental policy, OR stressed that it follows all regulations and policies that are in reference to their operations including environmental policy. There was no clear indication in any of their published documentation that the company does any work to directly influence the government's environmental policy.

As OR and ON work more towards developing separate identities and operations of the two separate companies, there will be significant opportunities and challenges present in regards to developing the environmental aspects of both companies' CSR, how they relate to government policy. However, since past research has found that new energy companies tend to have better CSR, this indicates that ON is being presented with more of an opportunity than a challenge (Toufic Mezher et al., 2010).

According to the GRI reporting guidelines for determining report quality and the framework developed by Moore and Poznanski (2015), the score for OR/ON was 3.5, indicating that on the scale, the company fell between somewhat compliant and compliant with the GRI guidelines for high quality reporting. OR's score was most negatively affected by the impact of the company splitting in recent history making for less past information and some inconsistency in reporting due to that. Additionally, making more of the raw data and methods available would further increase the score. Overall this score indicates that the state of CSR and reporting at OR is of a reasonably high quality.

5.1.2 Assessment of CSR at Landsvirkjun

Landsvirkjun's CSR was thoroughly discussed in three separate documents. Firstly, the Environmental Report included a thorough summary of both the environmental and social aspects of Landsvirkjun's operations. The environmental report expressed Landsvirkjun's desire to be an environmental leader and to become carbon neutral. These are both fairly large goals, which indicates that the company is concerned with these challenging issues.

The CSR at Landsvirkjun has, such as addressing climate change, is closely connected to its core business. Landsvirkjun's core business is energy generation and the

CSR very carefully addresses emissions, resource use, impact of resource use, lands disturbance and impact of pollution. The report was thorough on aspects of core business but also focused on several things that were less clearly related to the impacts of its daily operations, including a recurring feature of different Icelandic birds throughout the report.

The mostly common node for Landsvirkjun was the one dealing with waste from their operations including emissions from their operation and waste from their construction. Waste is a significant part of energy production, so this helps to show that Landsvirkjun's CSR is actually focused on the main impacts of their business. Overall node density of Landsvirkjun's reports was 2.48, meaning that there were an average of 2.48 nodes per page. This was the second highest node density of the companies analyzed, indicating that Landsvirkjun's reporting falls within internationally accepted standards of CSR reporting fairly well.

The second most common node was policy. Much of the discussion of policy was focused on Landsvirkjun's internal environmental and social policies, however a letter addressing corporate governance by the chairman of the board in the annual report, as mentioned in the results section, contained this highly important passage on policy and Landsvirkjun's relationship with the government:

It is often thought that the operation of a state-run company is merely an extension of the political party policy at any given time, the shackles of which would prove an impossible environment for any Board of Directors to fulfil their legally defined role. The Board of Directors at state-run companies share the same responsibilities as those running and operating privately run companies, be they politically appointed or not. They are first and foremost responsible for fulfilling the legally binding role of the company and their loyalty is primarily bound to the company itself. Political conflict on utilisation should remain within the political arena and should not inhibit the boards of companies from retaining their professionalism as a guiding principle in their work. A part of this professionalism is assessing what the company represents to the outside world and what it stands for. In an attempt to strengthen the Company's position, Landsvirkjun has placed an emphasis on developing an ownership policy for the Company where the government's intentions for exercising its ownership rights are clearly outlined. The dividends policy and compensation policy for senior directors are normal aspects of such an ownership policy and are outlined to increase stability surrounding the Company. Stability, professionalism and open and honest discussion are all aspects that strengthen Landsvirkjun's position as one of the most

dynamic companies in Iceland and can lay the foundation for its directors to fulfil their role.
(Landsvirkjun, 2013, p.5)

This quote is particularly interesting in light of some of the public controversy surrounding Landsvirkjun within Iceland. There is a great deal of disagreement surrounding the development of recent and future power generation plants. Many people believe that land that is the site of proposed power plants should be protected and conserved rather than developed into more energy projects. One of Landsvirkjun's most controversial past projects was the development of the Kárahnjúkar Hydropower Plant which was built to power an aluminum smelter built by the American company, Alcoa. In fact, even Landsvirkjun stated that the dam was not sustainable in the long term due to sediment build up (in 50-400 years). There was strong opposition from environmental groups, but the project was carried out anyway. Due to this, there is still much skepticism regarding Landsvirkjun's future energy development projects, especially for ones that are not being used to power Iceland specifically (Muth, 2003).

Recently, a press conference was held by Icelandic musician Björk and Icelandic author Andri Snær Magnason to address the current plan to build a high voltage power line through the center of the Icelandic highlands, which is a wilderness area. This press conference came on the heels of a meeting between the prime ministers of Iceland the United Kingdom (UK) meeting to discuss a possible joint project, a sea cable from Iceland to the UK to export electricity (Barton, 2015).

The quote also addresses some of the challenges faced by companies who are run by the government. In this passage, Landsvirkjun actually seeks to distance itself from the government, despite being a state-run institution and shows how it can and does operate independently. There is little discussion of how Landsvirkjun is able to influence the government, and the focus is clearly more on how the government influences (or doesn't influence) Landsvirkjun.

Throughout the report it was clear that Landsvirkjun was open to external review since there were several examples of external review and reporting discussed in the report. Landsvirkjun participates in the UN Global Compact, operates the ISO 14001 environmental management system, takes part in the International Hydropower Association, and its reports are audited by a local engineering consulting firm, EFLA. Much

like with OR, this indicates that Landsvirkjun is willing to be transparent and is committed to making its information available publicly and is willing to submit that to external reviewers, which makes their environmental and social claims more believable and respectable.

In the assessment of the quality of reporting based on the GRI standards, Landsvirkjun's average score was 3.7, the highest of any of the companies. Landsvirkjun's score was most helped by the ease of accessing specific information in its reporting, the presence of relevant information, past information, and the clear and accessible language used in the reporting. However, the aspects that held the score back most were the balance between positive and negative information about the company. While the report did include both positive and negative aspects of the company's operations, there was a definite bias towards positive information when certain negative aspects didn't feel like they were given as much weight as would be necessary (specifically when it came to addressing public controversy surrounding energy projects).

