



Sacramento Capital Region Next Economy Cluster Workforce Action Plan: Clean Economy Forum Proceedings

April 25, 2016
American River College
Series 6 of 6

Introduction

In Fall 2016 Valley Vision, supported by JPMorgan Chase & Co. and in partnership with Los Rios Center for Excellence (COE) and the Burris Service Group, initiated a project to identify the current workforce needs of the six Next Economy high growth business clusters in the six-county Sacramento Capital region. Next Economy is the region’s Comprehensive Economic Development Strategy (CEDS) as designed by the U.S. Economic Development Administration (EDA). This assessment was accomplished through quantitative research reports, qualitative validation of the data and emerging trends through employer and partner forums. These activities set the stage for action plans that identified priorities for each of the clusters.

Purpose

In 2011, Valley Vision and leaders across the region undertook a major initiative called Next Economy. The goal was to transform a \$97 billion annual economy that suffered widespread hardship and a lagging recovery into one that is diversified, robust and sustainable. In 2012, as part of that effort, a region-wide economic analysis turned attention to six promising business clusters that could be catalyzed for job creation. They were identified as business clusters where the region has innate advantages and the strongest potential for growth based on economic performance indicators. Fast forward to today: our economy has recovered all the jobs that we lost, but the character of our economy is different.

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Overview of Next Economy Cluster Update Research & Forums

Valley Vision, the Los Rios Center of Excellence, and Burris Service Group, supported by JPMorgan Chase & Co., conducted economic research and employer and stakeholder forums to:

- Update the 2011 analysis of the six Next Economy high growth business clusters
- Identify emerging workforce needs and opportunities
- Generate workforce action plans
- Advance strategies to address critical workforce skills gaps
- Better align education and workforce development resources to meet employer and workforce needs
- Improve the regional economy

This document summarizes the results of the Clean Economy cluster forum.

The research report can be found at: <http://valleyvision.org/resources/clean-economy-workforce-needs-assessment>

Six High Growth Next Economy Clusters

Advanced Manufacturing

Clean Energy Technology

Education and

Knowledge Creation

Food and Agriculture

Information and

Communications Technology

Life Sciences and Health Services

The goal of the Next Economy Cluster Workforce Action Plan is to update the region's 2012 cluster economic analysis; identify critical workforce skills gaps that exist within the six clusters today; mobilize and align cluster stakeholders around job creation strategies, and create targeted workforce action plans for each cluster that target critical skills gaps, education and training resources, and implementation priorities.

Process

Los Rios Center for Excellence (COE), in partnership with the Burris Service Group and Valley Vision, prepared six research reports, one for each cluster, that describe the workforce and economic characteristics of each cluster and education and workforce development resources for middle-skill jobs, defined as jobs requiring more than a high school degree. Valley Vision convened six Workforce Cluster Forums in the Winter and Spring of 2016 in collaboration with a wide range of partners. The last forum convened was for the Clean Economy cluster.

Forum Overview and Purpose

The purpose of the Clean Economy Forum was to present the initial economic research findings to employers, industry experts and community partners and collect feedback on data findings. Feedback was gathered through a facilitated discussion where participants identified pressing workforce needs, current and future occupational demands, education and training resources, and potential priorities for a cluster action plan. The action plan is intended to tackle current and emerging cluster workforce needs and gaps. See Appendix A for Forum agenda.

