Driving the Business Case for a Sustainability Management System

The Influential Power of Stakeholder Risks Management in a Sanctioned Monopoly Electric Utility Company

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Index

INTRODUCTION

Foothills Electric Utility (Foothills) began operations in the 1930's, at a time when more than 900 not-for-profit electric cooperatives were formed in the United States (IREA, 2013). Foothills' customer base has grown at an economically sustainable rate since that time and presently services more than 100,000 customers in central Colorado.

The Organization's Core Service Challenge

The challenges of providing affordable electricity service to Foothills' 4,000 square mile territory are significant. Cold winters and hot summers place highly fluctuating burdens on normal peak energy times. Additionally, the terrain in the service area ranges from mountainous and rural to rapidly growing, dense suburbs. Changes in residential demand represent one of the greatest operational management variables for Foothills as eighty percent of Foothills customers are in residential homes. Addressing the needs of residential energy demand strongly influences the direction of any implemented sustainability plan.

In the United States, the electric utility industry generates more carbon dioxide through business operations than any other industry and it is responsible for 40 percent of total U.S. carbon dioxide emissions (Navigant Consulting, 2010, p. iv). In recent years, many state and federal regulations have been passed which stipulate a reduction in carbon dioxide emissions from electricity production activities. The Foothills energy product is primarily fossil fuel-based, with over eighty-eight percent of their product being derived from carbon-dioxide producing coal and natural gas. This current legislative trend combined with Foothills' energy mix, suggests that the risks of future carbon-constraint legislation affecting Foothills are significantly higher than Foothills may presently acknowledge.

The Proposed Sustainability Management System: Scope, Assumption, and Approach

The first step in moving towards business sustainability is to recognize that "from the perspective of the organization, all activities, products, and services have a sustainability footprint…[and that] each impact creates risk for the organization" (Pojasek, 2012, p. 94).

The scope and approach of the consultation with Foothills is to first *align* with the executive team through their successful economic sustainability approach. Second, this report will serve to begin to *demonstrate* to the executive team the benefit of broadening their approach to include the two other sustainability responsibilities, environmental and social, by outlining the probable risks associated with failing to do so. We will accomplish this by emphasizing long-term cost-savings and risk mitigation. Finally, the consultant intends to *lead* Foothills through the implementation of a sustainability management system that will lay the foundation for even greater commitments to sustainability once the sustainability business case is accepted by the executive team. This SMS will begin as a pilot project focusing on offering an energy efficiency program for external stakeholders.

The primary assumption of this sustainability report explores the risks associated with operating with a "business-as-usual" attitude in an ever-changing, politically and consumer-driven atmosphere where the demand for energy production with greater environmental stewardship, is

gaining momentum in both acceptance and expectation; with the assumption that this movement will negatively impact how Foothills conducts business both financially and operationally.

DEFINING SUSTAINABILITY

Considering no universally accepted definition of sustainability exists (Pojasek, 2012, p. 93), Foothills has the opportunity to create a definition of sustainability aligned to its own organizational values. If Foothills incorporates as diligent an approach toward the environmental and social realms of sustainability as it currently does to economic sustainability, then it will have a sound, well-balanced SMS. Harvard University business sustainability professor, Dr. Robert Pojasek confirms the balance Foothills needs to develop, when he indicates that, "[b]usiness sustainability seeks to help the organization develop a balanced and integrated approach to meeting its economic, environmental, and social responsibilities to its stakeholders. In doing so, it allows a more resilient organization to emerge and be sustained for the long term" (Pojasek, 2007, p. 82). Furthermore, Pojasek concludes that considering the complexity surrounding sustainability, it only makes sense that an organization shall define sustainability in their own unique way (Pojasek, 2012, p. 94).

This consultant will work with Foothills to adapt a working definition of sustainability by incorporating the results of interviews within the organization and its stakeholders in addition to borrowing examples from successful sustainability case models and studies within the electric utility industry. As a starting point for defining sustainability, the following definition can provide a framework for Foothills:

> Business sustainability seeks to create long-term shareholder value by embracing the opportunities and managing the risks that result from an organization's economic, environmental, and social responsibilities. Business sustainability must meet the needs of the organization and its stakeholders today while also protecting, sustaining, and enhancing the environmental, social, and economic resources needed for the future (Pojasek, 2007, p. 81).

Using a Body of Knowledge to Define Sustainability

Just as the legal field and medical field both rely on an accepted "body of knowledge" for defining the scope of the respective fields (Ibid.), so too should sustainability rely on a body of knowledge from proven case studies and successful management systems. The body of knowledge for this SMS proposal references three primary sources.

The first source is another Colorado energy utility provider, Reliable Energy. Reliable Energy, whose customer territory lies adjacent to most of Foothills' geographic area, has had a very successful energy efficiency program. Modeling the Reliable Energy system can help contribute to Foothills' unique working definition of sustainability.

The second body of knowledge source is a series of energy conservation reports published by the sustainability management not-for-profit organization, CERES, and the reports published by the U.S. Environmental Protection Agency, all of which provide studies and best practices for providing more sustainable energy.