5.1.3 Assessment of CSR at Calpine

The most notable feature of CSR at Calpine was the lack of a standalone CSR, sustainability, or environmental report. Calpine was the only energy company studied to not have any sort of reporting on environmental and social impacts of its business. This indicates that Calpine is not as committed to CSR and sustainability as the other companies examined. In fact, the part of their website that addressed relevant issues did not focus on the core aspects of Calpine's business and how the company was addressing environmental and social impacts through its main profit-making activities. The first environmental effort they addressed was a lawnmower buyback program to remove polluting lawnmowers and replace them with cleaner ones. While this is addressing environmental challenges, it's not addressing any environmental challenges that Calpine is creating, working around, or impacting in its daily operations in any way. This makes their commitment to environmental and sustainability issues look superficial.

Calpine's annual report did address the environment. In a letter to shareholders about environmental trends, Calpine focused mainly on environmental regulations and laws. This focus on laws and regulations did not include much information about Calpine's

operations, rather it stressed the cost of environmental and climate legislation to their business. This is of course, a reasonable thing to consider as a business, but it was almost the sole focus of Calpine's environmental discussion which indicates that they very much view environmental regulation as barrier more than opportunity. This indicates that they are not particularly motivated as a company to focus on sustainability or the environment in a serious way.

The node most commonly referred to by Calpine reports was climate change, with 179 nodes. This indicates that Calpine's reporting is highly focused on the impacts of climate change on the business and how the business impacts climate change. This is encouraging in at least one way since it shows that Calpine acknowledges that it has an impact on climate change. Calpine and is not one of the energy companies in the US that has historically denied climate change that Kolk and Pinske (2005) discussed. Calpine's overall node density was 3.21, the highest of any company analyzed which shows that they were mentioning the topics generally recognized internationally as aspects of quality CSR reporting frequently. However, Calpine was missing more of the nodes than any other company. None of the documents analyzed from Calpine mentioned biodiversity, external reporting, the precautionary principle or sustainable development, indicating that their reporting is narrower than the other companies and not in line with international standards.

As part of their annual report, Calpine included the 10-K (a US government form) and within this document Calpine discussed the risks and management of their geothermal resource. Additionally the reports mentioned Calpine's commitment to environmental leadership through electricity generation, greenhouse gas emission reduction, and protection of land and water but had no concrete evidence or examples of how they were doing this. Like earlier in the report, there was a large focus on environmental and climate change regulations and how they would negatively affect the company.

Additionally, Calpine does not participate in any external CSR reporting initiatives. They mention that they participate in the California Climate Action Registry. However, the California Climate Action Registry closed in December 2010 (California Climate Registry, n.d.). Participating in an initiative such as the California Climate Action Registry

does help to give Calpine's environmental claims regarding climate change some weight. However, it is unsettling that they are still citing this organization as part of their environmental reporting five years after the organization stopped operating. This casts their efforts into more suspicion of greenwashing.

At one point, Calpine claimed that it was the greenest energy company in the world, which is a bold statement for a company still reliant upon fossil fuels for the majority of its electricity production to make. This claim weakens the impression of Calpine's genuine commitment to CSR, since it is clear that is not the company is not the greenest company in the world, if percentage of renewable energy is the standard for "green." Even if green is not defined by percentage of renewable energy, Calpine still does not have the largest volume of renewable energy, or the most thorough environmental or sustainability reporting, meaning that this claim is unfounded in reality.

When assessed under the GRI principles of quality reporting, Calpine's total score was 2.8, which puts them between sporadic compliance and somewhat compliant. Calpine received the lowest score out of any company assessed. Their score was most negatively affected by their lack of substantial CSR/sustainability/environmental reporting, their lack of mentioning both negative and positive aspects of their operations, and the lack of including sources of data and detailed methodology for their results. Calpine's greatest strength in the assessment of report quality was in the timeliness of its information.

Calpine was the largest company examined, and is one of the largest in the United States. The fact that Calpine's quality of CSR reporting and thoroughness of reporting is particularly interesting in light of the fact that it was the largest company examined and that it is one of the twenty largest energy companies in the United States. Traditionally, CSR is largely associated with large companies since they are more high profile and attract more media and NGO attention (Smith, 2013). This has several implications for the results from Calpine. First of all, perhaps consumers and NGOs have given Calpine more leniency due to the fact that a portion of their operations are renewable, when nonrenewable production is the norm in the US. The second possibility is that the efforts that Calpine has made are sufficient to placate the worries of the general consumer, despite the fact that Calpine's efforts are weaker than any of the other companies examined. Examining

the CSR of the other largest energy companies in the US, both renewable and nonrenewable through further research and analysis would be a fruitful area of future research.

5.1.4 Assessment of CSR at Idaho Power

The most noticeable aspect of Idaho Power's CSR that sets it apart from the other companies analyzed was the sheer volume of relevant documents. Total, there were sixty documents that addressed CSR, sustainability or the environment. However, this volume of information does not necessarily indicate that it is all quality reporting. Many of the supplemental reports seemed to have no real purpose since they consisted of a single sentence that shared very little information. Much of the information in other supplementary reports was also contained in their sustainability and annual reports. However, there were a few cases in which the supplemental reports offered substantial and useful information, such as the data disclosed about Idaho Power's recycling practices, assets and data on that. With this much information available it is difficult to strike a balance between being open and transparent and flooding stakeholders with information in an attempt to convince them of how effective the company's CSR practices are. According to the guidelines for quality reporting from the GRI, it is important for companies to make sure to publish enough information, without publishing too much, and Idaho Power's reporting does not fit within the ideal (GRI, 2013).

Some of Idaho Power's reporting included specific numbers, data and targets, such as the goals for their carbon intensity reduction. This shows that the company has at least some level of commitment to the reduction of greenhouse gas emissions and transparency in its operations. They were also clear throughout the report that their entire operating portfolio was not completely renewable, and stressed the diversity as a strength.

