Collaboration Across Organizational Boundaries: A Successful Model of Industry Sharing to Improve Competitiveness

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ABSTRACT

A local economic development agency, the public utility, its power marketing agency, and a regional industrial trade association formed a public/private partnership for manufacturing excellence through energy efficiency to support small- and medium-sized businesses. The economic development agency acknowledged the importance of the food processing sector in their economic development strategic plan, and actively engaged with the other partners to improve the competitiveness of this industry.

Company leaders understood the impact that potential savings associated with energy efficiency could have on their bottom line but lacked the in-house staff to implement projects as quickly as they would have like. Operating issues tend to take precedence over energy efficiency projects in terms of capital investment and resource allocation. The larger companies all qualified for efficiency programs and incentives, however many of the small- and medium-sized firms were not able to meet the electricity savings targets, and therefore were not eligible for energy management-specific utility technical assistance. Additionally, two companies were in jeopardy of leaving the region due to corporate pressure to improve competitiveness.

Building on an existing energy efficiency program that co-funds a staff position to develop and manage energy projects for large plants, a pilot program was established on a cluster-based approach that allowed large and small plants to combine savings targets and to share a dedicated Energy Project Manager (EPM) across multiple companies.

To date, seven companies with nine plants in the same industrial sector are benefitting from the technical support of a shared EPM in Southwest Washington. Individual company goals have been developed and savings have been achieved at each plant site. When combined, these savings meet the targeted savings threshold.

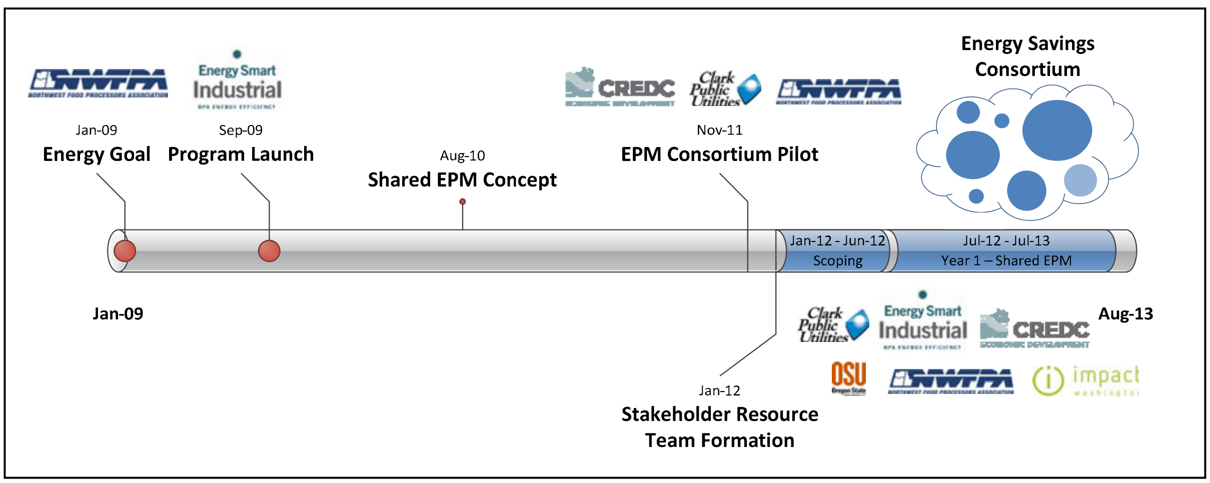
The companies and resource partners meet semiannually as a group to discuss progress and to develop synergies to solidify the industry cluster. Participants also benefit from training in best practices, tools and methodologies that together build a continuous improvement culture and drive innovation. Although it may be too early to say with absolute certainty, there is a growing feeling among the consortium that the key elements of this successful pilot may have the impetus to spur regional expansion in other shared or cluster-based programs.

