

# DOE: Federal Perspectives

U.S. DEPARTMENT OF  
**ENERGY**

Energy Efficiency &  
Renewable Energy



Weatherization Plus Health  
New York State Conference  
March 22, 2012

# Status of Recovery Act

## Production

- ❖ 650,000 homes weatherized
  - Max: 32,397 homes (Dec. 2011)
  - Min: ~6 homes (April 2009)
  - Now: 23,315 homes (Jan 2012)
- ❖ 165,000 multi-family units completed
  - 25% of total production

## Spending

- ❖ \$4.18 billion spent
  - Max: \$196.97 million (Dec. 2010)
  - Min: \$2.98 million (April 2009)
  - Now: \$127.26 million (Jan. 2012)

## Jobs Supported

- ❖ 2<sup>nd</sup> largest job creator in entire Recovery Act portfolio
  - 13,230 jobs supported in Q4 of 2011

35 years of innovation in building  
science, retrofit technology and  
workforce training

25,000 people employed

Best trained workforce in the field

650,000 Homes Weatherized in less than 3 years

- Consistent funding gives the WAP the ability to take on long term projects and partnerships that support the entire industry.
  - Audit Tools
  - Lab Research
  - Building Science Case Studies
  - Training Network
  - Coordination with Federal agencies: HUD, EPA, USDA
- Leveraging
  - WAP has always been the catalyst. The consistent source of resources that allows other opportunities to grow

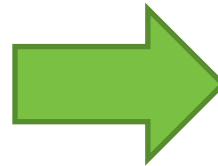
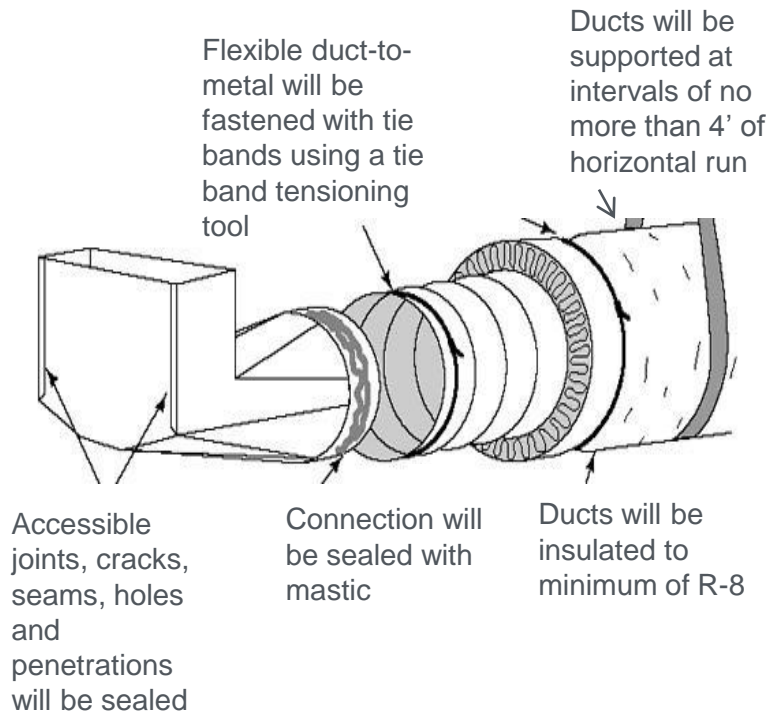
DOE invested nearly \$139 million in technical assistance to lay the foundation for high quality energy upgrades in America's homes.

- *The Guidelines for Home Energy Professionals*: The technical experts of the Weatherization Assistance Program, together with NREL and partners from across the home performance industry are creating a suite of resources that will become the standard for success nationwide
- Standard Work Specifications (SWS)
  - Single Family
  - Mobile Home
  - Multifamily Housing
- Training Program Accreditation
  - Accreditation of Energy Efficiency Training Programs based on the JTAs is fully operational
- Worker Certifications

