



# Economics of Supply Chain

Weatherization Assistance Program

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# WAP is

## Essential to Nation Energy Goals

- Created in 1976 to improve residential efficiency
- For Homes that would not be otherwise weatherized
- Maine Carbon “additionality study”
  - Savings rate of .38% for single family
  - Savings rate of 43% for multifamily
- Saving rate over 29% with Weatherization

# WAP Funding is Wise Investment

- Wx is an investment not an expense
- Long lasting returns in the home , 20 years
- Training centers are long-term assets
- Trained staff are human capital
- $SIR > 1$  Saving Investment Ratio
- Positive & growing cash flow , can be validated
- WAP not a cost center but investment opportunity addressing major national issues: energy and health

# The Supply Chain

## Energy Efficiency Service Sector

- EESS is a combination of existing companies and new professions
- Wx network is a subset of the EEES
- Wx program creates 8.9 efficiency jobs for each \$1m investment

“Energy Efficiency Services Sector: Workforce Size and Expectations for Growth,” Ernest Orlando from Lawrence Berkeley National Laboratory, September 2010

Manufacturing  
& Distribution

Planning &  
Project  
Management

Consulting &  
Auditing

Construction  
& Installation

Evaluation  
Monitoring &  
Verification

Operations &  
Maintenance

# WAP is the Market Foundation for the EESS

- WAP is a National Program, the Network includes states, territories, tribal organizations, community based agencies, and private companies across the entire country
- WAP program has provided the market foundation to launch the residential energy efficiency service sector
- WAP has provided the training and developed the standards for quality and safety
- WAP has been the catalyst for innovation the Residential EESS.

# WAP is historically the Catalyst for Innovation in the Supply Chain

- Residential Energy modeling and automated energy audit tools
- The blower door test to measure air infiltration
- Infrared cameras to detect heat flows
- Health and Safety Standards and Procedures
- Professional Training and Certification

# WAP is continues as the Catalyst for Innovation

- Advances in Information Technology
  - Monitoring and Quality Assurance
  - Management Reporting
  - Energy Audit improved accuracy
- NASCSP Voluntary Carbon Trading Methodology
  - Wx Leveraging
  - Quality Improvements
  - Information management

# WAP is Expanding the Scope of the Supply Chain

- Weatherization Plus Health & Safety
  - Asthma triggers
  - CO emissions
  - Unsafe structures
  - Fire prevention

Reducing health care costs

Protecting Property values



# Examples of other Public Catalysts Creating Private Markets

- US Navy and the computer
- NASA and satellite communications
- Defense Radar research and television
- US Air force and the wide body Jet

# WAP continues as ,laying the groundwork for EESS

Small business contractors

Local manufactures of insulation

Equipment manufactures

Materials Distributors

Materials manufactures

Major home improvement retailers

Just to name a few

# HOME DEPOT EXHIBIT



# Wx Supply Chain

- WAP is the market foundation for EESS
- WAP is a catalyst for innovation
- WAP is filling the Low Income gap
- WAP is generating leveraged funds
- WAP is expanding the Supply Chain
- WAP is a **Wise investment not an expense**