Introduction

A unique and promising pilot program in Clark County, Washington is breaking barriers currently faced by some businesses in accessing valuable energy efficiency resources. Implementing energy efficiency programs within the small- and medium-sized industrial market segment has presented a challenge due to the large number of plants, limited staff resources within plants, and relatively lower magnitude of energy savings potential at each plant. As a result, many utility and federal government programs have focused on larger industrial plants and provided only limited services to smaller plants (Shipley, Elliott, & Hinge 2002). Even where programs have participation thresholds accessible to smaller plants, limited staff time and resources at the plants impede the implementation of efficiency projects. Northwest Food Processors Association (NWFPA) recognized available staff time as a key constraint to implementing energy projects and identified an opportunity for piloting a shared EPM resource across several companies regionally (NWFPA 2010).

In January 2012, a diverse group of stakeholders in Clark County, Washington, undertook a joint effort to benefit seven industrial food processors by providing assistance to reduce their utility costs. The goal was to leverage Bonneville Power Administration's (BPA) Energy Smart Industrial program to provide a core resource to develop and implement energy projects at seven local companies. The timeframe from pilot identification to EPM deployment working with each company was relatively short as shown in Figure 1.

Figure 1. Energy Savings Consortium Timeline



The Columbia River Economic Development Council (CREDC) and Clark Public Utilities lead the effort to bring together seven food processing companies and key players including NWFPA, Impact Washington, BPA, and the Oregon State University Industrial Assessment Center (OSU-IAC) to develop a shared resources model that aims to positively impact the bottom line of participating companies, as well as solidify the competitiveness of the local food processing industry cluster.

Background

Strategic Importance of the Food Processing Industry

The food processing industry has been a cornerstone of the Pacific Northwest regional economy for over 100 years. It is the third largest manufacturing sector, employing more than 280,000 people directly and indirectly, with a regional impact of $42.5 billion in annual revenues and an annual payroll of $2.4 billion. In 2011, Clark County developed a new strategic plan, which identified food processing as a targeted industry for growth in the region. The food processing sector is one of the few niches that has managed to eke out job growth during the Great Recession. The sector's products include candy and confections, canned and frozen foods, dairy products, edible oils, fish and seafood, meat products, sauces and condiments, snack foods, and sugar and other sweeteners.

Energy Efficiency as a Proxy for Competitiveness

The food processing industry faces significant challenges: global competition, rising energy prices, climate change and greenhouse gas emissions, water shortages, consumer demands for sustainable products, and increased cost of commodities (NWFPA 2008). One of the keys to the food processing industry's ability to remain competitive will be its ability to use energy efficiently. Through NWFPA's leadership, energy efficiency is recognized as not just about reducing energy bills, but more importantly, increasing productivity and bottom-line performance.

In 2005, the Northwest Energy Efficiency Alliance (NEEA) developed Continuous Energy Improvement (CEI), a framework that institutes strategic energy management into business and manufacturing operations within energy-intensive industries like food processing. NEEA and NWFPA members, in partnership with the U.S. Department of Energy and northwest utilities, used NEEA's CEI framework in 2008 to pioneer an industry-wide energy intensity reduction goal of 25 percent in 10 years and 50 percent in 20 years (NEEA 2012).

With energy use as a "proxy" for competitive advantage and industry health and vitality, NWFPA member executives agreed upon and established this goal and a roadmap to move the entire industry toward pursuing energy efficiency. The outcome was a vision of a sustainable energy strategy and NWFPA became the first industry group in the U.S. to voluntarily commit to such an aggressive energy intensity reduction goal (Barrow & Thornton 2013).

Economic Development Intersects with Energy Efficiency and Global Competitiveness

Company 1 is a major food processor and has been a steady employer of more than 400 people in Southwest Washington for the last 40 years. The food processor had already been under pressure to remain cost competitive with its sister plants, which compete with one another for market share and capital investment from corporate headquarters. When the local plant's ten-year economic development agreement with the City of Vancouver expired in 2011, it would be facing increased water costs. The economic development agency worked with the municipality to extend the agreement, but when it could neither be extended nor renewed, the company knew it would face $200,000 in increased utility costs per year, which would further undermine its cost competitiveness at one of the oldest U.S. plants within its corporation.

