COLORADO
SESP
State Energy Sector Partnership

Sustainability Plan and Report

Dictionary.com:

sus·tain·a·bil·i·ty ***[suh-stey-nuh-bil-i-tee]*** noun

1. The ability to be sustained, supported, upheld, or confirmed.
2. Environmental Science: the quality of not being harmful to the environment or depleting natural resources, and thereby supporting long-term ecological balance.

Throughout the grant period, the Colorado State Energy Sector Partnership (SESP) has undertaken programs and processes with a focus on extending the impact of our work and activities, including developing partnerships that will be maintained when the grant period is over.

The elements enumerated in this report have the ability to be sustained, supported, upheld, or confirmed. It is in that context that we offer the following report on the long-term impact of the State Energy Sector Partnership grant.

Colorado SESP
Sustainability Plan and Report

Table of Contents

Colorado SESP
Sustainability Plan and Report

1. Effective Strategies and Activities to Sustain

Grantees should identify which project strategies and activities they have determined to be effective and valuable to sustain beyond the grant period. These could include strategic partnership(s), training, placement strategies, retention activities, strategies for using or analyzing labor market information, labor exchange activities, any other strategies and activities included in the grantee's statement of work. The grantee should include data or other information that demonstrate the effectiveness or value of the strategies and/or activities which they would like to sustain. Grantees should also **explain how sustaining these strategies and activities will benefit their organizations, their partners, and/or their targeted participants**.

1. Colorado One-Stop System Policy Guidance Letter #: 12-03-WIA

In 2010, USDOL issued TEGLs 26-09 and 30-09 that provided guidance regarding waivers and the appropriate use of Workforce Investment Act funds for layoff aversion and incumbent workers. As incumbent worker training becomes a tool used more frequently within the One-Stop system, the need for clarity in defining and documenting the status of incumbent workers arose. The Colorado SESP contributed substance, example documentation, and advice based on experience to Colorado One-Stop System Policy Guidance Letter #: 12-03-WIA. This Policy Guidance Letter will provide guidance on the definition of an incumbent worker, documentation for employer attestation of entered employment, and will have a sustainable impact on the Colorado One-Stop system.

2. Management Information Systems (MIS) Policy and Practice Changes for Future Projects

With participant data essentially owned by the workforce region of first service, tracking participants and their progress is at best difficult in a highly mobile society. SESP pursued a process to allow cross-regional data access through the state's Connecting Colorado database. Broader access draws attention to the new reality of regionalism and is driving easier access to data for workforce professionals. The lasting impact on the workforce system is very real as the shift from geographical silos to regional collaboration may be replicated at more local levels. Additionally, by forging this new collaborative path, other multi-regional based grants are finding paths to more accurate participant tracking.

3. Smart Grid Curricula and Certifications

Colorado is a center for the development of the smart grid, yet the Colorado workforce lacked the skills necessary to support the growth of the industry. With no available training or certifications in smart grid technologies, the industry faced challenges that inhibited their ability to move forward. The development of Smart Grid Technician-Level and Smart Grid Engineer-Level certifications was a significant step toward meeting industry workforce demand, not only in Colorado but nationwide.

4. Smart Grid LIVE Educational Session

The smart grid industry is facing a long-term skilled workforce shortage. As part of a visionary strategy to develop the workforce for the future, Colorado SESP partnered with Spirae, Inc., to produce a training event informing high school students about the emerging career paths in smart grid technology. Those interested in future smart grid jobs would then have the availability to adjust their high school and college course selections in time to enhance their chances of qualifying for the opportunities becoming available. The event—the first of its kind—was so successful that it will become an integral part of the annual Smart

Grid LIVE industry event. This early exposure to a rewarding career path has the potential for relaxing workforce skill pressures within the smart grid industry.

5. Energy Training Asset Map

The first formal deliverable to USDOL ETA from the Colorado State Energy Sector Partnership was an asset map of training opportunities in the renewable energy (RE) and energy efficiency (EE) fields. Prior to the development of this tool no One-Stop source for RE/EE training existed in Colorado. As career opportunities in these fields expand so does workforce demand for training. Similarly, businesses need to identify sources for trained employment prospects. This Energy Training Asset Map has been expanded and continues to provide information about training for careers in the renewable energy and energy efficiency fields in Colorado through public access on e-Colorado.com.

6. Sustainability of Training Programs and Increasing Training Providers on the Eligible Training Provider List

The Colorado State Energy Sector Partnership statement of work designated that all training providers and courses considered for SESP-scholarship-funded training must be approved by a Business Advisory Council comprised of industry employers. The continuing availability of new EE/RE courses developed during the life of the grant provides participants in other workforce programs with the opportunity for quality training approved by businesses. Similarly, business will benefit from the continuance of courses that are industry approved, while training providers will benefit from being able to offer additional courses for the foreseeable future. SESP encouraged training providers to join the Colorado Eligible Training Provider List. These additions will give the workforce system more opportunities for training customers and clients.

7. DU Sustainability Course

Businesses engage in sustainable practices for many reasons, not the least of which are the desire to perform acts for social good and saving the environment. For most business organizations any practices must impact the corporate bottom line. In recent years, a convincing case has been made that sustainable business practices have a positive influence on corporate balance sheets. In parallel with the growth of the sustainable business practices has come an increase in demand for a workforce trained in sustainability while workers were seeking training that did not exist. What little training was available required as much as a four-year degree—a time lag that did not meet the more immediate requirements of the business community. To meet the training gap, Natural Capitalism Solutions (NCS) led by Hunter Lovins (an internationally renowned expert in sustainability) partnered with the University of Denver (DU) to offer a six-day, hands-on sustainability course resulting in a DU "Sustainability Leadership and Implementation Certificate." SESP made the program possible through providing tuition support for three series of certificate courses. The partnership between DU, NCS, and SESP created a long-term training opportunity that helps

students enter a new and growing career path and provides businesses with a trained workforce to meet business needs. With three series completed, the program has gathered the performance outcomes from employers, credibility in the academic and business communities, and demand from the workforce that ensures the course will be available for the foreseeable future.

8. Veterans Energy Concierge Call Center Pilot Project

The National Renewable Energy Laboratory (NREL) partnered with Colorado SESP, the Colorado Department of Labor and Employment Veterans' Programs, Red Rocks Community College, the Colorado Department of Human Services' Division of Vocational Rehabilitation, and the Jefferson County Workforce Center in a pilot project designed to increase consumer actions based on residential energy audits. The broad concept of this project was founded in successes from an energy concierge call center used in Boulder County, Colorado. The pilot has several long-term outcomes: there is a replicable national model with a course catalogue listing curriculum and lessons learned that will be supported by USDOE and NREL, utilities are interested in continuing the energy concierge work as market conditions permit, and five veterans gained skills that they are using in their employment search. This model proved successful in the alignment of services across partnering agencies. The Colorado Workforce Development Council provides the organizational infrastructure for the continued alignment of programs across partners (the Colorado Community College System, the Colorado Department of Human Services, workforce centers, the Colorado Department of Labor and Employment, etc.).

9. Entrepreneurial Pilot Project

Entrepreneurial development and support in Colorado was (in the words of an experienced observer) "a muddy jumble." Colorado SESP leveraged a relatively small budget and created an innovative approach to improving and expanding entrepreneurial support programs throughout the state. Colorado needed a model that can be applied to entrepreneurial development across sectors to job growth; the SESP Entrepreneurial Pilot Project developed a model that can be used by workforce partners, chambers of commerce, economic development organizations, and other groups supporting entrepreneurs.