The third body of knowledge source is to utilize questionnaires from the performance management program offered through the United States Department of Commerce. The Malcolm Baldrige National Quality Program will be a useful guide for Foothills to assess, plan, implement, and measure the progress of their pilot sustainability systems management plan.

INTERNAL AND EXTERNAL CONTEXTS

The Organization's Current Sustainability Philosophy

Presently, Foothills has no sustainability plan in place and some of the executive management is skeptical that the costs to implement such a plan will produce any realized benefits to the organization. Therefore, this report will focus on the need for an internal shift in governance and policy towards sustainability. This consultant expects that these objectives may be accomplished by presenting a business case for sustainability that is rooted in a SMS that focuses on reducing long-term energy costs and simultaneously mitigates risks in stakeholder management. In support of such a focus, Pojasek notes, "[t]he aim of addressing the organization's sustainability situation is to understand the key risks and challenges posed by the internal and external context. This helps create a system for establishing a sustainability program that will manage and balance the risks (Pojasek, 2013a, p. 3).

The Internal Context of Foothills: Building the Business Case for SMS

To determine how best to implement the SMS, the consultants will conduct interviews and perform resource evaluations to inventory the existing "capital, people, competencies, processes, systems, and technologies" (Pojasek, 2008, p. 98). This data will then be applied to the program in order to establish the scope, objectives, and target goals of the program. Establishing this *internal context* can 1) articulate the purpose and goals for the SMS and 2) identify and delineate the internal versus external factors leading to higher risks (Pojasek, 2013b, p. 5).

One of the main challenges with adopting sustainability as a business management system is the inherent complexity of such a system. An effective, well-managed SMS applies managing best practices into each level of the organization, measures the impacts of all operational activity, while simultaneously striving to provide mitigation of negative impacts and increase overall performance efficiencies and outcomes. Noted business author Peter Senge offers caution about how people process the ideas presented in complex systems. He warns that most people find whole-system thinking too theoretical (Senge, et al., 2010, loc. 1026). To assist Foothills in recognizing the value of a whole-system approach for a SMS, this consultant recommends that Foothills begin their sustainability plan using a pilot program for a residential-based consumer energy-efficiency program.

Pilot programs are one way to demonstrate the business case for a SMS by providing outcomes with minimized investment and potentially maximize extrapolated outcomes. Additionally, when the results and experience are favorable, pilot programs can serve to build executive buy-in for sustainability and outline a clearer path. Senge cites a successful case study in Sweden where one owner of a car dealership created an ethanol-based car market for the entire country. At the project onset, there was considerable resistance manifesting as doubt and confusion over the opportunity. Yet, as these same people witnessed a new market evolving, they began to shift their thinking and accept the premise of the project. Senge notes that once something is "concrete

and tangible, people see the systems analogy…[w]hile some people can imagine alternative futures with little help, most move from the concrete to the abstract – not the other way around" (Ibid.).

Internal Context's Influence at the External Context Level

Foothills' current approach is to provide low-cost energy while maintaining the financial profitability of the organization (IREA, 2011, p. 4) *without* consideration of their environmental and social responsibilities associated with providing such a service. In fact, Foothills aggressively lobbies against any state and federal legislation stipulating environmentally sustainable energy sourcing, including non-coal based energy production and the reduction of the gaseous by-products of energy combustion, such as carbon dioxide (Ibid., p. 11). An example of their standard argument against environmentally based regulation is:

> [Foothills] believes the Clean Air Act was never intended, and should not be used, to regulate greenhouse gases such as CO2. This proposed regulation is an example of its inadequacy and the failure to recognize the importance of coal as America's most abundant domestic fuel. [Foothills] submitted comments to the EPA arguing that technology is not commercially available to meet the standard and making other arguments as to why the EPA's proposal is flawed and should be withdrawn (National Rural Electric Cooperative Association, 2012).

Foothills' internal core values and context shape their external actions. Their external actions are also shaped by the external context, or external operating environment. The external context focus of this report is the inter-play between the "political, legal, regulatory, and competitive environment" and Foothills' relationship with external stakeholders based on the stakeholders' values and their perception of Foothills in meeting those values (Pojasek, 2013b, p. 5).

External Factors: Political, Legal, and Regulatory

In December 2004, Colorado voters adopted a Renewable Energy Amendment (Amendment 37) to their state constitution. The amendment dictated that Colorado utility companies serving 40,000 or more customers, must begin to offer alternative energy sources in their energy portfolio (Colorado Governor's Energy Office, 2010, p. 9). This is the beginning of a number of initiatives for energy production with environmental stewardship. In the year 2011 alone, the Colorado legislature reviewed an additional seven bills, including the creation of a carbon trading program and further increasing renewable energy standards (IREA, 2011, p. 11). In light of Colorado's increasing "energy production with environmental stewardship" political climate, Foothills is facing ever-increasing risks of not having a sustainability program.

