

SOL PRICE CENTER FOR SOCIAL CHANGE
Activating Markets for Social Change Conference
April 14th

PANELTITLE: Connecting People to 21st Century Jobs

PAPER TITLE: Building a High Road -- Sustainable and Just - Economy

PRESENTER: Denise G. Fairchild, Ph.D.
President/CEO
Emerald Cities Collaborative

Sector Employment strategies generally are recognized for preparing disadvantaged populations for existing middle skills jobs in vital sectors of the regional economy. However, the changing nature of work toward low road pathways demands we pay equal attention to shaping the sectors themselves to produce higher quality of employment opportunities. The fact is that “demand side” factors serve as formidable barriers to quality employment. Some of the structural challenges include industry and employer hiring practices, wage and benefit structures, the absence of occupational ladders and opportunities for continuing education. Sectors throughout the US are undergoing dramatic structural changes that without concerted efforts to reverse trends will undermine the employment prospects of disadvantaged workers.

The construction industry is one such sector trending toward diminishing job quality. Over the next decades, substantial numbers of construction jobs are expected to be created, given the major investments in the growing green building and infrastructure sector. We need to create job opportunities for low-income populations in this emerging green building sector, but tackle fundamental issues of not just job access but job quality. This entails transforming both the construction industry and job opportunities and hiring practices within the building and construction trade unions. We need to connect participants to quality training, decent wages and benefits and long-term career opportunities. So, we need to go beyond traditional workforce preparation and placement. We need collaborative sector-based strategies to re-engineer both the demand side and the supply-side of the construction/utility industry.

Green Job Opportunities

“The ‘green’ or ‘clean’ or low-carbon economy is defined as the sector of the economy that produces goods and services with an environmental benefit.”

This definition suggests that the clean economy permeates all sectors of the economy. It also suggests that the thrust of business and job opportunities is not in an “emerging sector,” but in the growth of new materials, technologies, processes, and services offered by businesses in traditional sectors. The cumulative effect is that we can expect to see growth in existing manufacturing, construction, retail, and professional services in addition to new business development, because of a growing demand to reengineer all aspects of the economy to be greener.

Several factors propel the market opportunities in the clean economy. The continued growth prospects are fueled by policies, investments, economics, and to a growing extent, consumer demand. New energy efficiency and renewable energy performance standards are driving growth in auto, appliance, lighting, paint, metal parts (e.g., wind turbines) and a range of new product manufacturing. In addition to manufacturing, transportation services and jobs in public administration are emerging from related public policies and investments.

The bulk (57 percent) of the clean economy, however, centers around the real estate and construction industries. The two key drivers behind the green building industry are infrastructure development and clean energy (energy efficiency/renewables). There is a tremendous market to retrofit America’s physical infrastructure to better withstand extreme weather and become greener.

There is greater awareness of and need to re-engineer and rebuild the nation’s aging infrastructure, most of which relates to how we harness, distribute, and use natural resources. Specifically, in 2013, the American Society of Civil Engineers gave America’s infrastructure a cumulative grade of D+ across 16 categories.¹ The infrastructure most in disrepair and at risk of failure (D grade and lower) included energy, drinking water/wastewater, levees/inland waterways, transit/roads, aviation, and schools.² A total of \$2.75 trillion of infrastructure investment is needed between 2013 and 2020

Numerous indicators of growth, as well as challenges, in construction informs ECC’s work. This includes infrastructure needs, investment trends, job creation studies, and policy initiatives.

It is estimated that \$2.73 trillion in infrastructure investment is need between 2013 and 2020 to upgrade all infrastructure to achieve a B grade from the American Society of Civil Engineers. Similarly the Clean energy infrastructure is pegged at \$629 billion in expected funding and \$107b in gap for energy efficient buidings, a modernized power grid, renewable power, and public transportation.

¹ American Society of Civil Engineers, “2013 Report Card: America’s Infrastructure (Washington, DC: ASCE, 2013). Available at <http://www.infrastructurereportcard.org/>

³ Global Insight, “Current and Potential Green Jobs in the US Economy” (US Metro Economies , 2008).

These are labor intensive jobs.... 21.5 jobs/ million in investments.

U.S. capacity for cleaner and more energy efficient economy depends on retrofitting U.S. buildings and related energy infrastructure (e.g., wastewater treatment plants). Making existing properties more energy efficient is the most important and cost-effective way to achieve the required 50 percent reduction of greenhouse gas emissions by 2050. The fact is, the building sector is the largest generator of carbon as it consumes 71 percent of generated electricity. Energy conservation in this sector, therefore, will have the greatest short-term impact.

The scale of the work entails retrofitting nearly two-thirds of U.S. building stock built prior to new energy standards of the last decades. This includes \$400 billion of potential commercial retrofits (\$41 billion of annual energy savings for commercial properties), and 112 million residential properties (\$2 billion annual savings for public housing alone). This does not include government facilities, schools, and hospitals, which also carry a big carbon footprint

A plethora of studies stakes out the job prospects of a clean energy economy. Apollo Alliance identified 21.5 jobs in energy efficiency per \$1 million of investments. A 2008 study by Global Insight projected an addition of 4.2 million U.S. jobs between 2008 and 2038 by increasing renewable use and implementing energy efficiency measures.³ Another study projected an additional 2 million jobs from spending \$100 billion in public funds in a “green recovery program.”⁴ In the 2008 “Blueprint for Change”, then candidate Barack Obama anticipated 5 million jobs would be added from investing \$150 billion in stimulus funds in clean energy.⁵ The magnitude of the job creation is maximized when whole-building (comprehensive) retrofits are the goal as opposed to single measure installations (e.g., lighting), which, unfortunately, has been the trend to date.