10. Valid Eval Business Proposition Evaluation Rubric

Traditionally, the process of evaluating business propositions has been a highly subjective process where individual biases of evaluators could cause evaluations to skew, often times between extremes, for a single-enterprise proposition. In the process of advising on the development of the Colorado SESP Entrepreneurial Pilot Project, Adam Rentschler (National Judging Chair of the widely acclaimed Cleantech Open and CEO of Valid Eval) developed a customizable rubric to help business incubators and other business training organizations assess the success potential of an entrepreneurial enterprise. The Colorado Workforce Development Council purchased a lifetime Valid Eval license with leveraged

funding. Colorado SESP used the rubric for the Entrepreneurial Pilot Project. Business plans of all Colorado SESP-supported entrepreneurs placed with business incubators were evaluated using Valid Eval at the entrance and exit of training. This allowed Colorado SESP to monitor the efficacy of the training programs by seeing a beginning and ending snapshot view of the completeness of the entrepreneur's business plan. Not only did SESP help establish a new business in Valid Eval, but the tool has become the evaluative tool for a number of business plan evaluators, including the National Cleantech Open and the Arizona Commerce Authority.

11. GreenCareersCO.com

The GreenCareersCO.com website was launched on January 31, 2011. The website is a valuable tool for job seekers to increase their knowledge of green industries, what jobs/careers are available, the skill requirements for these careers, and how to access services to pursue careers in these industries. The website is featured on the Colorado Community College website. The link has been distributed to high school counselors and principals statewide and is available on every workforce center site. This is an interactive and engaging experience for the viewer that includes an overview video geared to a younger target market. With content maintained and updated by CDLE Workforce Development Programs, this site will serve as a career development tool for secondary and post-secondary students for a long time to come.

12. The Colorado Energy Consortium and Filling the Utility Worker Training Gap

In early 2011, Colorado SESP was approached by partner SkillBuild Colorado to assist with a project targeting improving the skills and capacity of the utility industry workforce. The utility industry has long been projecting a shortage of skilled workers, in large part as a result of the impending "silver tsunami" of older workers leaving the workforce. When coupled with changing technology, the crisis loomed even larger. Colorado SESP supported the creation of the Colorado Energy Consortium with staff time and funding for the development of a "foundation program" in the community colleges to provide industry-demanded training for entry into the utility industry. With this training available, projected workforce shortages may be averted.

13. Green Training in Apprenticeships

New technology is introduced into the market place every day. These changes impact the products available to consumers and the processes necessary to use the new technology. Adaptability to new technology and training the workforce in new products, tools, and techniques is critical. This is particularly true in the apprenticeable construction trades as green technology becomes increasingly in demand by consumers and through standard practices for architects and builders. When Colorado SESP issued a public procurement for apprenticeship training, the RFP required that the training curriculum include an industry-

specific green component. Green skills provide professionals with a solid start in a career and the foundation to continue to adapt as new technology becomes standard practice. Training providers have adopted the green training as part of their standard curriculum.

14. Regional Meetings of Grantees

Multi-state collaboration in Region IV has made a strong contribution to grant achievement. State grant directors, staff, and often sub-grantee representatives met to exchange ideas and best practices and to share in brainstorming and problem solving, initially without federal partners. The absence of federal officers led to a very open dialogue and had a distinct impact on regional communication. The regional collaboration identified areas of common concern as well as improved grant management. Future grants will benefit from the practice and lessons learned.

15. The Colorado Workforce Development Council (CWDC) Sectors Steering Committee

The CWDC has a very active Sectors Steering Committee that will continue to utilize sectors-based work as the foundation for how Colorado's Workforce System operates moving forward. The Sectors Steering Committee will ensure that lessons learned and specific projects resulting from the SESP will continue to be incorporated throughout Colorado's workforce system and partner systems. Leadership is critical in any sustainability plan and for this reason the SESP Steering Committee Chair now serves on the CWDC. This structure will help ensure that the work and great successes from SESP are incorporated into Colorado's every day work.

2. Sustainability Planning and Institutionalization Activities

Grantees should describe the sustainability planning they have conducted to date, what planning they intend to conduct before and after grant close-out, and what specific activities will take place to help ensure selected grant activities are sustained/institutionalized. This section should include:

a. Organizations involved in the planning process, which may include other entities within the public workforce system, employers, educational institutions, and other partners;

b. The resulting plans to integrate effective practices into core programs to enact broader improvements throughout the grantee's and partner organizations;

c. Efforts to leverage funds from other sources to sustain activities, such as local WIA funding, if necessary; and,

d. A timeline of key activities that will take place both during and after the grant period to help sustain key activities currently being offered through the grant. The timeline should run through at least the first year after the end of the period of performance, and ideally through at least two years. However, the specific length will be based on factors such as the type of strategies and activities the grantee proposes to sustain and the nature of the organization.

Colorado One-Stop System Policy Guidance Letter #: 12-03-WIA

Challenge – Opportunity – Problem

SESP grantees across the nation faced challenges in understanding and applying the rules and regulations that allow an incumbent worker participant to be classified as "entered employment" following training. After reviewing Labor Market Information and other data forecasting reduced new openings, the Colorado SESP Business Advisory Council (BAC) recommended that the SESP team strongly pursue training incumbent workers as a strategy to help small businesses upskill their workforce, enter new markets, and survive difficult economic times. As training incumbent workers becomes a more prevalent and allowable practice for the workforce system, policies and procedures surrounding the practice must be clear and actionable.

Partnership Solution

In 2010, USDOL issued TEGLs 26-09 and 30-09 that provided guidance regarding waivers and the appropriate use of Workforce Investment Act funds for layoff aversion and incumbent workers. Subsequently, the Colorado Department of Labor and Employment issued Colorado One-Stop System Policy Guidance Letter (PGL) #: 12-03-WIA offering the state workforce system guidance relating to incumbent workers and layoff aversion. As a leader among national grantees, Colorado SESP developed tools and clarification in partnership with USDOL/ETA officers to help resolve grantee confusion. Among those tools were processes for garnering and documenting employer attestation concerning the status of a trained incumbent worker to determined entered employment status. This experience was applied to the new PGL. SESP also contributed to the clarification and definition of "incumbent worker" and "entered employment."

Outcomes/Results

Imbedding SESP practices in this PGL will have a sustainable impact on workforce training in Colorado. For example, the Project Director of the Colorado H1B grant is already benefitting from the policy and sample documentation.

Management Information Systems (MIS) Policy and Practice Changes for Future Projects

Challenge – Opportunity – Problem

With participant data essentially owned by the workforce region of first service, tracking participants and their progress is at best difficult in a highly mobile society. The Connecting Colorado database was set up so that each workforce region only had access to data from that region. Grant managers and case managers from other regions could only see very basic information about a client who did not originate service in their region. This information exchange issue created difficulties for multi-regional projects such as SESP. In these regional efforts, the only way to gather full participant information was through a phone call or e-mail to the original case manager for more detailed information or to physically drive to the workforce center to obtain paper files. Obviously, that process is inefficient and places a time and workload burden on case workers and grant management. SESP saw an opportunity for change.