Previously, utility companies like Foothills, have enjoyed nearly a century of business-as-usual service offerings (Binz, et. al, 2012, p. 5). It is little wonder that Foothills would maintain a conservative, oppositional disposition to the most recent legislative movements uniting energy production with environmental stewardship. However, Ceres, a sustainability management consultant group, warns that "[s]everal forces will conspire to make the next two decades especially challenging for electric utilities: large investment requirements, stricter environmental controls, decarbonization, changing energy economics, rapidly-evolving technologies and

reduced load growth" (Binz, et. al, 2012, p. 12). Foothills must recognize that they are not immune from these trends.

PLANNING THE SUSTAINABILITY MANAGEMENT SYSTEM (SMS)

This report is limited to an example of environmental sustainability by proposing the creation of one pilot project. However, the suggested approach and design of this SMS will incorporate all aspects of the organization and the same methodology presented in the: a) planning, b) implementing, c) stakeholder engagement, d) risk assessment, and e) performance metrics may be applied to all future sustainability efforts, including social responsibilities. Refining a model that is inclusive to the entire organization provides an excellent tool, which may be repeatedly used to embed sustainability throughout the organization, and create a malleable SMS that shall be adaptive to new needs as they reveal themselves (Pojasek, 2013c, p. 1).

The proposed planning process involves four stages:

1) Conduct a thorough, internal assessment of the organization by using the Baldrige Organizational Profile questionnaire;
2) Review examples and best practices surveys of other utility companies who have strong sustainability programs, in particular, consumer energy efficiency programs;
3) Interview key stakeholder groups for validation of Foothills' risk assessment, identification of stakeholder values, as well as stakeholder receptivity to Foothills' proposed energy efficiency program; and
4) Develop a concise action plan using the Baldrige Self Analysis Worksheet.

Stage One: Planning by Assessing the Starting Point

To incorporate an "internal context" perspective into the planning process, the action for Stage One is to complete the Baldrige document entitled "The Organizational Profile." This document can lead to an in-depth analysis of the resources of the organization (Pojasek, 2013b, p. 9). This is accomplished by answering questions directed to organizational activities and behaviors that influence outcomes and performance. Some of the topics include mission and vision statements, organizational structure, assets, product offerings, and regulatory requirements (NIST, 2013-2014, p. 4). According to the developer of the Baldrige Organizational Profile, using this assessment can "align your plans, processes, decisions, people, actions, and results" and it can help identify gaps within the organization (Ibid., p. 1). To ease the burden of filling out these documents, and to guide the process, the consultants of this report will work with Foothills to complete this document by interviewing Foothills staff.

Stage Two: Using a Model to Plan for a SMS

Using systems modeling to plan a SMS is Stage Two of the planning process and modeling is recommended because it has many benefits. Modeling can save time, provide insights, potentially reduce risks, and provide a framework for a sustainability management system. The company, Reliable Energy is recommended as a model for Foothills. As a Colorado utility, Reliable Energy is subject to similar consumer demand fluctuations due to a high contrast in weather conditions, as well as many of the same state and federal regulations to which Foothills must comply. As with any model, however, it is not a perfect match because Foothills and

Reliable Energy have different ownership structures, and therefore, regulators have different expectations of the two companies. To lend insight to the nuances of the electric utility industry, and provide some context into institutional barriers to sustainability implementation in the electric utility industry, it is helpful to know how, according to legislators, Reliable Energy and Foothills differ. Reliable Energy is a public-traded utility company, and therefore, Reliable Energy is subjected to much more stringent environmentally sustainable federal and state regulations and legislation. Contrastingly, Foothills, which operates as a customer-owned co-op, is exempt from many of these same environmental sustainability regulations even though Foothills exceeds the minimum customer requirement for Amendment 37 by more than 60,000 customers (August Publications, 2013).

The next evaluation involves comparing other organizations' programs to Foothills own objectives. Foothills can do this by asking questions like: What are some programs that Foothills thinks can be readily integrated into their own organization given the current resources? What programs lie at the heart of Foothills' values? What programs, if successfully implemented, can lay the foundation for future sustainability initiatives? Once Foothills has designed the energy efficiency program they would like to implement, then there are two additional steps to be taken before the program launch.

In addition to modeling Reliable Energy, the Environmental Protection Agency has produced a Best Practices Guide to Implementing an Energy Efficiency Program. This document surveys energy efficiency programs and studies that have been implemented since the 1980s (EPA, N.D., p. 6-6). One insight the report provides, which may be of particular value to Foothills, is how organizations overcame some of the "institutional barriers at many utilities that stem from the historical business model of acquiring generation assets and building transmission and distribution systems" (Ibid., p. 6-1).

Stage Three: Take the Plan Public – External Stakeholder Engagement

External stakeholder engagement is an example of applying an "external context" to the planning process and is Stage Three of the proposed SMS. A considerable amount of forethought is required for this phase because of the complexity of involving people external to the organization in the planning process. Yet despite the complexity, it is valuable to include stakeholders in the planning process because "organizations are more protected from exposure to risks incurred from the environmental, social and economic realm (Pojasek, 2013a, p. 11). This consultant will guide Foothills in preparing questionnaires, coaching Foothills representatives to talk with key stakeholders, organize data from the surveys, and prepare a synopsis of the engagement so that Foothills can demonstrate corporate communication transparency by publicly disclosing the results.

