

NYS Agency Renewable and Energy Efficiency Training Efforts/Programs

All of these programs were submitted in response Governor's Renewable Energy Task Force request for information.

THE GREEN TEAM

14-county initiative, includes the counties of Broome, Cayuga, Cortland, Herkimer, Jefferson, Lewis, Madison, Oneida, Onondaga, Oswego, Seneca, St. Lawrence, Tioga and Tompkins.

Established six task forces based on best practices to ensure both systems in place for a sustainable business and workforce attraction, development and retention:

- Policy: Stimulate the market for green products and services
- Marketing: Raise the profile of the environmental and energy cluster
- Business development: Focus economic development resources to effectively support the green industry
- Research and development: Continue to support the region's research base related to green and clean technologies
- Workforce: Assess skill sets and develop training programs for the *clean tech* industry, and grow "green collar" jobs
- Community engagement: Build grassroots level support for sustainable practices and adoption by local governments

ALIGNMENT OF LABOR MARKET TRENDS AND WORKFORCE DEVELOPMENT INVESTMENTS SUBCOMMITTEE

To align NYS workforce development and economic development investments.

Approach:

- 1. STRUCTURE -- Align agencies' (Labor, Education and Economic Development) geographic structure and then align priorities for workforce and economic development (in many Regions, Renewable Energy and the development of Green Collar jobs are a priority)
- 2. CONTENT -- Share agency strategies and plans outlining economic development, labor market and education priorities and develop strategies for addressing gaps
- 3. RESEARCH AND STATISTICS -- Coordinate state labor market research resources and develop a process for the analysis of data and dissemination to workforce and education partners
- 4. Implement career ladder maps linked with education ladders to enhance economic self-sufficiency for the individual and secure workforce pipeline for businesses

NEW YORK POWER AUTHORITY (NYPA)

- LEED Training – provided to staff and participants in their programs
The one day course was an overview that focused on the LEED - Existing Buildings requirements and categories.
- CEM Training – target to be provided to all of their engineers
The course reviews various energy consuming technologies such as Lighting, Motors, Boilers, Thermal Ice Storage as well as the operating and maintenance side of running a facility. The course covers Alternative Financing, Building Maintenance and Measurement and Verification protocols.
A four hour exam is administered at the end of the course to provide Certification.

LONG ISLAND POWER AUTHORITY (LIPA)

- a) **Strategy:** Expand LIPA's Programs for Installer Certification for Large and Small Scale Renewable Technologies

NYS Agency Renewable and Energy Efficiency Training Efforts/Programs

- i) **Tactic:** Expand existing Trade Ally Program to Support Green Collar Workforce Initiative
 - (1) Identify Workforce trade participants in both union/non-union trades, recognizing need for all to be licensed contractors
 - (a) Status: Held initial meetings with licensed electrical contractor trade associations to identify interest in participation as part of regional economic development initiative (see below). Clear interest identified.
 - (2) Create Infrastructure to Enable Training
 - (a) Status: working with LI Forum for Technology (LIFT) as part of regional economic development initiative to respond to grant opportunity solicitation by US Department of Labor for High Growth Training Initiative. (LIFT is regional TDO for LI as designated by NYSTAR). LIFT has secured preliminary interest from local universities, worked with LIPA for trade ally participation described above and has submitted grant proposal. At this point, launch of this program contingent on grant opportunity.
 - ii) **Tactic:** Expand Curriculum and Address Certification Aspects of Green Collar Work Force Initiative
 - (1) Create Curriculum
 - (a) Status: To be developed. Need to work with green collar workforce participants on broader NYS initiative. Also need to incorporate internal technology and grid integration expertise into curriculum.
 - (2) Create Certification
 - (a) Status: To be developed. Need to understand certification in context of licensing process and within context of union.
 - iii) **Tactic:** Solicit Work Force Participation
 - (1) Utilize existing working relationships with trade associations
 - (a) Status: to be developed
 - (2) Utilize Trade Ally Newsletter to communicate to trades
 - (b) Status: to be developed
- b) **Strategy:** Identify Strategies and Best Practices for Worker Retention
- i) **Tactic:** Utilize working relationships with trade associations to support State strategy.
 - ii) **Tactic:** Utilize channel for communication to support State strategy