Partnership Solution

SESP pursued a process to allow cross-regional data access through the states' Connecting Colorado database. At the time, the solutions required each workforce regional director granting access permission to specific individuals, such as the SESP sub-grantee project manager. This access allows the regional manager to easily access detailed participant data regardless of the region of origin for case work.

The result of these efforts is a more efficient process for all parties involved.

Outcomes/Results

The new access draws attention to the new reality of regionalism and is driving new and easier access to data. Removing geographical silos of data ownership is increasingly important with the growing mobility of the workforce. The lasting impact on the workforce system is very real, as the shift from silos to regional collaboration may be replicated at local levels. Additionally, by forging this new collaborative path, other multi-regional based grants are finding easier paths to more efficient and accurate participant tracking.

Smart Grid Curricula and Certifications

Challenge – Opportunity - Problem

As technology advances, the need for a workforce trained to use and support new technology becomes ever more critical. The advent of smart grid technology is one such example. The United States Department of Energy defines the smart grid as "an automated, widely distributed energy delivery network characterized by a two-way flow of electricity and information, capable of monitoring and responding to changes in everything from power plants to customer preferences to individual appliances."

As America moves toward energy independence, the smart grid will allow utilities and consumers to take advantage of renewable energy resources and a corresponding lower dependence on extractive resources as a power source. Many believe this process is imperative for national defense as well as in preparation for ensuring power supplies in the event of natural disaster. Full implementation of the smart grid will enable new opportunities and support innovations from the nationwide use of smart meters to large-scale energy storage. Projects involving smart grid, such as the FortZED project in Fort Collins, Colorado, have been implemented. Similarly, utilities are implementing smart grid technology at the consumer level with smart meters attached to homes. While the evolution will take a number of years, this new way of connecting power grids requires a workforce skilled in both the high-level engineering solutions and the technical-support skills that will make the smart grid functional and reliable. This is not simply a Colorado problem—there is a lack of smart grid training across America.

As an evolving technology, training focused on industry-specific smart grid skills was virtually non-existent just a few years ago. While the opportunity for new job creation in smart grid projects is promising, the lack of an experienced workforce capable of integrating large amounts of demand response, renewable, and smart grid controls into the emerging smart grid is a limitation to smart grid deployment. At the same time, a number of skilled engineers, technicians, and IT professionals are unemployed or under-employed and looking to reboot their careers by moving into the energy industry. The education and training programs needed to prepare the workforce for smart grid implementations are hampered by the lack of large-scale implementations, limited supply of experienced personnel, and lack of appropriate training facilities. The urgency is palpable; without a trained workforce, large-scale smart grid projects will be significantly delayed or will simply not be implemented at all.

Short-length training courses and appropriate training facilities must be developed and brought to market quickly to meet the pressing need for smart-grid-capable workforce members at both the professional and technician levels who are able to contribute to the industry immediately.

Partnership Solution

The Colorado Workforce Development Council partnered with the Colorado State Energy Sector Partnership (SESP) to fund the creation of Colorado-based smart grid curriculum for both technicians and engineers. Front Range Community College stepped up to lead the curriculum development effort. Beginning in July 2011, a team of

subject matter experts from academia and the smart grid industry was assembled to guide the curriculum development efforts with an eye on ensuring the training would meet industry demands.

The industry advisory group included employer partners that require a workforce with smart grid knowledge and skills. These partners possessed subject matter expertise and provided input for formal industry validation of curriculum (e.g., by an industry association). They also raised awareness of the program among members of the target audience.

The academic advisory group played a role in the development and delivery of the curriculum and ensured that curriculum met educational standards that would result in an accepted certificate. The academic advisory group included representatives from Colorado State University, the University of Colorado, and Front Range Community College.

Curricula developed by the integrated teams will prepare participants to readily transfer knowledge and skills learned in the classroom back to the job. The curricula includes experiences that resemble on-the-job experience (i.e., activities that will enable students to interface with real equipment, interact with real work-like situations, and study and engage in actual power system scenarios and simulation). As a result, significant class time is spent in a laboratory environment.

Outcomes/Results

Two smart grid focused certification programs were created.

A technician-level certification is taught at Front Range Community College and consists of three courses: Intro to Smart Power Grid Technologies, Components of Smart Power Grid, and Application of Smart Power Grid System Technologies. As of November 2012, 11 students completed the first certification series, all funded through scholarships from SESP. A second class series is underway with another 11 students enrolled, also through SESP scholarships. Front Range Community College is working to present the class online as a result of requests for virtual delivery, including requests from five international students.

The engineering-level certification also included three courses: Smart Grid and Power System Fundamentals, Smart Grid Controls and Operations, and Modeling and Simulation for the Smart Grid. Fifteen (15) students completed the first engineering course taught at Colorado State University, all funded through SESP scholarships. The final course in the engineering series began in early November, 2012.

When complete, a total of 36 students will have received training in the early implementation of this project. Inquiries about the curricula have been received from universities in other states, including New Mexico and Pennsylvania. The curricula are open sourced and available for use without charge. With this door opened wide, the smart grid industry across America has access to training designed to specifically meet industry needs and the workforce has an opportunity to engage in an exciting and growing industry with a strong career path.

Smart Grid LIVE Educational Session

Challenge – Opportunity – Problem

The smart grid industry is facing a long-term skilled workforce shortage. While the opportunity for new job creation in smart grid projects is promising and there is a current need for an experienced workforce, the development of a future workforce capable of integrating large amounts of demand response, renewable, and smart grid controls into the emerging smart grid is critical to the future of smart grid deployment. Developing a workforce for the future starts with developing awareness and excitement at the secondary level, as high school students are making decisions about their career path. Because not all smart grid industry careers require university-level education, the future workforce needs to understand the breadth and depth of career path opportunities in the industry.

As part of a visionary strategy to develop the future workforce, Colorado SESP partnered with Spirae, Inc. to produce a training event informing high school students about the emerging career paths in smart grid technology. Those interested in future smart grid jobs would then have the time to adjust their high school and college course selections to enhance their chances of qualifying for the opportunities becoming available. This event—the first of its kind—was so successful that it will become an integral part of the annual Smart Grid LIVE industry event. This early exposure to a rewarding career path has the potential for relaxing workforce skill pressures within the smart grid industry.

Partnership Solution

The third annual Smart Grid LIVE conference was held in September 2012 in Fort Collins, Colorado. Hosted by SESP partner Spirae, Inc., the conference attracts a worldwide audience. Smart grid organizers decided to add an educational training component targeting secondary level students in the Fort Collins area on the third day of the event.

In July 2012, Colorado SESP was approached by Spirae to assist with conducting the training event. The goal was to inform high school students about the emerging career paths in smart grid technology. Those interested in future smart grid jobs would then have time to adjust their high school and college course selections to enhance their chances of qualifying for future opportunities.

Under the Public Awareness and Youth Outreach Project, SESP partner Groundwork Denver (GWD) developed an extensive network of contacts in Colorado high schools. In August 2012, Colorado SESP issued an amendment to the contract with GWD, adding $8,600 to conduct the planning, coordination, and delivery of the Smart Grid LIVE educational training component. GWD developed and implemented a hands-on workshop event that was delivered to 163 high school and college students, educators, and industry professionals.

