

# Green Workforce Development

## Meeting and Driving Demand for Energy Efficiency Services

Developing a workforce to meet and drive tomorrow's economy makes cities more vibrant, sustainable places to live and work. Local governments have the ability to promote tomorrow's jobs by creating workforce development programs, often in partnership with other organizations within the community. Green workforce development programs empower local workers who are eager to apply or master the emerging and specialized skill sets needed to make commercial sector building policies a reality.

### Background

"Green workforce" describes a broad grouping of careers that contribute directly to moving society and the built environment toward sustainability. This includes existing jobs that require new skills to meet green requirements, jobs that are in greater demand because of green initiatives, and entirely new and emerging occupations. In terms of the commercial building sector, green jobs include high performance building construction, building maintenance, retro-commissioning, energy auditing, engineering and other construction and design professions. A new report prepared for the U.S. Conference of Mayors indicates that green jobs could contribute as much as 10 percent of all new job growth over the next 30 years and much of that would be connected to the commercial building sector.<sup>1</sup> A number of community wide benefits coincide with developing, enhancing, or simply better connecting the green workforce with local employment opportunities. Local governments can contribute in many ways toward the end goal of having a vibrant and active local green workforce.



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### Benefits

**A Highly Skilled Local Workforce that Can Meet and Drive Demand.** Development programs help highly skilled workers access existing opportunities or expand their body of knowledge, and/or they introduce unskilled people to new lines of work. Many specific job types, including construction jobs, have been most impacted by the recent recession. Workforce development programs can bring currently unemployed or underemployed citizens back to work and ensure that enough skilled professionals exist locally to fulfill demand. Professions within the building trades produce work that is applied to and directly contributes to local economies, and in the longer term, many skilled trade workers may start their own businesses. Ultimately, a healthy green workforce is a collection of well-sustained local enterprises that generate and satisfy demand for their services within the community. A strong green workforce can improve the value and efficiency of the community's natural and human systems. Often, more capability exists than is effectively channeled in a given community. Study the potential of creating local jobs and realizing work that provides local value.

**Increase Commercial Sector Activity, Operations, and Employee Satisfaction.** Today, businesses in many different disciplines are looking to reduce costs and increase employee satisfaction. "Green buildings" are more energy efficient, use natural light, are built and maintained with nontoxic materials, and in

many other ways are designed as sustainable structures. Communities with a workforce that can build and retrofit buildings to realize high levels of performance are a draw for businesses and real estate developers.

**Commercial Buildings are More Energy Efficient.** More commercial buildings can be built, retrofitted, or operated to higher energy efficiency standards with a skilled and resilient workforce. With greater specialization, innovation and increasingly improved designs emerge in the marketplace. These design improvements can lead to further energy and cost savings for local businesses. Money saved through increased efficiency can lead to additional or sustained improvements within a commercial building (or set of commercial buildings), creating cycles of opportunity to realize value while reducing the impact of those buildings.

## Getting Started

It makes sense to leverage existing opportunities. There are likely existing local and regional schools and training programs that can be the starting point for a green workforce program. Additionally, national programs can be used to jump start your local program. In some cases, job placement may be more important than skills training.

### **Step 1: Understand Local Workforce Profile, and Supply/Demand for Services.**

Gather information on existing untapped workforce, local economic needs, local populations seeking training, and regional growth sectors to ensure that your green workforce development program effectively enhances and enables the local economy. Explore the areas of need within your local workforce, analyzing disparities between demand for services and skilled workforce to deliver those services. Your program should directly address any disconnects between supply and demand for skilled workers. For example, if you find that a sufficient level of local expertise already exists but is untapped, training need not be a vital component of your program; in such a case, your program might focus more on economic development, matching skilled labor with employers, and brokering partnerships amongst stakeholders.

### **Step 2: Engage the Stakeholders.**

Training and workforce development programs can be greatly enhanced by having local schools participate as the educators in the program. Working with businesses or unions can foster partnerships, opportunities, and new markets that are needed for students or work-ready professionals. Understanding the capabilities of partners will help to define the role of the local government in the workforce development program. Local governments typically serve a coordinating or supervisory capacity in these programs but also may engage in additional scope of work that could be included in the program. Survey the local landscape of stakeholders, engage and leverage their abilities, and fill gaps to create a robust program. For some aspects of work, it may be advantageous to utilize a nonprofit partner organization.

### **Step 3: Match Current and Pending Policy.**

Workforce development programs can focus on matching local, regional, or national policy priorities that ensure that participants are able to find work. This may include, for example, achieving a number of different skill sets or certifications, placing a certain number of individuals in quality jobs, and so on. Ultimately, workforce development programs should prepare your local workforce for current and pending policies and demand. Many workforce development programs integrate social equity considerations into their design and target those populations in the community with the greatest need for such opportunities. Many programs that have been launched recently utilize ARRA funding and therefore must comply with federal regulations such as Davis-Bacon and other requirements.

## Existing Policies or Programs

### *Boston, MA: Green Jobs Boston*

<http://sites.google.com/site/greenjobsboston/home>



- **Started:** 2008 as Boston's Greening the Empowerment Zone Initiative, became Green Jobs Boston in 2010
- **Targeted Skills:** Energy Efficiency, Weatherization, HVAC, Deconstruction, Facilities Maintenance, Renewable Energy, Green Construction.
- **Focus Population:** Metro Boston residents, low-income and un/underemployed individuals, veterans, minorities, and women. Focus largely depends on the program.
- **Key Components:**
  - Act as a conveyor and networking hub of green job information for residents, training programs and employers. Provide information about job openings, training programs, and resources.
  - Coordinate the Metro Boston region of the MA State Energy Sector Partnership, which directly funds green job training programs throughout the metro region.
  - Provide Green On-the-Job-Training (OJT) experiences for graduates of Metro Boston green job training programs and other eligible residents at participating clean energy employers.
  - Create and monitor workforce agreements for participating contractors in the Renew Boston initiative, Boston's comprehensive campaign to encourage energy-efficiency throughout the city.