Clean Economy Cluster Definition

According to the Brookings Institute, "The Clean Economy is economic activity- measured in terms of establishments and the jobs associated with them- that produces goods and services with an environmental benefit or adds value to such a product using skills or technologies that are uniquely applied to these products. "The Clean Economy" Cluster is comprised of six subsectors:

- Energy and Resource Efficiency
- Renewable Energy
- Sustainable Agriculture
- Advanced Transportation
- Environmental Compliance
- Recycling and Waste Reduction

Source: COE, Advanced Manufacturing Report, page 4

American River College professor for Diesel Technology, Craig Weckman welcomed participants and provided an overview of American River College's Diesel Technology program and how the college is adapting their curriculum to include clean automobiles. Jeff Martin, Vice President of Chase for Business, Head of Corporate Responsibility for the Western Region, JPMorgan Chase & Co., discussed JPMorgan's sponsorship of the project. Jeff touched on the company's launch of a \$250 million, five-year nationwide workforce readiness initiative- *New Skills at Work*- to help close the skills gaps in sectors where employers struggle to fill vacancies, and to assist job seekers to access the education and training required for those positions. See Appendix B for list of participants.

Presentation of the Research

Theresa Milan, Director for Northern California Region, Los Rios Center of Excellence, gave a presentation on workforce training gaps in the Clean Economy cluster. A definition of Clean Economy subsectors was provided along with industry examples. The data does not represent a complete picture of the Clean Economy cluster, rather a small percentage of the total jobs. Classifying which jobs were a part of the Clean Economy was a challenge. As of 2016, the cluster consisted of 13,565 jobs and has grown by 35% in the last 5 years. With new legislation passed, the cluster is projected to grow and increase in demand for Clean Economy workers. Looking at new jobs and replacement jobs, the cluster is projected to have more than 1,730 job openings.

Due to the data not representing the entire cluster, the economic impact of this cluster could not be produced. In phase II of the project Valley Vision will conduct deeper research and develop a more robust estimate of the number of jobs and establishments that are currently part of the Clean Economy within the Sacramento Capital

region. It is important to note that the trajectory of projected jobs can be accelerated or improved through targeted strategies. The full research report is available through the link provided on page one.

Employer Panel

The goal of the panel was to understand the workforce challenges that employers in the cluster are facing. Trish Kelly facilitated a discussion with a panel of seven employers, listed below:

- La Ronda Bowen, Ombudsman, California Air Resources Board
- Roy Gillham, Supervisor Energy Solutions, PG&E
- Tom Kandris, CEO & Managing Director, PackageOne
- Erik Mason, Business Operation Manager, Clipper Creek Inc.
- Lizette Tovar Miranda, Workforce Pipeline Planning and Education Relations Management Analyst, SMUD
- Samuel Villegas, HR Consultant, Siemens
- Tommy Young, President & CEO, E3 CA Inc.

Each panelist provided a brief introduction of their company or industry with an overview of company products and services, location, employment characteristics, and target customers. The panelists were asked a series of questions:

- What surprised you about the research findings/information? Are they on target?
- What kind of positions do you have most difficulty filling?
- What skill sets are currently in greatest demand?
- What educational and training gaps do you see that we should address?
- What kind of workforce challenges do you see your company/industry facing?
- What is the most critical priority that an action plan should address?

Panel Discussion Highlights

A large percent of the current Clean Economy workforce is approaching retirement and entry-level employees are not prepared to take on those job responsibilities. For the government and utility sector, approximately one third of the current employees will be retiring within seven to ten years. In addition, there are demand needs for specialized and IT knowledge that are new job openings. A common challenge that employers are faced with today is whether to endure the cost of training the employee(s) themselves and hope the clean technology industry grows or not to train them because the future of the industry is not clear. Training is often lengthy and expensive and with computer coding constantly changing with new legislation and regulation, many employers are deferring from training employees themselves. Employers that do train their employees do so in morsels, which takes about 1-2 years. Once new employees are trained it still takes an additional six months to a year of work for them to be up to par. Once employees are trained, there is a high risk that they leave the organization in pursuit of a higher paying job.

Employers have had a difficult time hiring qualified workers and have been recruiting from the tech industry. Recruiting high skill levels from the tech industry has not paid off, since small businesses and public agencies can not compete with the salaries tech companies offer.

