

Colorado SECTORS Initiative: Foothills Energy Partnership

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COLORADO'S SECTORS INITIATIVE

In May 2009, The Colorado Department of Labor and Employment (CDLE) and the Colorado Workforce Development Council (CWDC) jointly awarded funding to super-regions throughout the state. Funding was provided to regional workforce partnerships to plan a sector strategy, and many of these grantees received additional funding for the implementation of these activities. Since 2009, ten grants have been awarded to target industries including aerospace, healthcare, manufacturing, renewable energy, and water/wastewater management. Sector initiatives are developed through local public-private partnerships, are industry focused, and include workforce development, economic development, education and other stakeholders to address high priority workforce challenges within an industry.

BACKGROUND

The Foothills Energy Partnership grant was led by the Tri-County Workforce Region (Jefferson, Gilpin, and Clear Creek counties) and also included Boulder and Broomfield Counties. Jefferson County Workforce Center (JCWFC) served as the convener and fiscal agent for the Foothills Energy Partnership grant due to staffing capacity. Boulder and Broomfield workforce areas were nonetheless strongly engaged in grant activities.

The Foothills Energy Partnership (FEP) was established following the receipt of a sector strategy planning grant to the JCWFC from CDLE in 2009. The purpose of this award was to develop the capacity for a sector-based approach for renewable energy within the super-region. JCWFC used this planning grant as an opportunity to research needs and develop a strategy for the partnership. The Business Services team from JCWFC initiated this process of exploring local industry needs by meeting with regional manufacturers, educational partners, and community organizations. This work applied a special focus to the needs of the local renewable energy industry. Through this process, JCWFC sought to better understand employer needs, industry training requirements, and skill deficiencies.

During the planning phase of the sector strategy, JCWFC confirmed renewable energy as a targeted industry for the Boulder and Tri-County Workforce Regions and FEP was born. In the early implementation stages, the Broomfield Workforce Region was also added to the partnership. In 2010, the unemployment rates for the partnership workforce regions were 6.9% in Boulder, 7.8% in Broomfield, and 8.6% in the Tri-County region. Jefferson County was the largest county represented within FEP, containing a civilian labor force of 305,316. Boulder and Broomfield, with civilian labor forces of 175,420 and 30,887 respectively, were identified as “natural labor sheds” for Jefferson County. With a dense population and climbing unemployment rates, FEP sought to strategize with the surrounding energy business community in identifying workforce challenges and needs.

An important result of the planning grant was the development of an advisory committee for FEP. This group was made up of representatives from the Tri-County Workforce Region as well as industry and educational partners including: Red Rocks Community College, the International Center for Appropriate and Sustainable Technology (iCAST), Jefferson Economic Council (JEC), Ascent Solar Inc., and PrimeStar Solar Inc. One of the first acts of this group under the planning grant was the distribution of a survey to 86 regional employers. This survey served to further the research efforts of the planning grant.

GOALS AND OBJECTIVES

The goals of FEP included:

- Establishing an organization structure for the partnership;
- Developing a green-collar workforce within the FEP targeted super-region;
- Increasing business' capacity to evaluate, place, and train the existing energy workforce;
- Eliminating workforce system barriers for stakeholders within the sector;
- Institutionalizing energy sector strategies and;
- Developing and implementing a sustainable advisory council and training.

To improve sustainability and promote growth, FEP's objectives included the following:

- Assign designated workforce staff to the initiative;
- Establish FEP advisory and leadership councils;
- Increase the number of well-qualified applicants available to the energy sector;
- Determine the energy sector's human resource needs;
- Increase business' capacity to provide training to incumbent workers;
- Assess workforce system barriers and employer perceptions;
- Implement a strategy of continuous improvement for these barriers;
- Ensure workforce staff have broad-based knowledge of sector strategies;
- Expand the targeted super-region; and secure funding for future training and education initiatives relating to energy.

