

Sustainability Reporting in the Electric Utility Sector

Connecting leading reporting indicators with risks – Using Idaho Power Company as an example

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Abstract

The author of this thesis investigated the potential benefits of using leading indicators in sustainability reporting as a means to reduce risk in the electric utility sector. Leading indicators describe the processes that help to achieve desired results (lagging indicators). The main argument for considering leading indicators is built around the concept that sustainability is, to a large extent, about continuous improvement and that leading indicators drive sustainability performance of organizations. Electric utilities have significant impacts on the environment and our society and therefore, have a responsibility to reduce their impacts and guide the industry to more sustainable practices. Idaho Power, the largest electric utility company in the State of Idaho (USA), served as an example to show what set of leading indicators is most suitable to address risks within their sustainability reporting efforts. Examples were provided on what information could be disclosed under selected leading indicators that could contribute to mitigate risks. This thesis contributes to a better understanding of the importance and applicability of leading indicators and their potential role in addressing and mitigating risks of organizations in connection to sustainability reporting and sustainability performance.

Keywords: sustainability reporting, leading indicators, lagging indicators, utility sector, risks, Idaho Power

Executive Summary

Sustainability reporting has significantly gained importance over the past 20 years and has gradually matured and evolved. For business it is a crucial communication tool to communicate their efforts in regard to environmental, social as well as economic performance to various stakeholders. The efforts of an organization to reduce risks on humans, the environment, and on economical aspect should be reflected in sustainability reports and the challenge is to include a proactive approach to sustainability reporting by disclosing future performance and plans to continuously mitigate risk. The widely used Global Reporting Initiative (GRI) G3 reporting framework that companies utilize to base their sustainability reporting on, it is predominantly using lagging indicators, i.e. measuring the final outcomes that result from organization's initiatives. However, since corporate efforts to make their business more sustainable, to a large extent is focusing on continuous improvements, a more proactive and preventive set of indicators aiming at improving future performance could be considered. Therefore, the author of this thesis looks at the concept of *leading indicators*, and their potential ability to provide an outlook on an organization's future sustainability plans and to drive sustainability performance.

The author of this thesis investigates Dr. Robert B. Pojasek's concept of leading indicators within sustainability reporting, with the ambition to provide a better understanding of its relevance in regard to addressing risks within organizations and their sustainability reporting efforts. The objective is to test the concept of leading indicators and their applicability to address risks in sustainability reporting, using the electric utility company Idaho Power as a practical example. As part of this analysis, the type of information that could be disclosed under selected leading indicators for Idaho Power is suggested.

In this thesis, the author attempts to answer to the following research question:

- Is the use of leading indicators a suitable way of handling risks in sustainability reporting?

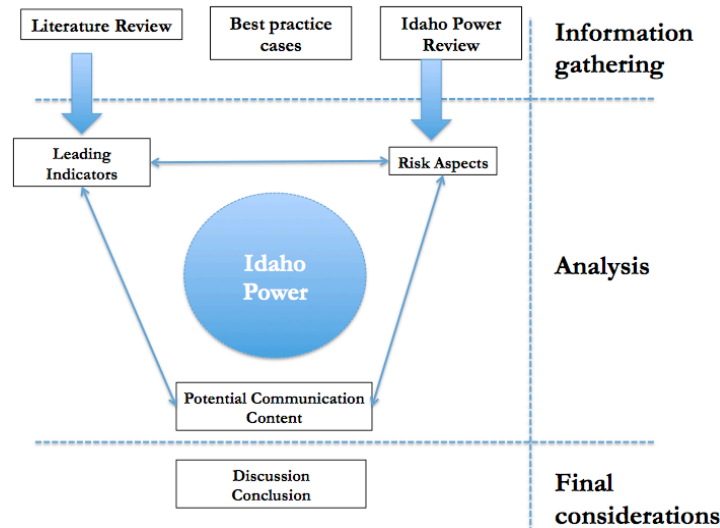
In the pursue for an answer to this question, the following sub-questions guides the research efforts:

- What leading indicators for sustainability reporting can be identified?
- Which leading indicators could contribute to address risks in sustainability reporting for Idaho Power?
- What content could be communicated under those leading indicators to mitigate risks for Idaho Power?

The research consisted of three main steps: information gathering, analysis, and final considerations. The information gathering consisted of an academic literature review, a review of best practice cases that contributed to analyzing characteristics and communication styles of various best practice sustainability reports, as well as reviewing company relevant information of Idaho Power. A set of risks was chosen to be further investigated for the analysis, which was based on identified risks of Idaho Power. The chosen risks were:

- regulatory imposed risks;
- environmentally imposed risks; and
- imposed risks through supply and demand dependency.

Then leading indicators identified through the literature review were used to see which ones would be most suitable to mitigate those risks. With the help of leading indicators and the knowledge obtained through best practice reports and through reviewing information on Idaho Power, practical examples of potential communication contents for sustainable reporting to mitigate risks were identified and outlined. Within the final considerations, a discussion around the role of leading indicators was executed, followed by concluding remarks.



The set of leading indicators¹ chosen in the analysis to be most suitable to mitigate risks for the specific case on Idaho Power were the following:

- Use systems and processes to strategically plan for sustainable success and to align the sustainability program to its core purpose.
- Build resources and assets; apply them to achieving sustainability goals and increasing future value of the organization and the community within which it operates.
- Measure what is necessary to increase understanding of the environment in which you operate, continually review it to ensure that it remains current, meaningful, and effective.
- Use knowledge to support decision making, stimulate innovative thinking, and ensure organizational success and sustainability.
- Manage and optimize processes as a system; review processes regularly for their relevance and sustainability in assisting the organization in achieving its sustainability objectives.

Under these leading indicators, that were originally compiled by Pojasek (2009a) through his analysis of various business excellence frameworks, practical examples were provided on what kind of information could be disclosed by Idaho Power in this context. Some of the suggestions included:

¹ The indicators are phrased as activities that companies should be implementing

Disclosure of information in regard to regulatory imposed risk involved the identification of relevant existing and proposed regulatory provisions, expectations on future developments, clarifying the impact for the company and preferably quantifying the impacts through regulatory imposed risks, outlining intended adapting measures and development plans for their future energy portfolio, evaluate their level of engagement with policy makers, provide a balanced picture of immediate costs involved in implementing sustainability policies versus long-term benefits, comparing cost of reducing environmental impacts vs. costs of non-compliance with regulations.

Disclosing information connected to environmentally imposed risk included analyzing Greenhouse Gas (GHG) emissions in the past and in the expected future; communicating opportunities for electric utilities due to climate change such as increased demand in cleaner energy sources, firms offering low-carbon energy, profit from emission trading markets, offering services that are related to adaptation to climate change such as energy efficiency programs; outlining measures to reduce GHG emissions and to shift to low carbon economy; optimization efforts of existing power plants; outlining further sustainable energy portfolio diversification efforts; and engagement with stakeholders.

Examples for disclosing information on their imposed risk through supply and demand dependency involved outlining plans on energy portfolio development, capability to access different gas markets, communicating the company's stand on various technologies such as Carbon Capture and Sequestrations (CCS) or nuclear power and efforts to promote alternative rate-making.

The suggested set of leading indicators and the examples given for what could be disclosed under those indicators, only provide an example to one specific case in the electric utility sector. If used in a different setting, it is necessary for other sustainability reporting practitioners to focus on the distinctive context of where the organization is finding itself in and where it is operating. However, other organizations exposed to similar risks could use the example of Idaho Power and the information outlined to align their reporting efforts to similar risks and adapting it to their own specific circumstances. Also, other organizations dealing with different risks could use the provided examples to see the potential and benefits of using leading indicators. The process of identifying suitable leading indicators is closely connected with the identification process of what is truly material to the organization; who are the main stakeholders that should receive most consideration; and to which risks Idaho Power is exposed.

Leading indicators and the information required under those indicators are ment to be forward looking, designed to help to predict and anticipate changes in the future, and to provide suggestions on how they can help organizations to adapt to those changes in a more sustainable manner and push future sustainability performance. Information provided under leading indicators should be able to help organizations to react in a timely manner in order to prevent undesired outcomes or to reach an anticipated outcome. This approach could support the communication of continuous improvement efforts. Moreover, it has the potential to contribute to better understanding of stakeholders on how organizations are trying to prevent and mitigate risks, before becoming serious threats to business operations and having harmful effects on the environment and society.

This thesis does not suggest to sustainability practitioners working with sustainability reporting to undermine the importance of lagging indicators in assessing the progress of an organization's sustainability program. It rather shows, using a company example, how leading indicators and their potential communication contents could be used in practice to

communicate company efforts to stakeholders on what measures are being taken to reduce risks and how to achieve sustainability goals in the future. However, whether leading indicators and the information provided under those indicators are able to reduce risks for Idaho Power or not, is a question for further research.

From the experience gained through testing leading indicators in this thesis, some final remarks can be made on whether the use of leading indicators is a suitable way of handling risks in sustainability reporting. Due to their forward-looking approach, leading indicators are able to provide helpful guidance on the information that could be disclosed in sustainable reporting when addressing risks. However, due to the fact that leading indicators do not serve the sole purpose to address risks in sustainability reports but rather address different business and work processes that are in place to achieve better results, leading indicators might not be the only choice for organizations trying to address risks in sustainability reports. Also, due to their complexity and required information under each indicator, leading indicators offer a wide range of different possibilities on what kind of information could be disclosed. This might be seen as a lack of clear guidance for sustainability practitioners who would like to use leading indicators in their sustainability reporting efforts. Furthermore, not all leading indicators are equally suitable for addressing risks, making it more challenging for companies to find the right leading indicator providing the most useful information content.

Leading indicators could especially be of use for sustainability advocates who are looking for more general guidance on the processes and the information needed when addressing risks in an organization's future performance. Leading indicators should be used with caution as long as a comprehensive sustainability reporting framework that includes leading and lagging indicators is not yet established and not widely used by organizations. Leading indicators could clearly be of value for sustainability reporting work but should not be solely used. For organizations that are already using leading indicators for improving their overall performance and are more acquainted with their use and their requirements, those organizations could give leading indicators more priority in their sustainability reporting.

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Abbreviations

AEP	American Electric Power
CAA	Clean Air Act
CCS	Carbon Capture and Sequestration
CR	Corporate Responsibility
CSR	Corporate Social Responsibility
DJSI	Dow Jones Sustainability Indexes
GHG	Greenhouse Gas
GRI	Global Reporting Initiative
IIIEE	International Institute for Industrial and Environmental Economics
KPI	Key Performance Indicators
NGO	Non-Governmental Organization
SD	Sustainable Development
SRI	Socially Responsible Investment
WBCSD	World Business Council for Sustainable Development

1 Introduction

1.1 Problem Definition

One of the most pressing challenges organizations are facing today is to operate in an economically, socially and environmentally sustainable manner (Hopwood, Unerman, & Fries, 2010). Pressing concerns such as overconsumption of finite natural resources, climate change, and destruction of ecosystems will contribute to shifting the economy and society fundamentally (Hopwood, et al., 2010). Electric utility companies, which are mainly generating, transmitting and distributing electricity, are a vital, omnipresent part of society and the environment, providing a vital role in generating welfare and economic prosperity and playing an important part in regional development (FINERGY, 2002). At the same time, the electric utility sector is responsible for more than 25-percent of total carbon emissions and thereby, is inherently contributing to climate change (Ceres, IIGCC, & Investor Group on Climate Change, 2008).

Besides generating returns for shareholders and measuring business performance strictly by standards of profit, market share and efficiency, it is important to ask to what extent businesses contribute to environmental sustainability and social justice (Gunther, 2011). Investors are increasingly considering sustainability practices of companies and gradually adopting sustainability criteria for their investment decisions. Other stakeholders are continuously interested in a company's performance and their efforts to integrate sustainability in their corporate culture (Adams & Frost, 2008; Hockerts, 2002). Moreover, organizations are feeling the pressure of being scrutinized by their stakeholders and they are being increasingly held accountable for their operations and the associated impacts on society, the environment and the economy (Pojasek & Hollist, 2011).

However, companies working with sustainability reporting are facing many challenges. Among various sectors, countries and cultures, the concept of sustainable development varies and incorporates complex issues (WBCSD, 2003). Companies report different facts and stories and the extent those are communicated differ among various sustainability reports. Despite the efforts of multi-stakeholder approaches towards standardization as seen with the Global Reporting Initiative (GRI), companies find it important that the process of reporting stays flexible and dynamic (WBCSD, 2003). Managers find it very challenging to know which issues in sustainability reporting are expected to be covered from different stakeholders and what issues in the reporting efforts are of strategic importance and worth disclosing (Morsing & Beckmann, 2006). Serving as practical guidance, sustainability best practices can help organizations to improve their operational performance and can help them to continuously improve their reporting efforts. Determining the most suitable indicators and the most suitable content remains a challenging task for each company. Approaching sustainability reporting is characterized by considering a company's individual needs and situation it finds itself in and each company must develop its own approach. A 'one-size-fits-all' solution is not applicable for sustainability reporting (WBCSD, 2003).

Organizations setting up their sustainability reporting are facing the challenge of which reporting framework to use and to identify the main reporting indicators that are most relevant for stakeholders and the needs of the organization itself while being aware of the unique significance and obligation in society and operating environment of electric utilities. The G3 reporting framework established by the GRI is widely used by multiple multinational companies and remains the sole global framework that companies can base their sustainability reporting on (CorporateRegister.com, 2011a; Pojasek, 2009a). However, considering the

aspects of Business Excellence Frameworks in reporting efforts, alternative reporting frameworks which have been proven to drive triple-bottom-line (TBL) performance and to help manage complex changes in organizational activities, could also be used for setting up additional sustainability reporting indicators (Hsien Hui & Kay Chuan, 2002; Pojasek, 2009a). The main argument for considering such a framework is around the concept that sustainability is, to a large extent, about continuous improvement and that sustainability performance is driven through the use of leading indicators (indicators that have a proactive and preventive approach to sustainability and aiming at improving future performance) whereas, the GRI framework is predominantly using lagging indicators (that measure the final outcomes that result from an organization's initiatives) (Pojasek, 2009a). Only measuring the outcome of what has already happened will very likely not provide internal and external stakeholders with sufficient information about how continuous improvement will be achieved through an organization's sustainability program. The focus of sustainability reporting should not only be on results (indicated by lagging indicators) but also information could be disclosed on how organizations are able to react to changing conditions (indicated by leading indicators).

As recommended by the World Business Council for Sustainable Development (WBCSD, 2003) sustainability reporting efforts of companies should focus more on the future. Actors on financial markets are not only assessing current profits when they seek to determine a company's value but anticipations on potential earning abilities in the future are becoming increasingly important (WBCSD, 2003). In short, companies are encouraged to provide an outlook on their future sustainability plans as well as in their sustainability reporting efforts. Information provided on a company's business model, their performance in research and development, the capability to meet targets, and to respond to market trends will support the trend to look forward and to see where companies strategically are heading (WBCSD, 2003). Furthermore the aspect of risk management and its potential to make sustainability reporting relevant to each stakeholder group and driving continuous improvement in an organization's sustainability program is very crucial and often insufficient attention is given to this aspect in sustainability reports (Pojasek, 2008).

Companies are aiming at remaining profitable on the short and long term. In order to be able to do that, organizations try to avoid or minimize risks on humans, the environment and on economical aspects. Efforts of organizations to reduce those risks should be reflected in sustainability reports. The challenge is to include a proactive approach to sustainability reporting by disclosing information to different stakeholders that also include how to improve the organization's future performance and plans to continue to mitigate risks. Those efforts will help organizations to maintain their reputational image and to keep a competitive edge (Hsien Hui & Kay Chuan, 2002).

The importance within sustainability reporting to focus more on the future is evident but finding the right set of reporting indicators and understanding its relevance to address risks is not given enough attention within existing sustainability reporting frameworks and academic research.

1.2 Research Scope and Objectives

The author of this thesis investigates Dr. Robert B. Pojasek's concept of leading indicators² within sustainability reporting, with the ambition to provide a better understanding of its

² Leading indicators are reporting indicators that are forward looking and contribute to pushing the future performance of sustainability management systems, while lagging indicators (used under GRI) assess past performance and the progress a

relevance in regard to addressing risks within organizations and their sustainability reporting efforts. The objective is to test the concept of leading indicators and their applicability to address risks in sustainability reporting, using the electric utility company Idaho Power as a practical example. As part of this analysis, the type of information that could be disclosed under selected leading indicators for Idaho Power is suggested.

Within this research, not all identified leading indicators are equally analyzed to what extent they could contribute to mitigate a certain risk aspect but the ones that seem to be most suitable to properly address risks of Idaho Power were further investigated. This thesis addresses the problem of the absence of leading indicators in sustainability reporting frameworks and their crucial role in addressing and mitigating risks of organizations. It furthermore provides a brief overview of how sustainability reporting could be structured and what elements could be covered under each proposed section.

Sustainability reports in the electric utility sector as well as other industry sectors outside the utility sector that might have a more advanced sustainability reporting in place were investigated and contributed to identifying different trends and reporting styles.