Much like Calpine, Idaho Power's reports stressed the cost of environmental regulation and that they expected the cost of compliance and changing environmental and climate regulations to remain high for the foreseeable future. So even though they

have already built in greenhouse gas reduction strategies, they are concerned about the cost of environmental regulation.

Within their sustainability report, the company stated that its goal was to go beyond expectations in their operations and reporting, which may account for the high volume of their CSR documents. It was notable that their CSR and sustainability strategies were connected to the core of their business, which indicates that the CSR is more genuine and effective.

The most commonly coded node was policy, with 137 mentions which ties back to the extensive discussion of the cost of environmental regulation and compliance. The second most common node was climate change which makes sense in the context of Idaho Power's discussion of climate regulation and their role in reducing greenhouse gas emissions, especially as part of the Carbon Disclosure Project. Since Idaho Power participates in external reporting through the Carbon Disclosure Project, their CSR and sustainability activities hold more weight and credibility.

In the assessment of Idaho Power in the framework of the GRI quality reporting standards (GRI, 2013; Moore & Poznanski, 2015), Idaho Power's total score was 3.5, the same as OR. The company's biggest strengths were in timeliness in reporting information, clarity of information (they had detailed information on many aspects of CSR), and comparability, since they had data available in a format easy to compare to themselves in the past and other companies, largely through their emissions reporting. However, their score was most hurt by balance, since they did very little to mention things that were negative or give as much as space and consideration to those issues.

5.1.5 National Differences in CSR in the Renewable Energy Sector between Iceland and the US

The most notable difference in CSR between the two countries was that the documents from the US renewable energy companies were heavily focused on regulation and the cost that environmental legislation and policy would have on the operating cost of the company. Neither of the Icelandic companies discussed this in any capacity. This could be explained by the difference in the size of the countries. In a country such as Iceland, these two energy companies provide almost all of the energy in a small country, which means that there is not a significant amount of competition when legislation or policy changes.

Alternatively, this could connect to the strong past resistance that US companies had to climate change and environmental regulation (Kolk & Pinkse, 2005). It is possible that since resistance to environmental regulations were stronger in the US than in Europe, the focus that these US companies have to government regulation are left over from that mentality.

Additionally, the CSR reports from the Icelandic companies were more focused, more easily accessible and very directly addressing the core of the business—how their energy generation impacts the environment and society. The two US companies provided a different, albeit not united, picture. Calpine's reporting did not address the core business of the company, and the CSR reporting was seriously lacking. Idaho Power on the other hand presented a massive flood of documents and information that was not as concise, organized or accessible as the reports provided by the Icelandic companies.

Another important finding was that neither of the American companies mentions either sustainable development or the precautionary principle. Both Icelandic companies discussed sustainable development, and one discussed the precautionary principle. First of all, this indicates that the language of sustainable development is perhaps less common in US companies. It is possible that companies are not differentiating between sustainability and sustainable development in the same way that international CSR frameworks do. More notably, the precautionary principle is not heavily featured in any of the four companies analyzed, which is concerning when the actions of energy companies have significant consequences for the environment, human health, human lifestyle, and ecosystems. Using the precautionary principle as a guiding principle could help these companies to avoid controversial decisions, developing projects too quickly before they have been thoroughly researched, and anticipating how climate change will impact their business more carefully. This connects to what Frynas (2010) argued when he argued that nonrenewable energy companies had better CSR than many countries. In this case, the companies are all at least partially renewable, and their CSR is not as complete and detailed as it could be.

There are also a few important things to keep in mind about this comparison. First of all, the US companies are much larger than the Icelandic companies. Despite producing a similar amount of renewable energy, the US companies produce a significant amount

of nonrenewable energy as well. This leads to the importance of cultural context of these companies and their reports. In Iceland, the energy is almost entirely renewable, which means that other environmental concerns and impacts of the companies become a larger focus. For example, there is great debate and consideration over the location of proposed power plants, and the tension between conservation and energy generation is very present. There is no shortage of energy, and as a consequence, prices are extremely low. In the United States, a much smaller percentage of energy is renewable, meaning that any company that is engaging in renewable energy already looks much better than their nonrenewable competitors. This means that there is possibly less pressure to have thorough CSR and environmental reporting than in Iceland where people are accustomed to renewable energy and see the other side effects of renewable energy production.

The original research question of this project was how do company level corporate social responsibility policies in the renewable energy sector interact with national level environmental and climate change policies in the United States and Iceland? Based on the documents available publicly from the companies in both countries, it seems to be a fairly one-way relationship where governments make policies that affect companies, and companies do little to influence the policy that governments make. However, it is highly likely that there is more beneath the surface, since it is unlikely that all the details of the company's relationship with the government is relevant and published in publicly available reports. Since the Icelandic companies are almost entirely state or municipally owned, they are much more integrated into the government than the ones in the United States which could explain the focus that US companies had on the cost of government regulation.

5.2 Assessment of CSR from the Interviews

The following section of the discussion includes an analysis of the information shared in the interviews by the representatives of each Icelandic company or organization.

5.2.1 Festa

Festa is seated in a very interesting position as it working to influence companies' CSR actions by increasing awareness and government action on CSR, but since it is an association of companies it is not truly able to hold companies accountable. This is still a

very important role. In fact, Festa is taking more of a role in interacting with the government on the issue of CSR than any of the individual companies alone. This is an important observation since it indicates that Icelandic companies (when acting as a group) are working to shape government policy for the benefit of the environment and society. Festa is playing a crucial role in this relationship, and while it is unable to perform substantial watchdog functions, there is something to be sad for peer pressure of your fellow companies and the strong encouragement that Festa provides to avoid greenwashing. Of course, other players are still needed to play a more watchdog function, but this is not the role of Festa in its current form.