Stage Four: Strategically Outline the Objectives of the SMS

The Baldrige Self-Analysis Worksheet is a second Baldrige document of value to this final stage. Using this spreadsheet can concisely identify what action(s) is planned, the rated value of the importance of each action, when it will be completed, and who is responsible for the action's execution (NIST, N.D., p. 1).

IMPLEMENTING THE SMS

One way Foothills can prevent this proposed SMS from becoming siloed is by integrating intra-department employee involvement during the planning and implementation process. Pojasek notes that "[e]mployees are the eyes and ears of the organization. They are on the frontline both in the company and in the community. Often they see problems and solutions before management does" (Pojasek, 2013a, p. 5). Because employees are on the frontline of operations, they often understand the organization better than the executive team realizes. Employees can help the executive team identify weaknesses in the day-to-day operations system that may delay the attainment of goals or point out how proposed actions are presently impractical due to resource limitations. Empowering the employees in this way can bolster the program by encouraging the employees to improve their productivity and increase their commitment (Ibid., pg. 3 & 5). As Pojasek reminds us, "[e]mployees never resist their own ideas" (Pojasek, 2006, 81).

Employees are also a great source for discovering ways to improve operations and offering suggestions for improvement by pointing out problems that result in faster, more successful implementation. In some organizations, employees are hesitant to draw attention to problems because they are afraid of being held accountable to fix the problem, or they are worried about getting someone else in trouble, or are afraid to admit their own fault in a situation. For these and many other reasons, it is imperative that for any employee stakeholder engagement, there is a safe (which may mean anonymous) way to report issues. Baldrige provides an example in one of their sample case studies, The Tillingate Report. This report states that in order to encourage employees to notify management of issues, they define issues as *an "event," implying anything that is non-compliant*. Using language such as "event" is less judgmental (and less emotional) than words like "accident" and "incident." Furthermore, the Tillingate report encourages self-reporting where, "individuals are not subject to punitive action unless they are found to have been negligent" (NIST, 2012, p. 28). These mechanisms can increase employee stakeholder reporting because they reduce the risks employees face when providing candid feedback and exposing potential issues.

This proposed SMS also incorporates mechanisms for continuous improvement, which will help the SMS become a "living" system rather than a one-time sustainability effort. One approach for continual improvement is to conduct two assessments each time plans are being made. The first assessment is of the organization in its present state, and the second is of the organization or its project in an idealized state. The widely used European EFQM Excellence Model offers many questions that direct an organization into creating this type of analysis (Pojasek & Hollist, 2011, p. 90). Each of the answered questions provide a score which reflects how an "organization measures up against a desired outcome" (Ibid., p. 86). While many organizations rely on best practices to produce excellent results, identifying an idealized state of the organization and/or program and involving the employees in the conception of this state is another way to fully implement a successful SMS throughout the entire organization.

MANAGING RISKS

The international management system, ISO 31000:2009 defines risk as the "effect of uncertainty on goals" (Pojasek, 2013b, p. 6); therefore, it follows that mitigating uncertainty as much as

possible is addressing risk. Since facts and plans mitigate uncertainty, the assessment processes suggested in the proposed SMS are the key to managing risk. Furthermore, considering a SMS has multiple purposes, this is even more reason why a SMS should be adopted. In this regard, a risk management plan includes:

1) Assessment - Risk Identification;
2) Research - Validation of Risk Identification;
3) Risk Mapping - How likely is it that an event will occur;
4) Plan and Implement - Create a "Risk Response" system; and
5) Measure - Use a performance framework to keep track of progress.

A Customized & Focused Risk Management Approach

At the internal context level, the objective of the proposed SMS is to increase executive engagement within Foothills for recognition of the value of sustainability philosophies and systems by demonstrating the imperative need for a sustainability management system in the rapidly changing electric utility sector. On the external context level, stakeholder engagement will be used to help design the SMS and risk management program. Foothills will develop the skills to engage with stakeholders through the implementation of the energy efficiency pilot program. Maintaining vigilance to the internal and external contexts selected for this consultation "helps define the basic parameters within which risks must be managed, thereby creating the scope for the rest of the risk management" (Pojasek, 2008, p. 98). To better understand how this proposal mitigates risk, it is helpful to discuss in further detail carbon-constraint risks.

Carbon Footprint Assessment for Risk Identification

In addition to the Baldrige Organizational Profile assessment and stakeholder interviews, Foothills can use a carbon dioxide assessment tool to measure its carbon footprint and use this data to project impact scenarios if Foothills were to be subjected to any type of carbon-constraint regulation.

It is recommended that Foothills use the same carbon footprint assessment tool that the financial lending sector uses. Namely, the Carbon Principles' Fossil Fuel Generation Financing Enhanced Environmental Diligence Process. This tool not only helps an organization measure their carbon footprint, it also measures risks associated with that footprint (Morgan Stanley, N.D.). One of the variables of risk measured in this tool is the probability of current and possible future carbon-constraint regulations. Foothills can use this tool to create a "risk map." A risk map places each risk on a sliding scale to measure the perceived likelihood of that risk occurring (Pojasek, 2011, p. 91).