GWD convened a steering committee to guide the new project, researched technology needs, and evaluated the possibility of a webinar to create a statewide reach. They also

developed a workshop program. In planning the program for the event, GWD met with the steering committee to develop the training track vision, including speakers, hands-on demonstrations and/or other activities. Speakers and other participants were scheduled including US Senator Michael Bennet as the welcome speaker. Panelists were recruited from a cross-section of industry and educational institutions such as Xcel Energy, University of Colorado, Boulder, Spirae, and Mycoff, Fry & Prouse (recruiters for the utility industries).

To increase participation, GWD created marketing materials that encouraged schools' workshop attendance and developed incentives for school groups to attend. One of the event sponsors offered financial assistance to one school for procuring school bus services. Program activities covered the Colorado High School Standards by presenting information outlined in the concepts and skills that students should master: costs, benefits, and consequences of exploration, development, and consumption of renewable and nonrenewable resources. In some cases, the program also fulfilled the Colorado Department of Education's Individual Career and Academic Plan (ICAP) requirements for Community Service and Contextual/Service Learning Experience.

Outcomes/Results

On September 27, 2012, the event was held at Lincoln Center in Fort Collins, Colorado. The program developed by Groundwork Denver included an interactive presentation where students could see how the smart grid works. The program also showcased a career opportunities discussion moderated by GWD staff that included panelists representing Colorado utilities, the education perspective, the smart grid industry, and hiring managers within the industry.

Approximately 163 area high school students attended the training. The event was opened with a keynote address from Colorado US Senator Michael Bennet. Student response was positive. More importantly, educational partners (including teachers and school administrators), were enthusiastic about the event as a career path instruction opportunity and the linkage to an emphasis on Science, Technology, Engineering, and Mathematics (STEM) skills.

With the success of the event, similar outreach and student training will become an ongoing element of the annual Smart Grid LIVE conference, potentially increasing the future workforce pool for the smart grid industry.

The need to expose children early to a variety of career paths and raise their awareness has been a common theme in every key industry that has kicked off to date. The CWDC Sectors Committee and the Youth Council will view this model as a promising practice and share it with other industries, employers, and partners.

Energy Training Asset Map

Challenge – Opportunity – Problem

Prior to the development of the SESP Energy Training Asset Map, no One-Stop source for renewable energy (RE) and energy efficiency (EE) training existed in Colorado. As career opportunities in these fields expand so does workforce demand for training. Similarly, businesses need to identify sources for trained employment prospects. The Colorado Eligible Training Provider List was the only easily accessible course of information on RE/EE training and that source was woefully incomplete.

Partnership Solution

The first formal deliverable to USDOL/ ETA from the Colorado State Energy Sector Partnership was the creation and delivery of an asset map of training opportunities in the RE/EE fields. Developing the first training asset map was only possible through a partnership with the Colorado Energy Office (CEO), the Jefferson County Workforce Center, the Denver Office of Economic Development, Labor's Community Agency, SESP grant staff, sub-grantees, and other partners. The project resulted in an inventory of all Colorado-based public and private sector training in RE/EE careers. The first Asset Map contained the following information: 1) name, address, and website of the training provider; 2) information about the ability to take classes online; 3) whether or not the training provider is listed as on the Eligible Training Provider List through CDLE Navigator; 4) the program name and type (i.e., K–12, Vocational, Community College); and 5) whether the particular program named has been approved by the SESP Business Advisory Council.

Outcomes/Results

The first version of the Energy Training Asset Map listed 89 training providers. Of those, 34 providers had been approved by the Colorado SESP Business Advisory Council as eligible to provide training through the Colorado SESP energy scholarship program.

Subsequently, the database has been expanded in size and scope. There are now 65 training providers offering 360 courses, all approved by the SESP Business Advisory Council. The document now offers the following information: Training provider name, the programs offered, program cost, length of course, course description, certifications awarded as part of the training, what certificate the training might prepare a student for, any degree awarded as part of the program, and the program and payment contacts. Additionally, a second index has been created of employer-requested training specifically for certain employers. The latter list helps incumbent workers at a particular company gain key skills the employer requires, potentially leading to career advancement. This Energy Training Asset Map continues to provide information about training for careers in the RE and EE fields in Colorado through availability on e-Colorado.com.

Sustainability of Training Programs and Increasing Training Providers on the Eligible Training Provider List

Challenge – Opportunity – Problem

The Colorado State Energy Sector Partnership statement of work designated that all training providers and courses considered for SESP-scholarship-funded training must be approved by the SESP Business Advisory Council. This requirement gave Colorado SESP the opportunity to expand the choices and availability of RE/EE courses beyond the expiration of the grant. The continuing availability of RE/EE courses developed during the life of the grant provides participants with the opportunity to obtain quality training approved by businesses. Similarly, businesses benefit from continuing courses that are industry approved, while training providers will benefit from being able to offer additional courses for the foreseeable future.

Partnership Solution

Colorado SESP supported quality training that would have a strong chance of leading to a solid career path for the participants. If there is demand for good training, the training will continue to be available. Enough cannot be said about the importance of the industry imprimatur on the long-term viability of a certification program. Simply put, students will take courses and achieve a certification that they know industry endorses and favors. The SESP Business Advisory Council review process gives an industry stamp of approval for training providers. When developing the first deliverable for the grant (an asset map of available RE/EE training opportunities in Colorado) a broad search found 89 training providers offering 327 courses. Upon BAC review, 65 providers with 360 programs were approved. Many training providers were unaware of the opportunities available by registering on the Eligible Training Provider List (ETPL). As a result, SESP encouraged BAC-approved training providers to register on the ETPL.

Outcomes/Results

As funds for scholarship-supported training were exhausted, the SESP Business Advisory Council recommended the cessation of course review. By the close of course review, 65 providers and 360 courses had been approved. In a June 2012 survey of the training providers, 29% of respondents reported adding a combined total of 29 courses after SESP started offering training scholarships. A full 83% of respondents reported that they will continue the new classes after SESP closes. Many of those training providers have also taken the voluntary step of joining the ETPL. These classes are evidence of sustained training opportunities for Colorado residents as a result of SESP programs. Increasing business-endorsed offerings on the ETPL will give the workforce system and participants greater opportunity to enter a growing career path.

DU Sustainability Leadership and Implementation Certificate

Challenge – Opportunity - Problem

For most business organizations, any practice must impact the corporate bottom line. In recent years, a convincing case has been made that sustainable business practices have a positive impact on corporate balance sheets. Numerous studies, including those done by Deloitte and Goldman Sachs, show companies that are leaders in environmental, social, and good governance policies grow faster, have higher market capitalization, and are better protected from value erosion than their more conventional competitors.

Accenture found that over 93% of CEOs see sustainability as crucial to business success, with 88% stating it needs to be fully embedded into their strategy and operations[1]. A 2010 study by McKinsey found that while most executives surveyed considered sustainability important to their future, only 30% said that their companies actively sought opportunities to invest in sustainability. These same executives also stated that an educational gap was inhibiting action[2]. This gap in sustainable education has increased the demand for access to workforce training in sustainability.

Partnership Solution

What little training was previously available required as much as a four-year degree—a time lag that did not meet the more immediate requirements of the business community. To meet the training need, Natural Capitalism Solutions (NCS) led by Hunter Lovins (an internationally renowned expert in sustainability) partnered with the University of Denver (DU) to offer a six-day, hands-on sustainability program supported with a commitment from the Colorado SESP to provide scholarships for the first program. On program completion, participants receive a certificate in Sustainability Leadership and Implementation.

