

# Preparing Connecticut's Workforce for Green Collar Jobs

EPA Technical Forum  
February 24, 2009



*“...a major shift to renewable energy and efficiency is expected to produce 4.2 million new...**Green jobs** during the next three decades.”*  
US Conference of Mayors

*“...a clean energy economy will help the private sector create 3.5 million new **Green jobs**.”*  
President Barack Obama

**William Leahy, Director**  
**Institute for Sustainable Energy**  
**At**  
**Eastern Connecticut State University**  
[www.sustainenergy.org](http://www.sustainenergy.org)

# Green-Collar Jobs Provide Opportunities

Through certification training, qualify individuals for **“family supporting, career tracking sustainable jobs”**

Jobs that:

- Reduce our dependence on foreign oil, and strengthening national security.
- Promote the use of domestic renewable energy resources and advanced technologies.
- Reduce the tax burdens of inefficient public buildings and public housing.
- Mitigating climate change by cutting green house gas emissions.

# What is a Green Collar Job?

- “**Green jobs**...help conserve energy, promote the deployment of new technologies, and contribute to the mission of becoming a more sustainable nation.”

*Green Job Corps*

- “A **Green-Collar Job** is in essence a blue-collar job that has been upgraded to address the environmental challenges of our country.”

*Apollo Alliance*

- “When it comes to mechanicals, **Green** means maximizing the energy efficiency of existing equipment, and specifying the most efficiency systems for new applications, using renewable and sustainable fuels and conserving water.”

*Green Mechanical Council*

# Where are most of the Green Collar Job Opportunities:

- Buying and Selling Energy Related Products
- Building Energy Assessment
- Energy Efficient Building Construction
- Building Operations and Maintenance
- Project Engineering and Implementation
- Energy Transmission and Distribution
- Transportation Systems and Services