Lending institutions are not the only ones looking at carbon footprints. Insurance companies are beginning to consider carbon footprints as a risk when they valuate their premiums (Ibid., p. 92). The priority that the financial and insurance industry places on carbon tracking and reporting furthers the establishment of a business case for sustainability.

Mitigating the External Context Risks through the Pilot Program

Utility companies face both cost and time-related negative risks. An example of a cost risk could be resource constraints of raw energy materials, and an example of time risks might include

future changes in environmental regulation as it relates to energy production (Binz, et. al, 2012, p. 6). Increases in population and energy demand amplify both these cost and time risks, as the generation of new energy production plants is the area of highest financial risk for utility companies (Binz, et. al, 2012, p. 7). It logically follows then, that the reduction of the need for investment in a new facility because of an implemented energy efficiency program can significantly reduce Foothills' risk portfolio (Ibid., p. 13).

The reduction in energy consumption through an energy efficiency program postpones, perhaps indefinitely, the need for a utility company to invest in new, potentially cost-prohibitive power generating facilities. The cost savings is felt not only by the consumer, but, over the long-term, the utility company also enjoys significant savings as "energy efficiency programs can cost as little as 3 cents per kilowatt hour for conservation, while electricity costs 6 to 12 cents per kilowatt hour" for production (Navigant Consulting, 2010, p. iii). This business case fact should be highly persuasive to Foothills and may reduce resistance to the pilot program from the executive team.

While the lowered kilowatt costs reflect sound long-term financial sense, short-term financial performance would be lower for a utility company incorporating an energy saving program. To help offset the upfront expenses of such a program, the government has allotted several different accounting formulations, which adjust the revenue expense ratios. One commonly used scenario is to decouple utility sales from revenue (Accenture, 2011, p. 15). Furthermore, Foothills, being a not-for-profit organization, does not need to be as concerned about revenues as would a publicly-traded company such as Reliable Energy. The revenue goals of a co-op are different and the non-profit may have more flexibility in how it legally represents revenues to its shareholders and the perceived shareholder value.

Lastly, addressing external stakeholder risks can be of particular value to Foothills by "protecting the reputation and public image of the organization and conserving resources, including time, assets, and income" (Pojasek, 2008, p. 96). By demonstrating to stakeholders that Foothills is "on top of" the key issues surrounding its business operations helps justify to the shareholders the expenses associated with actions taken based on stakeholder feedback and initiating sustainability (Neil, J. 2009, p. 11).

PERFORMANCE FRAMEWORKS

Part of the performance evaluation of any project includes measuring both positive and negative impacts of the project on society and its environment by tracking and measuring sustainability levels" (Accenture, 2011, p. 9). Using performance metrics to accomplish this type of analysis has become a utility industry standard. Eighty-four percent of the utility CEO's surveyed in the Accenture/United Nations study reported using performance metrics. This figure is in sharp contrast to only sixty-four percent of CEOs from other industries (Ibid., p. 16). Furthermore, the utility CEO's assert that "integrating these issues into core business and investment decisions will be critical to future success" (Ibid., p. 11).

Just as the Baldrige performance management system is recommended for the planning process of this SMS, it is also recommended to use as a performance framework. One reason Baldrige is recommended, is that participants in the Baldrige program report improved operations outcomes, including reduced wastes and increased revenues (Pojasek, 2013d). Baldrige is also one of the

most common performance frameworks used in business (Pojasek & Hollist, 2011, p. 90). Applying a business performance model with a traditional sustainability management program improves the SMS outcomes as many traditional sustainability plans "fail to promote and measure financial sustainability" (Pojasek, 2007, p. 84). Financial sustainability, which is a core value of Foothills, is incorporated into the Baldrige business performance model.

For the above reasons, Baldrige is recommended over the metrics systems more commonly used in the utility industry known as "Key Performance Indicators" (KPIs) (Tallapragada, et al. 2009, p. 4). KPIs are also historically used in many sustainability programs (Pojasek, 2013e, p. 1) to measure progress on goals; however, they have several limitations. KPIs are measurements related to "lagging indicators" which include outcomes but as the outcomes are measurements of past activity, lagging indicators are not true reflections of future performance (Ibid.). Systems like Baldrige include KPI lagging indicators, but also include "leading indicators," which anticipate future outcomes.

Creating a System for Continual Improvement

A performance framework such as Baldrige measures the outcome of a project so that an organization can quantify success or failure and identify areas for continued improvement (Pojasek, 2007, p. 84). These programs were developed as a way to improve operations and increase competitiveness (Pojasek, 2013e, p. 1) and although, technically, Foothills perceives that it does not have competitiveness issues considering its monopoly position in the marketplace; the findings in this report identify potential external consumer stakeholder discontent stemming from the product offerings and sustainability philosophies of Foothills' neighboring utility provider, Reliable Energy. This stakeholder discontent can tarnish Foothills' reputation, regardless of its monopoly status. Responding to disgruntled stakeholders from a defensive position can weaken an organization's reputation, further erode trust (Neil, 2009, p. 8) and could, even in the face of disruptive technology, negatively impact future market share.