PARTNERSHIPS

Following the planning grant, FEP received its implementation grant and gained a new partner, Front Range Community College (FRCC). Several energy associations also became involved in various aspects of promoting and advising on FEP's sector strategy including Colorado Energy Society, Colorado BioScience Association, Colorado Cleantech Industry Association, and Colorado Association of Manufacturing and Technology (CAMT). Business partnerships that were added during implementation also included Tri-Power Systems, Propp Management, RMH Group, Independent Electrical Contractors, Wadsworth Controls, and Intrex.

Within these partnerships, FEP planned to organize a Business Advisory Council, Educational Partnership Committee and Steering Committee to help direct and lead the grant initiatives. In the end, these committees did not play a substantial role in project implementation. The inability to find a business champion of the initiative who would provide leadership and direction was a factor. Despite this, many of these initial partners remained involved.

IMPLEMENTATION ACTIVITIES

FEP's implementation activities intended to meet industry expectations by developing a qualified and skilled renewable energy workforce. FEP engaged in a series of activities to cultivate a workforce with the necessary skills, place qualified applicants, provide incumbent worker training, and reduce workforce system barriers.

Workforce center staff was often notified of businesses in need of training dollars through partner training providers like FRCC and associations such as CAMT. After the association or training provider had established the training needs of the company, workforce staff was brought in to identify funding streams that could pay for training. The program manager at JCWFC mentioned that Boulder WFC historically had a focus on incumbent worker training and that this skill set enabled them to take the lead in this aspect of the partnership.

FEP hosted different hiring and industry promoting events with its various partners. Many of the companies, educational institutions, and workforce centers were involved in raising awareness about jobs in energy. Further to these efforts, a presentation was developed by the energy specialist at the Broomfield WFC to assist job seekers in finding "green" jobs on the Internet. The presentation explains the key search words and strategies to use to help find employment opportunities within the energy sector. The green jobs presentation also places a strong focus on the search capabilities of LinkedIn as a resource for job seekers.

A provision was made for a soft skills training program to be provided to job seekers. This was developed following feedback to FEP from businesses that job applicants often lack these attributes. "Bring Your A Game to Work" concept is that there are seven "A's" in bringing your "A Game" to work. These include Attitude, Attendance, Appearance, Ambition, Accountability, Acceptance and Appreciation. Originally created for youth ages 14 to 18, FEP

helped to modify the curriculum for an adult audience through a curriculum advisory committee.

FEP funded training for 28 companies throughout the life of the partnership. At the site visit with Rutgers evaluators, FEP invited representatives from Intrex, Wadsworth Controls, and Iron Edison to describe their experiences with training delivered as part of the sector strategy. Intrex and Wadsworth Controls were put in contact with FEP through CAMT, while Iron Edison was introduced to the partnership through an introduction to the FEP coordinator at a conference hosted by a partner association. Each of these companies has provided various types of training to incumbent workers. Intrex held multiple training sessions in Standard Work Lean Training and Project Management. Wadsworth Controls had employees at different locations take on extra work so that incumbent workers at one site could partake in 5S Workshop, Green Value Stream Mapping, Lean & Green Quick Course and for the management staff, Sustainable Lean Management Systems Basic training. The Business Services team at JCWFC also engaged in a “paperless project” as part of the sectors initiative to engage in environmentally friendly activities.

Training

Energy companies took advantage of several different training programs during the FEP initiative. Training developed for job seekers included “Bring Your A Game to Work” to address soft skills and life skills. An informational seminar series was also presented regarding employment in renewable energy jobs, as was a presentation on green-jobs that gave technical recommendations for workers looking for jobs within the industry.

As noted above, Intrex, Wadsworth Controls, and other companies enrolled incumbent workers in various other types of training including 5S, Six Sigma Green Belt, Standardized Lean, Project Management, Value Stream Mapping, Customized ISO, and Rapid Cycle Product Innovation. Much of the training focused on lean production and work organization to reduce unnecessary processes and increase efficiency. On an evaluation of the incumbent worker training, an employer wrote that the training received “helped us reduce our lead time and eliminate unnecessary paperwork and process steps. We have had an increase in customer satisfaction and reduced lead times. In addition, we have seen improved employee morale.” Another employer wrote:

We are able to complete projects faster and with fewer issues. We are communicating better to our internal and external customers, which provide better customer satisfaction. We now understand how if one department changes one thing, how it impacts other departments. We have been able to reduce the time on some processes, which allow us more time to focus on other things. We think all these things will help us be able to increase revenue over the long term.