*From: The Advanced Technology Environmental and Energy Center*

# Emerging Occupations

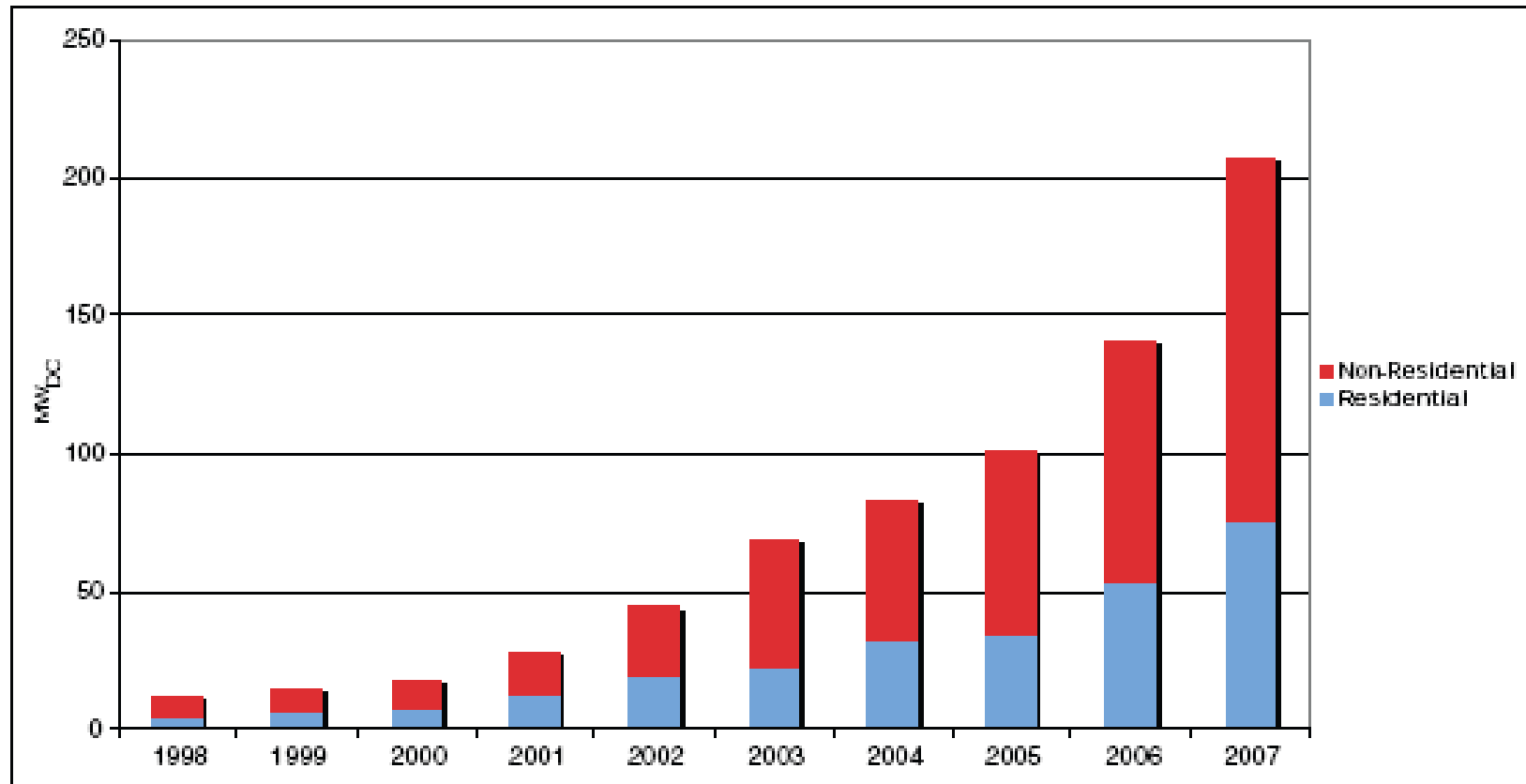
## Green Job Opportunities

- Power Purchaser & Carbon Trader
- Renewable energy site assessor
- Geothermal assessment specialist
- Tradesmen and Supervisors for energy efficiency construction
- Renewable energy systems installer
- Building automation specialist
- CHP Installers and operators
- Ice storage Technician
- Biofuel Processing Technician
- Fuel Cell Technician
- Sustainability Coordinator
- Advanced Transportation Systems technician



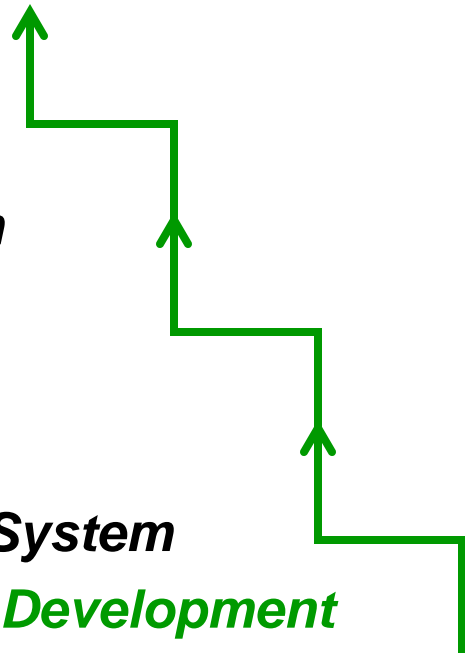
# Market Growth in Renewable Energy Installations