Following a meeting with Company 1 in late 2011, the CREDC, Clark Public Utilities, the City of Vancouver, and NWFPA met to discuss strategies to reduce the impact of higher water costs by accelerating energy efficiency improvement projects. Company management was clear that offsetting increased water costs with reductions in water use was a priority that had to be explored. They stressed that they lacked the in-house expertise and staff time to implement projects. Additionally, due to the large number of electric energy savings projects that Company 1 had already implemented and their participation in High Performance Energy Management (HPEM) offered through Clark Public Utilities, it would be challenging for them to come up with new ideas. The company has a history of actively pursuing corporate energy initiatives and sustainability goals and had already cut its use of natural gas by 17 percent, electricity by 15 percent and water by 28 percent over the last five years.

At the conclusion of the meeting, Clark Public Utilities suggested Company 1 look at another efficiency program under BPA's Energy Smart Industry (ESI) Energy Management pilot, the Energy Project Manager (EPM) program, which co-funds a dedicated staff member to the company to focus on energy projects.

Company 1 executives were interested but hesitant to commit the staff time necessary to work with an EPM. There was also the perception that the easier efficiency projects had already been implemented and any remaining identified projects were less cost effective and it would be difficult to implement new projects to achieve the EPM program savings target.

Clark Public Utilities then discussed this option with ESI and BPA staff on February 1, 2012. The result was that the ESI program was very interested in supporting Clark Public Utilities' efforts to engage multiple small- and mid-size end users, associated by a common subsector, under a single EPM project. A decision was also reached regarding the minimum savings threshold. The ESI program specifies a minimum EPM savings target of 1,000,000 kWh annually, which roughly corresponds to a level of project management workload that justifies the investment in the EPM resource. For this pilot engagement it was determined that the 1,000,000 kWh saving threshold would apply to the aggregated savings of all participating end users, instead of a site-by-site savings target. The result of BPA's willingness to bundle the necessary savings levels among several companies to meet the savings target made it possible for the energy saving consortium to share a dedicated EPM. CREDC and Clark Public Utilities then engaged commitment from six additional food processing companies to form the consortium.

Addressing Barriers to Energy Efficiency Project Implementation

An energy saving consortium was formed to address three barriers to energy efficiency project implementation: 1) limited availability of staff time and/or technical expertise, 2) small- and medium-sized companies often cannot access the valuable program offerings availed to companies with larger energy consumption needs, and 3) companies with a long history of integrated energy management are challenged to continue implementing a pipeline of energy projects and are concerned about diminishing returns of energy projects.

Availability of Staff Time is a Barrier to Efficiency Efforts

Industrial end-users are often thinly staffed to the point that energy efficiency efforts – either capital projects or operations and maintenance (O&M) focused efforts – often stall or are never developed. Availability of staff time is identified as the top barrier to implementation in industrial food processing (NWFPA 2010), and more generally as a primary market barrier to effective energy management in industrial plants (Cadmus 2012). Company size is also a factor as energy efficiency projects are staffed and prioritized differently in smaller-sized companies. Moreover, employees at smaller companies are typically less specialized (for instance, more generalists with a variety of responsibilities) and may lack technical expertise.

Day-to-day operations can take precedence over efficiency improvement projects. Plant personnel are often occupied with the immediate concerns of plant operations such as meeting production goals, repairing equipment, and keeping the production lines running. However, an EPM with a main focus on long term energy savings can develop projects by researching ideas, finding and managing vendors, scheduling site visits, and working with ESI technical resources to analyze opportunities and implement them at industrial end-user plants. With a person dedicated to energy efficiency, there is a much quicker and consistent cycle from project conception to project implementation.

In addition to non-availability of staff time as a barrier for implementing energy efficiency projects, changing priorities were also cited by a maintenance manager. When reviewing energy efficiency measures as identified by an energy consultant, the respondent indicated certain recommended projects "were not new projects, rather had been earlier identified and planned for implementation but had been de-prioritized and reprioritized" over his three year tenure. Urgent day-to-day operational matters in small- to medium-sized companies often divert staff from dedicating time to improvement projects as staff "wear many hats" and can be frequently redirected based on business needs.

A maintenance / facilities manager at another food processor shared a similar observation that availability of staff or too much workload is a major barrier. Oftentimes projects are identified and known, yet projects can be stymied by a lack of available staff time rather than other reasons.