Additionally, for how new Festa is, it seems to have been fairly successful at its goal of increasing CSR awareness with the government, companies and public. This is very important, especially in light of CSR development in Iceland compared to CSR development in the US, and how the development of CSR in the US (a much larger country) has influenced CSR in Iceland, and other parts of Europe (Doh & Guay, 2006). The jumps in CSR practices by Icelandic companies from focusing on philanthropy to focusing on the core of their business reflects the same development in US CSR, but not done over the same time period. In fact, it seems like much of CSR in Iceland was driven by a major crisis—the financial crash of 2008.

Festa is still a young organization, so there is time for it to address plenty of challenges and take advantage of many opportunities as it works to advocate for CSR in Icelandic society, government and of course within businesses.

5.2.2 Orkuveita Reykjavíkur

One of the main focuses of OR in terms of its environmental and CSR reporting is on its internal operations. This is not to say that there is no focus on publicly discussing its environmental policy or being transparent, but rather that one of their company values is to make sure that every member of their company is committed to the values of the company and working towards the environmental goals. This is important when looking at the CSR of a company. If CSR is not well-integrated into the company on every level, it will not be as effective (Frynas, 2010). This commitment to internal unification on the environmental and values front indicates that OR is truly working to make these issues a

key focus of their operations. Similarly, the fact that when they developed their mission statement of integrity, efficiency and foresight the CEO met with every employee shows that their ethical values are present at every level of the company.

OR is also in a unique position compared to the other companies included in this analysis in that they are also a water and heat utility which means that many of their policy interactions with the government involve advocating for protection of water resources. Additionally, much of their interaction with the government happens on a municipal level since they are largely owned by the municipalities rather than the national government.

It was apparent in the discussion with OR's environmental manager that OR has learned from its past mistakes and is working to move beyond them to form a better company. The company suffered from deep financial troubles and has since recovered, and as it has recovered the company has reached a point where it is able to consider more CSR strategies including external reporting with the GRI, and joining Festa.

5.2.3 Orka Náttúrunnar

The information available from Orka Náttúrunnar is less developed in English than the rest of the organizations. Much of this can be attributed to the fact that the company is so new, and that many of its operations are still shared with OR. Much like OR, environmental issues seemed well-integrated into the company since its operations are stemming from a long history of considering environmental issues at the mother company.

Perhaps most notable is the fact that the company is actively encouraging customers to reduce their energy use. This works directly against their potential profits in the short term, but has the potential to give them a competitive advantage which shows their ability to think about problems on a long term basis and look beyond immediate profits.

5.2.4 Landsvirkjun

Most notable in the interview with Landsvirkjun's environmental manager was the fact that environmental issues were so well-integrated into the company that when asked what their motivation for trying to address environmental issues was, the environmental

manager seemed confused as to why that would ever be a question. This does not mean that they do everything perfectly when it comes to environmental issues and the fact that they were willing to recognize their past mistakes, especially with public communication regarding the development of power plants indicates their willingness to improve their operations. In fact, many of these controversies seem to have driven highly thorough environmental and sustainability reporting.

In terms of their relationship with the government, it was interesting how they shifted the discussion of future power plant development to the government, indicating that it was an inherently political decision. This may be true, but they do still have some influence and power when it comes to deciding whether or not to build a power plant in a specific location.

Their decision to publish their environmental report was also different than the other companies. The logic behind the decision has paid off since their new website has proved to be more accessible and attracted more public attention. However, it does call to question what future reports will look like. Will future environmental reports replace the content currently on the website, or will new websites be created for each year? Having all of the information available for each year is important to track progress and for the public to see how the company has been doing from year to year.

5.2.5 Overall Trends in CSR in Icelandic Renewable Energy Companies

Overall, the most defining characteristics of CSR in the two Icelandic renewable energy companies analyzed were the fact that environmental considerations were built into their daily operations, there was no strong outward influence over government policy, and there was a willingness to be open about past mistakes and how the company was working to correct them.

Representatives from OR and Landsvirkjun both seemed to be surprised at the interview question about what motivated them to work on environmental issues. It seemed like such a non-issue and that it was assumed that the company would focus on these issues and no special motivation was needed. It is difficult to tell if this is because they are both companies focused on renewable energy or if this has something to do with business in Iceland in a larger sense.

Secondly, based on both their published documents and interviews it seems that neither company spends much time pressuring the government for any specific legislation or policy. However, since both companies are owned by government bodies it is easy to assume that there are more conversations happening than are necessarily published and reported. Nowhere in any of the reports or interviews did either company mention the cost of environmental or climate regulation, which is very different than the US companies who focused a lot of report space on the cost of regulation.

Finally, both companies were open about past mistakes and controversies and did not try to sweep them under the rug. They openly discussed them and shared what they were doing to improve their operations. This gives both companies more credibility when it comes to transparency and commitment to the values of CSR, than if they chose not to disclose past mistakes and controversies.

6 Conclusion

This research provides a starting point for examining the quality of CSR reports and the relationship with government in both Icelandic and US renewable energy companies, but there is still a significant amount of research needed. Firstly, this analysis could be greatly improved by more internally available information rather than just focused on publicly available information and interviews. Secondly, while this research may be fairly representative of renewable energy in Iceland, it is nowhere near representative of renewable energy in the United States due to how large the US is and how many companies are engaging in renewable energy on some level. Furthermore, the companies in the US that were used are not fully renewable. Further research that compares US companies that are fully renewable versus partially renewable would provide more understanding of the state of CSR in renewable energy companies located in the US.

One of the other major differences between the US and Iceland that could shape the results of this study are the fact that the Icelandic companies are state or municipality run while the US ones are not. Finally, the fact that there was uneven information available for all of the companies, the comparison may not be completely fair, especially with the US companies. The information available from the two Icelandic companies was fairly comparable, but the two US companies had wildly different quantities and quality of information available.

Nevertheless, this research has provided some insights into the differences in CSR policies in renewable energy companies between the two countries. CSR in the Icelandic companies appears to be well-integrated into every aspect of the companies' operations and is very thorough. The CSR in the two US renewable energy companies analyzed was less unified in its structure, but the two companies shared an intense focus on the negative impacts of environmental and climate regulation on their profits, which was something not seen at all in either of the Icelandic companies. Additionally, neither of the US companies ever mentioned much of anything about their past mistakes, which was very different than the Icelandic companies.