### *New York City, NY: Evirolution's Win-Win Campaign*

<http://www.sites.google.com/a/envirolution.org/win-win/Win-Win-Campaign>



- **Started:** 2007
- **Targeted Skills:** New York City energy landscape, building performance assessment, energy auditing, sustainability, and green business training.
- **Focus Population:** Young adults (16-26) from diverse NYC communities who apply to become interns.
- **Key Components:**
  - Training is interwoven with a small business energy efficiency assistance program.
  - Interns become Community Energy Consultants (CECs), provide energy efficiency assessments, and create individualized Energy Action Plans.
  - Driven by competition amongst intern teams to see who can audit the most businesses and reduce the greatest amount of greenhouse gas.
  - Key partners include the City's GoGreen Initiative, local energy company (ConEdison), schools, foundations, and research groups.

### *Oakland, CA: Oakland Green Jobs Corps*

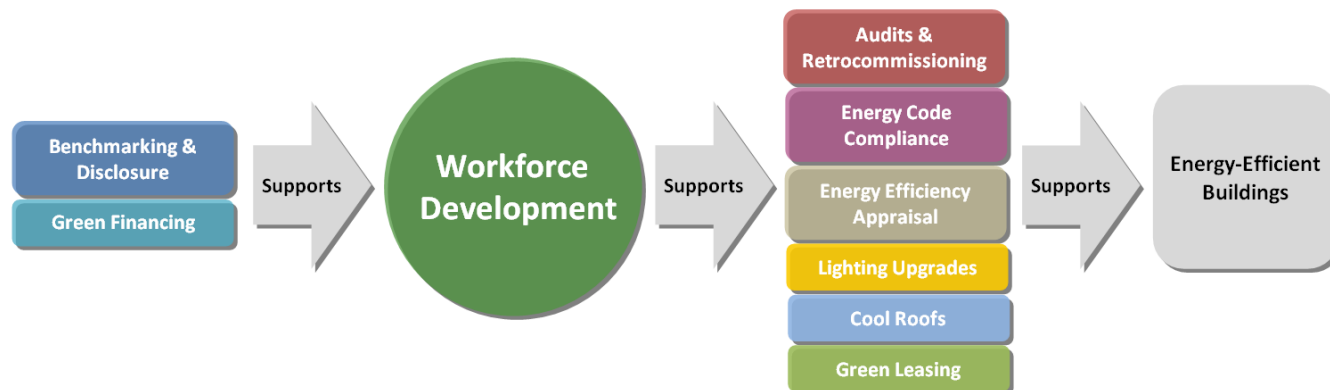
[http://www.ellabakercenter.org/index.php?p=gjcc\\_green\\_jobs\\_corps](http://www.ellabakercenter.org/index.php?p=gjcc_green_jobs_corps)



- **Started:** 2008, First graduates in 2009
- **Targeted Skills:** Solar installation, weatherization, energy auditing, HVAC, and energy efficiency.
- **Focus Population:** Low income youths and adults.
- **Key Components:**
  - Four key partners include a local non-profit, community college, construction training program, and workforce intermediary specializing in job placement.
  - Includes "soft" skills such as resume development, financial planning, and interview skills.
  - Has a paid internship component and partnerships with employers such as large hotel chains to help participants begin their careers.

## Complementary Policies

### Complementary Policy Landscape for Green Workforce Development



### *Green workforce development can make complementary policies much more effective.*

- Many policies that target commercial buildings, such as **energy auditing and retro-commissioning, energy code compliance, lighting upgrades, cool roofs, and submetering policies** are greatly benefited by green workforce development programs, which provide the skilled workers to meet the demand for new equipment, upgrades and other related services.
- **Benchmarking and disclosure policies** directly support workforce development by increasing the demand for such services, while **green financing policies** enable building owners to finance those services.

## References

1. Center for American Progress (2008). "Green Recovery – A Program to Create Good Jobs and Start Building a Low-Carbon Economy."  
[http://www.americanprogress.org/issues/2008/09/green\\_recovery.html](http://www.americanprogress.org/issues/2008/09/green_recovery.html)

## Additional Resources

- Living Cities (2009). "Green Cities – How Urban Sustainability Efforts Can and Must Drive America's Climate Change Policies."  
<http://www.livingcities.org/leadership/trends/green/>
- Chicagoland Green Collar Jobs Initiative (2009). "Building a Green Collar Workforce in Chicago Land."  
<http://greencollarchicago.org/uploads/GreenCollarWorkforce.pdf>
- Labor Market Information Service (2010). "Introduction to New York City Green Jobs."  
[http://www.urbanresearch.org/about/docs/lmis\\_pubs/FINAL%20NYCLMIS%20Introduction%20to%20NYC%20Green%20Jobs.pdf](http://www.urbanresearch.org/about/docs/lmis_pubs/FINAL%20NYCLMIS%20Introduction%20to%20NYC%20Green%20Jobs.pdf)
- The National Renewable Energy Laboratory (NREL) is currently developing national guidelines defining a common body of knowledge that any training organization can draw from when developing workforce development curriculum. These guidelines are not yet released.  
<http://www.nrel.gov/buildings/commercial.html>