To build a program that met the needs of business, NCS researched the skill requirements in job postings for sustainability directors and interviewed current sustainability directors and c-suite leadership in a cross section of industries. From this research, NCS and DU developed a curriculum that provides participants with the skills needed to implement sustainability in any organization. Through this course, participants gain a deep understanding of the sustainability tools and frameworks, while also learning the practical leadership and implementation skills needed to put an effective sustainability program in place. As a final deliverable, participants are asked to develop and present a set of strategic sustainability initiatives that they plan to enact in their organization.

[1] "A New Era of Sustainability." Accenture. 2010. http://www.accenture.com/SiteCollectionDocuments/PDF/Accenture_A_New_Era_of_Sustainability_CEO_Study.pdf

[2] "How companies manage sustainability: McKinsey Global Survey results" McKinsey & Company. 2010. http://www.mckinseyquarterly.com/Energy_Resources_Materials/Strategy_Analysis/How_companies_manage_sustainability_McKinsey_Global_Survey_results__2558

The SESP provided tuition support for three series of certificate courses. Of the 73 participants that attended the program, 33 received full tuition, 20 received partial tuition, and 20 paid the $3,500 course fee in full. Organizations that have received SESP support include: ABB (a Ventyx company); Adams County; American Lung Association; AT&T; Best USA; Boulder Community Hospital; CH2M HILL; Children's Hospital Colorado; Chipotle Mexican Grill; City of Colorado Springs; City of Colorado Springs Parks Department; City of Superior; CLEANtricity Power, Inc.; Colorado Department of Corrections; Concrete Express Inc.; Davis Partnership; Denver Golf Administration; Denver Public Schools; Denver Zoo; DirecTV; Eco-Products, Inc.; EKS&H; Elevations Credit Union; Faegre Baker Daniels LLP; Geological Society; Hunter Douglas; JUWI Wind; Larimer County; Lockheed Martin Corporation; National Renewable Energy Laboratories; New Belgium Brewing; Nexgen Pharma; Nuss Professional Services Group; Office Manager/Specialist; One World Translation; Page 1 Solutions; Poudre Valley Health System; Qualtek Manufacturing; Ralley Software; Renewable Choice Energy; Rock the Earth; Shining Mountain Waldorf School; SMA America Production, LLC; Snooze; Sports Authority; Stacy Machine & Tooling, Inc.; STORServer Inc.; SUAE; The Learning Source; YR&G; and ZL Construction, Inc.

Outcomes/Results

Since the course's inception, employees from 34 organizations have received scholarships to the Sustainability Leadership and Implementation certificate program and completed the training. Of the 59% of graduates interviewed since graduation, 90% have implemented or are in the process of implementing the strategic sustainability initiatives they presented in class and 60% said that the program also helped them implement other sustainable actions outside their class presentation.

As a result of the opportunities in the field of sustainability and the depth of content covered in the program, the types of sustainability initiatives implemented by participants are broad. Initiatives implemented include but are not limited to:

- Energy efficiency strategies
- Building retrofits
- Equipment replacement
- Waste reduction initiatives
- Recycling programs
- Transit programs
- Sustainable purchasing policies
- Supply chain initiatives
- Employee engagement programs
- Stakeholder engagement strategies
- Fundraising campaigns
- Communication and marketing strategies
- Senior management engagement strategies

The impacts from these initiatives are huge. For example, a national restaurant chain employee that received a SESP scholarship expects to save $324,572 on plastic wrap and

tape used in their bulk preparation by switching to reusable lids. Other success stories are highlighted on CORE's website, including: Juwi Wind's plan to get companywide buy-in, Renewable Choice Energy's commuting program, and Nuss Professional Services Group sustainable procurement initiative. The Colorado Department of Corrections, with the state's largest physical plant, is implementing sustainability efforts gleaned from the training, yielding a positive impact on the department's operating budget lines.

The intent of funding the Sustainable Leadership and Implementation Certificate was to build the foundation for a program that could be self-funding in the future. In addition to creating strong testimonials and case studies that can be used to market the program, NCS and DU have partnered with CORE (the state's largest sustainability business network) to help promote the program. The scholarships have helped the program mature and allowed NCS, DU, and CORE to build additional channels of outreach, including the Alliance For Sustainable Colorado, Colorado Green Building Guild, and Boulder's 10 for Change.

The Sustainability Leadership and Implementation Certificate program is scheduled to take place again in the spring of 2013—without support of SESP funding. In addition, DU and NCS are currently in talks to incorporate the program into DU's MBA program for current students. Additionally, NCS has just partnered with In The Telling and Pearson to build the Sustainable Leadership and Implementation Certificate online to reach more schools and individuals interested in the course content. You can view a sample of the content here and learn more about the platform through which it will be delivered here.

There has been a large effort by all the partners to create an ongoing community for all past participants. Facebook and Linked-In groups have been created to give all past students access to each other and to the teaching staff to share successes, ask questions, and post resources. CORE has also launched a Sustainability Managers Club that invites past program participants and other local sustainability managers to network and learn from each other. All past students are also invited to join current classes' graduations. By building widespread community momentum, the impact of the program is magnified.

Veterans Energy Concierge Call Center Pilot Project

Challenge – Opportunity – Problem

According to the 2009 report entitled "Recovery Through Retrofit" by the Middle Class Task Force, one of the three barriers to the development of a self-sustaining retrofit market is that consumers do not have access to straightforward and reliable information on home energy retrofits that they need to make informed decisions. In markets where either the building performance auditors provide this information or a third party provides this information, the market for this work is significantly higher than the rest of the construction industry. In the end, unless directly approached, consumers tend to not take action based on the findings of an energy audit. Without this service, Xcel's close rate from audit to full retrofit is 6%. Energy concierge positions existed in a variety of forms in different corners of the energy efficiency industry. In Boulder County, Colorado, it is called "Energy Concierge" and in Lakewood, Colorado, it is called "Energy Coach." Unfortunately there was no credentialed training in this new industry. But this is still a novel idea within the industry. At the same time, veterans are leaving military service without training or skills to enter new careers such as this.

Partnership Solution

In some areas of Colorado, the consumers who took action on their audit findings was under 5%. However, in Boulder, a call center project reported a 65% participation rate—a significant increase. In the Boulder call center, an Energy Concierge calls the recipient of an energy audit, helps the consumer understand the report, suggests next steps based on the audit, counsels the customer on any assistance available to help finance recommended actions, and may even provide a list of qualified contractors to make any renovations or remediation a customer might desire. A partnership convened to provide a skilled workforce that can help energy providers and consumers fulfill the benefits potential of an energy audit. A new curriculum was developed at Red Rocks Community College built on other certification foundations. Required skill sets for the position were identified and effective screening tools were developed to evaluate technical and behavioral skill sets. Candidates for the project were carefully evaluated to increase the likelihood of their success. Veterans became the primary target for entry into the training; they bring team and mission focus, self-discipline and work ethic, and an understanding of organizational structure to the job. A call center partner was found who would offer internships to the participants. SESP funded the training and internships for five veterans.

Outcomes/Results

There were successes and challenges in this project, but ultimately the project will be replicated or extended with lessons learned. Although Colorado State Energy Sector Partnership funding for this pilot project lasted only six months, utilities and municipal energy efficiency programs have indicated considerable interest in the program if market conditions and government support for residential energy audits are continued. Five veterans received training in specialized customer service and energy efficiency skills. A new certification was developed and delivered at Red Rocks Community College and the Community College intends to continue offering the courses.