This thesis was designed to provide Idaho Power with useful information on leading indicators and their roles in addressing how to strategically reduce risks. This information could help shareholders and other stakeholders to assess an organization's sustainability performance.

1.3 Research Question

In this thesis, the author attempts to answer to the following research question:

- Is the use of leading indicators a suitable way of handling risks in sustainability reporting?

In the pursue for an answer to this question, the following sub-questions guides the research efforts:

- What leading indicators for sustainability reporting can be identified?
- Which leading indicators could contribute to address risks in sustainability reporting for Idaho Power?
- What content could be communicated under those leading indicators to mitigate risks for Idaho Power?

1.4 Research Methods

1.4.1 Research Approach

The research is characterized by a qualitative approach. This includes a literature review on sustainability reporting, as well as on leading indicators and investigating how those are relevant for mitigating risks of organizations. In order to incorporate practical relevance to this thesis, the electric utility company Idaho Power is used as an example. A set of the Idaho Power's identified risks was addressed and the author analyzed which reporting indicators are more likely to contribute to mitigating the organization's risk. Thus provide practical example

company has made in a more quantitative nature (Pojasek 2010). The concept of leading indicators is further described under 3.2.3

of what information could be disclosed under those indicators, which then could be utilized in sustainability reporting efforts.

1.4.2 Research Design and Analysis

Figure 1-1 shows a schematic representation of the analytical framework developed for this thesis. The figure is intended to give the reader a better understanding of the research design, as well as an illustration of how the analysis was conducted.

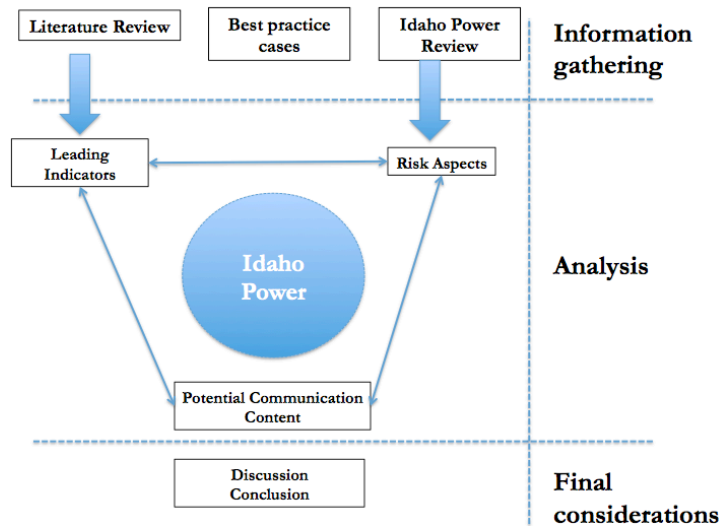


Figure 1-1 Schematic representation of the analytical framework developed for this study

The research consisted of three main steps: information gathering, analysis, and final considerations. Therefore the data gathering consisted of a literature review of academic literature, a review of best practice cases that contributed to analyzing characteristics and communication styles of various best practice sustainability reports, as well as reviewing company relevant information of Idaho Power. A set of risks from Idaho Power was chosen to be further investigated for the analysis. Then leading indicators identified through the literature review were used to see which ones would be most suitable to mitigate those risks. With the help of leading indicators and the knowledge obtained through best practice reports and through reviewing information on Idaho Power, practical examples of potential communication contents for sustainable reporting to mitigate risks were identified and outlined. Within the final considerations, a discussion around the role of leading indicators was prepared, followed by the concluding remarks.

1.4.2.1 Information gathering

Literature Review

For obtaining a basic overview over sustainability reporting, a literature review was conducted by reviewing theme-relevant books, journal articles and reports based on searches via Lovisa, LibHub and other databases accessible through Lund University. Additionally Google searches of relevant keywords also contributed to obtaining relevant literature for obtaining a better overview of sustainability reporting. This also included selecting best practice reports within the electric utility sector as well as outside this sector. These reports provided the research with examples on different styles of reporting, and they also revealed to what extent risk factors were addressed. For identifying the main leading indicators that could be used in

sustainability reporting, work done by Dr. Robert B. Pojasek on leading indicators found in academic literature was mainly used. This can be justified since Pojasek mainly characterized the concept and the development of leading indicators in regard to sustainability reporting.

Best practice cases

The aim was to select best practice cases in sustainability reporting that are then used for identifying general characteristics and communication efforts that could be linked to risks of organizations. The selection of sustainability reports is based on the results from the CorporateRegister.com's fourth annual report *CR Reporting Awards 11 Official Report: Global Winners & Reporting Trends* which was released in March 2011 at the CR Reporting Awards that are the only global, annual awards of CR reporting (CorporateRegister.com, 2011b). The CR Reporting Awards comprise nine reporting categories³ across two areas⁴ under which sustainability reports were evaluated. The criteria for choosing best practice sustainability reports for review in this research were based the following criteria:

- Highest performance of sustainability reports within the electric utility sector;
- Overall best report;
- Reoccurring companies in different categories with high performance outside the electric utility sector.

Based on these criteria, six companies and their sustainability reports were selected and investigated, as listed in Table 1-1.

Table 1-1 List of companies chosen for further investigation from CRReporting Awards'11

Company	Country	Industry group	Categories
Pacific Hydro Pty Limited	Australia	Electricity	Winner: Best SME Report / 5th Place: Best First Time Report
American Electric Power	United States	Electricity	5th Place: Best Integrated Report
General Electric Company	United States	Conglomerate	Runner-up #1: Best Carbon Disclosure & Credibility through Assurance / 4th Place: Creativity in Communications & Best Report / 6th Place: Relevance and Materiality
Hewlett Packard Company	United States	Information Technology Hardware and Software	Winner: Best report / Runner-up#2: Creativity in Communications / 6th Place: Openness and Honesty
Novo Nordisk A/S	Denmark	Pharmaceuticals & Biotechnology	Winner: Openness and Honesty / Runner-up#2: Relevance and Materiality / 5th Place: Best Report
Virgin Group Ltd	United Kingdom	Conglomerate	Winner: Best First Time Report & Creativity in Communications

³ Types of Report: Best Report / Best First Time Report / Best SME Report / Best Integrated Report (CorporateRegister, 2011a)

⁴ Aspects of Reporting Transparency: Carbon Disclosure / Creativity in Communications / Relevance & Materiality / Openness & Honesty / Credibility Through Assurance

Reasons for not utilizing the Dow Jones Sustainable Indexes⁵ (DJSI) and other sustainability rating services such as Newsweek – Green Rankings and Global 1000 Sustainable Performance Leaders to identify leading sustainable companies, was simply because within those sustainability rankings, different criteria are considered when evaluating a company's sustainable performance. Information feeding into sustainability rating processes by rating agencies goes far beyond sustainability reporting, and further information is also gathered by rating agencies through other channels such as questionnaires. Therefore, other criteria besides sustainable reports are taken into consideration, and it is rather difficult to pinpoint how much a sustainability report contributes in the overall ranking exercise. This thesis author did not aim to analyze all the information requested by the financial community but rather focussed on the different information provided through sustainability reports.

Due to the heterogeneous nature of sustainability reports, the comparison and ranking of the different sustainability reports were challenging and therefore, only communication efforts that were especially relevant to risks were investigated.

Idaho Power Review

Idaho Power, the largest electric utility company in the State of Idaho (USA), and its risks served as an example to test the idea of leading indicators in this research. The reason why Idaho Power was chosen as an example is based on personal contacts that led to the introduction to Idaho Power's Sustainability Advocate John Bernardo with whom further details of a potential cooperation in regard to a master's thesis were elaborated and discussed. An overview of Idaho Power was obtained through information on Idaho Power's website, internal documents, email correspondence and phone interviews conducted with John Bernardo in order to better understand the ongoing and planned work on sustainability reporting efforts at Idaho Power.

Moreover, Idaho Power serves as a suitable example since it has not published a sustainability report yet and therefore, did not need to orient itself to already established reporting indicators. This allowed the consideration of leading indicators for establishing a sustainability report at a very early stage and hence makes it more likely to consider leading indicators in reporting efforts. Other corporations with a similar energy portfolio or corporations facing similar risks are able to relate to this case and could draw practical conclusions for their own sustainability reporting efforts from this thesis.

1.4.2.2 Analysis

Leading indicators

Worldwide around 75 business excellence frameworks exist today and all of them include business excellence award programs (Pojasek, 2009a). Those frameworks concentrate on how information collection via reporting efforts contribute to achieving an organizations strategic business objective (Pojasek, 2009a). Based on Pojasek & Hollist's (2011) comparison of selected business excellence frameworks⁶, 15 leading indicators were identified. Those leading

⁵ "Launched in 1999, the Dow Jones Sustainability Indexes that were launched in 1999, were the first global indexes tracking the financial performance of the leading sustainability-driven companies worldwide. Based on the cooperation of Dow Jones Indexes and SAM, they provide asset managers with reliable and objective benchmarks to manage sustainability portfolios." (www.sustainability-index.com)

⁶ Business Excellence Frameworks that have been compared: FNQ (Brazil), Baldrige (USA), SMCT (Mexico), EFQM (Europe), EFQM for CSR, BEF (Australia)

indicators helped the author to identify what information could be disclosed under each indicator. This information assisted in identifying to what extent each indicator could be suitable to mitigate risk and would be applicable for the specific case of Idaho Power.

Risks

In order to see how different leading reporting indicators can be used to address risks, Idaho Power is used as an example. The different risks that were identified by IDACORP's 2010 Annual Report, including its 10-K Securities and Exchange Commission report⁷, are outlined and an analysis is performed which reporting indicators are specifically suitable when addressing risks at Idaho Power. However, not all risks of Idaho Power could be taken into consideration in this thesis and three main risk groups were identified and analyzed. The three risks identified were: regulatory imposed risks, environmentally imposed risks, and imposed risks through supply and demand. The selection of these three risk factors were mutually agreed upon between the author of this thesis and John Bernardo from Idaho Power, based on criteria that best suited Idaho Power's ideas for their sustainability reporting efforts and academic background of the author in Environmental Management and Policy.

Potential Communication Content

Practical examples of communication contents for sustainability reporting were identified and outlined, with the help of:

- leading indicators (outlining the required information to be reported under a specific indicator);
- a selected set of risks;
- information about Idaho Power.

Knowledge about processes to mitigate risks, examples provided through best practice sustainability reports and knowledge obtained throughout the Masters Program in Environmental Management and Policy at the International Institute for Industrial Environmental Economics (IIIEE) helped to identify potential communication contents contributing to mitigating risks.

1.4.2.3 Final Considerations

Discussion and Conclusion

The discussion part serves the purpose to reflect on the analyses part and the role of leading indicators in sustainability reporting. Arguments provided under this section are mainly based on the reflections of the author, gained through the analysis process. The conclusions summarize the main outcomes and provides suggestions for future research.

⁷ The U.S. Securities and Exchange Commission requires all publicly traded companies to publish a Form 10-K on an annual basis which provides a comprehensive summary of the company's financial and business performance (U.S. Securities and Exchange Commission. (2009). Form 10-K. 23.08.2011, from <http://www.sec.gov/answers/form10k.htm>

1.5 Limitations and Scope

Due to the complex nature and variety of sustainability reporting, there is a potential risk of subjectivity in assessing the most relevant leading reporting indicators for Idaho Power. Also the selected leading indicators, identified through the comparison of six business excellence frameworks by Pojasek and Hollist (2011), could have missed out on other leading indicators of other business excellence frameworks, which were not considered in Pojasek's and Hollist's analysis. However, investigating a carefully selected set of leading indicators provides an indication of which indicators electric utilities could pursue for the benefit of what those individual indicators could contribute to addressing risks in sustainability reporting and actual performance improvements. Also weighing different indicators could have been done in a different manner depending on the researcher's individual preferences, knowledge, and priorities. Moreover the choice of only taking one sustainable rating source that is awarding and assessing sustainability reports might bear a potential risk of subjectivity despite the efforts to ensure integrity of the voting process.

This thesis does not consider all risks identified by Idaho Power since this would broaden the scope too much and only a selected set of risks was chosen to test the idea of leading indicators and its applicability to address risks in sustainability reporting (see 1.4.2.2). Furthermore, the examples provided under potential communication content are by no means the only possible options and far more examples could be elaborated. The examples provided give the intended audience an idea of what kind of information could be disclosed under certain leading indicators and to show the potential contribution to risk mitigation.

While some practitioners differentiate between 'Sustainability' and 'CSR/Corporate Responsibility' reports⁸, the term sustainability reporting is interchangeably used in this thesis with the terms: corporate responsibility reporting, corporate social responsibility reporting and sustainable development reporting, in order to simplify the thesis.

1.6 The Intended Audience

The intended audiences of this thesis are primarily sustainability reporting practitioners who are considering to use sustainability reports to communicate to different stakeholders how to mitigate identified risks an organization might face, as well as the sustainability practitioners who have not thought of considering this aspect before. The outcomes of this thesis could be of value to electric utility companies that are currently in the process of setting up their sustainability reporting efforts or continuously working on it and considering the use of leading indicators. Beyond that, other sustainability reporting practitioners working in other industry sectors might find the outcomes of this thesis relevant for their work.

1.7 Disposition

Chapter 1 presents the general problem addressed in this research. It provides input on the objective and scope, outlines the research questions, describes the research methods applied to this thesis and provides information on how the analysis was conducted. Furthermore limitations and scope are outlined as well as the intended audience.

⁸ For practitioners dealing with non-financial reports that differentiate between 'Sustainability' and 'CSR/Corporate Responsibility' reports see the main difference with sustainability reports that they are also taking economic and socio-economic information into account while issues such as society, environment, ethics, community, supply chain, human rights can be covered by both reports (CorporateRegister, 2011a).

Chapter 2 presents a basic overview of sustainability reporting and outlines the role of stakeholders and their information needs. Moreover, drivers and benefits of sustainability reporting are presented and special features of sustainability in the electric utility sector are outlined. Also the role of sustainability reporting when addressing risks is presented.

Chapter 3 begins with questioning whether GRI is the most appropriate tool to use for sustainability reporting. It continues by outlining the concept of lagging indicators, performance frameworks and leading indicators and their roles in sustainability reporting and briefly outlines the aspects of the three-step reporting model.

Chapter 4 presents the results of the analyses of the research. Therefore, a quick overview of Idaho Power is given and the selected risks are outlined and examples are provided on what leading indicators could be used when addressing specific risks at Idaho Power and what information could potentially mitigate those risks.

Chapter 5 discusses the challenges connected to leading indicators and elaborates briefly on what a good ratio of lagging and leading indicators in sustainability reporting could be. Moreover it discusses how well leading indicators reduce risks and outlines future challenges of sustainability reporting.

Chapter 6 summarizes the main findings of the analysis and provides suggestions for future research.

Looking at the schematic representation of the analytical framework (see Figure 1-2) Chapter 1 and 2 contribute to the information gathering section, Chapter 3 and 4 feed into the analysis section, and Chapter 5 and 6 fall under final consideration.

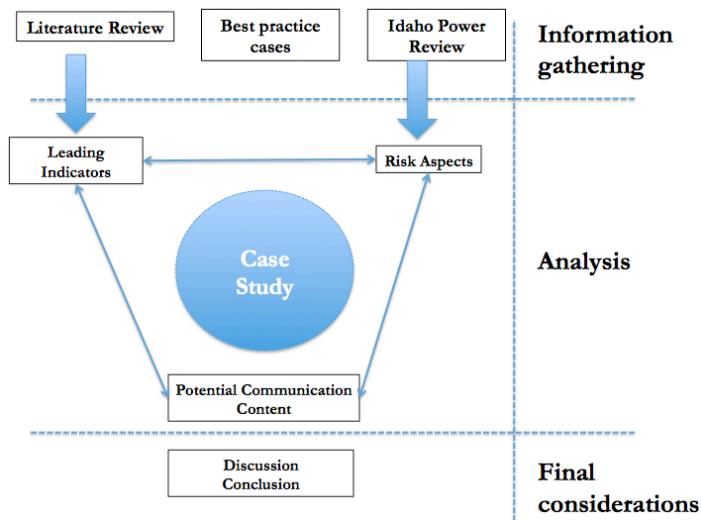


Figure 1-2 The schematic representation of the analytical framework developed for this thesis research.

2 Sustainability Reporting

The objective of this chapter is to provide a basic overview and background on sustainability reporting and the relevance it has within the electric utility sector and its role to mitigate risk.