Clearly, the construction industry stands to gain substantially from the growth of the clean economy. Jobs of energy auditors, solar installers, weatherization technicians, plumbers, insulators, glazers, electricians, mechanical trades (e.g., HVAC), and laborers become “green jobs” when the skills, technology, processes, and materials used produce positive environmental outcomes. Similarly, most operations jobs in the utility sector stand to gain from “green” developments. Therefore, although the future of new construction has diminished, rebuilding and greening existing infrastructure and buildings is growing.

³ Global Insight, “Current and Potential Green Jobs in the US Economy” (US Metro Economies , 2008).

⁴ Polin, Robert, et.al. , “Green Recovery: A Program to Create Good Jobs & Start Building a Low Carbon Economy” (Political Economy Research Institute, UofMass: Sept., 2008).

⁵ “Energy and Economic Policies” The BluePrint for Change, Barack Obama’s Plan for America (2008).

THE MULTIPLIER

The economic impact of green building and infrastructure development, however, goes beyond construction. The economic and job multipliers for this investment are deep and wide-ranging. A technology revolution is underway that is producing jobs in the research and development and manufacturing sectors. Professional services of architects, engineers, facilities and property managers are growing and changing at the same time.

A 2009 University of Massachusetts, Amherst, study examined the job creation potential for a \$1 million dollar investment in clean energy over fossil fuel and found 16.7 jobs in the former vs. 5.3 new jobs in the latter.⁶ Further analyses by Garrett-Peltier in 2011 found that for every \$1 million of investment in the energy upgrade of commercial buildings resulted in an estimated 5.1 direct jobs, and 4.0 indirect jobs, and 3.7 induced jobs, or 13-14 jobs per \$1 million investment. These averages differ by trade, with the highest multiplier (7.7) in building improvements (windows, insulation, roofing and the lowest in lighting and water heating (5.1 and 5.0, respectively). The numbers portend the importance of whole building retrofits for achieving the greatest impact on both carbon reduction and job creation. See Tables 1 and 2 for the industry composition used to generate these jobs estimates.

The study suggests that in addition to manufacturing and installing new energy efficient technologies, employment will be generated in facilities services, as building owners employ personnel to operate and monitor their building's energy system. The majority of these costs (95 percent) will be directly attributable to personnel, with a smaller percentage used to purchase equipment to maintain the facilities' energy operations. In this scenario, \$1 million will produce 8 direct jobs and 4.4 indirect, including scientific and technical consulting, real estate, telecommunications, architecture and engineering. Finally, energy efficiency upgrades are also projected to spur new investments allied with non-energy purchases.

Green Job Challenges

Job Creation

Clean energy jobs require a clean energy market. It has been hampered by financing, focus on single family markets, Single-measure retrofits, absence of policies. Notwithstanding this rocky start, enough forces are converging to suggest that the clean energy economy is inevitable.

⁶ Polin, Heintz & Garrett-Peltier, "The Economic Benefits of Investing in Clean Energy" (UofMass, Amherst, PERI, June 2009)

Most of the jobs (57%) are in construction. Energy auditors, solar installers, weatherization technicians, plumbers, electricians, laborers work within the traditional building and construction trades.

Job Quality

Construction is a relatively stable sector of the economy with, unfortunately, a trend toward low road employment.... Low wages, off the book pay, no benefits, seasonal work, difficult and unprotected working conditions, and limited skills training and career advancements. While union construction offers a high road option, providing family wage careers and viable working conditions for its members, union labor agreements are increasingly hard won battles and are equally challenging in right to work states.

Job Access

Different entry points offer qualitatively different outcomes: industry certifications, community college, community-based training and union apprenticeships. The pathway into the clean economy and high quality construction careers is neither clear nor easy, particularly for low-income communities of color. Obtaining a union apprenticeship in the construction trade is an especially formidable undertaking. While the benefits are huge-- on the job skills training, mentoring, paid learning and high wages -- so are the barriers. Chief among them are: the legacy of exclusion, the lack of networks into and knowledge about the trades, fragmented and disconnected workforce pipelines, lack of basic academic and job readiness skills, and lack of mentors/support systems and lack of jobs, esp. union jobs.

BUILDING A HIGH ROAD PLATFORM

ECC works to build a high road platform into careers into the green economy.

Effective interventions require:

- Effective policies that increase both job demand and workforce supply
- Project Labor Agreements which unionizes the work that provide worker rights and benefits
- Community Workforce Agreements which are attached to PLAs to ensure inclusion of disadvantaged workers and contractors on union jobs.
- Effective Workforce Training - utilization of union approved and engaged pre-apprenticeship training programs within community-based and community college curricula.
- Effective small, minority, women and veteran owned contracting training to assist in prequalifying for and effectively competing and executing large, high-road projects.