ACHIEVEMENTS

FEP along with the State Energy Sector Partnership (SESP) successfully arranged and funded 23 incumbent worker trainings for 28 companies and 142 incumbent workers. The networking efforts by FEP were effective in bringing various energy companies to the table in order to enhance skills of the existing workforce. FEP established strong business partnerships that helped many employers understand the positive impact of training.

By establishing new relationships with the region’s energy companies, FEP engaged in a variety of activities to promote interest and awareness for the industry. Customized hiring events were developed for companies looking for applicants with particular skill sets. FEP also hosted a talent exchange event with the intention of bringing in general engineers with transferrable skills for available jobs in energy.

As a result of the grant, FEP also made a connection with Jefferson Public schools to work with them to inform and train students in energy careers. The education system has identified different “clusters” that are appropriate for students who are looking to learn skills in secondary education, and FEP is hoping to start at this level to develop a potential green-collar workforce pipeline.

IMPACT / RETURN ON INVESTMENT (ROI)

ROI was determined by CAMT for two companies who took training through FEP. Those estimates are detailed below and represent significant cost savings to the companies.

Company: Barber-Nichols	
Course: Aerospace & Clean Tech Rapid Cycle Product	
New Employees	2
Retained Employees	2
Retained Sales	\$500,000
Investment in Workforce	\$100,000
Cost Savings	\$69,000

Company: Lifeloc Technologies	
Course: Aerospace & Clean Tech Rapid Cycle Product / Green Value Stream Mapping	
New Employees	2
Plant / Equipment Investments	\$90,000
Investment in Workforce	\$20,000
Other Investments	\$20,000
Cost Savings	\$25,000

While not all companies involved in the project were able to calculate the value of training, some mentioned it during the Rutgers site visit. The president of one company involved in the training noted that because of training opportunities his workforce nearly doubled due to a significant increase in productivity and accuracy. Another business representative remarked on a positive effect on morale within his company as a result of the trainings. He noted that a desire for change and continuous improvement to the company's processes emerged. Additionally, he stated that turnover was reduced and efficiency has increased.

CHALLENGES

A downturn in the economy affected the training plans described in the initial proposal and created numerous challenges for the project. The partnership sought to develop a green-collar workforce that would become highly qualified through training initiatives and in demand by regional energy companies. However, as a result of the economy, many employers reduced their workforce and were not in a position to increase staffing capacity. As such, this affected the number of job seekers who could be successfully trained and become employed in renewable energy occupations through the grant. In the end it was determined that training job seekers for skills used in the energy sector would not have led to hiring. This created a big shift in the grant and led to a focus on incumbent workers to increase current capacity.

Although a business advisory council was a goal of the FEP's sector strategy, the partnership faced significant challenges in formalizing this capacity. FEP found someone to chair the council, but that person sought new employment and left the partnership in the early stages. Following that loss, FEP was unable to find a replacement partner to chair the business advisory council. It was thought that the reason a replacement could not be found may have been that businesses were unable to extend the time and personnel resources needed during such a difficult economic time.

Another challenge mentioned by the partnership was staffing at the workforce centers. Initially, an outside consultant was hired to deal with the planning phase of the partnership. Upon implementation phase, workforce staff chose to run the grant internally. Ultimately, the workforce centers involved did not have the capacity to dedicate an already existing employee solely to one grant. Each experienced staffing issues over the course of the grant and found challenges in dividing time between grant duties and other job-related commitments. Workforce system staff within the partnership found that the amount of time and degree of focus required to engage in a successful sector strategy was challenging within their existing staffing levels.