The role that businesses play in policymaking when it comes to climate and environmental regulations was not a major part of companies in either country, which

shows that while business may be doing some work to address environmental challenges, climate change and CSR on the company level, they are not pushing governments to work on these issues more broadly, at least in publicly available publications. The one exception to that is Festa, in which companies are working together to push for a national CSR policy and increased awareness in Iceland.

References

- Askja Energy. (n.d.). The Energy Sector. Retrieved from <http://askjaenergy.org/iceland-introduction/iceland-energy-sector/>
- Attari, S. Z., Schoen, M., Davidson, C. I., DeKay, M. L., Bruine de Bruin, W., Dawes, R., & Small, M. J. (2009). Preferences for change: Do individuals prefer voluntary actions, soft regulations, or hard regulations to decrease fossil fuel consumption? *Ecological Economics*, 68(6), 1701–1710.
<http://doi.org/10.1016/j.ecolecon.2008.10.007>
- Bakhtina, K., & Goudriaan, J. W. (2011). CSR reporting in multinational energy companies. *Transfer: European Review of Labour and Research*, 17(1), 95–99.
<http://doi.org/10.1177/1024258910396308>
- Barton, L. (2015, November 6). Björk calls for action to prevent destruction of Iceland's highlands. *The Guardian*. Retrieved November 10, 2015 from <http://www.theguardian.com/music/2015/nov/06/bjork-calls-action-destruction-iceland-highlands-petition>
- Becker-Olsen, K. L., Cudmore, B. A., & Hill, R. P. (2006). The impact of perceived corporate social responsibility on consumer behavior. *Journal of Business Research*, 59(1), 46–53. <http://doi.org/10.1016/j.jbusres.2005.01.001>
- Bonsón, E., & Bednárová, M. (2014). CSR reporting practices of Eurozone companies. *Revista de Contabilidad*. <http://doi.org/10.1016/j.rcsar.2014.06.002>
- California Climate Registry. (n.d.). Climate Registry. Retrieved October 29, 2015, from <http://www.climateregistry.org/>

- Calpine. (2012). About Calpine. Retrieved September 27, 2015, from <http://www.geysers.com/about.aspx>
- Calpine. (2015, July 30). Calpine, a generation ahead, today. Retrieved November 20, 2015, from http://www.calpine.com/power/plant_img/map1.pdf
- Calpine Corporation. (2014). *Calpine 2014 Annual Report* (Annual Report) (p. 174). Houston, Texas.
- Carroll, A. B. (1991). The pyramid of corporate social responsibility: Toward the moral management of organizational stakeholders. *Business Horizons*, 34(4), 39–48.
- CDP. (2015). CDP--Driving Sustainable Economies. Retrieved February 1, 2015, from <https://www.cdp.net/en-US/Pages/HomePage.aspx>
- Ching-Hsing, C., & Abdoul, S. G. (2015). Corporate environmentalism and environmental innovation. *Journal of Environmental Management*, 153, 84–92.
<http://doi.org/10.1016/j.jenvman.2015.01.010>
- Danilet, M., & Mihai, O. (2013). CSR Online Discourse Practices in the Romanian Energy Sector. *Journal of Eastern Europe Research in Business & Economics*, 2013, 1–9.
- DiSavino, S., & O'Grady, E. (2014, April 29). Factbox: Largest U.S. electric companies by megawatts, customers. *Reuters*. Retrieved from <http://www.reuters.com/article/2014/04/29/us-efh-bankruptcy-utilities-idUSBREA3SOP420140429>
- Doh, J. P., & Guay, T. R. (2006). Corporate Social Responsibility, Public Policy, and NGO Activism in Europe and the United States: An Institutional-Stakeholder Perspective. *Journal of Management Studies*, 43(1), 47–73.
<http://doi.org/10.1111/j.1467-6486.2006.00582.x>

Dyllick, T., & Hockerts, K. (2002). Beyond the business case for corporate sustainability.

Business Strategy and the Environment, 11(2), 130–141.

<http://doi.org/10.1002/bse.323>

European Commission. (2014, April 29). Corporate Social Responsibility. Retrieved

November 5, 2014, from http://ec.europa.eu/enterprise/policies/sustainable-business/corporate-social-responsibility/index_en.htm

Fisher, B., & Costanza, R. (2005). Regional commitment to reducing emissions. *Nature*, 438(7066), 301–2.

Fontaine, P. (2015, August 25). 10 More Windmills About To Go Up. Retrieved August

31, 2015, from <http://grapevine.is/news/2015/08/25/10-more-windmills-about-to-go-up/>

Forbes, S., & McIntosh, M. (2011). Towards CSR and the sustainable enterprise economy

in the Asia Pacific region. *Sustainability Accounting, Management and Policy Journal*, 2(2), 194–213.

<http://doi.org/http://dx.doi.org/10.1108/20408021111185376>

Friedman, L. (2010, August 3). Overseas Frustration Grows Over U.S. Domestic Impasse

on Climate Policy. *The New York Times*. Retrieved from

<http://www.nytimes.com/cwire/2010/08/03/03climatewire-overseas-frustration-grows-over-us-domestic-61456.html>

Friedman, M. (1970). The social responsibility of business is to increase its profits. *New*

York Times Magazine.

Frynas, G. (2010). Oil industry's increasing focus on CSR. *Petroleum Economist*, n/a.

Ge, M., Friedrich, J., & Damassa, T. (2014, November 25). 6 Graphs Explain the World's

Top 10 Emitters. Retrieved September 27, 2015, from

<http://www.wri.org/blog/2014/11/6-graphs-explain-world%E2%80%99s-top-10-emitters>

Google. (n.d.). [Map of southwestern Iceland with points added to designate power plants]. Retrieved 20 November 2015 from maps.google.com

GRI. (2013). Pages - Reporting Standards. Retrieved October 29, 2015, from <https://g4.globalreporting.org/how-you-should-report/reporting-principles/Pages/default.aspx>

GRI. (2014). About GRI. Retrieved November 18, 2014, from <https://www.globalreporting.org/information/about-gri/Pages/default.aspx>

Gutin, O., & Ingargiola, B. (2015, August). Fact sheet: Timeline of progress made in President Obama's climate action plan. (L. Small & J.-M. Cross, Eds.). Environment and Energy Study Institute.