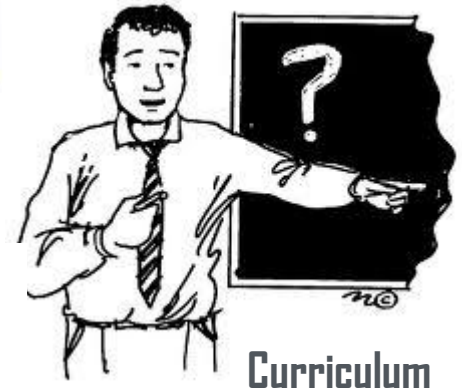


The SWS define the minimum standards  
for a quality job

They can be used to develop  
many important tools and resources



**Best Practices/  
How-To Manuals**



**Inspection  
Standards**

**Policies and Procedures  
For Work Quality**

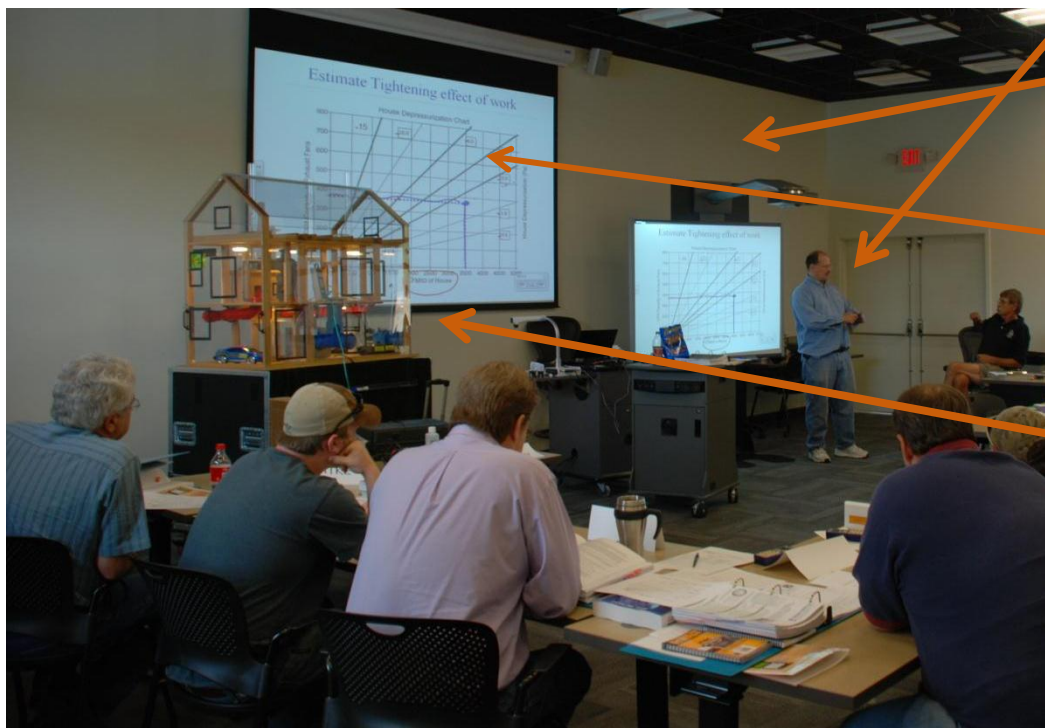
**Topic:** Exhaust

**Subtopic:** Components

**2) Detail Name:** Ducts

# Accreditation of Training Programs

Administered by the  
**Interstate Renewable  
Energy Council**



Qualified Instructors

High Quality Facilities

Complete Curriculum  
Based on the JTA

Props/Tools

Policies and Procedures

\*\*\*Voluntary, third-party assessment of training provider quality

- Third-Party, Independent
- Certification Framework
  - NREL Facilitated
  - Industry Developed
  - Based on the SWS/JTA
- RFP for a qualified certifying body
  - Awarded to BPI
  - Tasked to Jumpstart the process