2.1 Defining Sustainability Reporting

“The aim of reporting is not about making a brochure, it’s about communicating the relevance of company actions to society, to the business, to its stakeholders” Jorma Ollila, CEO and Chairman, Nokia

“Sustainability reporting is the practice of measuring, disclosing, and being accountable to internal and external stakeholders for organizational performance towards the goal of sustainable development” (CorporateRegister.com, 2011a). Therefore sustainable development (SD) is an inherent principle when reporting on sustainability. The definition, that has influenced sustainable development over of the past two decades originated from the Brundtland report, which defined the goal of sustainable development to “meet the needs of the present without compromising the ability of future generations to meet their own needs.” (World Commission on Environment and Development, 1987). This frames the companies’ need to recognize the responsibility they have for their impacts on the environment as well as on society for generations to come (WBCSD, 2003). For businesses sustainability includes three interlinked components, referred to as the TBL (WBCSD, 2003):

- **Economic:** Profitability, wages and benefits, resource use, labor productivity, job creation, expenditures on outsourcing and human capital, etc. The economic component includes generally financial information but is not restricted to it.
- **Environmental:** Impacts of processes, products, and services on air, water, land, biodiversity, human health, etc.
- **Social:** Workplace health and safety, community relations, employee retention, labor practices, business ethics, human rights, working conditions, etc.

The World Business Council for Sustainable Development (WBCSD) is referred to sustainable development reporting and defined it as “public reports by companies to provide internal and external stakeholders with a picture of corporate position and activities on economic, environmental and social dimensions. In short, such reports attempt to describe the company’s contribution toward sustainable development” (WBCSD, 2003). In the 1992 published book *Changing Course* sustainability reporting was defined as “a demanding concept that goes beyond environmental reporting” (Schmidheiny, 1992). Further research looked into different aspects of sustainability reporting, such as reporting on social topics, and investigated how such reports provided assistance for businesses to enhance their overall performance (WBCSD, 2003).

A very basic definition of sustainability reporting is provided by the (WBCSD, 2003) describing it as “the evaluation of corporate performance in environmental, social and economic terms”. Accountability, transparency and responsibility are desired traits that financial institutions, shareholders and employees want companies to be and that sustainability is based on (Pojasek, 2010; WBCSD, 2003). Sustainability reports are tools to support companies in evaluating and communicating exactly those efforts while contributing to mitigating risks, safeguarding competitive position and assisting to protect the corporate brand (WBCSD, 2003).

The concept of sustainability has become a matter of strategic importance for businesses around the world and goes beyond corporate social responsibility (CSR) (KPMG, 2011). Sustainability can be seen as a driver for innovation and contributor to competitive advantage.

For (Schuchard, 2010) CSR is the “integration of environmental social and good governance practices into everything that business does, and the recognition of material aspects of nonfinancial issues that are integral to overall strategy and operations.”. The term materiality refers generally to reported information, which should cover important environmental, social and economic impacts, as well as other issues that would considerably affect the evaluation and decisions of stakeholders (GRI, 2009). Materiality can be viewed as the verge or threshold at which an indicator or issue is becoming that significant that it is worth reporting (GRI, 2009). Though, the level of significance of the material topics differ and reporting efforts should indicate the relative priority of the indicators and material topics within reporting efforts (GRI, 2009). Not all issues or indicators are equally important. The reporting efforts should be primarily focused on those that are material to an organization and its stakeholders.

During the past 20 years; sustainability reporting has steadily increased and has gained importance. Europe has been very progressive in leading sustainability reporting and has produced around 50 percent of all sustainability reports globally. **But also other regions**, such as North & Central America and Asia are catching up as it can be seen in Figure 2-1 (CorporateRegister.com, 2011a).

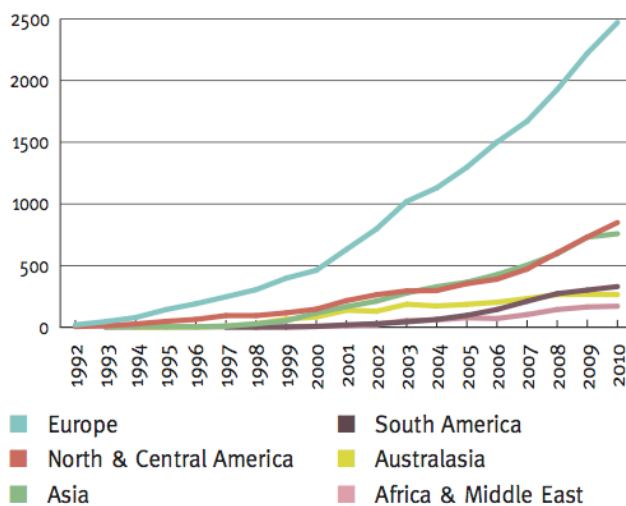


Figure 2-1 Reporting output by year, by region

Source: CorporateRegister.com, 2011a

While practitioners argue that corporate social responsibility reporting is primarily focusing on social responsibility, sustainability reporting is the preferred term since it covers all three dimensions of sustainability: economic, social and environment. In regard to the development of non-financial reporting a trend towards multi-issue reports can be observed compared to twenty years where primarily reports had a single-issue focus, which was often of environmental nature (CorporateRegister.com, 2011a). As illustrated by Figure 2-3, in 1992 almost 80-percent of the reports had an environmental focus. Over the years the dominance of reports with mainly an environmental focus declined and today reporting efforts encompass numerous issues such as society, ethics, community, human rights, supply chain,

economic and socio-economic information (CorporateRegister.com, 2011a). The most common report types in 2010 are sustainability (around 40-percent) and corporate responsibility (approximately 40-percent) reports, which are used interchangeably in this thesis.

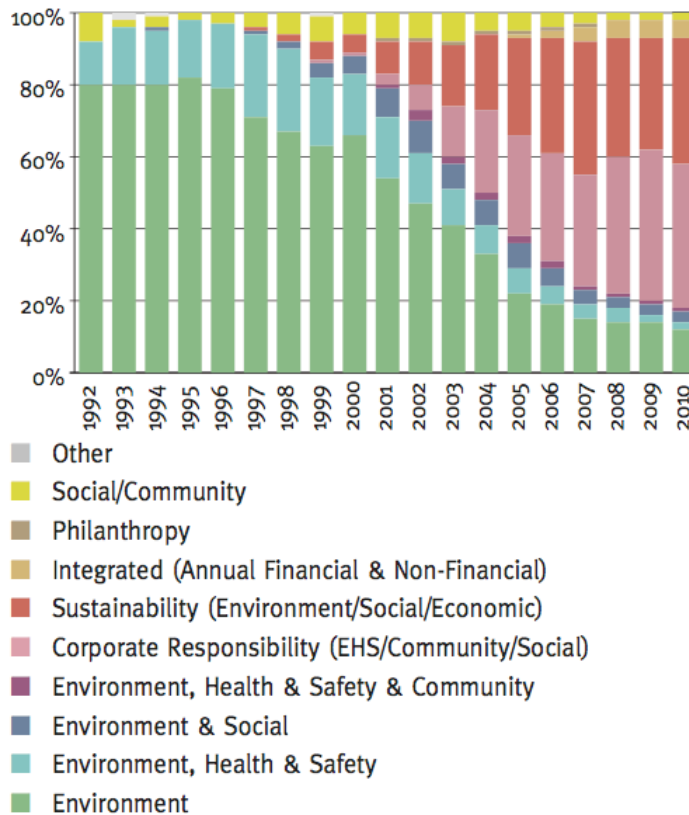


Figure 2-2 Global report output by type and year

Source: CorporateRegister.com, 2011a

Another trend that could be observed is the integration of sustainability data with the annual financial report that was started around the year 2000, which was motivated by a better adoption to the TBL concept, giving more weight to sustainability information and to reach out to increased audiences (Park & Brorson, 2005).

A company's value is not just determined by its tangible assets, such as manufacturing facilities. It is also greatly influenced by its intangible assets. Such intangible assets can refer to reputation, the capability of working together with stakeholders, and intellectual and human capital. Since they do not appear on the balance sheet, due to difficulties to value them in an objective manner, a company is only able to draw attention to intangible assets by openly communicating them (WBCSD, 2003).

2.2 The roles of stakeholders and their information needs

Different stakeholder groups are interested in companies' sustainability performance related to their products, services and activities. Therefore, stakeholders can be described as a group that influences or is influenced by the accomplishments of the company's objective (Freeman, 1984). Engaging with stakeholders is essential for organizations in order to maintain their

social license to operate (Pojasek & Hollist, 2011). When looking at the rather traditional view, only three main stakeholder groups were identified: employees, investors and customers (WBCSD, 2003). The present view considers a much broader range of stakeholders. Those stakeholders range from investors, shareholders, employees, financial institutions, customers, governmental officials, regulatory authorities, suppliers, media, non-governmental organizations (NGOs) and local communities (GRI, 2009; WBCSD, 2003). For companies the diversity of stakeholders poses a challenge to satisfy the different information needs of individual stakeholders. Companies must find the right balance in regard to reporting what stakeholders are interested in, to what extent they have the legal right to know certain information, and the feasibility for companies to report and also to manage (WBCSD, 2003). The reported content of a sustainability report is also dependant on the primary target audience a company decides to choose.

The stakeholder group that is identified by most companies as the most important one is the financial community (WBCSD, 2003). Investment decisions are supported by public available information provided by companies as well as other information channels. Financial market actors demand an increased amount of information on social and environmental performances of companies. This can be explained by growing indications that good environmental and social performance also lead to better overall performance (WBCSD, 2003). This became inter alia evident by comparing the Dow Jones Global Index and the Dow Jones Sustainability Index over a 5 year period (January 1997 – April 2002) and thereby the Sustainability Index notably outperformed the Global Index (WBCSD, 2003). Also other investment decisions by large North American and European investors, such as pension funds, are increasingly based on sustainability criteria and ratings (WBCSD, 2003). Despite the fact that socially responsible investing (SRI) is not yet as well developed, companies pay important attention to it (Hockerts, 2002). Those developments show that aspects of sustainability gain importance in the financial community.

Companies are advised to find a balance among the desired information requested by stakeholders and what is feasible and also practical for a company to report (WBCSD, 2003). As it is already indicated earlier in this research, the financial community is considered as the stakeholder group that is highly relevant to most companies. Especially information on opportunities and risks in regard to social responsibility and environmental impact of companies are increasingly used to back up investment decisions (WBCSD, 2003). Finding out what financial analysts are precisely looking for when going through a sustainability report is not generalizable since the financial community is very heterogeneous. It ranges from mainstream banking and investment, to rating agencies, to sustainability funds and socially responsible investment (WBCSD, 2003).

Stakeholders have different interests on different aspects of a company's activities and performance. Therefore, identifying the most relevant stakeholders will help companies keep their reporting efforts more focused. Establishing a stakeholder matrix will enable organizations to identify and categorize different stakeholders according to their level of influence (y-axes) and their level of interest (x-axes) (see Figure 2-4). The stakeholders that should be given most consideration within a company's reporting efforts are the ones that are categorized in box D (stakeholders that are ascribed to having a high level of interest and a high level of influence) after the company has performed the identification and categorization process.

Stakeholder Matrix

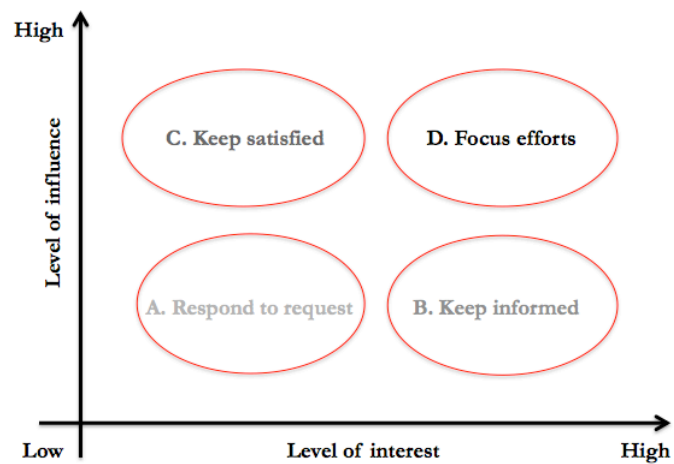


Figure 2-3 Stakeholder matrix

Source: WBCSD (2003)

2.3 Drivers and Benefits of Sustainability Reports

Most of the drivers of sustainability reporting can be derived the multiple benefits of sustainability reporting. Sustainability reporting is a voluntary effort of companies. However, mandatory requirements for aspects of sustainable development that have already been introduced in Germany, France and Nordic countries are contributing to moving away from a rather voluntary process towards a more prescriptive approach (WBCSD, 2003). Furthermore normative developments as well as several codes of conduct (e.g. GRI, UN Global compact) serve as drivers for achieving increased corporate transparency (WBCSD, 2003). Sustainability reporting is comprised by communication and action. Having a good reputation generates attraction and therefore attracts new customers, financiers, partners and employees (FINERGY, 2002).

A comprehensive overview of ten direct and indirect benefits of sustainability reporting is provided by the WBCSD (2003) as shown in Table 2-6. It offers an overview of how sustainability reporting can create value to a company and provides basic information on how it can make a good business case. Already the effort of making a sustainability report in can be a huge benefit. The learning process that a company will go through in establishing the report and approaching sustainable development in a more systematic approach will provide valuable lessons (WBCSD, 2003).

Table 2-1 Benefits of Sustainability Reporting

The Benefits of Sustainability Reporting	
Maintaining license to operate	Can provide a sound basis for dialogue and discussion with stakeholders, and thereby help to maintain or strengthen a company's license to operate.
Creating financial value	Tends to indirectly reflect the ability and readiness of companies to enhance long-term shareholder value of their intangible assets.
Attracting long-term capital and favorable financing conditions	Helps to attract 'patient' shareholders with the long-term horizons and may help to justify lower risk premiums from financiers and insurers
Raising awareness, motivating and aligning staff, and attracting talent	Can assist the company in demonstrating how it lives up to its business values and principles related to its environmental and social issues, both internally and on the external labor market.
Improve management system	May encourage and facilitate the implementation of more rigorous and robust management systems to better handle environmental, economic and social impacts. In short, it can lead to a better collection of the right data.
Risk awareness	Can mirror how a company manages risk.
Encouraging innovation	May stimulate leading-edge thinking and performance, thereby helping a company remain competitive.
Continuous improvement	Supports continuous improvement and learning. Reporting prompts senior management to take action for further progress, which will be reported upon the following year.
Enhancing reputation	Can help to build reputation, which over the long-term, will contribute to increased brand value, market share, and customer loyalty. It demonstrates how performance backs up rhetoric.
Transparency to stakeholders	Channels pertinent information to targeted stakeholders (shareholders, local community members, government officials, NGOs, etc), and thus enhances corporate visibility and helps to demonstrate transparency.

Source: Adopted from WBCSD (2003)

2.4 Challenges and barriers with sustainability reporting

The wide range of stakeholders have different influence and interests on a company. Consequently, companies have difficulties when setting priorities (WBCSD, 2003). Also due to the voluntary nature of sustainability reporting selecting the right reporting indicators that are most relevant to the business operation remains a challenge (Nielsen & Thomsen, 2004). Strictly speaking, there are no limits when it comes to corporate responsibility and for companies it is the challenge to balance internal and external expectations. Communicating and motivating sustainability initiatives and activities to internal and external stakeholders is often challenging. It is essential to justify why efforts towards more sustainability in an organizational setting are taken, in what way are they contributing to competitive advantage and how do they contribute to better performance (Nielsen & Thomsen, 2004).

Another challenge with sustainability reporting is linked to demonstrating the positive connection of sustainability and the economic bottom line. Especially financial analysts are confronted with the challenge when looking at sustainability parameters and translating them into quantifiable indicators that can be understood and used by professionals in the finance business (WBCSD, 2003). Occasionally, environmental measures are not considered from an economic perspective but rather to meet regulatory requirements.

Different critiques of sustainability reports entail the lacking focus on most important risk factors a company is facing, and too many issues are disclosed without any clear focus (Pojasek, 2009a).

Another challenge is connected to making sure that sustainability information is actually included in mainstream reporting and is considered as a strategically crucial aspect within

decision-making processes of organizations (Accounting for Sustainability, 2011). Often sustainability is not an integral part of strategic thinking and sustainability reporting is lacking integration into financial reporting (Accounting for Sustainability, 2011).

2.5 Sustainability in the electric utility sector

Sustainability reporting is “about investing in the future operating conditions: technology and efficiency, customers, personnel, and the environment”(FINERGY, 2002). The service that electric utility companies provide to society is vital for economic development and prosperity. However, it is crucial that economic development is achieved in a sustainable manner so that future generations are provided for and vital resources are protected (GRI, 2009). Due to the utilization of natural resources (non-renewable and renewable nature) throughout different activities ranging from generation, transmission and distribution, a wide range of factors are essential in defining the environmental, social and economic sustainability performance of an electric utility company (GRI, 2009). Key topics that are especially relevant for electric utilities that require special attention are briefly presented.

2.5.1 Environmental Factors

Electric utility companies are facing increased expectation from stakeholders to reduce their environmental impacts throughout the entire life cycle of their business operations (GRI, 2009). A major part of fossil fuel consumption can be attributed to the electric utility sector where it is utilized to generate electricity. Negative environmental effects from combustion activities involve acid rain, greenhouse gas emissions, radioactive particle and toxic mercury emissions but also human health impacts that need to be sufficiently addressed by the utility sector (GRI, 2009; Miller & Spoolman, 2009). Several strategic tools are available for electric utilities that range from end-of-pipe solutions where pollution control systems can be installed, demand-side management solutions to reduce and better control electricity demand and increase the utilization of renewable energy sources for power generation. A crucial focus in operational strategies comprise energy efficiency strategies and also incorporate to move of electricity demand away from peak hours to off-peak hours of operation (Broer & Djilali, 2010; Climate Risk Disclosure Initiative Steering Committee, 2006). Furthermore, the recent catastrophic nuclear accident in Fukushima (Japan) shows once more how severe the outcomes of nuclear accidents can be on the environment and society and how crucial it is for companies to properly address those risks.