Entrepreneurial Pilot Project: Starting Businesses and Creating Long-Term Opportunity

Challenge – Opportunity – Problem

Entrepreneurial development and support in Colorado was (in the words of an experienced observer) "a muddy jumble." Colorado SESP leveraged a relatively small budget dedicated to supporting entrepreneurial training through an innovative approach to improve and expand such programs throughout the state. Colorado needed to develop a model that can be applied to all entrepreneurial development and further this job growth; energy efficiency and renewable energy entrepreneurial development can be the model. The State Energy Sector Partnership played a vital role in developing that model. The requirements of the SESP grant provided a framework for a much more important conversation than simply training 30 unemployed residents to be small business owners.

Partnership Solution

With an eye on having the project reach more than 30 new businesses, the Colorado SESP put together a team whose mission was to create a systematic approach to breaking down silos among the stakeholders and organizations involved in entrepreneurial development. Colorado SESP established a sustainable, non-funded working group functioning without government red tape to collaborate on finding, training, supporting, and accessing funding for clean energy businesses in Colorado.

To remain agile and responsive, a working alliance called "Clean Energy Business Colorado" was formed. This group convened in meetings that consisted of a wide range of conversations—often free form—to encourage open and creative collaboration. At each meeting, conversations were directed to delve into elements of training and finance. The following distinguished leaders volunteered to attend seven meetings over a period of four months:

Hank Held	SVP/ Corporate Legal Counsel, Burt Technologies
Richard Adams	Manager of Innovation and Entrepreneurship Center, Commercialization and Technology Transfer, National Renewable Energy Laboratories
Clarke Becker	Director, Office of Workforce Development and former President, Economic Development Council of Colorado
Frances Draper	Former Director, Boulder Economic Council
Dawn Gardner	Business Development Supervisor, Arapahoe/Douglas Works!
Brett Johnson	Former Finance Manager, Colorado Energy Office, currently serving as Colorado Deputy State Treasurer
Kelly Manning	Director, Colorado Small Business Development Center Network
Stephen Miller	President and CEO, Cleanlaunch
Geniphyr Ponce-Pore	Assistant Director of Economic Development, Office of Engagement, Colorado State University
Adam Rentschler	National Judging Co-Chair, CleanTech Open

Graham Russell	CEO, Trupoint Advisors
Alex Sammoury	Executive Director, Longmont Entrepreneurial Network
Chris Shapard	Executive Director, Colorado Cleantech Industry Association
Beth Shaw	Executive Director, Customized Business Services, Colorado Mountain College
Jenifer Waller	Senior Vice-President, Colorado Bankers Association
Trent Yang	Director, Entrepreneurship and Business Development, University of Colorado/National Renewable Energy Labs, Renewable and Sustainable Energy Institute

Other individuals added information and expertise increasing the depth of understanding of the challenges and opportunities available:

Brian Ballard	First Bank
Bill Becker	Colorado Credit Union Association
April Dahlager	US Department of Agriculture
Mark Forsyth	Rocky Mountain Innosphere
Lynette Newman	Small Business Administration
Stephen Ponce-Pore	Energy Programs Manager, Bank of Colorado, Fort Collins
Stephanie Steffens	Colorado Workforce Development Council
Emily Templin-Lesh	Colorado Workforce Development Council

The diversity of the participants helped all understand their partners in the project and what they were contributing to the process. And so the collaboration began.

Throughout the process, the group discussed the continuum of needs of start-ups that would increase the likelihood of their success. The group discussed incubators, mentoring, different kinds of entrepreneurs and their differing needs, methods of recruitment of entrepreneurs and vetting them for success, financing options (including state-backed programs, SBA, USDA, consumer and business banking approaches and programs, credit unions, venture capital, and angel investment), tech transfer, the role of NREL, and the roles of the workforce system and community colleges in entrepreneurial development.

Outcomes/Results

The SESP Entrepreneurial Pilot Project aligned with two key components of Governor Hickenlooper's Colorado Blueprint—actively retaining and growing local companies and increasing awareness of the availability of quality entrepreneurial training.

The work of Clean Energy Business Colorado resulted in a report that guided the implementation of the Colorado SESP Entrepreneurial Pilot Project. A copy of that report in included as an attachment to this Sustainability Report. In the end, 115 Entrepreneurial Scholarships were approved and used. Eleven (11) of the entrepreneurs are in Small Business Development Center (SBDC) programs serving entrepreneurs with anticipated capitalization needs less than $500,000. Eighty-four (84) entrepreneurs were placed with contracted business incubators for services because the anticipated capitalization is above $500,000 or the participants' mentoring needs

exceed the capacity of the SBDC program. Twenty (20) participants were trained in university programs.

The vision driving the Clean Energy Business Colorado (CEBC) process was to establish a sustainable, non-funded working group functioning without burdensome and unnecessary government processes to collaborate on finding, training, supporting, and helping provide access to funding for clean energy businesses in Colorado. That model, once tested and revised, may be applied to all entrepreneurial development in Colorado.

The vision of creating a long-term process has become a reality. The Center for Renewable Energy Economic Development (CREED) agreed to host the continued development of the CEBC model, integrating that model into CREED's operations. CREED is a product of NREL and partners with state government agencies such as the Colorado Energy Office (CEO) and the Office of Economic Development and International Trade (OEDIT) and industry groups such as the Colorado Cleantech Industry Association (CCIA). The CREED office building includes space for CEO and OEDIT and "hoteling" space for venture capitalists and business incubators.

To provide continued support and mentoring in obtaining financing for budding Colorado Cleantech companies, NREL sponsors a "meet-with" series to introduce entrepreneurs to investors. NREL holds these meetings in conjunction with incubators and angel investors.

Furthermore, the SESP Entrepreneurial Pilot Project provides a model Colorado workforce regions will use as funding for entrepreneurial support becomes available.

Valid Eval Business Proposition Evaluation Rubric

Challenge – Opportunity – Problem

The first step in helping entrepreneurs succeed is to give them a realistic view of their chance of success. Telling someone their idea needs work or simply is not likely to be successful saves them and the business development system time and effort. At the same time, SESP strove to help entrepreneurs understand the strengths and weaknesses of their business propositions. Similarly, training providers (particularly business incubators) better understand the strengths and weaknesses of their training.

Experts in reviewing clean energy business propositions note that reviews of business plans are subject to a number of human factors than render the process subjective and inconsistent. One judge does not evaluate in the same way or on the same factors as another will. There is no normalization or standardization. The result can vary among the group of reviewers.

Partnership Solution

One of the significant sustainable outcomes from the Colorado SESP Entrepreneurial Pilot Project was the discovery of a need and the subsequent development of a company to meet that need. One of the members of Clean Energy Business Colorado took the entrepreneurial spirit to heart and started "Judge Rubric", later renamed Valid Eval, to provide rubrics for evaluating different business propositions. With the rubric, a human being is still required to complete a review of the business because judgments must still be applied, but the tool forces judges to make evidence-based evaluations of a number of distinct criteria—a process that drastically minimizes biases.