## Example: Photovoltaic (PV)

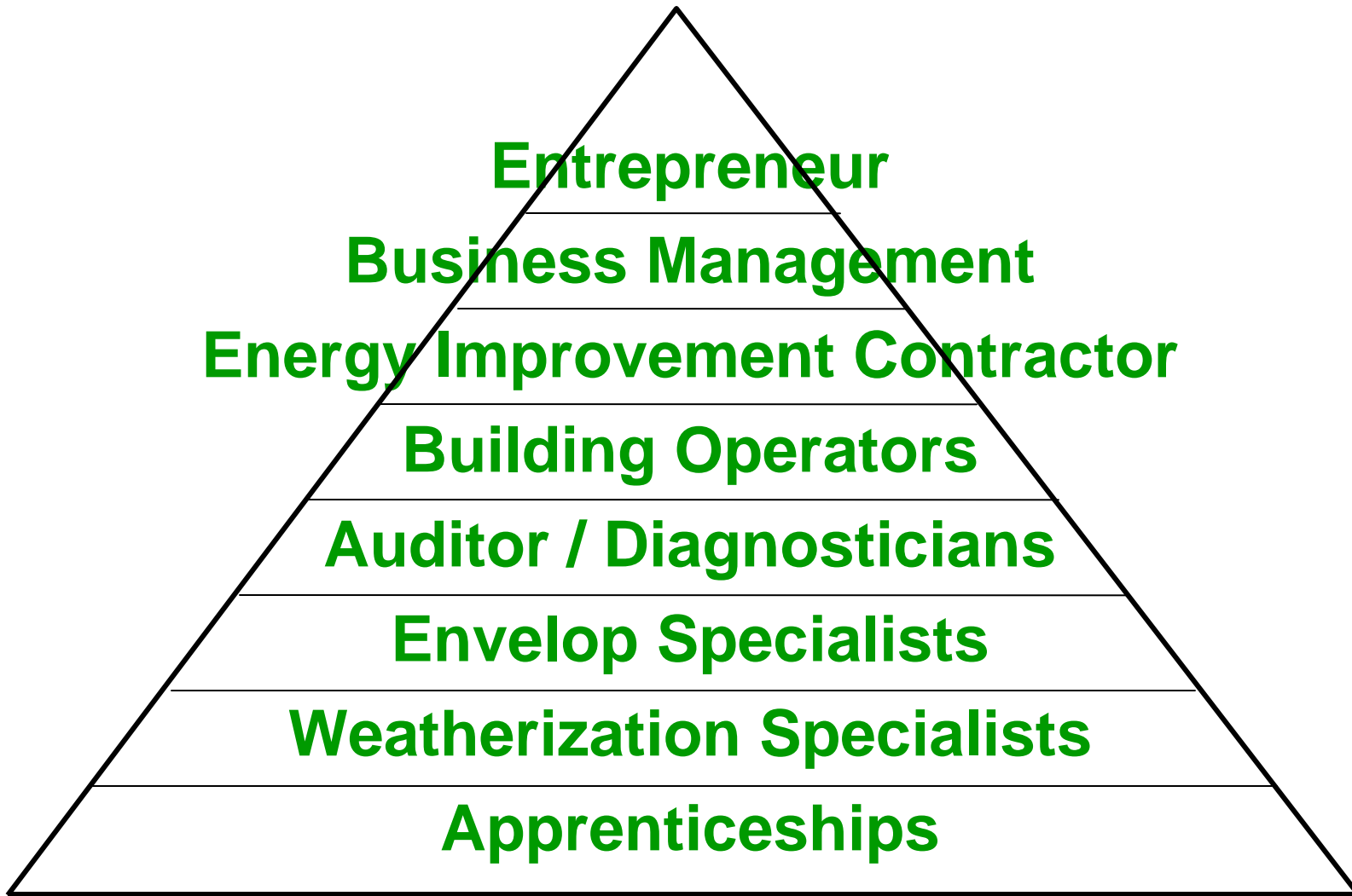


Annual Increase in Photovoltaic Cell Installations

# Connecticut has a Educational Continuum for “Green Collar” Workforce Development

- ***Tier 1 Research Opportunities***  
***University of Connecticut & Yale***
  - ***Business Applications and Public Policy***  
***Connecticut State University System***
  - ***Tomorrow's High-Tech Technicians***  
***Community and Technical Colleges***
  - ***Upgrade the Trades and Apprenticeships***  
***Connecticut Technical High School System***
  - ***Urban Revitalization and Small Business Development***  
***Dept of Labor, DECD, CAP Agencies, Business Incubators***
- Preparing for  
Green Collar Jobs
- 

# **Weatherization Training can lead to “Family-Supporting, Career Tracking Sustainable Jobs”**



# Where should Green Job Training take place?

- Universities offer four year Degree Programs and Graduate Degrees in Business, Engineering, and the Sciences.
- Community Colleges offer both two year Business and Technical Degree Programs and Certification Programs.
- Tech High Schools offer Trade preparation with hands-on technical laboratories, apprenticeship programs and some certification programs.
- Dept of Labor, partnering with Community Colleges, Tech High Schools, Unions and Business offer Job Skills Training programs and Apprenticeships.

# Greening Can Revitalize of our Urban Areas

- **Weatherization**, energy efficient retrofits and energy management for existing buildings; New Green Buildings
- **Clean “Green” Energy**; renewable energy systems (solar photovoltaic, solar thermal, geothermal, small wind, landfill gas, anaerobic digesters, biofuel production, and cogeneration);
- **Pedestrian and bike friendly**, mass transit options, automotive retrofits for reduced emissions and use of alternative fuels;
- **Community farming and markets**, sustainable landscaping, urban forestry, waterfront restoration, and green roofs;
- **Recycling**; waste reduction, and single stream separation;
- **Deconstruction**; recycling of building construction waste, and reuse of building materials;
- **Brownfield Remediation**; Clean-up abandoned, idle or under used sites, restore value to tax rolls.

# Greening Can Differentiate Businesses

Being a **Green** organization or community means changing the way you purchase, develop, produce, and provide products and services, so you have a positive impact on the environment.

Decision-making utilizes the Triple Bottom Line:  
Considers Financial, Social Justice and the Environment.

- Attracts new clients
- Improves business Image
- Become a recognized environmental leader
- Reduces risk of higher energy cost
- Enjoys lower operating cost
- Improves employee morale and health

*From: Green Energy Council*

# Institute for Sustainable Energy at Eastern CT State University

The Institute's Mission is *"...to be an objective energy and educational resource regarding the means for achieving a more sustainable energy future for Connecticut."*

Established 2001



At Eastern Connecticut  
State University