Recommended Indicators for Foothills to Emphasize in the Baldrige Performance Framework

Two of the recommended leading indicators for Foothills are:

1) Knowledge Management Development: Create a system of professional learning and growth within the organization through employee training and leadership development on sustainability-related approaches; and
2) Use a Performance Improvement System: Frequent use of evaluation systems that measure continuous improvement or areas of weakness, such as the "Plan-Do-Check-Act" (PDCA) performance improvement system, can demonstrate to stakeholders that Foothills is committed to improving operations and that Foothills can be proactive to small problems before they become large issues.

The PDCA is a simple, yet effective tool, which can keep Foothills efforts on track through continuous monitoring, analyzing, and responding (NIST, 2012, p. 29). As it is a system measuring and adjusting for continuous improvement, PDCA helps improve performance by promoting action that corrects potential weaknesses without waiting for those weaknesses to

result in unwanted outcomes (Pojasek, 2013f, p. 2). In this way, use of a PDCA can be a demonstration of an organizational leading indicator.

The Baldrige system also measures lagging indicators, some of the recommended lagging indicators for the pilot project for Foothills are:

1) Measurement of benefits of kilowatts saved;
2) Percentage of avoided energy costs (conserved energy vs. energy from a newly constructed plant)
3) Retail prices of energy that would have been purchased; and
4) Annual costs of the Energy Efficiency program (EPA, N.D., p. 6-6).

ENGAGEMENT OF STAKEHOLDERS

Thorough analysis of the organization and its operations can lead to the identification of stakeholders. "Stakeholders include employees and managers, customers, investors, suppliers and business partners, and the local community" and they also include NGOs and government agencies (Farver & Pojasek, 2012, p. 1). To help identify the key stakeholders for this proposed SMS, Foothills' can ask the questions about who will be impacted by the business activity of the energy efficiency pilot project and who will have an interest in the program. This analysis is the first step in stakeholder engagement (Ibid., p. 2). It is also important to think not only of the current stakeholders but to identify future stakeholders (Ibid., p. 5) by anticipating future organizational business activity and its potential impacts.

Organizations must engage with their stakeholders because they cannot complete their operations independently and at the bare minimum, they must have customers to sell to. Including stakeholders as part of a SMS can expedite an organization's goals, particularly if they were to positively respond to the needs of those stakeholders (Navigant Consulting, 2010, p. iii).

Engaging Internal Stakeholders at the Executive Level

In addition to utilizing employee stakeholders for the planning and implementation phase of the proposed SMS, without continued support at the executive level, no SMS will continue without leaderships' support. In the EPA's Best Practices manual for developing an energy efficiency programs, they identify the leadership team as "[k]ey individuals in upper management at the utility who understand that energy efficiency is a resource alternative that can help manage risk, minimize long-term cost, and satisfy customers" (EPA, N.D., p. 6). Keeping the executive team engaged may be accomplished through careful external stakeholder engagement and the subsequent identification of stakeholder risks as well as the utilization of performance management systems as describe in the previous section.

The Role of the External, Consumer-Stakeholder in a Sanctioned Monopoly

Until recently, Foothills has been able to rely on the ability to ignore the consumer interest in cleaner energy production as the movement was quite small and because as a legal, utility monopoly, Foothills has a captive market-share dictated by consumer location, not consumer

preference. Within this governmentally-sanctioned system, disgruntled customers can not switch to utility companies offering services that better represent consumer values. Considering then, that Foothills is a monopoly, does eco-consumerism, the economic stimulus phenomenon that, for example, has driven the organic product market into an annual $30 billion industry (Organic Trade Association, 2012) garner influence that Foothills should consider? Can eco-consumer interest present a stakeholder risk in a consumer-provider monopoly? This report concludes that the answer to that question is: *absolutely*.

Foothills external stakeholder risks do extend beyond the regulators and to their consumers and local community. As mentioned previously, Foothill's neighboring utility, Reliable Energy, must comply with all the regulations and is quickly meeting and exceeding the new regulations (August Publications, 2013). Reliable Energy heavily promotes their efforts under the brand "Naturally Responsible." Customers located in the Foothills territory are exposed to Reliable Energy's prominent marketing promotions and Foothills customers are also seeking opportunities to save on their energy costs but when they turn to the Foothills organization, the customers discover there is not a program available. The more successful Reliable Energy's environmental brand becomes, the greater the disconnect and subsequent dissatisfaction Foothill's consumers feel. These risks will be actualized *before* further legislation is enacted because of the rapid pace of consumer education and the effect education has on their buying behavior. Indeed, one of the key concepts in examining "context" and including it within a sustainability plan is to understand "the context of the operating environment that an organization is working in" (Pojasek, 2013g, p. 1). Due to the increased environmental stewardship activity of competing utility companies, combined with an increase number of environmentally-rooted legislative bill introductions, it is strongly recommended that Foothills recognize that its external context is rapidly changing and external stakeholders can no longer be ignored or opposed. Clearly, identifying these external forces and presenting them to the executive team will drive the continued success of the SMS.

VALUE CHAIN CONSIDERATIONS

Can a Procurement Policy Work in the Utility Sector?

