

# Workforce Training and Green Collar Jobs NYSERDA Initiatives



Adele Ferranti, Program Manager  
Residential Efficiency and Affordability Program

# NYSERDA Snapshot

- A Public Benefit Corporation
- Mission: to identify solutions to State's energy challenges in ways that benefit the State's economy and environment.
- Workforce training initiatives focus on energy efficiency and clean energy technologies.

## Residential Efficiency and Affordability Program

- Goals
  - Increase awareness of, demand for, and installation/implementation of ENERGY STAR® products, advanced systems and energy efficiency services in New York
  - Develop the infrastructure to deliver those services and products
  - Effect behaviors that reduce energy consumption
  - Reduce the energy cost burden on low-income households
- Strategies
  - Use market actors and forces to effect permanent changes in the way residential products and services are delivered in New York
  - Collaborate with community-based organizations and businesses to deliver services to the low-income sector

## Center for Energy Efficiency and Building Science (CEEBS)

- Headquartered at Hudson Valley Community College
- 6 Learning Centers to Date
  - Hudson Valley CC, Broome CC, OCM BOCES, Erie CC, Association for Energy Affordability, Bronx CC
- 10 Learning Centers by end of 2008



DIRECTIONS  FOR LIFE™

# Building Science Curricula

- **Single family**

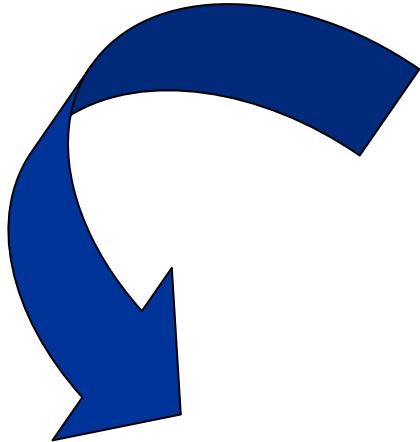
- Building Analyst
- Envelope Professional
- Heating Professional
- Cooling Professional
- Home Energy Rating System (HERS) rater
- Home Performance Sales & Marketing

- **Multifamily**

- Multifamily Building Auditor
- Multifamily Building Operator
- Hydronic Heating Design Specialist (2008)

- **Renewables**

- Geothermal Installer (2008)
- Solar
- Wind



**Best Practices  
Identified  
Standards set**

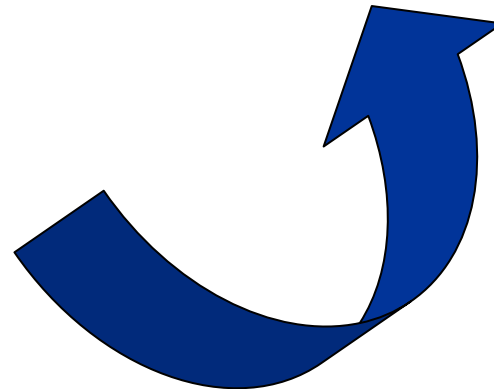


**Curriculum Developed  
Training Provided**



**DIRECTIONS FOR LIFE™**  **WORKFORCE  
DEVELOPMENT INSTITUTE**

**Certification of  
Competency**



# Contractor Training and Accreditation- Build Infrastructure

1. Classroom and Field Training
2. BPI Testing and Certification
3. Financial assistance to reduce Contractor's costs of training, certification and accreditation.



DIRECTIONS  FOR LIFE™



# New in 2008

- Distance Learning – interactive classes conducted via the internet
  - Cost effective: reduced instructor & classroom time
  - Reduced travel time for students
- Classroom video presentations – provides standardized instruction for critical skills such as combustion testing
- Streamline Certification Process for Bldg. Technicians



# How are we doing with CEEBS?

- 2007
  - Learning Centers established & instructors trained
  - 5 learning centers conducted classes
  - 382 students received training in 2007
- 2008 (Jan. and Feb.)
  - 320 students trained

## Commercial and Industrial Training

- NYSERDA currently offers a number of technical and professional development training programs for the C/I sector
  - Labor Unions/Trade Training
  - Professional Certification Training
  - Accredited College/University Curriculum and Continuing Education
  - Career Development and Professional Training

# C/I Training Areas

- Green Buildings
- LEED
- Water and Wastewater
- School Facility Mgt.
- Facility Mgt.
- Energy Mgt.
- Building Operator
- Lighting
- HVAC Systems

# PV Program Focus – Developing a Sustainable Market Infrastructure

- Consumer tools, information, and outreach
- Nationally certified installers
- Safe and reliable installations
- Nationally accredited training
- Certified instructors
- Incentives to stimulate demand
- Business assistance and R&D funding