Energy Project Manager provides Key Personnel to Drive Energy Projects

The BPA ESI program provides a solution that directly addresses the primary impediment of the lack of dedicated resources to develop and implement energy savings projects. A key feature of the ESI program is the Energy Project Manager (EPM), one component among three in a regional holistic approach provided by ESI. The EPM feature provides salary co-funding for planning and implementing energy projects at individual large industrial end-users throughout the Pacific Northwest (Amundson, Eskil & Martin 2011).

The core principle of ESI's EPM program is the participating end-user sets its own annual energy savings goal in consultation with its utility. The EPM is a means to drive projects; identifying energy savings opportunities and managing projects from conception through implementation. Typically there can be a capital project focus initially, although EPMs are encouraged to develop deeper process-related savings and/or combinations of capital and behavior-based opportunities. As a deliverable, the EPM develops a Comprehensive Plan that documents a prioritized roadmap providing the end-user and their utility a valuable budgetary and resource planning tool.

Small and Medium Industrial Companies May Not Achieve Target Savings Levels

While the ESI program is targeted at large industrial electricity users for program cost-effectiveness criteria, small- and medium-sized plants typically do not qualify for the EPM program element as they do not have sufficient electric load to achieve target savings levels. Ironically, it is the small- and medium-sized processors that are typically short on staff and could benefit from such an energy efficiency resource.

NWFPA staff recognized the opportunity to extend coverage to small- and medium- sized industrial end-users by sharing an EPM across plants on a regional basis. Bundling savings could allow two or more plants to fulfill target energy saving thresholds that otherwise could not be met individually. Additional staff to manage energy projects through completion would be beneficial as many companies are thinly staffed. Receptivity and a favorable response were demonstrated when NWFPA conducted an informal survey to gauge industry acceptance of the shared EPM concept.

The idea of a shared EPM across multiple companies was presented to ESI program management. Precedence existed for an EPM shared across multiple locations of the same company in plants across multiple utility territories provided all BPA utility customers participate in the ESI program. A shared EPM among different companies is contingent upon interest from a distribution utility and its industrial end-users. The foundation was set.

Perceived Challenges for Developing Efficiency Projects

Companies with long-standing energy efficiency efforts may feel "tapped out" on developing a pipeline of new efficiency projects (NWFPA 2013). Although Company 1 was eligible for EPM co-funding and was quite interested in an Energy Project Manager, there was reluctance to commit to the 1,000,000 kWh savings target required for a site-specific EPM because they felt overextended and were concerned about producing enough future project savings to meet targets.

Company 3 in Table 1 had previously employed an EPM through the Energy Smart Industrial program; although the EPM term had run its course after successfully completing the EPM Comprehensive Plan and milestones. Similarly, Company 3 felt limited on future energy projects and was likewise reluctant to reengage and commit to a renewed EPM and the full target savings. Both companies were receptive to sharing an EPM if other companies could fulfill a portion of the target savings.

Table 1. Energy Saving Consortium Participants

Company	Industry	Electricity Baseline (kWh/year)	Natural Gas Baseline (Therms/year)	Employees
1	Food Processing	22,500,000	2,640,000	402
2	Food Processing	12,000,000	880,000	100
3	Food Processing	27,000,000	3,125,200	120
4	Food Processing	15,000,000	100,000	790
5	Food Processing	3,500,000	n/a	46
6	Food Packaging Mfg.	11,000,000	110,000	145
7	Food Processing	9,000,000	88,000	234

The other companies listed in Table 1 have relatively lower electrical energy savings potential and would be challenged to achieve the target savings threshold for EPM co-funding.

By combining the savings potential across all companies listed in Table 1, smaller companies could access an EPM resource. Furthermore, two large industrial end-users who would have otherwise declined the co-funded EPM were able to obtain an incremental resource by joining in to share target savings.