Many companies develop sustainable procurement policies as a way to reduce the risks associated with a lack of sustainability in their supply chain. In these policies, they specify the purchasing company's expectations for environmental and social governance of the product supplying company. Some companies, such as Wal-Mart, garner such influence through their massive purchasing power, that they have actually driven innovation in sustainability practices and caused many other industries to adopt sustainable practices even when these industries were hesitant to do so. Can utility companies create similar policies? Energy procurement has more complications and regulations than those faced by other retailers. For example, electricity's yield is inversely related to the distance traveled from its generated source, so utility companies often improve efficiency and save costs by purchasing local energy. It would be difficult for a utility company to "shop around" among suppliers until it locates a sustainably-minded supplier, nor can it effectively "threaten" its supplier by insisting it will use a different supplier. In fact, procuring from a distant supplier might mean that much more energy would need to be produced and purchased because of the energy dissipation rate, and this will likely offset any realized sustainability gain by purchasing from a more distant, but sustainability-minded supplier.

The Accenture/United Nations study confirmed this difficulty when utility CEOs noted that the reason their companies cannot achieve full sustainability is because of the lack of sustainability in their value chain (Accenture, 2011, p. 7). Rather than establish a list of policies in a procurement guide, many utility companies are participating in third-party alliance organizations that serve as an intermediary to help all the organizations in the group solve sustainability issues. One example is the GridWise Alliance. It is recommended that Foothills take an active role in an alliance organization and the consultant of this report can help Foothills identify which group might be most aligned to Foothills sustainability objectives.

Carbon-Constraint Legislation Effects on the Value Chain

In terms of product offerings, Foothills procures sixty-two percent of the energy it provides its customers from Reliable Energy with the remainder energy procured from a coal plant company. With the assumption that the production and distribution of energy is the greatest source of carbon dioxide emissions (and related carbon-constraint risks), energy production of the value chain is the focus of this report section.

Indirectly, Foothills presently benefits from a sustainably-minded value chain. Reliable Energy has a well-diversified energy mix portfolio. In response to the passing of Colorado's Amendment 37, Reliable Energy led innovation in the renewable energy markets, and its own energy portfolio obtains eighteen percent of its energy from renewable sources. As Foothills obtains the majority of its energy sources from Reliable, Foothills, by default, holds a renewable energy portfolio. The public perception is that renewable energy produces less carbon dioxide than fossil fuel-based energy sources such as coal and natural gas. In consideration of the external legislative risks discussed in this report, a utility company's commitment to renewable energy mitigates some of the risk associated with carbon-constraint regulation. Reliable Energy meets and exceeds all state regulations for renewable energy and energy conservation programs (August Publications, 2013). Reliable Energy also communicates their commitment to fair corporate governance practices, advocating a diversified workforce, and is very supportive of the local communities within which they operate. For these reasons, this report concludes that the as it pertains to the electricity purchased from Reliable Energy, Foothills' value chain is sustainable.

The Weak Link in the Value Chain

Even though Foothills indirectly derives some of its energy from renewable sources, the majority of the energy Foothills procures from Reliable is mostly fossil fuel-based (as approximately eighty percent of Reliable's energy mix is in coal and natural gas). The greatest challenge identified in this report is addressing this heavy fossil fuel reliance, particularly coal. One national study prepared for energy policymakers ranked coal plants (both pulverized and clean coal) as the second and third most risky facilities (nuclear energy taking the first position) (Binz, et. al, 2012, p. 8). Foothill's heavy reliance on coal leads to a lack of diversity in its value chain and opens the door to significant supply disruptions that can create severe negative impacts on Foothill's economic sustainability. Implementation of just one "cost of carbon-related" legislation can alter the income-expense ratios of providing energy. Engaging an energy efficiency project as proposed herein, can help mitigate some of this risk as the overall consumption of carbon-intense energy will be reduced and the need to develop additional capacity with a new coal plant may even be avoided. Coupling the energy efficiency program along with participation in a third-party supply chain alliance can drive Foothills sustainability engagement further.

MONITORING, MEASURING, AND REPORTING

Evaluating the progress of a SMS includes the identification of leading indicator data, measuring the progress of the collected data on a maturity matrix, and then reporting these results to stakeholders.

Monitoring Leading Indicators

Leading indicators are predictive of future performance because they measure an organization's *commitment* to specific sustainability principles as specified by many world-wide performance management standards. An organization's commitment is deemed to hold predictive power because with the correct systems in place and with enough organizational support to this commitment, it is expected that the commitment will continue into the future.

The performance management system, British Standard BS 89000, for example, provides a way for an organization to evaluate their sustainability philosophy and actions as they relate to "stakeholder inclusivity, integrity, stewardship, and transparency" (Pojasek, 2013f, p. 8). One of their Stewardship questions is of particular relevance for Foothills based on the objectives of the proposed SMS: "How has sustainability been defined from an organization's perspective in a way that engenders stewardship for environment, social, and economic actions?" (Ibid.). Additional leading indicators relevant to this proposal are included in the section entitled "Performance Frameworks."