Harris, P. G. (2009). Beyond Bush: Environmental politics and prospects for US climate policy. *Energy Policy*, 37(3), 966–971. <http://doi.org/10.1016/j.enpol.2008.10.042>

Hsu, A. W., & Wang, T. (2013). Does the market value corporate response to climate change? *Omega*, 41(2), 195–206. <http://doi.org/10.1016/j.omega.2011.07.009>

Huber, F., Vollhardt, K., Matthes, I., & Vogel, J. (2010). Brand misconduct: Consequences on consumer–brand relationships. *Journal of Business Research*, 63(11), 1113–1120. <http://doi.org/10.1016/j.jbusres.2009.10.006>

IDACORP. (2014). *Above the Lines: Sustainability Report 2014* (Sustainability Report). Idaho Power.

Idaho Power. (2015). Service Area Map. Retrieved November 20, 2015, from <https://www.idahopower.com/AboutUs/serviceMap/>

- International Institute for Sustainable Development, Deloitte & Touche, & World Business Council for Sustainable Development. (1992). *Business Strategies for Sustainable Development*.
- IPCC. (2014). *IPCC Fifth Assessment Synthesis Report: Approved Summary for Policymakers*.
- ISO 26000 - Social Responsibility. (2010). Retrieved April 1, 2015, from www.iso.org/iso/home/standards/iso2600.htm
- ISO Central Secretariat. (2009). *Environmental management: The ISO 14000 family of International Standards*. ISO.
- Keeble, J. J., Topiol, S., & Berkeley, S. (2003). Using Indicators to Measure Sustainability Performance at a Corporate and Project Level. *Journal of Business Ethics*, 44(2-3), 149–158. <http://doi.org/10.1023/A:1023343614973>
- Kleine, A., & Hauff, M. von. (2009). Sustainability-Driven Implementation of Corporate Social Responsibility: Application of the Integrative Sustainability Triangle. *Journal of Business Ethics*, 85(3), 517–533. <http://doi.org/10.1007/s10551-009-0212-z>
- Kolk, A., & Levy, D. (2001). Winds of Change:: Corporate Strategy, Climate change and Oil Multinationals. *European Management Journal*, 19(5), 501–509. [http://doi.org/10.1016/S0263-2373\(01\)00064-0](http://doi.org/10.1016/S0263-2373(01)00064-0)
- Kolk, A., & Pinkse, J. (2005). Business Responses to Climate Change: IDENTIFYING EMERGENT STRATEGIES. *California Management Review*, 47(3), 6–20.
- Korngold, A. (2014). *A better world, inc.: How companies profit by solving global problems...Where governments cannot*. New York, NY: Palgrave Macmillan.

- Kundu, B. (2014). Corporate Social Responsibility Practices of Selected Power & Electricity Sector Companies in India. *International Journal of Research in Social Sciences*, 4(4), 198–210.
- Lachapelle, E., Borick, C. P., & Rabe, B. (2012). Public Attitudes toward Climate Science and Climate Policy in Federal Systems: Canada and the United States Compared. *Review of Policy Research*, 29(3), 334–357. <http://doi.org/10.1111/j.1541-1338.2012.00563.x>
- Landsvirkjun. (2013). *Landsvirkjun Annual Report 2013*. Reykjavík, Iceland
- Landsvirkjun. (n.d.). Power Stations - Landsvirkjun Power Company. Retrieved November 20, 2015, from <http://www.landsvirkjun.com/company/powerstations>
- Marrewijk, M. van. (2003). Concepts and Definitions of CSR and Corporate Sustainability: Between Agency and Communion. *Journal of Business Ethics*, 44(2-3), 95–105. <http://doi.org/10.1023/A:1023331212247>
- McCarter, K. S., & Smith, M. B. (2004). Influencing US environmental policy: players and strategies. *Australian Journal of Dairy Technology*, 59(2), 110–115.
- McWilliams, A., & Siegel, D. (2000). Corporate social responsibility and financial performance: correlation or misspecification? *Strategic Management Journal*, 21(5), 603–609. [http://doi.org/10.1002/\(SICI\)1097-0266\(200005\)21:5<603::AID-SMJ101>3.0.CO;2-3](http://doi.org/10.1002/(SICI)1097-0266(200005)21:5<603::AID-SMJ101>3.0.CO;2-3)
- Metaxas, T., & Tsavdaridou, M. (2012). Corporate Social Responsibility in Greece: A Comparative Analysis of the Three Major Energy Companies (case Study). *Management : Journal of Contemporary Management Issues*, 17(2), 119–140.
- Mohr, L. A., Webb, D. J., & Harris, K. E. (2001). Do Consumers Expect Companies to be Socially Responsible? The Impact of Corporate Social Responsibility on Buying

Behavior. *Journal of Consumer Affairs*, 35(1), 45–72.

<http://doi.org/10.1111/j.1745-6606.2001.tb00102.x>

Moore, W. B., & Poznanski, P. J. (2015). Sustainability Reporting: An Accountant's Perspective. *Journal of Management and Sustainability*, 5(2), 92–96.

<http://doi.org/http://dx.doi.org/10.5539/jms.v5n2p92>

Moseman, A. (2009, February 19). Does cloud seeding work? *Scientific American*.

Retrieved from <http://www.scientificamerican.com/article/cloud-seeding-china-snow/>

Muth, S. D. (2003, November 29). Power driven. *The Guardian*. Retrieved from

<http://www.theguardian.com/environment/2003/nov/29/weekendmagazine.conservationandendangeredspecies>

Orkuveita Reykjavíkur. (2013). *2013 Annual Report: Reykjavík Energy*. Reykjavík, Iceland.