LIPA's Current Green Collar Training Programs

- **LIPA's Home Performance with ENERGY STAR® Program**

The training for each of the above courses includes both classroom and field work with a required exam upon completion. In addition to passing the required exam, contractors are required to become accredited by the Builders Performance Institute (BPI) prior to being listed as a participating contractor in LIPA's program. This training is delivered for LIPA by both Hudson Valley Community College (HVCC) and Conservation Services Group (CSG) who are both under contract.
- **LIPA's ENERGY STAR® Labeled Homes Program**

LIPA's program supplies training to Home Energy Rating System (HERS) Specialists. This training includes both classroom and field work with a required exam upon completion. This training is delivered by Conservation Services Group (CSG) under separate contract with the Long Island Builders Institute (LIBI). In addition, LIPA also underwrites training to builders

NYS Agency Renewable and Energy Efficiency Training Efforts/Programs

and their trades on various building science topics which are facilitated by organizations such as the Building Performance Contractors Association (BPCA) and the Northeast Home Energy Rating System (NEHERS) Alliance.

- LIPA's Solar Pioneer Program
LIPA's program supports various training programs. LIPA has co-sponsored contractors attending Farmingdale University's five-day Photovoltaic workshops. LIPA has directly hosted in-house training that included working with PACE University for PV Inspector Guidelines in New York State (participants received CEU credits), Inspecting Photovoltaic Systems to Conform to the National Electric Code (participants received CEU credits), Sales Skills for contractors (how to develop and market a small business) and Public Speaking / Presentation Skills.
- LIPA's Red Book Training
Provides training to all electrical contractors about standards and requirements for interconnection to LIPAs system. Provides annual CEU credits for attendance in half day training program.

NYS FOUNDATION FOR SCIENCE, TECHNOLOGY AND INNOVATION (NYSTAR)

Green Workforce Development

NYSTAR has at least three programs that can assist in identifying, assessing, training and promoting of Green and Green Collar jobs. The three programs are through our University R&D Centers, Regional Technology Development Centers and Community College partners.

Workforce Development Assistance R&D Centers can provide include:

- Non-accredited training (certificate) through Centers for Advanced Technology to solve industry-identified training challenges (industry-led);
- Increase interest among middle and high schools students about green jobs; and
- Our centers have an established relationship with New York state companies that will be beneficial when developing curriculum and/or identifying future green job needs and demands.

Region Technology Development Centers (RTDC):

NYSTAR has ten Regional Technology Development Centers (one in each economic region) that work closely with primarily small and medium sized manufacturing and technology companies.

The RTDC's staff are acutely aware of what is going on in their region. They can identify new or existing industries that are in need of or will be in need of green trained employees.

Workforce Development Assistance RTDC's can provide include:

- transferring and implementing green technologies and training company employees on these technologies;
- identifying process improvements to assist companies in becoming greener and train company employees on implementing those processes;
- identifying areas of collaboration to eliminate waste and educate employees on their waste impact; and

NYS Agency Renewable and Energy Efficiency Training Efforts/Programs

- Work with companies and BOCES, junior colleges, colleges and/or universities to identify the skills and level of training that is/will be needed by green companies.

NEW YORK STATE DEPARTMENT OF LABOR (NYSDOL)

Workforce Development Assets (DRAFT)

Workforce Development Line of Business

The New York State Department of Labor (NYSDOL) provides skills development, training and job-matching services, through federal and state funded workforce development programs administered by the Department.

These services are intended to:

- Support Economic Development/Economic Competitiveness in a Global economy.
- Correct market failures within the Workforce System.
- Assist in National emergencies and major business dislocations.

Funding

- Federally Funding (approx. \$234.8 million for 2007)
 - Wagner-Peyser Program – \$41 million.
 - Workforce Investment Act (WIA) – \$188.7 million.
 - Adult Program – \$50.1 million.
 - Dislocated Worker Program – \$40.8 million.
 - Youth Program – \$52.5 million.
 - Rapid Response/WARN – \$17.0 million. (Up to 25% of DW allocation)
 - Statewide Activities – \$28.3 million. (15% of total state allocation; Up to 33.3% for State administration)
 - National Emergency Grant (NEG) – Requested as needed.
 - Trade Adjustment Assistance (TAA) – \$3.3 million.
 - Disability Program Navigator (DPN) – \$1.8 million.
- State Funding (approximately \$58.1 million for SFY 2007)
 - Reemployment Services – \$35 million.
 - Legislative Add On (LAO) – \$12.3 million.
 - NYS Registered Apprenticeship – \$4.7 million.
 - Displace Homemaker Program (DHP) – \$5.3 million.
 - Chamber – \$0.8 million.