2.5.2 Social Factors

The operations of electric utilities have common characteristics of being centralized and usually of large scale that often impact surrounding and distant communities. For utility companies it is crucial to consider goals and values within the surrounding community and to involve stakeholders in decision-making processes so that operations and future developments will not be jeopardized (GRI, 2009). Expectations from stakeholders include accessibility and affordability of electricity to every community member while sustainability of the community is guaranteed. A prerequisite for guaranteeing safe and reliable electricity is a qualified workforce. Emphasis on workforce and safety matters need to be ensured especially due to potential exposure of employees in the electric utility sector to possibly dangerous situations such as high voltage electric conductors (GRI, 2009).

2.5.3 Economic Factors

Substantial financial resources are essential for electric utilities to make investments in research and development for sustainable energy solutions⁹, new equipment and to maintain existing infrastructure (GRI, 2009; WBCSD, 2008). Reporting strategies on how to properly distribute those financial resources, manage electricity demand, ensure reliable and safe supply of electricity in the future are generally expected from stakeholders, and they also expect basic information to evaluate economic performance (GRI, 2009).

2.5.4 Electric Utility Sector Regulatory and Market Structure

Electric utilities find themselves in different environments that can be greatly regulated depending on geographic location they are operating in. Reporting efforts should communicate the regulatory circumstances under which electric utilities are operating as well as providing information on the accessibility of natural resources (Climate Risk Disclosure Initiative Steering Committee, 2006; GRI, 2009). More precisely, sustainability reporting should consider implications of market structure, tariffs, privatization, as well as requirements and planning of governments (GRI, 2009). Staying informed on legislative developments is essential to integrate those into sustainability programs and reporting efforts.

2.5.5 Stakeholder Engagement

Due to the special position of electric utilities in providing vital services to its customers and depleting natural resources, outlining the stakeholder engagement approach in sustainable reporting efforts is vital (GRI, 2009). Aspects to consider disclosing encompass: identification of stakeholders, ways of engagement, extent and consideration level of stakeholder representation in decision-making processes (GRI, 2009).

2.5.6 Contracting and Supply Chain Practices

Having strong purchasing power often enables companies to influence their contractors and suppliers environmental and social performance and policies (Kogg, 2009). In some situations the main environmental and social impacts appear upstream (e.g. issues connected to fuel supply) and downstream (e.g. considering end-of-life in relation to electricity use) of the operating and reporting organization (GRI, 2009). Encouraging contractors to improve their environmental and social performance will also impact the performance related to the main operations of the reporting organization in respect to reliability, safety and environmental performance, especially since contractors are often directly involved in the process of providing electricity (GRI, 2009). Reporting organizations are capable of reporting on the contractor's performance and how they are integrated in operations of electric utilities, and thereby outline to what extent risk to workers and surrounding communities can be minimized. Furthermore, disclosing supply chain policies and procurement practices for products and services with relevance to sustainability are welcomed initiatives in reporting efforts (GRI, 2009).

2.6 The roles of Sustainability Reporting in mitigating risk

Pojasek (2010) argues that the drivers for sustainability are fundamentally linked to avoidance of risk. Therefore aiming at sustainability reporting will enable companies to manage social,

⁹ This can encompass electricity generation, transmission, distribution and end-user technologies.

environmental and ethical risks that could impact the future success of a business and at the same time outline how the short- and long-term value of a company is affected (WBCSD, 2003). Especially for those companies whose business operations can be perceived as socially and environmentally harmful, communicating company efforts on reducing their risk is very crucial (Holland & Gibbon, 2001). Managing risk is relevant for all organizations since all activities within an organization involve certain risks to some degree (ISO, 2009). Organizations are able to manage those risks, which include processes starting from identifying the risks, analyzing the risks, evaluate which of the identified risks should be adjusted, and finally efforts for mitigating or treating the risks¹⁰ (ISO, 2009). This process involves dialogue with stakeholders, monitoring and reviewing the identified risks (ISO, 2009).

Financial reports only provide investors and other stakeholders a limited view on the overall performance of a company. Non-financial information is needed to evaluate to what extent this information can harm or does not harm financial performance of a company (Pojasek, 2010). Sustainability reporting is closely linked to corporate risk management by two main aspects: On the one hand, information is provided about what the risks are and on the other hand, effective means to respond to those risks are offered (Kytte & Ruggie, 2005). Beyond providing a clear picture of corporate values, performance principles, as well as management and governance practices in sustainability reports, it is crucial to openly outline the key sustainability development challenges that companies are confronted with and how companies intend to respond to them (WBCSD, 2003). Incorporating information on how companies are managing risks connected to environmental impacts and social responsibility is enabling investors to make more informed investment decisions and it will allow different stakeholders to evaluate risks in a more comprehensive way. Furthermore it will be an important tool to effectively manage stakeholder relationships especially since incorporating risks into reporting efforts can be seen as a way to make sustainability programs applicable to all stakeholders (Pojasek, 2009a).

When risks occur they are either caused through lack of action, an activity or an event, and its consequences can be differentiated between positive and negative risks (Pojasek, 2008). Often managing risks is connected to threats and losses but at the same time it is also about recognizing and utilizing opportunities that help improve system performance, and improve future decision making (Pojasek, 2008). To manage risks successfully means more than just to respond to undesired events that can have costly consequences, it rather involves a proactive behavior that identifies and prepares for events or situations that could potentially happen (Pojasek, 2008). Beyond providing information on the value of mitigating risks, organizations should also present the positive impact on profitability (WBCSD, 2003). Reporting efforts should provide a balanced image of the immediate costs that occur by applying sustainability policies on the one hand and long-term benefits on the other hand (WBCSD, 2003). With a well working risk management system in place, negative financial and reputational impacts can be prevented or reduced and the efficiency and effectiveness of organizational processes can be positively influenced when considering risks during decision making processes (Pojasek, 2008). Reducing all identified risks to minimum is often not feasible in most cases; this could be due to budget constraints, lack of influence and awareness or lack of alternatives. The costs of managing certain risks and the benefits gained for an organization should be kept balanced so that certain risks reach an acceptable level within an organization and does not infringe with any legal obligations and organizational policies and values (Pojasek, 2008).

¹⁰ Examples for treating risks can be found in chapter 2.6

According to Pojasek (2008) and the ISO 31000 standards on risk management (ISO, 2009) risk minimization and risk treatment should be focused on the following steps:

Table 2-2 Processes to mitigate risks

Processes to mitigate risks:
- Elimination of risk through prevention / avoiding the risk by deciding not to start or continue with the activity that gives rise to the risk
- Substitution of more acceptable risks in place of less acceptable risks
- Taking or increasing risk in order to pursue an opportunity
- Removing risk sources
- Changing the likelihood of risks
- Changing the consequences of risks
- Engineering controls
- Administration controls, and
- Pollution control and disposal
- Sharing the risk with another party or parties (including contracts and risk financing)
- Retaining the risk by informed decision

Source: Adapted from Pojasek (2008) and ISO (2009)

Priority should be given to preventive actions so that the chance for a risk to occur is not even given. When risk mitigation efforts are performed it can occur that new risks are created or that existing risks are modified (ISO, 2009). Therefore risk mitigation efforts should carefully investigate whether latter mentioned concerns can emerge and hence should be avoided.

3 Leading Reporting Indicators - an alternative approach

This section outlines the difference of lagging and leading indicators and the role of leading indicators connected to sustainability reporting is investigated in more detail.

3.1 GRI – the most appropriate tool to use for sustainability reporting?

Due to the increase in corporate sustainability reporting a demand for a set of performance indicators that are publicly recognized was desired by the sustainability reporting community. GRI provided exactly this; a common global reference framework for sustainability reporting (Kropp, 2010). Especially the sector supplements of the framework, which consider an issue most significant (material) to an explicit sector, are particularly valuable for reporters (CorporateRegister.com, 2011a). The annual growth of companies using the GRI framework is gradual but stable and represent around forty percent of all sustainability reports published (see figure 3-1) (CorporateRegister.com, 2011a).

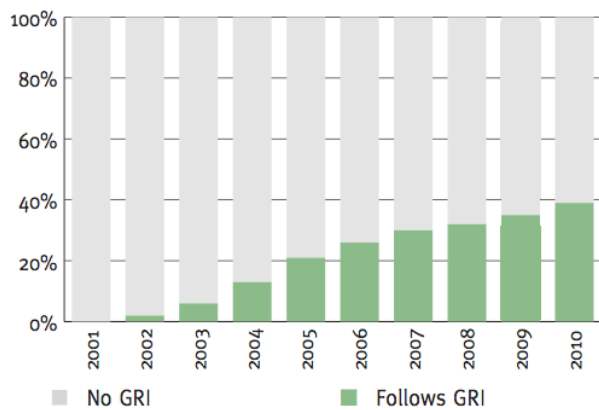


Figure 3-1 Uptake of GRI framework per year in sustainability reporting.

Source: CorporateRegister.com, 2011a

The uptake of the GRI framework varies between different regions of the world. Some countries show enthusiasm in adopting the GRI framework (Brazil, Spain, Portugal and South Africa) while other countries are more reluctant to use it (Germany, Japan, UK, USA) (CorporateRegister.com, 2011a). Pojasek's (2010) critique of the GRI approach is connected to the lagging comparability of specific indicators and the difficulties when comparing companies within the same sector but of different sizes. Sustainability reporting is currently more results oriented and not enough consideration is given to leading indicators (Pojasek & Hollist, 2011). This means that companies often report sustainability results, thinking that this will deliver clear indications on the sustainability performance of an organization, especially when outcomes are labeled as key performance indicators (KPI), sustainability indicators, or performance results (Pojasek, 2009b). Though, Pojasek (2009) argues that those results are not directly assessing performance itself but rather reflect only the outcome of performance. However, the GRI Electric Utility Sector Supplement does contain reporting indicators that consider performance, such as indicator EU7 on research and development and EN18 looking at GHG emission reduction initiatives, but they are still under-represented (Ceres, et al., 2008; GRI, 2009). Means to drive sustainable performance can be achieved through the use of leading indicators (Pojasek, 2009a) which will be addressed in section 3.2.3.

3.2 Lagging Indicators, Performance Frameworks and Leading Indicators

Results are indications to what extent a company has reached a certain goal through their performance. However, results are not the driving force that drives performance. For organizations to push sustainability performance, focus should be on processes which then lead to favorable results (Pojasek & Hollist, 2011). Those favorable results that are desired to achieve in the present and the future can also be referred to as sustainability indicators (Pojasek & Hollist, 2011). Indicators are crucial elements for setting goals and are important for following up on the process of achieving them. In order to steer through the maze of the various sustainability indicators to find the most suitable ones for the company's sustainability reporting efforts, various metrics are in use (Pojasek, 2010). Companies often tend to choose their sustainability metrics before establishing their sustainability initiatives. When choosing the sustainability metrics, often lagging indicators seem to be the preferred choice by sustainability practitioners and often those are based on the 79 indicators from the GRI G3 guidelines (Pojasek, 2010). Pojasek (2010) questioned whether lagging indicators are the best way for companies to develop sustainability programs since they are evaluating past performance of companies, rather than starting to use other metrics in order to push their very individual organizational sustainability program forward. It is not the intention to undermine the importance of lagging indicators since they play a crucial role in assessing the progress of a company's sustainability programs. It is rather the aim of outlining how leading indicators are able to enhance sustainability programs and that both lagging and leading indicators are essential for establishing a well-managed sustainability program. Both, lagging and leading indicators that are truly material to a company contribute to measuring sustainability performance and reporting efforts should therefore use a combination of those two (Pojasek, 2009b; Pojasek & Hollist, 2011).

3.2.1 Lagging indicators and their shortcomings

The preferred and most frequently used indicators in sustainability reporting are *lagging* indicators that outline the final results that are derived from organizational initiatives, several of them are connected to regulatory compliance matters (Pojasek, 2009b). Despite the usefulness of those indicators, they are lacking information on how future actions will be guided and how the general success of sustainability programs can be guaranteed (Pojasek, 2009b). Other reasons why lagging indicators might insufficiently address program performance are the following (Pojasek, 2009b):

- Most of the time we witness a time lag between actions that are taken towards sustainability and seeing the outcome of those actions. Lagging indicators might not be appropriate when organizations need to respond to unexpected events that might occur, since updated information might not be provided in a timely manner.
- Specific outcomes might be due to various factors. Attributing one specific factor to a specific outcome is sometimes difficult to identify. Therefore, lagging indicators might not be able to provide the necessary information to identify the reason a certain result. Hence, leaving too many possibilities open where corrective actions can be applied can lead to unfocused action, which might not result in better performance.
- In order to expose hidden problems that eventually could lead to process upsets lagging indicators might not be the most appropriate tools.

Lagging indicators provide organizations with possibilities for corrective action by identifying differences in expected outcomes and actual results reported (Pojasek, 2009b). The critique thereby is the reactive nature of this approach and corrective action is only then taken when an undesired result has happened (Pojasek, 2009b). Leading indicators in comparison promote a proactive operational approach.

3.2.2 Performance Framework

The ambition of performance frameworks is to “focus on those processes that contribute the most to good performance” (Pojasek & Hollist, 2011). Thereby it can support companies to increase their competitiveness through cost reductions and furthermore it can drive enhanced sustainability performance (Pojasek & Hollist, 2011). Looking at the *top down* approach on sustainability which is focusing on measurement, management and control, it certainly provides a good overview of efforts that have been done within a company (Henriques & Richardson, 2004). However, those structures and systems companies are operating in might not guarantee progressive corporate behavior. Even if environmental management systems are in place, it does not excuse poor environmental performance (Henriques & Richardson, 2004). Operating within existing structures has the potential to adjust to the lowest common denominator that potentially reward processes but not taking performance into consideration (Henriques & Richardson, 2004).

In comparison to the top down approach to sustainability, the *inside out* approach is highlighting the significance of innovation and change (Henriques & Richardson, 2004). This forward-looking approach has potential to experiment and facilitate progress towards a more sustainable operation. This is the reason why this research looks beyond existing reporting standards and considers performing frameworks that look beyond structures of present paradigms and thus helping to identify leading reporting indicators. Performance frameworks are further seen as a tool for the implementation of sustainability programs as well as to achieve continuous improvement (Pojasek & Hollist, 2011). The *inside out* approach implies an increased focus on connecting and responding to various shareholders, communities, suppliers and customers which are seen as a basis of sustainability (Henriques & Richardson, 2004). Performance Frameworks can differentiate between categories on process or results (Pojasek & Hollist, 2011). Performance frameworks assist companies putting metrics into perspective. From the different performance frameworks that Pojasek and Hollist (2011) further investigated, eight main process categories can be identified as well as four result categories:

Table 3-6 Collection of process and result categories found in various performance frameworks

Process categories	Result categories
1. Leadership	1. Stakeholders & Customer Results
2. Strategy and Planning	2. People Results
3. Stakeholder, Customer, and Market Focus	3. Society Results
4. People	4. Key Performance Results
5. Process Management, Improvement, and Innovation	
6. Information and Knowledge	
7. Society	
8. Partnership and Resources	

Source: Adopted from Pojasek & Hollist (2011)

With the help of the first eight process categories that comprise the organizations activities for managing their products, services and activities, organizations are able to establish a suitable set of leading indicators (Pojasek & Hollist, 2011). However, result categories are essential as well when representing the entire organizational image and should therefore be included.

3.2.3 Leading indicators

Besides using a standardized list of metrics leading indicators are needed when setting up sustainability reporting efforts that contribute to reflecting individual organizational needs. While lagging indicators assess past performance and the progress a company has made in a more quantitative nature, *leading indicators* are forward looking and contribute to pushing the future performance of sustainability management systems and are often regarded as qualitative (Pojasek, 2010). Through leading indicators, information is offered that enables organizations to react to altering circumstances and can react timely to either prevent undesired outcomes or reach anticipated outcomes (Pojasek, 2009b). Furthermore, those indicators could disclose information on the efforts and actions taken by management to influence environmental performance of an organization and their capability to meet environmental goals, hence influence future results (Marshall & Brown, 2003). Leading indicators are serving the purpose to avoid failures before such events even take place. A unique characteristic of leading performance indicators is the “ability to influence and improve future performance by guiding current actions” (Pojasek, 2009b). This preventive approach is contributing to avoid accidents and better control operational risks (Pojasek, 2009b). A common place for where leading indicators are incorporated in is within performance frameworks connected to national quality business excellence award programs for instance (Pojasek, 2010; Pojasek & Hollist, 2011).