# Quality Installations Through Certified Installers

- North American Board of Certified Energy Practitioners (NABCEP)
- 30+ out of 120 NYSERDA-eligible installers are NABCEP-certified
- NYSERDA marketing assistance to NABCEP-certified installers and certified installers highlighted on list of Eligible Installers ([PowerNaturally.org](http://PowerNaturally.org))

## Accredited Training through Institute for Sustainable Power Quality (ISPO) Standards

- Verification by third-party using standards, metrics and auditing procedures.
- Gives training programs credibility and acceptability.
- Helps put PV industry on par with other recognized labor trades.
- Leads to defined set of skills/knowledge for the workplace.
- Helps build qualified workforce and strong infrastructure.
- IREC - the North American Licensee for the ISPO Standard.

## NYSERDA ISP PV Training Projects

- Ulster County BOCES
- Hudson Valley Community College
- 4 IBEW facilities
- City Univ. of NY/Bronx Community College
- Cattaraugus Co. BOCES and Alfred State
- SUNY Delhi\*
- SUNY Farmingdale\*
- Over 750 trained to date.

\* ISP Accredited

## Other Clean Energy Training

- To date, 60+ Workshops with nearly 2,350 participants:
  - PV and Wind Installer Training
  - National Electric Code Training
  - PV & Energy Star Homes Training for Builders and Realtors
  - ISP Accreditation Workshop
  - NABCEP Exam Review Courses
  - OSHA – PV Safety Course
  - PV Primer for Utility & Code Inspectors

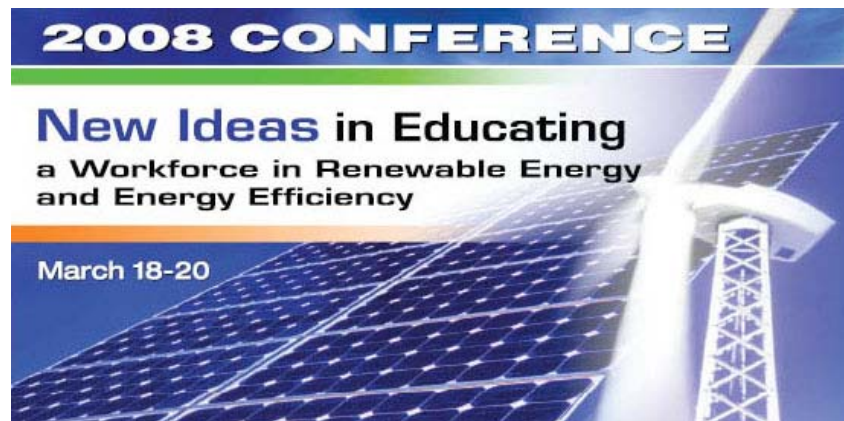


# K-12 Initiatives

- Energy Smart Students
  - Professional development and grants for teachers
  - Free curriculum and kits
  - Energy Efficiency and Literacy, Wind, H<sub>2</sub>
- SchoolPowerNaturally.org
  - 50 Schools with PV Systems
  - PV systems have data Collection capabilities
  - 50 Lesson Plans

## 2006 Renewable Energy and Energy Efficiency Workforce Education Conference

- Held at Hudson Valley Community College
- 30 states and 65 Community Colleges and technical high schools represented
- Over 200 instructors, school administrators and industry attendees



- Hudson Valley Community College
- 35 states and 87 community colleges, universities and technical high schools represented
- Over 300 instructors, school administrators and industry attendees
- Power Points available at [www.irecusa.org](http://www.irecusa.org)

## Conference Results: Recommendations for Training

- Conduct a skills assessment by surveying local business, industry and government representatives.
- Curriculum needs to include real-world preparation.
- Make sure prerequisites have been established for each course or program.

## Recommendations *con't.*

- Students' performance should be evaluated by written exams or other assessment methods.
- Develop alliances and establish an active advisory committee with business and industry.
- Establish partners for articulation and develop articulation agreements with technical high schools, community colleges, and four-year degree colleges and universities.

# Future NYSERDA Funding

- \$4.0 million for Clean Energy Technology Workforce Training
- \$2.0 million in Governor's budget for solar training at community colleges
- \$8.64 million proposed (2008-09) under EEPS for workforce development to support energy efficiency workforce development

# GetEnergySmart.org

Adele Ferranti

518-862-1090 Ext. 3206

[af1@nyserda.org](mailto:af1@nyserda.org)