Knowledge,  
Skills, Abilities

Job Task  
Analysis



# SWS for Multifamily Buildings

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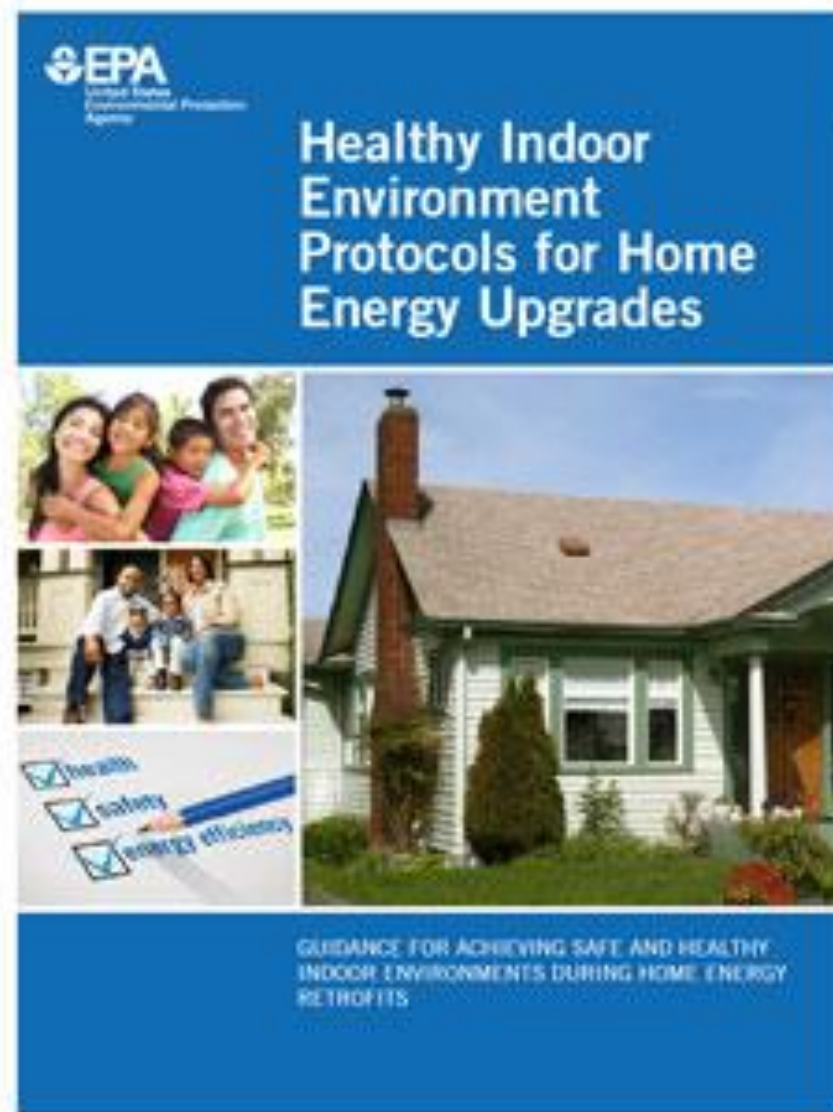


- DOE/NREL/Advanced Energy/AEA collaboration
- Multifamily Market Lead and Market Committee
  - Building on results from Single Family SWS, especially for low-rise MF
  - Defining multifamily buildings:
    - low-rise, mid-rise, high rise
  - Confirming six categorizes of work:
    - Hydronic, Forced Air, Water Heating and Conservation, Ventilation, Envelope, Baseload and Lighting
- Collaboration between industry, labor and the building trades, and the DOE, HUD, USDA, and EPA
- <http://nrel.pnnl.gov/forum.php>



WAP Training and Technical Assistance Team working with the EPA Indoor Environments Division on the Creation of:

## EPA Healthy Indoor Environment Protocols for *Multifamily* Energy Upgrades



## Consistent, Quality Work



**JTA/KSA**

## Market Expansion

### • Multifamily

Energy Audit Tool

Standard Work Specifications

Weatherization Innovation Pilot Program

### • Private Market Integration

Better Buildings Neighborhood Program

Building America

Utilities

HPwES

### • Healthy Homes

Wx Plus Health

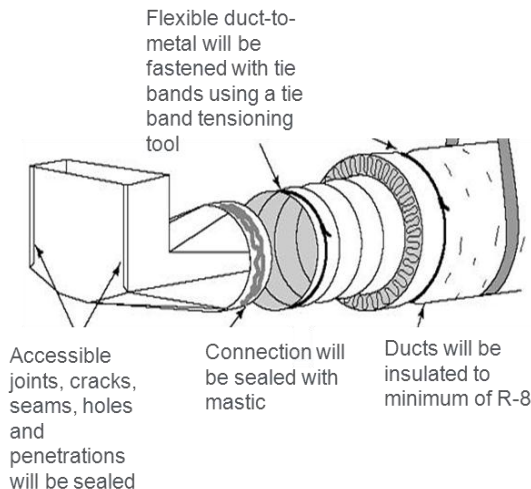
### • Federal Partners

HUD, EPA, CDC, HHS, CEQ, DOL, NIH, USDA

### • National Evaluation

Non Energy Benefits Study

Indoor Environmental Quality Study





- National Weatherization Training Portal (NWTP): “virtual campus” enhances and supplement traditional classroom, lab, and in-field weatherization training, covers basic and advanced building science.
- National Training & Education Resource (NTER) was designed to help the Weatherization program train workers fast and efficiently but for sustainability purposes was engineered to support a wide variety of training needs.