Sharing an Energy Project Manager

Innovative Approach

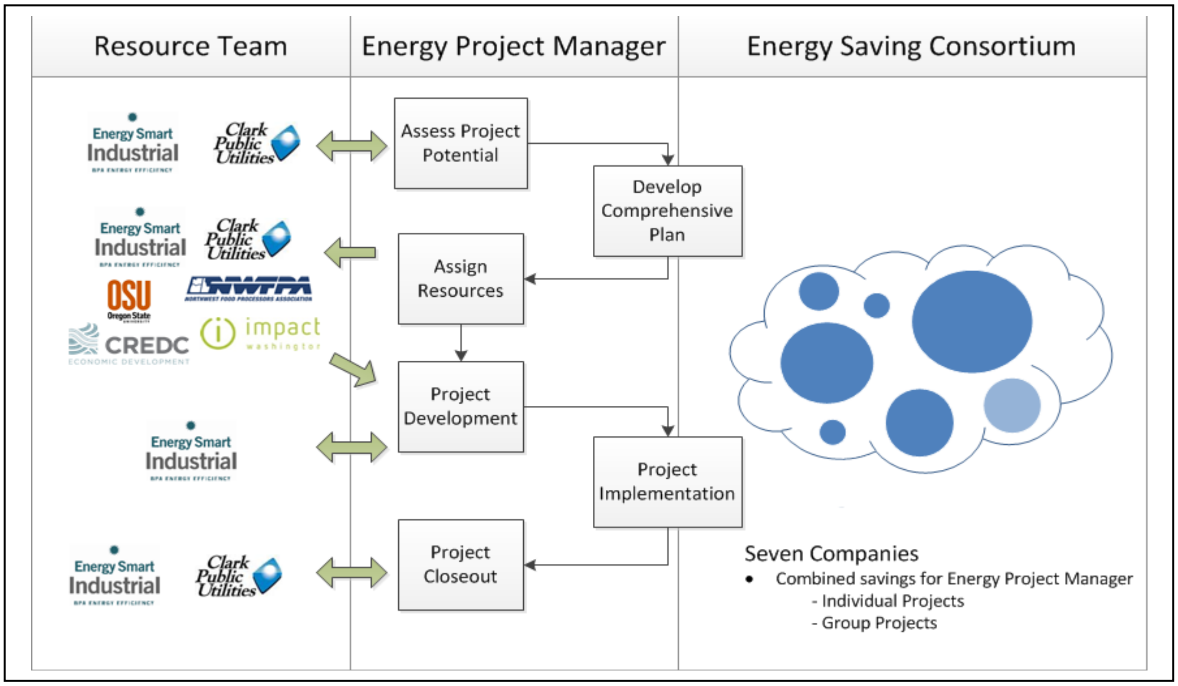
The initial effort was led by account managers at Clark Public Utilities to arrange meetings with individual companies and the stakeholder resource team. The purpose of early scoping meetings were to visit each site to gather information, discuss the barriers to implementing efficiency projects, review past and current energy efficiency projects, and identify potential new projects. Project ideas came from facility managers, operators, and observations from the resource team. Projects included both new ideas and known projects – opportunities proposed by facility personnel and Clark Public Utilities account managers.

Collaborative Approach by Resource Delivery Team

Collaboration and involvement of several organizations on the resource team provided a comprehensive solution team to assist the companies. Early on during scoping meetings the team identified cross-cutting efficiency opportunities in electricity, natural gas, water, wastewater and productivity. Each of the stakeholders brought expertise for an integrated approach. Joint participation in the Industrial Assessment Center assessments conducted by the OSU-IAC with resources from Clark Public Utilities, NWFPA, ESI and the EPM provided additional expertise to evaluate system performance and collect measurements and data. Coordinating activities reduced the burden on company personnel, as compared to working with each resource separately.

The EPM provided a critical role identifying projects, creating a Comprehensive Plan, developing projects, and following through on implementations. A general process is shown schematically in Figure 2 representing the central role of the EPM working with the group of companies. As the EPM works with individual companies on their respective Comprehensive Plan, the EPM can involve and call upon additional resources as shown in the left column.

Figure 2. Sharing Expertise for Energy Savings



Involving the EPM and other resources on the IAC assessments provides an opportunity to increase implementation of IAC recommendations. Typically IAC assessment reports are delivered within 60 days and a follow-up call occurs six to 12 months afterwards. Involvement of the EPM may lead to increased implementations of IAC recommendations.