Outcomes/Results

The Colorado Workforce Development Council (CWDC) purchased a lifetime unlimited license to Valid Eval for Colorado government agencies' use in evaluating entrepreneurial proposals across the state. The Colorado Workforce Development Council's acquisition of Valid Eval licenses is leveraged to Colorado SESP. Subsequently, a custom rubric was developed targeting the kinds of clean energy entrepreneurs supported by Colorado SESP. Use of the tool was mandatory for participants in SESP-funded, incubator-based training, both at entry and exit from training. The development of a tool to evaluate small business entrants (under $500,000 in estimated capitalization need) and their propositions is now being managed by the CWDC. When complete, the small business evaluation rubric will be made available to workforce centers, chambers of commerce, economic development organizations, and others interested in supporting entrepreneurial development. The CWDC is also considering the development of rubrics to evaluate funding proposal and business proposals to use in evaluating entrepreneurial proposals from a wide range of sectors.

GreenCareersCO.com

Challenge – Opportunity – Problem

In Colorado, interest mounted in the renewable energy and energy efficiency industries, coupled with consistent government support for green policies and business. Across America there is mounting pressure on the education system to focus on Science, Technology, Engineering, and Mathematics (STEM) skills. These skills provide a sound foundation for success in careers in renewable energy and energy efficiency. Yet there was no single, easy-to-use, exciting source of information about these career paths.

Partnership Solution

With a grant requirement to create an "Energy 101 Orientation", Colorado SESP set out to develop a web-based tool that would provide green career information for those interested in learning about a green career path. Under a contract with Regis Learning Systems of Denver, Colorado, the GreenCareersCO.com website was launched on January 31, 2011. This is an interactive and engaging experience for the viewer that includes an overview video geared to a younger target market.

The website is a valuable tool for job seekers to increase their knowledge of the green industries, what jobs/careers are available, the skill requirements for these careers, and how to access services to pursue careers in these industries. Twelve targeted industries include environmental protection, manufacturing, green construction, smart grid, regulatory administration, carbon capture, green transportation, and recycling and waste management. Site visitors can get an introduction to green careers that discusses skills and education, increased demand occupations, and new/emerging occupations. They can also find information about job locations and salary ranges. An exciting introductory video includes comments from people who have made career choices in various green industries. The site also offers a printable Job Action Plan and self-assessment tools for green job opportunities in renewable energy, energy efficiency, and green construction.

Outcomes/Results

The website is featured on the Colorado Community College website. The link has been distributed to high school counselors and principals statewide and is available on every workforce center site.

By the end of the third quarter of 2012, a total of 5,637 unique visits were recorded since a hit counter was installed on the website in early August 2011. The 3rd quarter of 2012 saw 1,114 visits to the site of which 1,034 (93%) were new visitors. This continued usage and the number of new visits provides solid evidence that the site will be a sustainable and useful tool for the Colorado workforce. Business cards promoting the website were supplied to Groundwork Denver for use in their Take Charge! consumer information project. The combined success of these two projects has exciting implications for the long-term sustainability of the website.

The Colorado Energy Consortium and Filling the Utility Worker Training Gap

Challenge – Opportunity - Problem

The utility industry has long been projecting a shortage of skilled workers, in large part as a result of the impending "silver tsunami" of older workers leaving the workforce. When coupled with changing technology, the crisis loomed even larger. Unfortunately, there was no curriculum or training program available in Colorado that was endorsed by industry or determined to meet industry needs. Similarly, the utility industry had a history of poaching competitors' workforces as a tactic to solving short-term workforce needs. Realizing that change was needed, Colorado utility providers began conversations and started working with the Washington, DC-based Center for Energy Workforce Development (CEWD) to form the Colorado Energy Consortium (CEC). In early 2011, Colorado SESP was approached by partner SkillBuild Colorado to assist the CEC with developing a cohesive organization and implement a project targeting improving the skills and capacity of the utility industry workforce.

Partnership Solution

Colorado SESP staff engaged in the development of the CEC. The CEC mission is to combine the power of the energy utilities, government, and the educational system to develop and enhance the Colorado energy workforce. With this focus, the industry aims to ensure that the next generation of utility workers in Colorado comes to their doors with the skills to succeed in the utility industry.

Collaborating with utility partners including Black Hills Energy, Xcel Energy, and Colorado Springs Utilities, SESP funded the development of a "foundation program" in the community colleges to provide industry-demanded training for entry into the utility industry.

The SESP funded a gap analysis conducted by the Colorado Community College System (CCCS) on utility employer needs and available training programs in the community college system. The objective was the development of a foundation program to prepare students for employment at utility employers such as Black Hills Energy, Colorado Springs Utilities, and Xcel Energy starting with a foundation of curriculum available in the community college system.

With this training available, the projected workforce shortages may be averted and workforce training in the newer "green" technology coming to the utility provider market.

Outcomes/Results

The analysis of programs by CCCS determined that much (if not all) of the needed course work already exists within the community college system. SESP provided funding to CCCS to accomplish the following:

- Compare the course work of an existing utility worker training program in Minnesota to Colorado courses currently available in the common course numbering system; this comparison will utilize the Energy Industry Core Skills Study performed by the Minnesota Energy Consortium.
- Identify equivalent courses and assemble sample syllabi for those courses.
- Identify any gaps for which courses are not offered in Colorado.
- Create new courses, if needed, to present any content gaps between the Energy Core Skills study and current courses offered in Common Course Numbering System (CCNS).
- Collaborate with the CEC to assemble a foundation program that will be offered in the CCCS.

CEC met to review and approve the foundation program curriculum in January 2013. Having received industry approval, CCCS will move to make the curriculum available in community colleges by the fall semester of 2013.

The CEC Executive Committee met to review and approve the foundation program curriculum on January 18, 2013. The Statewide launch of the curriculum was presented at a meeting of utilities and education partners on February 15, 2013. The curriculum will be available in community colleges and in part online in the fall semester of 2013.

With this training available, projected workforce shortages may be averted or minimized.

Several outcomes of the Colorado Energy Consortium and curriculum development process contribute to sustainable breakthroughs from SESP.

- The Colorado Community College Systemn has a tradition of developing courses at the institution level. The utility course "is entering new territory in developing a state level program instead of courses being developed at local campuses."
- SESP facilitated what will be a long term collaboration between the Colorado Community College system and the Colorado Energy Consortium.
- A LinkedIn group has been created for the CEC and is CEC is receiving requests to join the group.

Green Training in Apprenticeships

Challenge – Opportunity – Problem

New technology is introduced into the market place every day. These changes impact the products available to consumers and the processes necessary to use the new technology. This is particularly meaningful in the construction trades as new energy saving ideas, designs, and product ideas appear daily. Adaptability to new technology and training the workforce in new products, tools, and techniques is critical if the workforce is to meet growing demand for energy-saving technologies. Given how fast technology changes in today's world, adaptability must become a lifelong process that requires a solid foundation—today's new idea is tomorrow's standard. For a Journeyman to become a Master, the professional must "master" the new green technology.

Partnership Solution

When Colorado SESP issued a public procurement for apprenticeship training, the bid required that the training curriculum include an industry-specific green component. Green skills provide professionals with a solid start in a career and the foundation to continue to adapt as new technology becomes standard practice. These professionals willspan the state and beyond at a number of different companies and their training will have an impact on each one of these companies and their projects

Outcomes/Results

The Construction Industry Trades Council (CITC) will keep green building as part of their curriculum. According to CITC Director Cori Gerlitz, "more and more of our builders are making green building and LEED part of their regular business practices so we find it is important to inform and teach our students as to what it is and why it is so important."