Future policy is going toward “zero waste”. Preparing the future workforce to have the knowledge and skill set for innovative thinking is key. In addition, the grid is changing. Sacramento has the most renewables on the grid in the

country and we need IT and engineers to bring the grid to the next level and online. There is a large disconnect between implementation and regulation.

The new minimum wage will bring pressure on applicants and the workforce. Employers will be demanding more skills and experience with a higher wage. Nominal performances will no longer be accepted and the correct education and training programs will need to be in place in order for the region to advance in this industry.

Other workforce challenges and opportunities that were identified include:

- Create a map of workforce development infrastructure
- California can be the case study that other states and countries study to implement clean jobs
- Get involvement with schools to get kids excited and show them that the topic is real
- Show students the variety of jobs in product development, engineering, welding, etc., for those who want to be in the field or in a hands-on career
- Shift to paying solar installers as skilled labor instead of day laborers
- Build awareness of the need to prepare the workforce for long-lasting jobs that aren't obsolete in five years
- There is a huge demand for building materials that do not contain toxins
- Green building is becoming the norm and with tighter building regulations this sector will grow
- Living buildings and living communities challenge
- SETA is working with the Kings Arena to get employees from high need zip codes to work on the project
- Power Pathways for PG&E that takes them around needs and hires 100 veterans for the same program

Summary of Group Discussion

The employer panel was followed by a facilitated group discussion, where all forum participants were encouraged to provide feedback on high needs workforce gaps, key resources and recommended priorities. The group was asked two questions:

- What are the most critical workforce needs in the Cluster?
- How can employers, education, workforce, and economic development address these needs?

What Are Our Workforce Needs/Challenges?	
Occupation	<ul style="list-style-type: none"> •Welders •Engineers, manufactures •Electricians/Electric Mechanical CAD •Any profession related to trains (Siemens) •Built environment, architecture, materials design •Sales staff •Assemblers & High tech IT/ IT with Energy Efficiency •Energy Audit
Education and Training	<ul style="list-style-type: none"> •Student training program that is in traditional spaces •Older workforce needs to teach new/entry-level before they retire •Saturday seminars for kids to get them interested in the "clean" industry •Create a SAP class/program at the education institutions •Create innovative thinking classes with team building
K-12 Pathway	<ul style="list-style-type: none"> •Bring in classes that show the students about the Clean Economy cluster and careers •High Schoolers need trade shops to start training on motor skills •K-12 programs/classes on Clean Energy to expose students to new technologies skills the career needs •Create more programs such as Rosemont High School
Awareness	<ul style="list-style-type: none"> •Better awareness of careers and policies •Employers and education institutions needs to create the pipeline •Attract the younger workforce by stating that the Clean Economy work is meaningful work that makes a difference
Priorities	<ul style="list-style-type: none"> •Create partnerships with employers, education and workforce agencies •Workforce infrastructure model •Map out the opportunities available across all grade levels •Add building material as a Subsector
Employee Readiness	<ul style="list-style-type: none"> •Hands on training within the industry and/or through internships
Cluster Challenges	<ul style="list-style-type: none"> •Uncertainty around policy/consistency •Innovation in the cluster, new technologies •Employers are having to recruit employees outside of the region •Energy code is 3,000 pages and it is very overwhelming and difficult to educate people on topic •Visibility of policy initiatives (adapt marketing)
Employers	<ul style="list-style-type: none"> •Find ways to partner small business and students that need skills

Participants were asked to suggest actions by employers, workforce, economic development and education to respond to these needs. Figure 2 summarizes the input.

Figure 2: What Priorities Should Be Implemented For An Action Plan?