Cohort Interaction to Reinforce Savings and Explore Synergies

As part of the energy saving consortium, the CREDC convened regular meetings among the companies and the resource team to discuss individual company priorities and goals. With differing backgrounds and experience in energy management, peer-to-peer interaction set the stage for companies to share best practices among the group. Furthermore, with similar processes and systems at each company, the cohort meetings provided a venue to discuss efficiency-related topics of interest. Fortunately there is little, if any, competitive overlap in the group so there was freedom for open discussion.

The group interaction has resulted in unexpected synergies being identified among companies. For instance, possible opportunities exist for two companies to cooperatively reduce water and waste water use among neighboring companies. Another possibility has been identified for one company making a beneficial use of a byproduct from another company.

Benefits

Savings of 1,320,000 kWh per year have been implemented during the first eight months of the shared EPM project and achieved the initial savings targets for program co-funding. Additionally, annual water savings of 7,113,000 gallons per year have been realized. Additional projects with annual savings of 2,070,000 kWh per year have been approved for implementation. Significant effort was spent upfront identifying and developing projects. Project implementation is increasing as companies become more familiar with the process and continue to identify and bring new project ideas forward.

Although electrical savings have been modest at the outset, the EPM has established relationships with cohort member companies and is building a pipeline of future projects for years 2 and 3. Individual companies each have their own unique project acceptance criteria. A summary of future projects is shown in Table 2.

Table 2. Efficiency Measures in Approved Comprehensive Plans

Measure Category	Total Planned Savings (kWh/yr)	Individual Measures	Company						
			1	2	3	4	5	6	7
Lighting Upgrades	1,862,213	4		X	X	X			X
Refrigeration Measures	1,492,285	6		X			X		
Motor Measures	1,963,960	5		X	X				
Blower & Fan Measures	746,386	4	X					X	
Compressed Air Measures	433,657	2	X						X
Energy Management (HPEM)	300,000	2	X		X				
Other Measures	868,645	3	X					X	X
Total	**7,667,146**	**26**							

There has been a learning curve regarding the logistics of getting projects researched, quantified, approved, implemented, measured and verified. A benefit of an EPM shared among seven companies is that if each plant manager went through the process individually there would be more utility time and effort to manage the process. Having a shared EPM familiar with the process allows more consistency, shorter project cycle times and improved results.

Two companies are expanding. While the EPM did not directly cause the expansions, the EPM supports projects that allow companies to stay competitive and continue to grow by making the case for ongoing investments and accelerated payback.

Extending the Consortium Model

The Energy Saving Consortium pilot prompted another energy saving consortium to share an EPM and pool energy savings. The CREDC utilized the Shared EPM model as an element for a federal Advanced Manufacturing Jobs Innovation and Challenge (AMJIAC) grant to drive innovations in metals and advanced materials industry clusters. The AMJIAC project that was awarded to the CREDC included support from the U.S. Department of Energy to replicate and scale-up the shared EPM model and cohort approach for the computer & electronics and metals & machinery industries in the Greater Portland Metropolitan Statistical Area (MSA).

Conclusion

An effort to share expertise across organizational boundaries proved to be a successful model of collaboration to improve energy efficiency and increase competitiveness in a local industry cluster. The success was built on collaboration among a variety of stakeholders, including an economic development agency, a public utility and its power marketing agency, a public/private partnership for manufacturing excellence, and an industrial trade association.

A successful energy management program component was adapted to provide an efficiency solution to aid small- and medium-sized industry by bundling individual savings to provide energy project management resource collectively to a regional group of small, medium and large manufacturers. The cohort of companies has seen early success achieving energy and non-energy savings and is building a pipeline of future projects for deeper electrical energy savings, as well as expanding into water and wastewater savings, natural gas savings, and productivity improvement. The early success of this joint effort, which leveraged an existing program and aligned multiple partners with multiple companies, has prompted similar pilots for other industrial end-users.

References

Amundson, Todd, Jennifer Eskil, and Steve Martin. 2011. "Key Personnel Drive Energy Projects in Industry." In *Proceedings of the ACEEE 2011 Summer Study on Energy Efficiency in Industry,* 2:11-22. Washington, D.C.: American Council for an Energy-Efficient Economy.