Examples of leading indicators connected to sustainability and that encourage further action could incorporate (Pojasek, 2010):

- Determine current and future stakeholder and market expectations
- Put effective and visible systems and processes of sustainability leadership in place at all levels of the organization
- Continuously improve products and services based on determinations of how they perform against stakeholder expectations.

3.3 Three-Step Reporting Model

An alternative model for structuring reporting efforts that incorporates leading indicators was suggested by (Pojasek, 2009a) and it encompasses the following main three components:

- Organizational sustainability profile;
- Sustainability performance;
- Sustainability results.

Despite its similarity to the reporting format under the GRI framework, the alternative reporting format is aligned to a business excellence approach and this approach can contribute that the sustainable business is better reflected in reporting efforts (Pojasek, 2009a).

3.3.1 Organizational Sustainability Profile

The organizational sustainability profile section encompasses three crucial elements which are: organizational description, organizational relationships, and organizational challenges (Pojasek & Hollist, 2011). This information provides the organization and its stakeholders with a comprehensive understanding of key aspects (internal and external) for shaping an organization’s operating environment, including strategic challenges, responsibilities, competitive environment, as well as mission, vision and values (Pojasek & Hollist, 2011). All three elements contribute to the organization’s recognition of the context in which it operates and it furthermore determines the main prerequisites for sustainable success in the future and emphasizes the opportunities, needs, and constraints that influence the sustainability program of an organization (Pojasek & Hollist, 2011). A more detailed description of what information should be included in the organizational sustainability profile are outline in table 3-1.

Table 3-1 Three elements encompassed in the Organizational Sustainability Profile

Organizational description	Organizational relationships	Organizational challenges
The organizational description should explain the company’s operating environment and its key relationships with customers, suppliers, partners, and other stakeholders. It should describe the organization’s main products and services and offer details about the delivery mechanisms used to provide these products and services to your customers (e.g., dealers, distributors, collaborators, or channel partners). If a company operates more than one business, the description should emphasize the main business line. Emphasize in what way your business is different or unique compared to others in the same business sector?	Under organizational relationships organizational structure and governance system should be described. A governance system is an approach for ensuring that ethical behavior prevails, especially when it comes to reporting sustainability results. What are the reporting relationships among your governance board, senior leaders, and parent organization? What are key customer and stakeholder groups and market segments? What are their requirements and expectations regarding your products, services, and operations? What differences in requirements and expectations exist among your various customer and stakeholder groups and market segments?	The organization’s competitive environment should be described under this section, as well as key strategic challenges, your system for performance improvement, and how the sustainability program affects each of these areas. It is important to describe the numbers and types of competitors and key collaborators that affect your organization. Often the biggest future threats come from companies that might not seem like threats today. It is important to show your organization’s position in its industry and to identify any particular niche you might have.
Another key component of the organizational description is your company’s employee profile. This description should include elements such as worker educational levels, employee diversity, organized bargaining units, use of contract employees, and any special health and safety requirements that apply in the workplace. Also a description of the organizational culture, including mission, vision, values should be provided and how the sustainability program is aligned with the organization’s business.	Identify the top three/four market segments, along with the two or three most important requirements that apply to each. To what extent does the sustainability program affect these elements? What roles do suppliers, partners, and distributors play in value creation and key support processes at the organization. It is important to show that the way you communicate with each of these groups is as efficient and effective as the way you communicate with your employees and others within your own organisation	What are the principal factors that determine your success relative to your competitors? What key changes may be taking place that affect your competitive situation? Important factors might include differentiators such as price leadership, design services, e-services, geographic proximity, and warranty and product options.
At many organizations, technology and regulatory factors play a crucial role in success. For this reason, it is important to list the technologies and regulations that are most crucial to your business sustainability. Try to provide a clear idea of how regulated a company is, and how much time you need to devote to meeting regulatory or legal requirements.		It is important to focus on improving aspects of your organization that link back to meeting those requirements that drive customer and employee loyalty and help differentiate you from competitors. You might mention how sustainability is aligned with your vision and how overall sustainability goals are identified each year. You might also explain how you keep the organization focused on achieving this vision without losing sight of your overall mission, while watching your competitors at the same time

Source: Adopted from Pojasek (2009a)

3.3.2 Sustainability Performance

In order to assist organizations to determine sustainability performance, 15 leading indicators are used in the sustainability performance segment. The set of 15 leading indicators that can contribute to determine sustainability performance are outlined in Table 3-2. Those leading

indicators were compiled by Pojasek (2009a) through his analysis of various business excellence frameworks. Thereby the indicators are phrased as activities that companies should be implementing¹¹.

Table 3-2 Leading indicators for measuring sustainability performance of companies.

Leading Indicators Measuring Sustainability Performance
1. Put effective and visible systems and processes of sustainability leadership in place at all levels of the organization.
2. Develop cultures and support behaviors that are consistent with the organization's core values and that are carefully aligned with the sustainability program.
3. Foster equal opportunity, environmental protection, education, and health, in addition to encouraging well-being among community stakeholders.
4. Use systems and processes to strategically plan for sustainable success and to align the sustainability program to its core purpose.
5. Build resources and assets; apply them to achieving sustainability goals and increasing future value for the organization and the community within which it operates.
6. Measure what is necessary to increase understanding of the environment in which you operate; continually review it to ensure that it remains current, meaningful, and effective.
7. Use knowledge to support decision making, stimulate innovative thinking, and ensure organizational success and sustainability.
8. Create a work environment that is engaging, positive, and open; foster creativity and unify the efforts of your people.
9. Align your needs with stakeholders' expectations in order to build sustainable organizational capability.
10. Determine what stakeholders and markets want now and what they will want in the future.
11. Design processes for building and managing customer relationships to promote sustainable operations.
12. Determine how stakeholders perceive value; benchmark this information and use it to deliver sustainable value.
13. Manage and optimize processes as a system; review processes regularly for their relevance and suitability in assisting the organization in achieving its sustainability objectives.
14. Use structured methods to improve your processes and achieve efficiency and effectiveness for all stakeholders.
15. Continuously improve products and services based on determinations of how they perform against stakeholder expectations.

Source: Adopted from Pojasek (2009a)

3.3.3 Sustainability Results

The last section of the three-step reporting model is comprised of outcomes and results. Those results are not intended to indicate how a business should be run, but they should provide a framework that needs to be adapted to the industry sector a company is operating in, to various stakeholders and to the competitive environment (Pojasek, 2009a). A defined set of results that are widely used in sustainability reporting were formulated by the GRI reporting framework, which include six categories of results: economic, environmental, labor, human rights, society, and product responsibility (GRI, 2006; Pojasek, 2009a). Ahead of each category information about the organization's management approach to the specific category is disclosed, which entails a debate about organizational policies, targets, procedures and other relevant information that serves the purpose of setting the context of the presented results (GRI, 2006; Pojasek, 2009a). Overall, organizations wanting to report on their sustainability efforts are able to link GRI results to the 15 leading indicators especially since individual results can be independently scored from each other (Pojasek, 2009a).

¹¹ In Annex IV further elements are outlined that each leading indicator should specify in the company's reporting efforts. Starting from outlining what approach is taken that lead to take action, how the approach is realized, what are the results and to what level has sustainable improvement been accomplished.

4 Idaho Power Company and their Risks

Challenges for utility companies lie in identifying reporting indicators that properly address risks that help communicating risk mitigation efforts through sustainability reporting. Especially since most sustainability reports fail to address adequately crucial risks that organizations are facing, it is critical to see whether leading indicators are able to address risks within reporting efforts (Pojasek, 2009a). The electric utility company Idaho Power was used as an example and this section briefly presents Idaho Power's core business and highlights Idaho Power's risks. The reporting indicators are identified that have the potential to mitigate risk factors of Idaho Power and practical examples are provided on what kind of information could be included within the selected indicators.

4.1 Overview Idaho Power Company

Idaho Power is the largest electric utility company in the state of Idaho (USA) that is regulated by the Federal Energy Regulatory Commission (FERC) and the State Public Utility Commissions of Idaho and Oregon, is engaged in the generation, transmission, distribution, sale and purchase of electric energy (Idaho Power, 2011d). Idaho Power is the chief operating subsidiary of the holding company IDACORP, Inc. which is traded on the New York Stock Exchange under the ticker symbol IDA (Idaho Power, 2011d). Idaho Power's vision is to be regarded as an exceptional utility company whose core values are based on integrity, safety and respect (Idaho Power, 2011g). The company generates 15,495,000 MWh annually and serves more than 490,000 customers with electricity in eastern Oregon and southern Idaho, covering a 24,000 square-mile area (62 159 km²) (Idaho Power, 2011d). The primary energy sources used to generate electricity are divided into (Idaho Power, 2011c):

- 44 percent hydropower;
- 41 percent coal;
- 1 percent natural gas and diesel;
- 14 percent of additional purchased power, including:
 - 8 percent long term power purchases¹², and
 - 6 percent market purchased power.

¹² 1 399 661 MWh of electricity were purchased in 2010 by Idaho Power through long term power purchase agreements. The resource type for generating electricity is split up into: Wind 37 %, Hydroelectric 32%, Other 7%, Natural Gas 6%, Biomass 6%, Industrial Waste 6%, Geothermal 5% and Landfill Gas 2% (Idaho Power, 2011a).

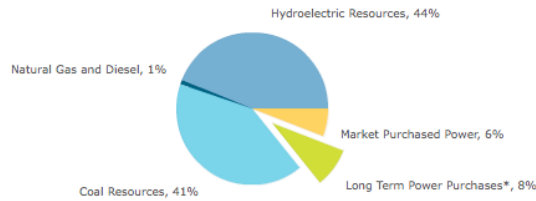


Figure 4-1 Idaho Power's primary energy sources

Source: Idaho Power, 2011a

Idaho Power's generation portfolio consists of 17 hydroelectric facilities, 3 coal-fired facilities, 2 natural gas-fired plants and 1 diesel-fired facility (Idaho Power, 2011e). Idaho Power's work is guided by a three-part strategy that is divided into the following elements: *responsible energy planning, responsible development and protection of resources, and responsible energy use* (Idaho Power, 2011d). Idaho Power's sustainability program is defined as sound and enduring financial, environmental and social stewardship (IDACORP, 2011).

Idaho Power will be publishing their first sustainability report in May 2012. This will be separate from IDACORP's 2011 Annual Report and 10-K Securities and Exchange Commission report, which will also be published at that time. The sustainability report will communicate their environmental and social stewardship efforts along with the financial achievements. The timing of the release is to link the sustainability report to the risk factor section of the 10-K report and to coincide with the annual shareholder's meeting. Linking the risk that Idaho Power is potentially facing, as outlined in the 10-K report, with the sustainability report will show how those risks can be better managed and even minimized. Thus lowering the level of risks will inherently contribute positively towards investment decisions by existing and new investors.

4.2 Risk factors at Idaho Power – applying leading indicators

Within IDACORP's 2010 Annual Report, which includes the 10-K Securities and Exchange Commission report, one specific part is dedicated to risk factors. The risk factors outlined may have a substantial impact on the business, financial condition, or results of IDACORP's and Idaho Power's operations (IDACORP, 2010a). This thesis does not consider all identified risks¹³ and only addresses a selected set of risk factors that are grouped into:

- regulatory imposed risks;
- environmentally imposed risks;
- imposed risks through supply and demand dependency.

The selection of these three risk factors were mutually agreed upon between the author of this thesis and John Bernardo from Idaho Power, based on criteria that best suited Idaho Power's

¹³ A more comprehensive list of risk factors can be found in Appendix III. The list found in Appendix III is not the complete list of all identified risk factors. All identified risk factors can be found in the Form 10-K of IDACORP.

ideas for their sustainability reporting efforts and academic background of the author in Environmental Management and Policy

Furthermore, the author of this thesis addressed a selected set of risks and identified which leading indicators could potentially be used to mitigate those risk factors and suggestions will be provided on what kind of information could be disclosed under those indicators. Under each main risk group, the choice of potential leading indicators is listed before the specific risk aspect and the potential communication content is outlined.

4.2.1 Regulatory imposed risks

4.2.1.1 Choice of potential leading indicators addressing regulatory imposed risks

The following leading indicators (identified in Table 3-2) were chosen to provide examples on their potential to mitigate regulatory imposed risks. Thereby the choice was based on the author's assessment to what extent an indicator could be suitable to mitigate a certain risk and how applicable they could be for Idaho Power.

Indicator 5: Build resources and assets, apply them to achieving sustainability goals and increasing future value for the organization and the community within which it operates.

Indicator 6: Measure what is necessary to increase understanding of the environment in which a company operates, continually review it to ensure that it remains current, meaningful, and effective

Indicator 7: Use knowledge to support decision making, stimulate innovative thinking, and ensure organizational success and sustainability

4.2.1.2 Risk aspect: Compliance with existing and future environmental law

The risks identified by Idaho Power regarding compliance with existing and future environmental law and regulations are connected to an increase of capital expenditures and operating costs which could lead to a decrease in cash flow and might impact the ability to meet the electricity demand of its customers (IDACORP, 2010b). Various environmental rules, statutes and regulations on federal, state and local level which are related to water quality, air quality, natural resources, safety and health are subject to Idaho Power and the potential adoption of an obligatory program (on federal or state level) to reduce greenhouse gas emissions would raise concerns about the economic viability of using fossil fuels as an energy source for existing and new electric generation facilities (IDACORP, 2010b). Demands and efforts to reduce greenhouse gas emissions and other pollutant emissions such as mercury, would increase capital expenditures and hence increase costs for operating coal power plants and reduce profitability to generate electricity (IDACORP, 2010b).

4.2.1.3 Potential communication content

Understanding the new reality of today's economy and environment electric utilities are operating in is crucial for long-term success. More changes are expected in the public policy arena. This also means that complying with environmental legislation might not be enough and going beyond compliance and anticipating future changes becomes an important element of staying competitive, increasing efficiency and satisfying stakeholder expectations. Idaho Power could communicate why and how it is observing trends in international climate

negotiation processes as well as other relevant regulations on national and state level and thereby outlining their own evaluation of those developments. An example could be to outline Idaho Power's understanding and reflections of the carbon market of the Chicago Climate Exchange (CCX), an voluntary greenhouse gas reduction and offset trading platform for North America (Idaho Power, 2011a). Another example could be disclosing observations and implication of the Waxman-Markey bill, a draft bill that includes GHG reduction goals under a cap and trade system (Idaho Power, 2011a). Furthermore Idaho Power could communicate its views and expectations on carbon trading schemes as well as their continuous efforts to follow developments that are connected to regulatory aspects and provide information on ongoing work and planned adaptation measures in the event they become a reality for Idaho Power. Moreover information could be provided on potential CO₂ emission reduction targets currently under discussion and their potential impact on Idaho Power based on reasonable scenario analysis (Ceres, et al., 2008).

Especially in highly regulated environments, it is crucial to remain in close contact with public policy leaders (American Electric Power, 2009). Idaho Power could furthermore, disclose how often, with what regulatory bodies and how it is working with legislators and regulators to develop new regulatory models that will contribute to meet different sustainability challenges. This could include information on how Idaho Power's vision and mission for sustainability could be supporting certain regulatory developments, which helps stakeholders to better understand Idaho Power's position and role in the regulatory environment. Furthermore, by actively engaging with regulatory bodies, Idaho Power is able to better understand policy settings and enables them to anticipate upcoming legal changes and enables them to participate appropriately in public discussions with stakeholders.

Committing to addressing climate change as an organization provides various opportunities for businesses that should be included in the reporting efforts. Those could include outlining that the expected costs of introducing cap and trade scheme will very likely increase costs of electricity generated from fossil fuels and hence increase the competitiveness of renewable energy source and will provide additional value for further developing clean energy projects in the long term (Pacific Hydro, 2009). Another supporting argument for compliance with environmental legislation is the competitive advantage that can be assigned to companies that are outperforming heavier polluters since they are facing additional pollution taxes and possible penalties (Virgin, 2010). By providing stakeholders information on how a cleaner environment and economic growth are complementing each other rather than being opposed to each other, and by providing health and environmental benefits associated with compliance, mitigation efforts to comply with regulatory risks are better understood and supported by stakeholder groups. A balanced picture of the immediate costs involved in implementing sustainability policies versus long-term benefits is needed.

When reporting on compliance issues, costs for reducing environmental aspects in order to comply with environmental legislation could be put in contrast with costs in case of non-compliance along with infringement or enforcement procedures. Within American Electric Power (AEP) reporting efforts, AEP is disclosing issued fines that were caused due to exceeding the permit discharge limit of selenium in the fly ash pond (American Electric Power, 2009). AEP reports on what led to this incident were outlined and the report further described the lessons learned and experience gained from it and measurements taken to avoid similar outcomes in the future. Stakeholders could positively evaluate how the company avoided additional costs through compliance and by showing their track record of regulatory compliance and commitment of Idaho Power of being 100 percent compliant with regulatory aspects.