Career Awareness/Marketing	<ul style="list-style-type: none">•Bring awareness to vast career opportunities within cluster•Better recruiting system for job openings•Make careers more attractive to millennials, employers must be open to future generation wants and be flexible•Bring awareness to existing resources for training development & recruitment
Training and Education	<ul style="list-style-type: none">•Create an innovative thinking class with team building exercises•Create partnerships that will allow students to work and receive hands on experience•Work with high schools and junior high level on career awareness and opportunities•Expand hands-on auto-tech classes (for EV cars)
Employers	<ul style="list-style-type: none">•Employers are in need of specialized applicants and working with the schools and workforce agencies to prepare workforce•Create more internship opportunities that allow students to acquire necessary skills•Partner with Siemens and their new Bart project
Challenges	<ul style="list-style-type: none">•Low hanging fruit (i.e. need for energy efficiency) is gone•Not enough internships or entry-level positions for building industry•New minimum wage law will be a challenge and effect how employers hire
Workforce	<ul style="list-style-type: none">•Sacramento region's Clean Economy cluster cannot advance from within•Specialized skills are in higher demand and difficult to find within the region
Miscellaneous	<ul style="list-style-type: none">•Electric grid is changing and there is a need to redesign•Compliance drives growth within the industry•Create a Clean Tech/ Clean Economy incubator within the region

Participants then were given three votes to indicate the highest priority issues. The top priorities are shown in Figure 3.

Figure 3: Top Action Items/ Priorities

1. Create visibility around natural resource and efficiency policies – these policies drive and predict growth in job, industry, and practices in the Clean Economy.
2. Focus on STEM coursework in K-12 that teaches students problem solving and innovative thinking skills that will enable them to be adaptive to the rapid changes in emerging technology markets.
3. Create a public awareness campaign targeted for K-12 communicating career options. Make the connection between a desire to make a difference and meaningful, well-paid careers in Clean Economy.
4. Establish and enlist a trade organization to represent Clean Economy and demonstrate the value of diverse Clean Economy jobs.
5. Identify non-traditional approaches to internships, apprenticeships and on-the-job training. Pair startups and small business with interns, use aging workforce to train new workforce, and develop student workshops to orient students to Clean Economy jobs.
6. Develop certifications, coursework, and on-the-job training to upskill existing workers. Needs of Clean Economy are shifting and more specialization is required.

Overarching Themes and Clean Economy Specific Recommendations

On May 3rd, Valley Vision hosted the 2016 Capital Region Workforce Summit at UC Davis. The Summit presented new research findings on high-priority skill gaps facing the Next Economy clusters, and cluster-specific action plan priorities from all six cluster forums held with regional employers, education institutions, workforce development agencies and industry partners. Valley Vision presented both overarching themes that emerged from the cluster forums and research, and cluster-specific recommendations to support each business cluster.

The overarching themes across all clusters were the need for:

- Career awareness (all grade levels)
- Career readiness (school to career)
- Diversity of the workforce
- Additional research on high demand occupations and skills
- Alignment of education and training resources

The issues that were of the highest priority in Clean Economy were:

- Lack of awareness about career opportunities
- Need for more hands-on training and alternative learning spaces like maker spaces
- Shortage of skilled workers in high demand occupations

Conclusion and Next Steps

The economic cluster research, forums and Workforce Summit were key steps in better understanding current economic, educational and workforce issues that are at play in the current regional environment. These set the stage for action strategies to address the needs that were identified. Valley Vision will move into Phase II of cluster action plan implementation in Summer 2016.

Appendix A: Agenda



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Capital Region Clean Economy Workforce Cluster Forum

April 25, 2016, 8:30 AM– 12:00 PM American River College,
Community Room: 4700 College Oak Drive, Sacramento

Project Partners:



AGENDA

8:30- 9:00 AM Registration

9:00- 9:30 AM Welcome & Introductions, Overview

- *Trish Kelly, Senior Vice President, Valley Vision*
- *Craig Weckman, Professor for Diesel Technology, American River College*
- *Jeff Martin, Vice President, Chase for Business, JPMorgan Chase & Co.*

9:30- 10:00 AM Overview of Clean Economy & Presentation of Cluster Analysis, Q&A

- *Evan Schmidt, Project Manager, Valley Vision*
- *Theresa Milan, Center of Excellence Director for Northern California Region, Los Rios Center of Excellence*