Barrow, Pamela and John Thornton. 2013. "Mobilizing Industry: Energy Intensity Reduction Goal Setting for Global Competitiveness." Paper presented at the ACEEE 2013 Summer Study on Energy Efficiency in Industry, Niagara Falls, NY. July 23-26.

[Cadmus] The Cadmus Group. 2012. *Process Evaluation of California's Continuous Energy Improvement Pilot Program*.

[Cadmus] The Cadmus Group. 2013. *Energy Management Pilot Impact Evaluation: A Report to the Bonneville Power Administration.* http://www.bpa.gov/energy/n//reports/evaluation/pdf/BPA_Energy_Management_Impact_Evaluation_Final_Report_with_Cover.pdf

[CREDC] Columbia River Economic Development Council. 2011. *Strategic Industry Analysis: Target Industries.* http://www.credc.org/wp-content/uploads/2012/11/TargetIndustries.pdf. Vancouver, Wash.

[NEEA] Northwest Energy Efficiency Alliance. 2012. *NEEA Pioneers Continuous Energy Improvement, a New Practice Offering 25% Energy Savings in 10 Years.* http://neea.org/docs/success-stories/neea-success-story-industrial.pdf

[NWFPA] Northwest Food Processors Association. 2008. *Overview of the Key Energy-Related Challenges Facing Food Processors in the Northwest.* Portland, Ore.

[NWFPA] Northwest Food Processors Association. 2010. *Energy Assessments and Energy Mapping in the Food Processing Industry.* Portland, Ore.

[NWFPA] Northwest Food Processors Association. 2013. *Energy Assessments and Energy Mapping in the Food Processing Industry.* Portland, Ore.

Sandin, John, et al. 2011. "Improving Energy Productivity through Engagement with State Manufacturing Extension Partnerships." In *Proceedings of the ACEEE 2011 Summer Study on Energy Efficiency in Industry,* 3:71-82. Washington, D.C.: American Council for an Energy-Efficient Economy.

Shipley, A.M., R.N. Elliott, and A. Hinge. 2002 *Energy Efficiency Programs for Small and Medium-Sized Industry*. ACEEE Report IE002. Washington, D.C.: American Council for an Energy-Efficient Economy.

Appendix: Stakeholder Description

Bonneville Power Administration: Energy Smart Industrial

The Bonneville Power Administration is a federal nonprofit agency based in the Pacific Northwest and markets wholesale electrical power from 31 federal hydro projects in the Columbia River Basin, one nonfederal nuclear plant and several other small nonfederal power plants. BPA also operates and maintains about three-fourths of the high-voltage transmission in its service territory, which includes Idaho, Oregon, Washington, Western Montana and small parts of Eastern Montana, California, Nevada, Utah and Wyoming. BPA promotes energy efficiency, and launched the Energy Smart Industrial program to assist BPA utility customers and their industrial facility customers in increasing cost-effective energy efficiency savings.

The Energy Management pilot, launched in October 2009, is a component of ESI. The Energy Management pilot is an innovative approach to acquiring conservation resources in the industrial sector through improved operations and maintenance (O&M) practices, behavior-based measures and capital projects.

The program strategy differs from traditional energy-efficiency programs as it focuses on implementing a holistic energy-management strategy that extends beyond replacing inefficient equipment. The program provides long-term energy-management consulting services to educate and train industrial energy users to: (1) develop and execute a long-term energy-planning strategy, and (2) integrate energy management into their business planning permanently. ESI's Energy Management pilot consists of three core components:

- ***Energy Project Manager (EPM):*** EPM co-funds end-user staffing to deliver projects and energy savings via traditional custom projects and other Energy Management pilot component features.
- ***Track and Tune (T&T):*** T&T projects help industrial facilities improve O&M efficiencies both financially and technically, while establishing a system that allows the program and the facility to track energy performance and savings over several years.
- ***High-Performance Energy Management (HPEM):*** HPEM provides industrial facilities with training and technical support, engaging both upper management and operations staff to implement energy management in their core business practices. HPEM entails the application of the principles and practices of continuous energy improvement and energy management within an industrial facility.