Similarly, the sustainability behind the Green Professional (GPRO) program used by the Independent Electrical Contractors Rocky Mountain Chapter (IECRM) has stood on its own laurels following the initial SESP grant funding. IECRM has held courses in cooperation with the US Green Building Council to be able to teach an additional 50 individuals in the green building fundamentals and green electrician subject matter. The classes have been held in addition to the IECRM Apprenticeship Training program and have been a draw for a number of employers in the region. IECRM plans to continue to offer GPRO courses on a semi-annual basis and will continue to elevate the professional skills of the local workforce on sustainable practices and roles on green job sites. IEC Executive Director Spenser Villwock credited the SESP partnership as the catalyst to be able to launch this new expert educational program into the Colorado marketplace. To date, the Denver area has the highest number of GPRO certified professionals in the United States.

SESP Steering Committee member Dan Hendricks, training coordinator for the Denver Joint Electrical Apprenticeship Training Council (DJEATC) reports that "the DJEATC will indeed continue to provide the 'green' components in our curriculum. These elements are an integral part of our nationally recognized program. We realize at an industry-wide level that the skills taught in these courses are vital to the success of our apprentices as

Journeyworkers. Our contractors also reap the benefit of having a workforce with a firm understanding of ‘green’ technologies. Allowing them to pursue projects with the confidence that their workers can deliver on the promises they make. This training is truly a win-win situation.”

Regional Meetings of Grantees

Challenge – Opportunity – Problem

When national grant opportunities are offered, every responding state proposal is based on the same offering, but every proposal is different. This difference/similarity conflict led to confusion among grantees about how processes and procedures applied to individual state situations in the first year of the grant. Turnover in the Federal Program Officer (FPO) positions led to additional confusion and grantee unease. At the same time, each state had found strategies and tactics that were working. More than a year into the life of the SESP grant, Region IV SESP grantees began conversations to explore how collaboration might help get all grantees "on the same page."

Partnership Solution

On August 3, 2011, the State Energy Sector Partnership grantees in Region IV met in Denver, Colorado. The meeting was hosted and organized by the Colorado State Energy Sector Partnership project team. Grantees in Region IV were polled prior to the meeting to determine discussion topics and set an agenda that would be relevant and useful for all grantees.

In preparation for the meeting, the partners were asked to identify concerns and topics for discussion at the meeting. The morning session was devoted to addressing the pre-determined questions and concerns, while the afternoon session was set aside for brainstorming and open dialogue about topics that evolved from the morning deliberation. A neutral facilitator kept the meeting on topic and managed the pace of discussions. The meeting was structured only in the sense that a starting point was provided by the participants—the information exchange itself was unstructured. Four objectives were established for the meeting:

1. Discover new ways to overcome challenges.
2. Find assurance in group consensus on compliance issues.
3. Develop a regional synergy of answers/approaches to complex issues.
4. Reach consensus on what we do and do not know and where to seek the answers.

The collaboration proved so successful that a second meeting was scheduled for March 2012. In preparation for the meeting, the participants were again asked to identify concerns and topics for discussion. The participants involved determined to use an open and unstructured format, similar to the format used in the August Denver meeting, but without a facilitator. The partners also determined that the ability to meet as a group and individually for guidance, suggestions, and clarification with Region IV FPOs would add strength to the event. With restricted federal travel budgets, grantees met near the Region IV ETA offices in Dallas, Texas. The first day of the meeting included only the six grantee states for idea exchange and problem solving. On the second day, grantees met with FPOs individually and collectively. The March 27th session was devoted to addressing questions and concerns submitted by the partners and then allowing those discussions to flow into brainstorming and open dialogue about topics that evolved. The

March 28th session was a summary meeting that followed individual sessions with the FPOs.

Outcomes/Results

These meetings, initiated and organized by grantees, have proven beneficial in cementing relationships and relating shared practices. The collective experience and wisdom of the grantees adds value to regional grant administration. The strong exchange of ideas and instant sharing of documents has given continuity to regional grant management. Moreover, the personal relationships developed in the meetings facilitated phone calls and e-mail exchanges between grantees as they sought to broaden their horizons, seek new ideas, and solve problems. This personal contact further enriched regional and national conference calls with strong communication. The added access to FPOs, both formally and informally, yielded a sense of a mutually shared mission often missing in grant projects. Reports on both conferences were produced by the grantee group (the August 2011 report is included as an addendum to this report).

Other grantee collaborations are following this practice, starting with the Region IV H1B grants. Other regional SESP grantees have initiated their own regional collaborations based on the SESP Region IV model.

The Colorado Workforce Development Council (CWDC) Sectors Steering Committee

Challenge – Opportunity – Problem

Colorado has a long history of sector initiatives. Receiving the SESP grant not only helped move the energy sector forward, but provided a platform for regional sector partnerships to learn from.

Partnership Solution

The Colorado Workforce Development Council (CWDC) has a very active Sectors Steering Committee that will continue to use sectors-based work as a foundation for how Colorado's workforce system operates moving forward. The Sectors Steering Committee will ensure that lessons learned and specific projects resulting from the SESP will continue to be incorporated throughout Colorado's workforce system and partner systems. For example, SESP participated in the annual Sectors Academy and shared experiences with sector partnerships across the state. Leadership is critical in any sustainability plan and, for this reason, the SESP Steering Committee Chair now serves on the CWDC. This structure will help ensure that the work and great successes from SESP are incorporated into Colorado workforce systems' every day activities.

Outcomes/Results

SESP's integration with the Sectors Steering Committee has proven to be extremely valuable, not only to the energy sector but sectors across Colorado that have learned from SESP's work.

2 D. Timeline of Key Activities

Sustainable Element	Key Activities	
	2012	2013
Colorado One-Stop System Policy Guidance Letter #: 12-WIA	This PGL will be in force until amended.	
Management Information Systems (MIS) Policy and Practice Changes for Future Projects	These policies and practices will be continued to be implemented on an "as requested" basis.	
Smart Grid Curricula and Certifications	Fall Semester	Spring Semester Fall Semester
Smart Grid LIVE Educational Session	September	September
Energy Training Asset Map	As an on-line available product, this will be available continually.	
Sustainability of Training Programs and Increasing Training Providers on the Eligible Training Provider List	As an on-line available product, this will be available continually	
DU Sustainability Course	Fall Semester	Spring Semester Fall Semester
Veterans Energy Concierge Call Center Pilot Project	As a pilot model, we cannot estimate location or date of additional implementation.	
Entrepreneurial Pilot Project	This project will be replicated by the workforce system when funding is available. NREL is using the model on a continuing basis.	
Valid Eval Business Proposition Evaluation Rubric	As a private enterprise, we cannot estimate the longevity of Valid Eval; however, the products will continue to be used by company customers and the Colorado Workforce Development Council and affiliated entities on a continuing basis.	
GreenCareersCO.com	As an on-line available product, this will be available continually.	
The Colorado Energy Consortium and Filling the Utility Worker Training Gap	Fall Semester	Spring Semester Fall Semester
Green Training in Apprenticeships	Partners assert they will use green training in apprenticeships continually.	
Regional Meetings of Grantees	Semi-annually for H1B	Semi-annually for H1B
The Colorado Workforce Development Council (CWDC) Sectors Steering Committee	These lessons learned will be continued to be implemented on an ongoing basis.	