Orkuveita Reykjavíkur. (n.d.-a). About. Retrieved September 2, 2015, from

<https://www.or.is/en/about>

Orkuveita Reykjavíkur. (n.d.-b). Hellisheiði Geothermal Plant. Retrieved September 2,

2015, from <https://www.or.is/en/projects/hellisheidi-geothermal-plant>

Orkuveita Reykjavíkur. (n.d.-c). Nesjavellir Geothermal Plant. Retrieved September 2,

2015, from <https://www.or.is/en/projects/nesjavellir-geothermal-plant>

Parguel, B., Benoît-moreau, F., & Larceneux, F. (2011). How Sustainability Ratings Might Deter “Greenwashing”: A Closer Look at Ethical Corporate Communication.

Journal of Business Ethics, 102(1), 15–28.

<http://doi.org/http://dx.doi.org/10.1007/s10551-011-0901-2>

Pätäri, S., Arminen, H., Tuppurä, A., & Jantunen, A. (2014). Competitive and responsible? The relationship between corporate social and financial

- performance in the energy sector. *Renewable and Sustainable Energy Reviews*, 37, 142–154. <http://doi.org/10.1016/j.rser.2014.05.012>
- Porter, M. E., & Kramer, M. R. (2006). Strategy & Society: The Link Between Competitive Advantage and Corporate Social Responsibility. *Harvard Business Review*, 84(12), 78–92.
- Porter, M. E., & Linde, C. van der. (1995). Green and Competitive: Ending the Stalemate. Retrieved from <http://www.hbs.edu/faculty/Pages/item.aspx?num=5512>
- Porter, M. E., & Reinhardt, F. L. (2007). A Strategic Approach to Climate. *Harvard Business Review*, 85(10), 22–26.
- Putzer, P. E., Pavluska, V., & Törocsik, M. (2013). Relationship between CSR and traditional and alternative energy consumption in Hungary. In *The Proceedings of the International Conference "Marketing - from Information to Decision"* (pp. 236–250). Cluj-Napoca, Romania: Babes Bolyai University. Retrieved from <http://search.proquest.com/docview/1477968713?OpenUrlRefId=info:xri/sid:primo>
- Ratner, M., & Glover, C. (2014). *U.S. Energy: Overview and Key Statistics* (Congressional Research Service Report No. R40187). Washington, D.C., United States: Congressional Research Service.
- Schultz, F., & Wehmeier, S. (2010). Institutionalization of corporate social responsibility within corporate communications: Combining institutional, sensemaking and communication perspectives. *Corporate Communications: An International Journal*, 15(1), 9–29. <http://doi.org/10.1108/13563281011016813>
- SEC. (2009, June 26). SEC.gov Form 10-K. Retrieved November 10, 2015, from <http://www.sec.gov/answers/form10k.htm>

- Smith, N. C. (2013, August 14). When It Comes to CSR, Size Matters. Retrieved November 11, 2015, from <http://www.forbes.com/sites/insead/2013/08/14/when-it-comes-to-csr-size-matters/>
- Streimikiene, D., Simanaviciene, Z., & Kovaliov, R. (2009). Corporate social responsibility for implementation of sustainable energy development in Baltic States. *Renewable and Sustainable Energy Reviews*, 13(4), 813–824. <http://doi.org/10.1016/j.rser.2008.01.007>
- The Ministry for the Environment. (2002, August). Welfare for the Future: Iceland's National Strategy for Sustainable Development. (The English Language Center, Trans.). The Ministry for the Environment.
- The Ministry for the Environment. (2007, February). Iceland's Climate Change Strategy.
- The Ministry for the Environment. (n.d.). English | Ministry. Retrieved November 9, 2015, from <http://eng.umhverfisraduneyti.is/ministry/ministry>
- Thomson Reuters. (2015). PLC Electricity Regulation in the United States: Overview. Retrieved November 3, 2015, from <http://us.practicallaw.com/8-525-5799?source=relatedcontent>
- Toufic Mezher, Samer Tabbara, & Nawal Al-Hosany. (2010). An overview of CSR in the renewable energy sector. *Management of Environmental Quality: An International Journal*, 21(6), 744–760. <http://doi.org/10.1108/14777831011077619>
- Trapp, N. L. (2012). Corporation as climate ambassador: Transcending business sector boundaries in a Swedish CSR campaign. *Public Relations Review*, 38(3), 458–465. <http://doi.org/10.1016/j.pubrev.2012.03.004>

- UN. (2015). 2015 - United Nations sustainable development agenda. Retrieved November 6, 2015, from <http://www.un.org/sustainabledevelopment/development-agenda/>
- UNFCCC. (2015). UNFCCC COP 21 Paris France - 2015 Paris Climate Conference. Retrieved November 11, 2015, from <http://www.cop21paris.org/about/cop21>
- UNFCCC. (n.d.). Glossary. Retrieved November 11, 2015, from http://unfccc.int/resource/cd_roms/na1/ghg_inventories/english/8_glossary/Glossary.htm
- United Nations. (2013). United Nations Global Compact. Retrieved November 7, 2014, from <https://www.unglobalcompact.org/>
- UN World Commission on Environment and Development. (1987). *Our Common Future*. Oxford: Oxford University Press.
- U.S. Energy Information Administration. (2011). Operable Generating Units in the United States by State and Energy Source, 2011. U.S. Energy Information Administration.
- U.S. Energy Information Administration. (2015, March 31). What is U.S. Electricity Generation by Energy Source? Retrieved July 22, 2015, from <http://www.eia.gov/tools/faqs/faq.cfm?id=427&t=3>
- US EPA. (n.d.). About EPA [Collections and Lists]. Retrieved November 9, 2015, from <http://www2.epa.gov/aboutepa>
- Vogel, D. (2005). *The Market for Virtue: The Potential and Limits of Corporate Social Responsibility*. Washington, D.C.: Brookings Institution Press.
- Young, S., & Marais, M. (2012). A Multi-level Perspective of CSR Reporting: The Implications of National Institutions and Industry Risk Characteristics. *Corporate*

Governance: An International Review, 20(5), 432–450.