It is anticipated that the ESI Energy Management component will emerge beyond a pilot program offering within the next year, having received positive and constructive feedback from a recently completed impact evaluation (Cadmus 2013). Regionally over 28 industrial end-users served by 20 public utilities have deployed 32 Energy Project Managers resulting in 141,912,000 kWh in aggregate savings.

Clark Public Utilities

Clark Public Utilities is a customer-owned utility providing electric and water service in Clark County, Washington. A municipal corporation organized under the laws of the state of Washington, the utility was formed by a vote of the people in 1938. Clark Public Utilities' Commercial & Industrial Energy Services team consists of a Senior Manager, Key Accounts Managers and Program Managers. Clark Public Utilities participates in the BPA's Energy Smart Industrial (ESI) program.

The success of Clark Public Utilities' Commercial & Industrial Energy Efficiency program is attributed to the longstanding relationships between Key Accounts Managers and their customers.

Columbia River Economic Development Council (CREDC)

The CREDC is a private-public partnership of 135 investors working together to advance the economic vitality of Clark County through business growth and innovation. Through collaborative leadership, the CREDC promotes job quality and capital investment while maintaining the County's exceptional environment and high quality of life.

The CREDC took the lead to form the resource team and convene the seven food processors. Additionally, the CREDC organizes meetings with companies and the resource team to share individual project successes and facilitate peer-to-peer interaction to encourage best practices and explore synergies amongst the group of companies. When required, the CREDC involves high level executives at the companies to help move strategic projects forward. The CREDC is responsible for reporting the progress to its government leadership, including the City of Vancouver mayor, City of Vancouver council members, Clark County commissioners, the Washington State Department of Commerce, and other elected officials.

Industrial Assessment Center, Oregon State University

The Oregon State University Industrial Assessment Center (OSU-IAC) is funded by the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy (EERE) Industrial Technologies Program and managed by Rutgers University Center for Advanced Energy Systems. The primary objective of the IAC is to provide a practical learning opportunity to student analysts while directly engaging regional businesses in improving their efficiency. A key element of this effort is to identify and evaluate opportunities for energy conservation, waste minimization and productivity improvements through visits to industrial plants. A typical plant assessment takes 1-2 days with 1-2 faculty team leaders and 4-6 engineering students gathering technical data and energy measurements. Within 60 days of the assessment an assessment report is produced with energy improvement recommendations.

The OSU-IAC has conducted three assessments at Clark County food processors. At the time of publication another two assessments are in the planning stage and will be conducted soon.

Impact Washington

Impact Washington is a not-for-profit organization that helps Washington manufacturers compete globally. Impact Washington helps businesses thrive through expert consulting; training programs; educational and industry events; and resources that increase profits, develop people, and help businesses to be more sustainable and build the business.

Impact Washington participated in initial scoping meetings and followed-up individually with each company. Proposals have been made to offer Lean manufacturing training and a variety of other operational productivity activities. With energy savings being the main priority in year 1, Impact Washington is poised to help each company with operational productivity when called upon.

Northwest Food Processors Association (NWFPA)

Northwest Food Processors Association is a regional trade association representing over 80 food processors with about 180 plants in Idaho, Oregon, and Washington. Founded in 1914, NWFPA is a resource and advocate for the food processing industry. Food processing is the third largest manufacturing sector employer in the northwest and is also the second largest user of electricity after the pulp and paper industry. NWFPA and its initial partners, Northwest Energy Efficiency Alliance (NEEA) and the U.S. Department of Energy, recognized that the most effective way to manage energy costs, reduce greenhouse gas emissions, and at the same time increase productivity and economic growth is to pursue energy efficiency; eventually leading to a goal to reduce the member-wide energy intensity by 25 percent in 10 years and by 50 percent in 20 years. (Barrow & Thornton 2013)

NWFPA provided technical resources to support the energy improvement efforts of the companies in cooperation with the other stakeholders; while informing NWFPA research into potential energy savings within the food processing industry, analyzing this potential against the 25 percent energy intensity reduction goal, and indentifying barriers and recommending solutions.