LESSONS LEARNED

- **Set and communicate clear goals and objectives.** When developing the planning grant, it is important that all staff that plan to engage in the partnership have a clear interpretation of the goals and objectives. Throughout the course of the sector initiative, staff that came on during the implementation phase occasionally had to “guess” the intention of a proposed commitment.
- **Set dates for advisory council meetings at the beginning** of the implementation phase to ensure less conflict and more collaboration.

BEST PRACTICES

- Reaching out to businesses through direct contact or partner associations and informing them about what training, funding, and hiring assistance is available through the workforce system.
- Surveying regional businesses within the energy industry to recognize and analyze common workforce needs and challenges, especially to identify the upcoming shortage of skilled energy workers.
- Partnerships among the workforce system, economic development, education, businesses, and industry associations helped FEP be both proactive and reactive when addressing the needs of employers and job seekers.
- Using a variety of funding streams to assist companies in increasing workforce capital allowed for innovation and broader service delivery.

SUSTAINABILITY

FEP plans to continue its sector initiative with energy as it pertains to Advanced Manufacturing. When JCWFC recently underwent extreme assessments and revisions of current practices through value stream improvement and process mapping, it was determined that its industry focus would be on Advanced Manufacturing. Manufacturing runs through most sectors thus energy strategies will still be addressed. The FEP coordinator will continue networking and partnering with businesses in the energy industry. This ongoing networking with energy companies is expected to lead to more incumbent worker training. During a site visit, a staff representative from Boulder mentioned that incumbent worker training was to become a line item in the annual budget.

A new initiative is planned with the Arvada Chamber of Commerce to address the workforce shortage in the region through the education system. This project will run in partnership with

the concurrent enrollment program in Jefferson County public schools in establishing a skilled and local workforce for the energy sector.

Broomfield workforce staff will continue to provide the green jobs seminar to clients. The ongoing delivery of information about energy jobs is expected to attract more job seekers to training and occupations in the industry. JCWFC will provide its adult version of “Bring Your A Game to Work” to job seekers needing soft skills assessment and training. The FEP coordinator assisted in the redesign of the “Bring Your A Game to Work” curriculum for different age ranges which will address the criticism shared by many employers that applicants do not have the necessary “life skills” or “soft skills” to successfully take on a job.

RECOMMENDATIONS

- **Develop a Return on Investment** measurement tool. Quantifying the impact of training can help employers to understand effects on workforce development, productivity, and profit.
- **Develop an operations manual** which is helpful to the sustainability of a partnership initiative. The documentation and processes within an operations manual can assist representatives from many regions to streamline the best practices of a sector strategy to be applied in different industries.
- **Designate or hire a project manager** whose time is solely dedicated to grant deliverables, partnership activities, and efforts toward sustainability. Time and staffing were significant challenges faced by the partnership as staff members consistently had multiple duties.
- **Establish an industry advisory council and convene on a routine basis** in order to target the most needed training within a sector. The input provided by industry to a workforce initiative is crucial as company representatives can best identify their future business needs and workforce challenges.

ABOUT

Rutgers University's School of Management and Labor Relations (SMLR) is the leading source of expertise on the world of work, building effective and sustainable organizations, and the changing employment relationship. The school is comprised of two departments—one focused on all aspects of strategic human resource management and the other dedicated to the social science specialties related to labor studies and employment relations. In addition, SMLR provides many continuing education and certificate programs taught by world-class researchers and expert practitioners. For more information, visit www.smlr.rutgers.edu

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APPENDIX A

List of FEP Partners

- Jefferson County Workforce Center
- Broomfield Workforce Center
- Workforce Boulder County
- Jefferson County Economic Development Corporation
- Broomfield Economic Development
- Jefferson County Public Schools
- Red Rocks Community College
- Front Range Community College
- GE Primestar Solar

APPENDIX B

ACTIVITY	TOTAL PLANNED	TOTAL ACTUAL	% OF GOAL
Entered training	65	150	231%
Completed training	52	142	273%
Earned certificate or industry credential	52	131	252%