- 39 Weatherization Training Centers operating in 29 states
- The WAP Standardized Training Curriculum
- Weatherization Plus Health
  - H&S Specific Training Priority Areas



WEATHERIZATION TRAINING  
CENTERS LOCATIONS



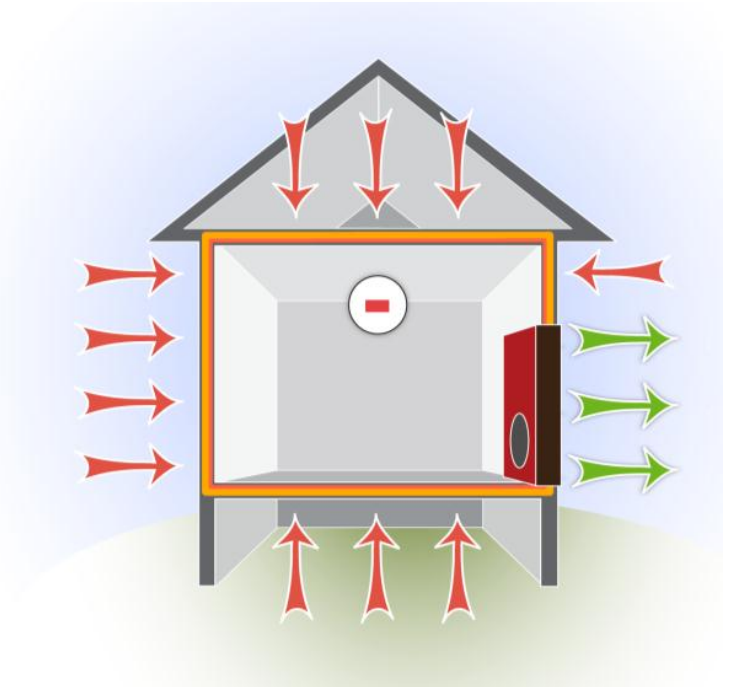


## 10 Modules Completed:

- Weatherization Installer/Technician Fundamentals
- Weatherization Installer/Technician Intermediate
- Weatherization Installer /Manufactured Housing
- Crew Chief
- Energy Auditor – Single Family
- Energy Auditor – Multifamily
- Technical Monitor/ Inspector
- Heating Systems for Energy Auditors
- Multifamily – HVAC
- Train the Trainer

## In Development:

- Weatherization Program Manager



## Priority Areas:

- ASHRAE
- OSHA
- Mold & Moisture
- Asbestos
- Radon
- Lead Based Paint
- Replacements
- Codes & Structures
- Combustion Safety & Heating Systems
- Occupant Wellness

## H&S Two Part Webinar:

- WPN 11-6 Health & Safety Guidance

- Designed by ORNL in collaboration with HUD & DOE
- Performs whole-house health and safety audits including:
  - Site built single family
  - Manufactured housing
  - Individual multifamily units
- Comprehensive checklist to identify potential H&S issues and recommend preventative and corrective measures
- Attempts to ensure health and safety of occupant and workers during and after weatherization
- Includes all the WAP health and safety and more
- Stand-alone module with potential for future efficiency audit integration
- Demo at <http://hyperion.ornl.gov/hud>

# Multi-Family Audit Tool: ORNL and LBL Collaboration



Develop Small Multi-Family and Large Multi-Family Audit Tool and Programmatic Elements for the WAP



Add Multifamily HES Consumer (Home Owners) & HES Pro

# Quality Work = Sustainability



- Current Effort
  - Brainstorming Webinars
    - Communications and Messaging January 25<sup>th</sup>
    - Leveraging February 8<sup>th</sup>
    - Consistent Delivery of Quality Services February 22<sup>nd</sup>
    - New Markets and Existing Potential March 7<sup>th</sup>
  - Face to Face Meeting March 20-21<sup>st</sup>
    - Strategic Situation Analysis
    - Establish Subcommittees and Plan Priorities
    - Develop Subcommittee Work Schedule and Assignments
  - Strategic Plan Finalized June, 2012

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