10:00- 11:15 AM Employer Discussion Panel—Facilitated by Trish Kelly

- *La Ronda Bowen, Ombudsman, California Air Resource Board*
- *Roy Gillham, Supervisor Energy Solution, PG&E*
- *Tom Kandris, CEO & Managing Director, PackageOne*
- *Erik Mason, Business Operation Manager, Clipper Creek Inc.*
- *Lizette Tovar Miranda, Workforce Pipeline Planning and Education Relations Management Analyst, SMUD*
- *Samuel Villegas, HR Consultant, Siemens*
- *Tommy Young, President & CEO, E3 CA Inc.*

11:15 AM- 12 PM Discussion—High Need Workforce Gaps and Recommended Action Plan Priorities

- *Evan Schmidt, Project Manager, Valley Vision*

Appendix B: Participant List

Last Name	First Name	Organization
Azen	Rabbi David	Fresher Sacramento
Bedford	Brian	Next-Ed
Bigler	Gene	Puente SCA
Boeger	Greg	Boeger Winery
Broome	Barry	Greater Sacramento
Burriss	Bob	Burriss Service Group
Carrillo	Cynthia	Greater Sacramento
Carveth	Charlene	EDC
Crooks	Nancy	NCEN
Debets	Jacqueline	Placer County
Dickinson	Marjorie	UC Davis
Dobbs	Matthew	
Englehardt	Adam	Boundary Bend Olives
Fischer	Cyndi	HP Hood
Fletcher	Randy	Yuba County
Flores	Chris	Office of Congresswoman Matsui
Frentzen	Shiva	El Dorado Supervisor
Frerichs	Lucas	UC Davis
Galipo	Darlene	Golden Sierra
Gallino	Kathy	Sacramento County
Graham	Ryan	Track 7 Brewing Co.
Griffin	Terri	Placer Crane
Harris	Amber	UC Davis
Hatamiya	Lon	Hatamiya Group
Johnson	Tim	California Rice Commission
Kang	Meea	DOMUSD
Kelly	Trish	Valley Vision
Kim	Roy	SETA
Kimball	Mary	Center for Land-Based Learning
Kober	Mary	CSU Sacramento
Lekashman	Kenneth	Herspring-Gibbs
Levings	Kristy	Office of Yolo County Ag Commissioner
March	Andrew	Office of Congressman Garamendi
Marquez	Marc	Yolo County
Mason	Trent	
McLaughlin	Jeff	El Dorado County ED
McMorrow	Christine	Center for Land-Based Learning
Miille	Michael	Bayer CropScience
Milan	Theresa	Center of Excellence
Minor	Chelsea	Raley's
Minor	Samantha	Valley Vision
Neenan	Rob	California League of Food Processors
Nicoletti	John	Yuba County Board of Supervisors
Niesen	Lorilee	SCOE
Norton	Amanda	City of Rancho Cordova
Parro	Diane	City of Davis
Peckham	Dean	City of Sacramento ED
Rehn	Adrian	Valley Vision

Richards	Diane	City of West Sacramento ED
Rodney	Ashley	
Rogers	Nicole	SCVB, Farm to Fork
Schaal	Tracey	Power Inn Alliance
Schmidt	Evan	Valley Vision
Shabazian	David	SACOG
Sharp	Ryan	UC Davis
Simonsen	Rubie	City of Sacramento
Sroufe	Dan	Pacific Coast Producers
Stott	Amber	Food Literacy Center
Stranix	Brynda	Yuba-Sutter EDC
Tien	Christine	The California Endowment
Tse	Robert	USDA Rural Development
Walker	Louise	First Northern Bank
Worley	Sarah	City of Davis
Wright	Chelsea	
Young	John	Yolo County Ag Commissioner
Zone	Martin	USDA Rural Development