Training Inventory

NYSDOL's Training Inventory is comprised of the following three main components. Each is described in greater detail below.

1. The New York State Eligible Training Provider List
2. New York State Apprenticeship
3. State Funded Programs Administered by NYSDOL

The New York State Eligible Training Provider List

- NYSDOL maintains a statewide web-based inventory of training programs, referred to as the New York State Eligible Training Provider List (ETPL) system.
- The ETPL is used by the Workforce New York system to enhance and develop occupational skills of the State's workforce.

NYS Agency Renewable and Energy Efficiency Training Efforts/Programs

- The ETPL currently has:
 - 1,329 training locations (termed Training Providers).
 - 13,033 training courses (termed Training Offerings).
- To be included on the ETPL, Training Providers must apply and meet specific state and local criteria. Types of Training Providers included on the ETPL include: four-year colleges; community colleges; BOCES; private vocational schools and not-for-profit organizations.
- The ETPL includes an array of occupational training, including those specific to developing a green workforce such as: electrical trades that explore renewable energy sources (e.g., Solar Energy Certificate Program and Introduction to Photovoltaic); residential facility management which focuses on energy conservation and efforts to making the building green (e.g., Green Building Technology); Conservation of National Resources; and real estate planning to address environmental issues.

New York State Apprenticeship

- Apprenticeship is a national training system that combines paid on-the-job learning and related technical and theoretical instruction in a skilled occupation.
- The National Registered Apprenticeship system is a partnership among the U.S. Department of Labor (USDOL), State agencies, industry leaders, employers, employer associations, labor-management organizations (primarily consisting of labor organizations and employers), and educational institutions.¹
- Program sponsors include employers, employer associations and labor-management organizations, who voluntarily operate and cover most or all costs of the program. The programs are registered with USDOL or a federally recognized State Apprenticeship Agency (SAA).
- The USDOL Office of Apprenticeship, in conjunction with the SAAs, are responsible for: registering apprenticeship programs that meet Federal and State standards; issuing Certificates of Completion to apprentices; encouraging the development of new programs through outreach and technical assistance; protecting the safety and welfare of apprentices; and assuring that all programs provide high quality training to their apprentices.
- NYSDOL administers the New York State Registered Apprenticeship program.²
- New York State Registered Apprenticeship currently has:
 - 893 apprenticeship sponsors;
 - 293 apprenticeship occupations; and
 - 22,933 active apprentices

Many of the apprentice occupations align with developing a green workforce.

State Funded Programs Administered by NYSDOL

- NYSDOL administers numerous programs targeted at developing the workforce of special populations and industries/sectors.

¹ The National Apprenticeship Act (NAA) (also known as the Fitzgerald Act), enacted in 1937, authorizes the Federal government, in cooperation with the states, to oversee the nation's apprenticeship system. USDOL staff in 24 states and SAA staff in 26 states, the District of Columbia, and three territories share these responsibilities.

² The New York State Department of Labor (NYSDOL) is a federally recognized SAA.

NYS Agency Renewable and Energy Efficiency Training Efforts/Programs

NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY (NYSERDA)

New York State has heavily invested in energy efficiency, building science, and renewable energy technologies, practices, workers, and businesses through the New York State Energy Research and Development Authority (NYSERDA).

- NYSERDA has provided over \$2 million to Hudson Valley Community College (HVCC) to develop 10 energy efficiency and building science training institutions across the state. To date, partners such as HVCC, Bronx Community College (BCC), OCM BOCES, Erie Community College, and the Association for Energy Affordability have trained thousands of builders and contractors. HVCC and BCC are also two of seven photovoltaic training centers supported by a \$1 million NYSERDA program. These initiatives are linked to NYSERDA's support of accreditation and certification programs such as that of the Building Performance Institute (BPI), the North American Board of Certified Energy Practitioners, and the Institute for Sustainable Power.

- NYSERDA has provided approximately \$2 million annually for the past 10 years, for a number of technical and professional development programs to train the existing workforce on energy efficiency technologies, practices, and building systems for the Commercial/Industrial (C/I) sector, and to encourage new job opportunities in the field. Offerings are organized into four categories: 1) Labor Unions/Trade Training, 2) Professional Certification Training, 3) Accredited College/University Curriculum and Continuing Education, and 4) Career Development and Professional Training. Programs range from career development to certificate and degree programs. Certifications include BPI, Northwest Energy Efficiency Council, North American Technician Excellence, and LEED.