Measuring with a Maturity Matrix

Pursuant to Pojasek noting that a "maturity matrix" is one of the best tools available to measure a sustainability program (Pojasek,2013h, p. 1), this consultant recommends that Foothills utilize this tool. The below example demonstrates how a maturity matrix is used. The matrix can measure the "outcomes of a program by relating them back to the original principles" (Pojasek, 2013f, p. 6). In this way, leading indicator performance can be quantified, measured, provide valuable predictive results, and even provide a mechanism for comparison to other projects or organizations. The Baldrige Organizational Profile can provide leading indicator information and scoring data for Foothills to use in the matrix.

Summary of Foothills Sustainability Maturation

Baseline analysis of Foothills sustainability maturity level indicates that Foothills leadership culture defines sustainability as unnecessary and the organization engages in sustainability responsibilities with minimum involvement. Furthermore, they aggressively lobby against energy-related environmental stewardship.

The Transitional Phase represents that the objectives of the pilot project and proposed SMS are implemented and that Foothills has evolved with significant maturation towards sustainability. The leadership team will have accepted the business case and value of sustainability, particularly as a means of reducing operations costs and mitigating risks. The organization has also learned how to involve employee stakeholders and external stakeholders to design a SMS that reaches all levels of the organization and that is meaningful to the external stakeholder. Finally, Foothills

has built the capacity for sustainability through well-designed systems of implantation and measurement.

The long-term sustainability goals of Foothills' new SMS can demonstrate the organization's acceptance of the true value of sustainability. Foothills can further develop its capacity (infrastructure, learning, commitment, and communication) for sustainability and it looks for ways to apply the methods of the SMS in all areas of its operations.

Reporting the Results of the Maturity Matrix

The expectations for sustainability reporting is increasing among stakeholders. Investment news reporters at Bloomberg note that carbon footprint and other sustainability measurements are increasingly being required by investing institutions. Investment institutions are asking for this information because they are concerned about the risks utility companies have with considering their high carbon-producing activity (Bloomberg, 2013). Considering the definition of risk proposed earlier as a measurement of uncertainty, Foothills can further lower its risks by decreasing stakeholder uncertainty regarding Foothills' business operations. When management or legal council is concerned about releasing information, they can ask themselves if the benefits of reducing stakeholder uncertainty sufficiently lowers the risk of disclosing information compared to withholding the information.

The recommended approach for Foothills to adopt in regards to reporting its sustainability performance to stakeholders, is to clearly disclose what risks are associated with its business activity. The British Standard also includes questions outlining the integrity and transparency of the organization (Pojasek, 2013f, p. 8). It is recommended that Foothills apply the British Standard integrity guidelines to communicate the business risks identified Foothills identified as priorities.

Foothills is not a public-traded company; therefore, it is not required to file a Financial 10-K form with the Security Exchange Commission. However, one of the valuable components of a 10-K form, is a discussion on risks faced by the organization. Foothills current annual reports include unaudited Statement of Operations, Balance Sheet, and Cash Flow Statement (IREA, 2011, pgs. 15-17); however, there is not a section identified as "Risks related to Business Activity." This omission influences Foothill's maturity scale because of the lack of transparency, which can erode shareholder confidence (Pojasek, 2013f, p. 8). By adopting the recommendation to report risks related to its business activity, similarly as to what is commonly done on a 10-K, Foothills can improve its stakeholder transparency and demonstrate a level integrity at the stakeholder engagement level.

Some risk categories and discussions that could be included in the financial reporting could include: 1) Economic conditions that could continue to reduce energy demand and revenue; 2) Fluctuating prices of each individual energy supply category; 3) Possible effects of carbon constraint legislation; and 4) How the organization may be influenced by a restriction in raw materials.

MATURITY MATRIX EXAMPLE (Figure)

This sample maturity matrix demonstrates a baseline of Foothills' sustainability disposition followed by their maturation towards full sustainability engagement. The criteria used for this matrix can be found in the document entitled Sustainability Metrics and Maturity (April 16-22, 2013) by Robert B. Pojasek.

Example: Sustainability Leading Indicator and Principle for Stewardship:

How has sustainability been defined from an organization's perspective in a way that engenders stewardship for environment, social, and economic actions?

A

Baseline: Foothills evaluation prior to this consultation and report			
Minimal Engagement			**Full Engagement**
Minimalist culture: doing as little as possible			
No capacity building effort in place; minimum standards of stewardship in place			
Providing "cheapest" energy possible			
Minimal awareness of environmental impacts and risks; defensive posture			

B

Transition of Stewardship through the SMS Pilot Project			
Minimal Engagement	**Modest Involvement**		**Full Engagement**
	Sustainability culture developing throughout organization		
	Capacity is built by Foothills learning how to use sustainability tools		
	Foothills recognizes that carbon-constraint regulations present a risk of increased costs of energy		
	Foothills acknowledges how sustainability can reduce operational risks		

C

Next Stewardship Goal of the SMS			
Minimal Engagement	Modest Engagement	**Engagement**	Full Engagement
		Recognize the link between sustainability and competitive advantage but sustainability still largely PR focus	
		Capacity greatly increased through innovation, learning, and empowerment	
		SMS program is broadened to apply to other targets within the organization	
		Foothills maintains high level of environmental education and stakeholder engagement	

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