Throughout the information provided, examples were provided about what can be communicated by Idaho Power to its stakeholders to increase understanding of the regulatory environment in which Idaho Power operates, to continually review ongoing developments and at the same time outlining what proactive measures are taken to mitigate such a regulatory imposed risk (indicator 6). Furthermore it outlined how Idaho Power is using knowledge to support decision-making and to ensure organizational success and sustainability and hence reduce regulatory risk (indicator 7).

4.2.1.4 Risk aspect: Compliance with renewable energy portfolio standard

The risk of complying with federal or state renewable energy portfolio standards could lead to an increase in capital expenditures as well as operating costs (IDACORP, 2010b). Therefore a renewable portfolio standard requires electric utility companies to generate a minimum percentage of their electricity coming from renewable energy sources by a specific date (U.S. Department of Energy, 2009). The state of Idaho has not yet adopted such renewable energy portfolio standards but a number of other states have inter alia Oregon (U.S. Department of Energy, 2009). However, by 2025 Idaho Power's operations in Oregon are obligated to fulfill a ten percent renewable energy portfolio standard and it is likely that other states, including Idaho, will adopt similar standards in the future and hence affecting further Idaho Power operations (IDACORP, 2010b).

4.2.1.5 Potential communication content

Renewable energy production capacity is expanding caused by tax incentives, technology development and stakeholder demand for a cleaner energy future. Using an increased renewable energy portfolio will reduce GHG emissions from electric power generation, contributing to a cleaner energy economy, reduce environmental and social impacts and will help them to comply with regulatory demands. Disclosing information on abated tons of greenhouse gas emissions through existing renewable energy sources as well as future abatement through existing and future renewable energy technologies within Idaho Power's portfolio is providing information about how the impact on the environment is reduced and it will furthermore, show avoided costs of complying with pollution control measures. Also costs for non-compliance with a renewable energy portfolio could be outlined compared to the costs for investments necessary to ensure a sufficient amount of renewable energy sources needed in order to comply.

Idaho Power should disclose information on the current development and observation of renewable energy portfolio standards in other States and on anticipated changes in legislation in the State of Idaho, especially in regard to tax credits for renewable generating resources as well as renewable energy credits. Furthermore, Idaho Power should outline future development plans of how Idaho Power's energy portfolio and how those changes tend to adjust to those legislative changes. They should outline development plans of the future energy portfolio and efforts to comply with these already before being in place will provide stakeholders with Idaho Power's measures how to mitigate regulatory risks connected to renewable energy standards. Providing facts about general potential of renewable energies and preferable climatic conditions in Idaho will further support the expansion of renewable energy in Idaho Power's energy portfolio.

Another interesting piece of information in regard to renewable energy would be to outline the trend of renewable energy costs over the past 20 years and show projections of future development and increased economic viability of renewable energy technologies which provides further arguments for the increased use of renewables and counterbalances the

arguments of increased electricity generation costs from renewable energy technologies in the long run.

Ongoing developments of solar photovoltaic (PV) demonstration projects could be highlighted as one of Idaho Powers steps to increase its renewable energy share especially when pointing out the continuous decline in costs. Also disclosing information on potential collaborations with the Center for Advanced Energy Studies (CAES) in regard to relevant research into solar technologies would communicate stakeholders Idaho Power's commitment to sustainable energy solutions (IDACORP, 2011). In addition, disclosing information on Idaho Power's participation in the Solar 4R Schools Program helping educating students about renewable energy technologies and installing of PV systems on school property, shows active involvement in sustainability education in the near community (Idaho Power, 2011f).

Another aspect that could be communicated in regard to complying with renewable energy portfolio standards is related to Idaho Power's energy efficiency efforts. Those do not only reduce emissions by avoiding the need for further energy production facilities but could also help to reach renewable energies portfolio standard in case overall energy consumption remains stable or only increases marginally¹⁴.

This information indicates how existing and planned resources and assets of Idaho Power can be applied to achieve sustainability goals and hence increase future value for the organization and the surrounding community in which it operates (*indicator 5*). Also information on understanding and anticipating the regulatory environment in which Idaho Power operates and will operate and its proactive measures to avoid any risks of noncompliance in the future are outlined (*indicator 6*). Moreover it is outlined how Idaho Power is using knowledge to support decision-making and ensure organizational success and sustainability and hence reduce regulatory risk (*indicator 7*).

4.2.2 Environmentally imposed risks

4.2.2.1 Choice of potential leading indicators addressing environmentally imposed risks

The following leading indicators (identified in Table 3-2) were chosen to provide examples on their potential to mitigate environmentally imposed risks.

Indicator 5: Build resources and assets, apply them to achieving sustainability goals and increasing future value for the organization and the community within which it operates.

Indicator 6: Measure what is necessary to increase understanding of the environment in which a company operates, continually review it to ensure that it remains current, meaningful, and effective.

Indicator 7: Use knowledge to support decision-making, stimulate innovative thinking, and ensure organizational success and sustainability.

Indicator 13: Manage and optimize processes as a system, review processes regularly for their relevance and suitability in assisting the organization to achieve its sustainability objective.

¹⁴ Due to continuous increases in electricity demand, more efforts and renewable energy technologies are needed to reach a certain renewable energy portfolio standard compared to the scenario when electricity demand remains stable and the added renewable energy to an energy portfolio will result to reaching a certain share of renewable energy faster.

4.2.2.2 Risk aspect: Weather and Climate Change

The various impacts of climate change and changes in weather patterns could impact customer demand, hydroelectric generation and could lead to disruptions of transmission and distribution systems, impacting revenues and cash flow (IDACORP, 2010b). Those impacts can be caused by changes in temperature and precipitation levels that could change customer demand, variations of the quantity and timing of snow packs and stream flows, which could unfavorably affect hydroelectric generation. Also regulatory and legislative developments connected to climate change could pose risks to operations and plans (IDACORP, 2010b).

4.2.2.3 Potential communication content

In 2009, Idaho Power's Board of Directors approved guidelines to establish a goal to reduce its resource portfolio's average carbon dioxide emission intensity during the period 2010 until 2013 to a level of 10 to 15 percent below its carbon dioxide emission intensity level in 2005 (Idaho Power, 2011b). Already indicating this in reporting efforts shows Idaho Power's commitment to reduce its carbon emissions and is responding to risks related to climate change. This also communicates to stakeholders that climate change is taken serious by Idaho Power and shows that measures are in place in case a carbon-trading scheme will be implemented. Besides reporting on the progress towards meeting reduction goals, it could be of importance for Idaho Power to communicate the means of how to achieve the reduction target and what Idaho Power's long-term targets might look like in respect to its CO₂ emissions as well as other emissions. Relying only on increased hydroelectric generation due to good water conditions and reduced demand for coal-fired generation will not be sufficient, in the long run, for reaching emission reduction targets. Disclosing Idaho Power's proactive approach for achieving targets could be an interesting aspect to report on for stakeholders. This could include a description of GHG reduction activities containing information on estimated emission reductions, preferably expressed in absolute terms (i.e. total emissions) and relative terms (i.e. emissions per unit if electricity generated) and timelines for achieving those targets (Ceres, et al., 2008; Climate Risk Disclosure Initiative Steering Committee, 2006). Another aspect that could be relevant to disclose is outlining the methodology that Idaho Power uses to calculate their CO₂ emissions (i.e. EC Monitoring and Reporting Guidelines or The Greenhouse Gas Protocol), providing more clarity for stakeholders (Ceres, et al., 2008).

A crucial factor to report under this risk factor is Idaho Power's position within the report where air emissions of the 100 largest electric power producers in the United States in 2010 were benchmarked. Idaho Power's total CO₂ emissions and CO₂ emission intensity ranked among the 30 lowest carbon dioxide emitters compared to the country's 100 largest electric power producers (Ceres, Natural Resources Defense Council, Public Service Enterprise Group, & Constellation Energy and Entergy, 2010). The reporting efforts should go beyond this and should outline how Idaho Power will continue to reduce its CO₂ emissions and continue to stay among the 30 lowest carbon dioxide emitters compared to the country's 100 largest electric power producers in the future. Another benchmarking result could be used when showing that Idaho Power is generating electricity more efficiently than the national average when looking at carbon emissions emitted per generated megawatt hour among the 100 largest electric utility companies in the United States (U.S.) and using this information to show that gives Idaho Power a competitive advantage over other electric utilities.

Idaho Power could disclose information on their investment to improve power plant operations and emission performances, which contributes to better air quality, reducing coal consumption and therefore releasing fewer emissions. The avoided burning of x amount of coal and the associated costs that were saved thanks to those investments could be disclosed and more importantly give an outline of how much more will be saved through investments in

the long run. A comparison of a business as usual scenario, in case those investments would have not been taken place, and the existing scenario including investments into more efficiency and safety in Idaho Power's generating infrastructure could be established, comparing emissions outputs, fuel costs and even costs for ash disposal. Planned efforts for continuous improvement should be outlined and emphasizing resources conserved, costs avoided and communicating further benefits for the environment and on societies.

Since climate change and the associated financial impacts are an increasing concerns for shareholders, electric utility companies are encouraged to reveal the financial risk connected to future regulation of carbon dioxide (Ceres, et al., 2010). Therefore, a relevant aspect to disclose to stakeholders would be Idaho Power's strategies to shift to a lower carbon economy, outlining health and environmental benefits. This would include efforts to improve power plant emission performances of existing power plants, as well as types of technologies and fuels used to satisfy future demand. Furthermore, disclosing Idaho Power's current position on climate change, its responsibility and role to address it, and its involvement affecting climate change policy can be strategic components to disclose (Climate Risk Disclosure Initiative Steering Committee, 2006). Another aspect that can be considered to be disclosed is to outline how the board, executives or senior management are engaged in addressing climate change.

Mitigation and adaptation efforts to climate change are relevant aspects in reporting efforts. Communicating mitigation and adaptation efforts by Idaho Power could emphasize increased efficiency and demand-side management, as well as development of renewable energy technologies. It should also be highlighted that some measures such as increased usage of hydropower as a renewable energy source could potentially lead to conflicts among mitigation and adaptation efforts due to reduced water flows.

Examples of potential reporting as given above could indicate how Idaho Power's goal to reduce emissions contributes to achieve sustainability goals and also provides indications how disclosing this information can increase future value of Idaho Power and stay competitive (*indicator 5*). Also information on understanding and anticipating the regulatory environment in which Idaho Power operates and will operate and its proactive measures to avoid any risks of noncompliance in the future are outlined (*indicator 6*). Additionally information is outlined how Idaho Power is using knowledge to support strategic decision-making and ensure organizational success and sustainability and hence reduce climate change imposed risk as well as regulatory risk (*indicator 7*).

4.2.2.4 Risk aspect: Reduced hydroelectric generation

The dominant reliance on hydroelectric generation and variations in water availability pose a significant risk to Idaho Power which can dramatically impact their operations (IDACORP, 2010b). If water availability decreases, hydroelectric generation will be impacted and the decline would need to be compensated either by increased usage of thermal generated resources or additional power can be purchased on the commodity market for electricity and both options are linked to increased costs (IDACORP, 2010b).

4.2.2.5 Potential communication content

Despite the limited opportunities to build new hydro power plants within Idaho Power's area of operation, one way to counterbalance risk of reduced water availability would be to report on planned initiatives on how existing hydroelectric generation facilities could become more efficient and what measures are needed so that they would be able to retain the level of

electricity generation despite the reduced availability of water. This could be in the form of upgrading existing plants or consideration of adding small-scale hydro plants and thereby, contribute to more sustainable electricity generation. Beyond communicating increased efficiency, regular maintenance and improving dam safety could also help prolong the lifetime of the hydroelectric generation facilities and thereby, reduce or compensate risks connected to hydroelectric generation. Efforts to mitigate environmental impacts on local ecosystems when upgrading hydro power plants could additionally be disclosed such as efforts to maintain natural water flow and facilitating fish migration and restocking.

Another aspect that could be addressed in connection with reduced hydroelectric generation is outlining further sustainable energy portfolio diversification efforts of Idaho Power so that reliance on hydro power is reduced and potential reduction of water availability can be compensated by preferably sustainable energy solutions. In order to reduce additional purchases of electricity from the commodity market and to decrease usage of thermally generated resources, further expansion of renewable energy sources and increased energy efficiency efforts could be well working responses to risk of reduced hydroelectric generation.

The latter information provided examples of how Idaho Power's hydroelectric system can be optimized and what additional measures can be implemented and how those can assist an organization to achieve its sustainability objective (*indicator 13*). Therefore, information is disclosed on how Idaho Power is using knowledge to support strategic decision-making and to maintain organizational success and sustainability and hence to reduce the risk of reduced hydroelectric generation capability due to reduced water flows (*indicator 7*).

4.2.2.6 Risk aspect: Continuous declines in stream flows and over appropriation of water

Because of disputes among surface and ground water irrigators and the State of Idaho, caused by the combination of over-appropriation of water, drought conditions and declining Snake River base flows, Idaho Power might be facing the risk of reduced hydroelectric generation (IDACORP, 2010b). Plans exist to recharge the Eastern Snake Plain aquifer, contributing to Snake River flows, through diverting surface water to porous locations allowing the water to sink into the aquifer (IDACORP, 2010b). This diversion process additionally reduces Snake River flows and consequently, will influence Idaho Power's hydroelectric generation. Despite Idaho Power's settlement agreement with the State of Idaho in 2010 which resolved litigations connected to Idaho Power rights, and its involvement in the current comprehensive aquifer management plan process which addresses the ongoing Snake River water issues, it does not provide any guarantee that this process will lead to an increase of the Snake River stream flows (IDACORP, 2010b).

4.2.2.7 Potential communication content

Similar to the previous risk factor on reduced hydroelectric generation the same communication content could be communicated under this risk factor. Nevertheless this risk aspect provides further possibilities that could be disclosed in Idaho Power's reporting efforts. In respect to over-appropriation of water, Idaho Power could disclose information on how it involves other stakeholders in negotiation processes about water rights, their role and inputs provided in the current comprehensive aquifer management plan, and measures taken to encourage other actors who appropriate surface water of the Snake River to reduce their water usage. This could be in the form of offering water audits and consultancy work to those actors that appropriate surface water which can help them to identify water consumption reduction potentials, hence reduce the appropriation level of surface water and reduce risk of reduced

stream flows. At the same time those actors receive advice on better water management, identifying cost saving potentials and help them to make their operations more sustainable.

By disclosing this information in reporting efforts, it is contributing to building assets, which could help achieve sustainability goals and to increase the value of the organization and the community within which it operates (*indicator 5*).

4.2.3 Imposed risk through supply and demand dependency

4.2.3.1 Choice of potential leading indicators addressing environmental imposed risks

The following leading indicators (identified in Table 3-2) were chosen to provide examples on their potential to mitigate imposed risk through supply and demand dependency.

Indicator 4: Use systems and processes to strategically plan for sustainable success and to align the sustainability program to its core purpose.

Indicator 5: Build resources and assets, apply them to achieving sustainability goals and increase future value for the organization and the community within which it operates.

Indicator 6: Measure what is necessary to increase understanding of the environment in which a company operates, continually review it to ensure that it remains current, meaningful, and effective.

Indicator 7: Use knowledge to support decision making, stimulate innovative thinking, and ensure organizational success and sustainability.

4.2.3.2 Risk aspect: Reliance on coal and natural gas

The risks of the reliance on coal and natural gas for fueling power generation facilities as identified by Idaho Power is connected to the exposure to increased market prices of coal and gas leading to increased costs (IDACORP, 2010b). Furthermore, an increase in demand of natural gas could lead to supply shortages, market price increases and exposure to short-term price volatility (IDACORP, 2010b).

4.2.3.3 Potential communication content

Committing to address climate change includes a reduction in demand for electricity that is generated by burning fossil fuels in the long run and hence reduce dependency on coal and natural gas. By outlining Idaho Power's decision not to pursue the development of new coal resource provides an indication that several risks connected to coal such as uncertainty of regulation of carbon emissions and the capability to permit new coal resources are taken serious by Idaho Power. This shows stakeholders that the risk connected to increased use of coal is unlikely to become more intensified. Further information to be disclosed could include efforts to improve the efficiency of coal-fired and gas-fired power plants, which could contribute to reduced demand in coal and natural gas supply and can be an indicator of a more responsible energy use. Another strategy could also involve replacing coal and natural gas production with enhanced production from biomass or biogas in order to reduce GHG emissions and overall environmental risks associated with coal and natural gas while shifting to a lower carbon economy. Also outlining different types of technologies and fuels used to satisfy future demand would be relevant information to disclose.

Idaho Power could outline their plans for future developments to diversify its portfolio of energy sources over the next 10 years and could thereby show how it could reduce the risk of being exposed to increased coal and gas prices on the commodity market. This would specifically encompass outlining long term plans on how to divert reliance of generation from coal-fired resources to other generation sources, by replacing coal with natural gas and a mixture of renewable resources as outlined in the 2011 Integrated Resources Plan (Idaho Power, 2011a). Disclosing planned investments in resources beyond coal and gas, increased use of renewable energy sources and increased optimization and efficiency improvement efforts for existing power plants will provide stakeholders with an enhanced overview of how to reduce reliance on coal and potential costs increases.