<http://doi.org/10.1111/j.1467-8683.2012.00926.x>

Appendix 1: Description of Nodes for Coding

Sustainability: Any direct mentions to the concept of sustainability, generally statements that were fairly vague and didn't necessarily have enough detail to be put into other categories

Sustainable Development: Any direct mentions of the concept of sustainable development. This node was reserved only for times when sustainability was talked about in the context of development, and not just as a general concept (generally in the Brundtland definition of sustainable development)

Resource Use: This node was reserved for any mention of how a natural resource was being used (including geothermal wells, water for hydropower, etc.). It was used in many contexts from talking about technical specific uses of a resources to abstract mentions of protecting it and using it sustainably

Policy: This was reserved for mentions of the company's specific policy regarding sustainability, CSR, or connection with government policy but was most commonly used for the company's own policies.

Pollution: The pollution node included mentions of any form of pollution including geothermal gases, water pollution, noise pollution and emissions from the energy generation process (but not CO2 emissions, those are contained within the climate change node).

Natural Habitat: This node was used in cases where the reports discussed the natural environment in which their facilities and production occurred in. For example, if the habitat of a native fish species near a dam was discussed it was included within this node.

Restoration: This node was used for activities by the company to restore habitat they disrupted in the process of extracting natural resources.

Climate Change: This node included any mention of greenhouse gases, climate change, CO2 emissions, the effects of climate change and included all the CO2 emission data from all the companies

Waste: This node included waste that was going to landfills, waste from the geothermal process (including water being reinjected) and any form of strategy used to deal with waste.

Procurement: This node included details of where the company sourced its materials

External Reporting: This node was for any reference to external reporting for CSR, sustainability, or other environmental or social matters. This included such organizations as the Global Reporting Initiative, UN Global Compact, or smaller organizations or consulting firms

Biodiversity: Biodiversity was used for explicit references to biodiversity as well as to discussion of the impact of a company's operations on species around them or measures to mitigate their impact on both plant and animal species.

Conservation: The node for conservation was used for direct mentions of conservation as well as discussions of efforts a company had made to conserve a natural area in order to protect an area of habitat, nature or animal/plant species

Precautionary: This node was reserved for direct references to the company adhering to the precautionary principle or taking precautionary measures in their business practices to account for the unknown in terms of environmental impacts

Transportation: The transportation node was used for mentions of transportation whether it was transportation done as part of the company's daily business, transportation of their employees to work, or any work that the company was doing in the field of transportation as related to energy.

Appendix 2: Planned Semi-Structured Interview Questions

BACKGROUND

What is your position at the company?

How many people are involved with making environmental decisions? Is your role well-integrated into the company or more of a side focus?

What are the most pressing environmental challenges facing your industry? What are you doing to address these issues?

REPORT SPECIFIC QUESTIONS (varied slightly with each company due to differences in exact report content, these examples pertain to Orkuveita Reykjavíkur)

The 2014 Environmental Report mentions sustainable development and utilizing resources responsibly so future generations have the same opportunities as current generations. What is the biggest challenge you face in making sure this happens?

The 2014 Environmental Report does a thorough job of reporting both on your personal electricity and water use as well as your operations. What do you think the biggest opportunities are for Reykjavík Energy to improve your daily operations, from an environmental perspective?

How does climate change play into this future role?

RELATIONSHIP WITH POLICY

What is your company's relationship with government (local, regional, national)?

Do you ever work to shape governmental policy? (on what level, in what ways, specific examples)

How much influence do you believe you have over government policy? How much influence does government policy have over you?

What are the most relevant government regulations that are applied to you? Are these helpful or a hindrance?

RELATIONSHIP WITH PUBLIC

What are the most common pressures you face from the public (sulfur dioxide, energy prices, something else?)

EXTERNAL REPORTING AND STANDARDS

Are you a part of any external reporting or CSR frameworks?

What has your experience with framework X been?

How long have you been part of it?

Is it a helpful framework for your work?

Are you part of Festa (why or why not?)

DRIVERS

What motivates your company to be more environmentally friendly?

What were your company's motivations for company specific environmental programs?

How successful have these programs been?

Do you collaborate with other similar companies?

Appendix 3: Quality of CSR Reporting Individual Ratings

	OR/ON Power	Landsvirkjun	Calpine	Idaho Power
Balance	3.33	3	1.33	2.33
discloses favorable and unfavorable results	4	3	1	2
information presented in a way that shows positive and negative performance	4	4	1	2
emphasis on various aspects is proportionate to relative materiality	2	2	2	3
Comparability	3.75	4.25	3.25	4
information can be compared on a year to year basis	3	4	2	4
performance can be compared with appropriate benchmarks	4	4	4	4
variation in reporting periods is explained	4	4	4	4
report uses generally accepted protocols for compiling, measuring and presenting information	4	5	3	4
Accuracy	3.75	3.5	3	3.75
indicates data that has been measured	4	4	3	4
data measurement techniques are adequately described and are replicable	3	3	2	3
indicates when data has been estimated	4	4	4	4
qualitative statements are valid on the basis of other reported information and available evidence	4	3	3	4
Timeliness	3.67	4	4	4
information has been disclosed while it is recent	4	4	4	4
collection and publication of key performance information is aligned with the reporting schedule	4	4	4	4
information clearly indicates the time period to which it relates, when it will be updated and when the last updates were made	3	4	4	4
Clarity	3.5	4	3	4
contains level of information necessary but avoids excessive detail	4	3	3	3
specific information is easy to find	4	5	3	5
avoids technical terms, jargon, and acronyms	3	4	3	4
data and information is available to stakeholders	3	3	3	3
Reliability	2.75	3.5	2.5	2.75
scope and extent of external assurance is identified	3	5	2	3
original source of the information in the report can be identified	3	3	3	3
reliable evidence to support assumptions or calculations	3	3	3	3
representation is available from the original data or information owners	2	3	2	2