In regard to risks of increased prices of natural gas, Idaho Power could, on the one hand, disclose information about the ability to access two independent gas markets that might not have high-price correlations and thereby be less vulnerable towards increased market prices. On the other hand, by disclosing information on Idaho Power's hedging practices that reduce spot and seasonal-price volatility of natural gas costs could also be relevant to show stakeholders how risks are being mitigated (Idaho Power, 2011a)

Communicating Idaho Power's stand on carbon capture and sequestration (CCS) technology that allows carbon emissions to be stored underground, would give stakeholders an indication whether any Research and Development related to CCS is conducted or whether any resources would be channeled towards that development. According to the Integrated Resource Plan critical aspects of CCS are addressed and providing some of the reasoning in the reporting efforts could give stakeholders additional information on this specific aspect (Idaho Power, 2011a). This accounts also about disclosing Idaho Power's stand on nuclear power, helping stakeholders to better evaluate Idaho Power's sustainability efforts and risks and provides information on Idaho Power's strategy in regard to responsible energy planning.

These examples show how Idaho Power's sustainability reporting efforts could communicate measures that show how it could reduce its reliance on coal and natural gas. By providing a future outlook of compilations of energy portfolio, upgrading existing power plants and by taking different stands on considerations of different technologies shows stakeholders how knowledge is used to support decision making and hence ensure organizational success and sustainability (*indicator 7*). Furthermore, outlining different responses to mitigate risks connected to an increase of natural gas prices, Idaho Power shows increased understanding of the environment in which it operates in and how those processes contribute to strategically plan for sustainable success (*indicator 4 and 6*).

4.2.3.4 Risk aspect: Load growth in service territory

The risk of load growth in Idaho Power's service territory is connected to increased operational and market risk. This is caused by customer growth leading to increased demand of energy, which furthermore can lead to an increased dependence on purchased power in order for Idaho Power to meet the additional demand (IDACORP, 2010b). Although Idaho Power is expected to recover most of the net power supply costs above the amounts included in its rates, some of the excess amounts might not be recovered until the subsequent power adjustment year and Idaho Power might face increased costs (IDACORP, 2010b). An additional consequence of the increased load growth could be further investments in Idaho Power's infrastructure in order to be able to meet new demand which consequently could generate operating and planning difficulties and might compromise Idaho Power's reliability to serve its customers (IDACORP, 2010b).

4.2.3.5 Potential communication content

A solution to the problem of the inflexibility of rate adjustments could be communicated by Idaho Power's efforts to achieve or promote alternative rate-making procedures that would allow Idaho Power more contemporaneous cost recovery and thereby ensure that Idaho Power could remain financially viable (American Electric Power, 2009). Another supporting argument for adjustments in rate settings is that electricity prices charged have been kept artificially low due to subsidizing fossil fuels and that a significant share of electricity is coming from low-cost coal fired power plants and legislation did not yet succeed to internalize externalized costs¹⁵ into electricity prices (American Electric Power, 2009; Environmental Law Institute, 2009).

However, new laws and regulations requiring more stringent pollution controls and increased costs for developing new generation capacities will increase electricity costs in the future. A very promising way to mitigate those cost increases for Idaho Power's customers are Idaho Power's efforts to help reduce customers electricity usage and overall demand, while at the same time reducing the need for Idaho Power to continuously build new generation facilities that would continuously put pressure on the supply side management helping Idaho Power to do more with fewer resources and avoid or delay costs for new generation facilities. Energy Efficiency programs are already in place and new program opportunities are outlined in the 2011 Integrated Resource Plan (Idaho Power, 2011a). Estimated electricity savings could be communicated as well as costs saved compared to the scenario where those electricity savings would have needed to be generated and would have caused costs for the expansion of existing infrastructure. Especially for customers, energy efficiency programs will help reduce energy consumption hence reduce their electricity costs and also have the educational aspect of communicating environmental, social and economical benefits of preserving resources and saving electricity.

These examples show how applied assets can help achieve sustainability goals and increase future value for the organization and the community within which it operates (*indicator 5*). Furthermore, using knowledge for supporting decisions or positions allows Idaho Power to challenge existing rate settings and hence trying to ensure organizational success and sustainability (*indicator 7*).

¹⁵ External costs can be costs connected to pollution, public health as well as ecosystem services.

5 Discussion

This section discusses the general role and suitability of leading indicators for addressing risks in sustainability reporting and highlights the challenges and problems that could be connected to leading indicators. Furthermore this section elaborates on the future role of leading indicators.

5.1 Challenges connected to leading indicators

The main challenges for applying leading indicators that were identified during this research are connected to the fact that information provided under leading indicators are very complex and not as straight forward as information provided under lagging indicators. This is mainly because one leading indicator requires multiple pieces of information that are covered under one single leading indicator (see Appendix IV). The fact that leading indicators are phrased as actions for companies to implement, a wide range of options of information to report on is given under each indicator. On the one hand, this could be seen as a lack of clear guidance, on the other hand, it allows organizations to disclose information that suits specific circumstances of their own organization best. While lagging indicators are rather easy to report on if measuring systems are in place, leading indicators require a more strategic and forward looking approach for reporting, communicating future changes or intentions of organizations, involving additional information and expertise for successfully communicating and measuring sustainability performance.

The information provided under leading indicators is mainly of a qualitative nature and does not necessarily express too much quantitative information. This fact might lead to challenges when it comes to comparing information provided under leading indicators in evaluation or assessment efforts of comparing the same leading indicator applied by different organizations. However, performance frameworks, like the Australian Business Excellence Framework, allow to rate or score the processes (leading indicators) used by companies to achieve certain results (lagging indicator). The practices or processes in place that provide a better inside on future performance can be scored using a matrix, that scores each process using categories such as the four ADRI categories: approach, deployment, results and improvement of a certain process (Pojasek, 2010).

Each organization might interpret or use leading indicators in a different way making a comparative analysis rather challenging. Further monitoring is needed in order prove accountability and reliability of such indicators. Organizations should be encouraged to disclose more quantitative information when possible when evaluating certain risks and intended measures to reduce those risks and are preferred over general statements (Coburn, Donahue, & Jayanti, 2011). This could include information derived from conducted quantitative analyses, on potential compliance costs of proposed GHG emission control schemes. Organizations should put an effort in quantifying and assessing a value to different risks (Coburn, et al., 2011).

Another challenge is to encompass all information required under each leading indicator. Some organizations may apply certain leading indicators depending on what and to what detail the organization is willing or able to disclose. Much information would involve results from scenario building and this risks uncertainty in reporting and outlining future energy portfolios might change in coming reports that could be caused due to technology developments, regulatory measures favoring certain technology solutions over other ones.

The lack of existing and well-established reporting guidelines for sustainability reporting that include a wide range of leading indicators might hinder organizations to consider leading indicators in reporting efforts. Furthermore, no company has used leading indicators in their sustainability reporting yet. Many organisations are using performance frameworks within their management activities that include leading indicators but they do not apply them to their sustainability reporting. Therefore, other companies who would like to see best practice examples of leading indicators applied in sustainability reports are not able to benchmark different leading indicators used in sustainability reporting since they have simply not been used yet. Perhaps companies lack the expertise or are constrained by limited financial resources to include leading indicators in reporting efforts, especially if they have not worked with performance frameworks yet. The GRI reporting framework is reviewed, adjusted and improved on a continuous basis and GRI might be the right platform to introduce more leading indicators in future GRI reporting guidelines.

5.2 What is a good ratio of lagging vs. leading indicators in sustainability reporting?

The question of what would be a good ratio of lagging and leading indicators in sustainability reporting can only be partially answered. From this research, no implications could be drawn in regard to lagging indicators. The GRI reporting guidelines have a good structure, are easy to follow, and are very well accepted in industry (Bergman, 2011). The additional use of leading indicators in sustainability reporting efforts is recommended especially when addressing risks of organizations and in disclosing information on efforts to mitigate those risks. Leading indicators provide helpful guidance when organizations intend to communicate predicted changes affecting organization's performance and sustainability efforts.

Leading and lagging indicators are supporting each other and certain information provided under lagging indicators can also be well interconnected to leading indicators and both indicators do not contradict each other. Lagging indicators will very likely remain the prevailing indicators for sustainability reporting, especially since they are very well established and widely used. Leading indicators could gain importance in the near future, particularly due to their ability to provide guidance on the kinds of information that are needed for contributing to sustainability performance in reporting efforts. Furthermore, communicating company efforts and plans on the means to prevent or to reduce risks offers stakeholders and organizations with indications how much organizations are aware of certain risks, what strategic measures are or will be in place to respond to them, and how well prepared organizations are for events or situations that could potentially be harmful. While energy companies are striving to find more sustainable and efficient energy solutions, leading indicators might be used to support that process, (i.e. by better understanding the environment in which it operates, assessing implemented systems on their suitability in assisting organizations to achieve sustainability objectives) and enables companies to identify the right approach, deployment, result and improvement.

5.3 How well do leading indicators reduce risks?

This research does not provide quantitative results on how well the suggested information provided for Idaho Power under leading indicators can reduce risk but it provides high level indications through given examples that provide an indication that information required under leading indicators can inform stakeholders how organizations are planning to reduce risks aspects and how this also contributes to further sustainability of the organization itself. The extent could vary between different stakeholders and different perception levels of what

measures can mitigate risk the most. The ability to reduce risks is very dependant on the environment, the organizations are operating within including regulatory frameworks and accessibility to financial, technical and natural resources, their existing energy portfolio, possible alternatives and how ambitious their efforts towards more sustainability are like. All those aspects influence the level of impact on society, economics and the environment. Nevertheless, it can be said that better leadership, employee and stakeholder engagement, knowledge and information management contribute to lower risks.

As previously stated, the choice of the most relevant leading indicators for an organisation depends on many circumstances. Organizations might identify different risk factors and other leading indicators could disclose better information for helping them to mitigate certain risks. Also not all leading indicators are equally good for addressing risks therefore, organizations need to assess, on an individual basis, which leading indicators provide the most significant and relevant information to mitigate risks that is also in line with sustainability goals.

However, leading indicators allow organizations to base future decisions on the information disclosed under the indicators since it provides guidance on future development of organizations and necessary tools to improve sustainable performance, hence reduce risk.

5.4 Future challenges

Beyond replying to the increased demand for companies to become more transparent, sustainability reporting will be an essential element for establishing the level playing field for developing future business management (WBCSD, 2003). Companies will be faced with various challenges, such as (KPMG, 2011; WBCSD, 2003):

- Despite the often voluntary nature of sustainability reporting, corporate accounting and disclosure laws will be continuously incorporating new aspects of sustainability performance. Mandatory requirements on aspects of sustainable development are already being introduced in countries such as Germany, France and Nordic countries.
- The trend of measuring sustainable development performance will move towards corporate leanness. This will require the development of improved indicators to account for and report on the monetary value that is generated by sustainability activities a company is performing.
- Rather than only focusing on companies' past sustainability performance, increased attention will be paid to communicate to stakeholders which direction the company will go by assessing its present activities as well as considering future forecasts.
- Develop a clear regulatory framework enabling companies to communicate decisions that could lead to long lasting effects on sustainability

6 Concluding remarks

The author of this thesis investigated Dr. Robert B. Pojasek's concept of leading indicators within sustainability reporting, with the ambition to provide a better understanding of its relevance in regard to addressing risks within organizations and their sustainability reporting efforts. The objective was to test the concept of leading indicators and their applicability to address risks in sustainability reporting, using the electric utility company Idaho Power as a practical example. As part of this analysis, the type of information that could be disclosed under selected leading indicators for Idaho Power was suggested. The research question stated in Chapter 1.3 was:

- Is the use of leading indicators a suitable way of handling risks in sustainability reporting?

In the pursue for an answer to this question, the following sub-questions guided the research efforts:

- What leading indicators for sustainability reporting can be identified?
- Which leading indicators could contribute to address risks in sustainability reporting for Idaho Power?
- What content could be communicated under those leading indicators to mitigate risks for Idaho Power?

This thesis outlined Dr. Robert B. Pojasek's compiled set of leading indicators (Pojasek, 2009a) and provided practical examples with respect to an appropriate set of leading indicators that could be used to address risks of Idaho Power and what kinds of information could be disclosed under those indicators. The set of leading indicators chosen in the analysis were:

4. Use systems and processes to strategically plan for sustainable success and to align the sustainability program to its core purpose.
5. Build resources and assets; apply them to achieving sustainability goals and increasing future value of the organization and the community within which it operates.
6. Measure what is necessary to increase understanding of the environment in which you operate, continually review it to ensure that it remains current, meaningful, and effective.
7. Use knowledge to support decision-making, stimulate innovative thinking, and ensure organizational success and sustainability.
13. Manage and optimize processes as a system; review processes regularly for their relevance and sustainability in assisting the organization in achieving its sustainability objectives.

Under those leading indicators practical examples were provided on what kind of information could be disclosed by Idaho Power in this context. Some of the suggestions included:

Disclosure of information in regard to regulatory imposed risks involves the identification of relevant existing and proposed regulatory provisions, expectations on future developments, clarifying the impact for the company and preferably quantifying the impact through regulatory imposed risks, outlining intended adapting measures and development of plans for future energy portfolios, level of engagement with policy makers, provide a balanced picture

of immediate costs involves implementing sustainability policies versus long-term benefits, comparing cost of reducing environmental impacts vs. costs of non-compliance with legislation.

Disclosing information connected to environmentally imposed risks included analyzing GHG emissions in the past and in the expected future; communicating opportunities for electric utilities due to climate change such as increased demand in cleaner energy sources, firms offering low-carbon energy, profit from emission trading markets, offering services that are related to adaptation to climate change such as energy efficiency programs; outlining measures to reduce GHG emissions and to shift to low carbon economy; optimization efforts of existing power plants; outlining further sustainable energy portfolio diversification efforts; engagement with stakeholders .

Examples for disclosing information on imposed risks through supply and demand dependency involved outlining plans on energy portfolio development, capability to access different gas markets, communicating the company's plans on various technologies such as CCS or nuclear power and efforts to promote alternative rate-making.

The suggested set of leading indicators and the examples given for what could be disclosed under those indicators only provide an example to one specific case in the electric utility sector. If used in a different setting, it is necessary for other sustainability reporting practitioners to focus on the distinctive context of where the organization is finding itself and is operating in. However, other organizations exposed to similar risks could use the given examples for Idaho Power and the information outlined to align their own reporting efforts to similar risks and adapting it to their own specific circumstances. Also other organizations dealing with different risks could use the examples to see the potential and benefits of leading indicators. The process of identifying suitable leading indicators is closely connected with the identification process of what is truly material to the organization, such as who are the main stakeholders that should receive most consideration, and what are the risks the organization is exposed to.

Leading indicators and the information required under those indicators are meant to be forward looking, designed to help to predict and anticipate changes in the future, and to provide suggestions on how they can help organizations adapt to those changes in a more sustainable manner and push future sustainability performance. Information provided under leading indicators should be able to help organizations to react in a timely manner in order to prevent undesired outcome or to reach an anticipated outcome. This approach could support the communication of continuous improvement efforts. Moreover, it has the potential to contribute to better understanding of stakeholders on how organizations are trying to prevent and mitigate risks, before becoming serious threats to business operations and having harmful effects on the environment and society.

This thesis does not suggest to sustainability practitioners working with sustainability reporting to undermine the importance of lagging indicators in assessing the progress of an organization's sustainability program. It rather shows, using a company example, how leading indicators and their potential communication content could be used in practice to communicate company efforts to stakeholders on what measures are being taken to reduce risks and how to achieve sustainability goals in the future. However, whether leading indicators and the information provided under those indicators are able to reduce risks for Idaho Power or not, is a question for further research.

From the experience gained through testing leading indicators in this thesis, some final remarks can be made on whether the use of leading indicators is a suitable way of handling risks in sustainability reporting. Due to their forward-looking approach, leading indicators are able to provide helpful guidance on the information that could be disclosed in sustainable reporting when addressing risks. However, due to the fact that leading indicators do not serve the sole purpose to address risks in sustainability reports but rather address different business and work processes that are in place to achieve better results, leading indicators might not be the only choice for organizations trying to address risks in sustainability reports. Also, due to their complexity and required information under each indicator, leading indicators offer a wide range of different possibilities on what kind of information could be disclosed. This might be seen as a lack of clear guidance for sustainability practitioners who would like to use leading indicators in their sustainability reporting efforts. Furthermore, not all leading indicators are equally suitable for addressing risks, making it more challenging for companies to find the right leading indicator providing the most useful information content.

Leading indicators could especially be of use for sustainability advocates who are looking for more general guidance on the processes and the information needed when addressing risks in an organization's future performance. Leading indicators should be used with caution as long as a comprehensive sustainability reporting framework that includes leading and lagging indicators is not yet established and not widely used by organizations. Leading indicators could clearly be of value for sustainability reporting work but should not be solely used. For organizations that are already using leading indicators for improving their overall performance and are more acquainted with their use and their requirements, those organizations could give leading indicators more priority in their sustainability reporting.

Organizations that decide to use leading indicators should not limit themselves to the leading indicators chosen in the analysis part of this thesis. Also other leading indicators could have been used to address risks of Idaho Power. Leading indicators that were not looked at under the analysis section of this thesis could be further analyzed and show how they could be relevant when addressing risks in organizations. This could be addressed in future research. Future research could also focus on specific reporting framework designs for sustainability reporting that would include lagging and leading indicators. Especially investigating and providing suggestions on how leading indicators could be integrated in future GRI reporting guidelines or other reporting frameworks applied to sustainability reporting could contribute to better sustainability reporting, leading to positive social, environmental and economic impacts. The Electric Utilities Global Climate Disclosure Framework already includes a set of leading indicators in their reporting scheme but this only addresses disclosure on climate change strategies and the disclosure of quantitative data related to climate change and excludes other risks to which companies are exposed.

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Appendix I

Table 0-3 Information needs of various stakeholders

Information needs of various stakeholders	
Employees	Employees are interested in information about sustainable development in order to judge if the company is a stable employer and a respected corporate citizen. They increasingly want to work for companies that are contributing to society besides being economically successful. They are also interested in information about levels of remuneration, retirement, benefits and the nature and extent of their employment opportunities.
Customers	Customers who have a long-term involvement with or are dependent on a company, have a vested interest in its continuing prosperity. With this in mind, customers want to know about the values and attitudes that underpin its activities, and the societal risks linked to its activities, products and services. Many customers also want to know that the products they are buying are environmentally and socially sound.
Suppliers	Some suppliers may be dependent upon the company if it is a major customer. Sustainable development information can help determine risks, which could ultimately lead to the inability of debtors to pay, or increase their risk exposure by associating them with questionable business practices. A report can also inform suppliers of the demands they may face from the company as part of its supply chain.
Governments and their agencies	The interests of governments and their agencies are broad. Their information needs may only be met to a limited extent by sustainability reports. Government authorities require information in order to regulate the activities of companies and to determine policies for competition, taxation, the environment, consumers and social affairs. Reports can enhance the credibility of a company applying for permits or trying to influence policy. Reports may also be used as a source of data when compiling national statistics related to sustainable development.
The Public	Companies affect members of the public in various ways. For example, they make substantial contributions to the local economy through employment and their use of local suppliers. The public is usually aware that there are both benefits and costs for the local community where a company is located. Is there a balance between what a company takes out and what it puts back into the community? Sustainability reports assist the public by providing information on recent trends, developments and company activities.
NGOs	A variety of non-governmental organizations (NGOs) represent a broad range of interests and concerns such as environmental protection, human rights or consumer issues. NGOs may use sustainability reports as a basis for understanding companies' values, principles, attitudes, performance and goals.
Investors	The providers of risk capital and their advisors are concerned with the risk inherent in, and return provided by, their investment. They need information to help them determine whether they should buy, hold or sell, or attempt to influence the company's direction. As these users are normally the ultimate financial risk-takers in a company, providing them with information that meets their needs usually ensures that it is relevant to other parties as well.
Lenders	Lenders are interested in information that will enable them to determine whether their loans and interests will be paid in due time. Sustainable development information can help lenders to determine risk factors associated with the company's business practices.

Source: Adopted from WBCSD (2003)

Appendix II

The business case for sustainable development: 10 building blocks

1 – The market		Sustainable development is best achieved through markets that encourage innovation and efficiency. Markets are human constructs and we need to continue to improve them to best serve the needs of society if we want to maintain global open markets.
2 – The right frame		If basic framework conditions push us all in the wrong direction, then that is the way society will go. Business needs governments to set appropriate framework conditions which can support its efforts to move toward sustainable development.
3 – Eco-efficiency		A main business contribution to sustainable development is eco-efficiency. By adopting eco-efficiency measures, a company will improve both its environmental performance and its financial results.
4 – Corporate social responsibility		Corporate social responsibility is an evolving concept that is always being redefined to serve different needs and times. This leads to a constant debate about the respective roles of government and business in providing social, educational and health services. Also, how far along the supply chain does a company's responsibility extend?
5 – Learning to change		Corporate concern for the 'triple bottom line' – financial, social, and environmental – requires change throughout the corporation. A sustainable business excels on the traditional financial return but it also embraces environmental performance, and community and stakeholder issues.
6 – From dialogue to partnerships		We need to go beyond stakeholder dialogues toward partnerships that combine skills and provide access to constituencies that one partner may not have. They also improve the credibility of the conclusions and actions.
7 – Informing and providing consumer choice		If business believes in a free market where people have choices, companies must accept responsibility for informing consumers about the social and environmental effects of those choices.
8 – Innovation		To become more sustainable, companies must innovate, that is, continuously modify or invent new products, services, and manufacturing processes that are more eco-efficient than their predecessors. However, unless companies engage stakeholders in their innovation processes, they will not succeed in gaining social or marketplace acceptance.
9 – Reflecting the worth of the earth		We do not protect what we do not value. Proper valuation will help us use the markets to maintain the diversity of species, habitats, and ecosystems, conserve natural resources, preserve the integrity of natural cycles, and prevent the build-up of toxic substances in the environment.
10 – Making markets work for all		Poverty is one of the single largest barriers to sustainability. Only well-constructed markets can offer the 2.8 billion people struggling to live on less than two dollars a day the opportunities they need to move out of poverty. Governments cannot do it alone. But they can, and must, establish the frameworks that allow for this to happen.

Figure 0-1 The business case for sustainable development: 10 building blocks

Source: (WBCSD, 2003)

Appendix III

Table 0-6 Selected risk factors from IDACORP's 10-K Securities and Exchange Commission report

Risk factors	Details
Reduced rate recovery	There is a potential risk that the Idaho and Oregon Public Utilities Commission, or the Federal Energy Regulatory Commission grant less rate recovery in regulatory proceedings than Idaho Power needs to cover existing and future increased costs of providing services, earnings and cash flows may be reduced. The ratemaking process typically involves multiple parties, including consumer advocacy, governmental bodies, and various consumers of energy, each party has differing concerns but have the common objective of limiting rate increases or even reducing rates. Idaho Power cannot predict the ultimate outcomes of any ratemaking proceedings, including the extent to which certain costs - such as significant capital projects - will be recovered or what rates of return will be allowed.
Reduced hydroelectric generation	Potential increase in costs, reduction of revenues and reduced earnings and cash flow due to reduced hydroelectric generation poses a potential risk to Idaho Power. The dominating risk factor is thereby the dominant reliance on hydroelectric generation and fluctuations in water availability that can significantly affect Idaho Power's operations. In case hydroelectric generation decreases, Idaho Power needs to compensate this reduction by either increasing its use of thermal generated resources or purchase additional power on the electric commodity market. Both options are attached to increased costs and leads to reduced revenues. Continues decline in stream flows and over-appropriation of water could lead to a reduction of hydroelectric generation and inherently leading to reduced revenues.
Continuing declines in stream flows and over-appropriation of water	Due to the combination of declining Snake River base flows, over-appropriation of water, and drought conditions, disputes among surface water and ground water irrigations and the State of Idaho were provoked, which may reduce hydroelectric generation. One of the proposed solutions is to recharge the Eastern Snake Plain aquifer, that contributes to Snake River flows, by diverting surface water to porous locations and permitting it to sink into the aquifer. Diversions from the Snake River for aquifer recharge may further reduce Snake River flows available for hydroelectric generation and reduce Idaho Power's revenues and increase costs. Despite Idaho Power's settlement agreement with the State of Idaho in 2010 that resolves litigation regarding certain Idaho Power water rights on the Snake River and provides for ongoing Snake River water issues to be addressed in a comprehensive aquifer management plan process, there is no assurance that this process will lead to increased Snake River stream flows for Idaho Power hydroelectric projects.
Reliance on coal and natural gas	Reliance on fossil fuels such as coal and natural gas for fueling power generation facilities exposes Idaho Power to potential increase in market prices of coal and natural gas leading to reduced earnings. Increases in demand for natural gas may result in market price increases, exposure to short-term price volatility, and supply availability issues.
Operational risks of power generating facilities	Those operational risks include equipment failures of Idaho Power's generation facilities, volatility in fuel and transportation pricing, interruptions in fuel supplies, regulatory compliance obligations and costs, labor disputes, workforce safety matters, and catastrophic events at the facilities. Those risks could result in plant outages, increased operation and maintenance expenses, power generation costs, and power purchase costs.
Load growth in service territory	Load growth in Idaho Power's service territory exposes it to greater market and operational risk. This is due to increases in number of customers and the demand of energy that result in increased reliance on purchased power to meet that demand. While Idaho Power can expect to recover the majority of the net power supply costs above the amounts included in its rates, recovery of the excess amounts does not occur until the subsequent power cost adjustment year, and the remaining amount is absorbed by Idaho Power, which could increase costs and reduce earnings and cash flows. Furthermore, load growth can result in the need for additional investments in Idaho Power's infrastructure to serve the new load. Load growth can create planning and operating difficulties for Idaho Power that can negatively impact its ability to reliably serve customers.
Weather and Climate Change	Weather and climate change could affect customer demand and hydroelectric generation and disrupt transmission and distribution systems, reducing earnings and cash flow. Warmer winters, cooler summers and increased rainfall during the irrigation seasons will reduce revenues from power sales and may impact the amount and timing of hydroelectric generation. Moreover, extreme weather events can disrupt transmission and distribution systems and cause service interruptions and extended outages, increase supply chain costs, and potentially interrupt use if generation resources and limit the ability to meet customer demand. Long-term climate change could furthermore affect Idaho Power's business include: changes in temperature and precipitation could affect customer demand; changes in the amount and timing of snowpack and stream flows could adversely affect hydroelectric generation, legislative and/or regulatory developments related to climate change could affect plans and operations.
Increased capital expenditures	Increased capital expenditure for power generation and delivery infrastructure development and replacement can significantly affect liquidity. If Idaho Power Company does not receive timely regulatory recovery of costs associated with expansion and reinforcement activities or other capital projects, Idaho Power will have to rely more heavily on external financing for its future utility construction expenditures. These large planned expenditures may weaken the consolidated financial profile of IDACORP, Inc and Idaho Power.
Compliance with existing and future environmental law	Complying with existing and future environmental laws and regulations will increase capital expenditures and operating costs and may reduce Idaho Power Company's earning and cash flows and ability to meet the electricity needs of its customers. Idaho Power is subject to extensive federal, state, and local environmental statutes, rules and regulations relating to air quality, water quality, natural resources, and health and safety. The adoption of a mandatory federal program or state programs to reduce carbon dioxide and other greenhouse gas emissions would raise uncertainty about the future viability of fossil fuels, specifically coal, as an economical energy source for new and existing electric generation facilities. The adoption of new statutes, rules, and regulations to reduce emissions, including controls to reduce carbon dioxide, greenhouse gas, mercury, or other pollutant emissions will result in increased capital expenditures and could increase the cost of operating coal-fired generating plants or make them uneconomical to operate and result in reduced earnings and cash flows.
Compliance with renewable energy portfolio	Complying with state or federal renewable energy portfolio standards could increase capital expenditures and operating costs and reduce earnings and cash flows. A number of states have adopted renewable energy portfolio standards, Idaho Power's operations in Oregon will be required to comply with a ten percent renewable energy portfolio standard beginning in 2025, and it is possible that other states could adopt renewable energy portfolio standards that are applicable to Idaho Power in the future. New state or federal renewable energy portfolio standards could increase capital expenditures and operating costs and reduce earnings and cash flows
Endangered Species Act of fish, wildlife, or plant species	The listing as threatened or endangered under the Endangered Species Act of fish, wildlife, or plant species that are found in the areas of Idaho Power's generation facilities or transmission lines may require mitigation, affect the location of a project or the ability to construct a project, and result in increased capital expenditures and operating costs. The impact of Endangered Species Act, including the potential listing of additional fish, wildlife, or plant species, and similar laws may require mitigation, cause a delay in relicensing or construction of projects, affect the location or ability to construct a project, increase the costs of construction and operations, and reduce earnings and cash flows.
Hydroelectric license renewals	Conditions that may be imposed in connection with hydroelectric license renewals may require large capital expenditures, increase operating costs, reduce hydroelectric production, and reduce earnings and cash flows. Relicensing includes an extensive public review process that involves numerous natural resource issues and environmental conditions. The listing of various species of marine life, wildlife, and plants as threatened or endangered has resulted in significant changes to federally-authorized activities, including those of hydroelectric projects.

Source: Adopted from IDACORP (2010)

Appendix IV

Table 0-1 Leading Indicators and information needed for each Sustainability Indicator

Leading Indicators Measuring Sustainability Performance	Information needed for each Sustainability Leading Indicator
1. Put effective and visible systems and processes of sustainability leadership in place at all levels of the organization.	Approach (Thinking & Planning)
2. Develop cultures and support behaviors that are consistent with the organization's core values and that are carefully aligned with the sustainability program.	- What are you trying to achieve for the indicator for the indicator - i.e., what is your intent?
3. Foster equal opportunity, environmental protection, education, and health, in addition to encouraging well-being among community stakeholders.	- What sustainability goals have been established?
4. Use systems and processes to strategically plan for sustainable success and to align the sustainability program to its core purpose.	- What strategies, structures, and processes have been developed to achieve your intent for each leading indicator, and why did you choose them?
5. Build resources and assets; apply them to achieving sustainability goals and increasing future value for the organization and the community within which it operates.	- What quantitative and qualitative results have been used to track progress?
6. Measure what is necessary to increase understanding of the environment in which you operate; continually review it to ensure that it remains current, meaningful, and effective.	How does your approach align with your sustainability vision and core values?
7. Use knowledge to support decision making, stimulate innovative thinking, and ensure organizational success and sustainability.	Deployment (Implementing & Doing)
8. Create a work environment that is engaging, positive, and open; foster creativity and unify the efforts of your people.	- How have your strategies, structures, and processes been put into practice?
9. Align your needs with stakeholders' expectations in order to build sustainable organizational capability.	- What is the depth and breadth of their implementation throughout the organization?
10. Determine what stakeholders and markets want now and what they will want in the future.	- To what extent do these results reflect the entire organization's sustainability performance?
11. Design processes for building and managing customer relationships to promote sustainable operations.	Result (Monitoring & Evaluation)
12. Determine how stakeholders perceive value; benchmark this information and use it to deliver sustainable value.	- What are the trends in the results for this leading indicator?
13. Manage and optimize processes as a system; review processes regularly for their relevance and suitability in assisting the organization in achieving its sustainability objectives.	- How do these results compare with best-known performance?
14. Use structured methods to improve your processes and achieve efficiency and effectiveness for all stakeholders.	- To what extent do these results reflect the entire organization's sustainability performance?
15. Continuously improve products and services based on determinations of how they perform against stakeholder expectations.	- How do you know that these result flow from your chosen approach and its deployment?
	How do you communicate, interpret, and use these results within your sustainability program?
	Improvement (Learning & Adapting)
	- What is your process for reviewing the appropriateness and effectiveness of your approach and its deployment for the leading indicator?
	- How do you use the results for the leading indicator to accomplish this?
	- What have you learned, how have you captured this learning, and how have you used the learning to improve the approach and its deployment in your sustainability program?

Source: Adopted from Pojasek (2009a)

Appendix V

Table 0-1 Sustainability Council Charter – IDACORP/Idaho Power Company

IDACORP/Idaho Power Company
Sustainability Council Charter

Name:	<i>Sustainability Council</i>
Mission:	<i>Promote and support exceptional financial, environmental, and social stewardship across our business practices</i>
Vision:	Sustainability becomes a Corporate value
Definition:	<i>Sustainability is sound and enduring financial, environmental, and social stewardship</i>
Purpose:	<i>Facilitate activities by and provide oversight to Corporate Responsibility Team and Green Team</i>
Oversight:	The Executive Staff

Operating Objectives (2011):

Sustainability Plan

- Provide guidance for establishing baseline of current sustainable operations activities, setting goals, measuring performance against baseline data, and monitoring and reporting progress towards meeting those goals.
- Review and provide input on consistent, corporate-wide responses to shareholder initiatives, sustainability surveys, carbon disclosure requests, and corporate social responsibility initiatives in a transparent, effective and proactive manner.
- Ensure that activities undertaken to support sustainability are strategically linked to creating or enhancing IDACORP's competitive advantage.

Corporate Sustainability Report

- Review and provide input on quarterly progress reports to The Executive Staff and the External Advisory Council.
- Review and provide input on reporting sustainable operations activity to shareholders and customers through various communication channels including social media, the IPC and IDACORP websites and reports.

Sustainability Education

- In collaboration with the Green Team, oversee the development of an educational plan and encourage engagement in Sustainable Operations by all departments and personnel.
- Encourage innovations in daily processes and use of new technologies to enhance operating cost savings.

Funding

- Our goal is that all costs related to sustainability activities of the Corporate Responsibility Team will be covered by reductions in IDACORP's base level of expenses before implementing sustainability-related initiatives or improvements.

Source: (Capaccio Environmental Engineering, 2011)