

# Illinois Home Performance with ENERGY STAR® - Planning for a Statewide Program

- State of IL is committed to a comprehensive, consistent statewide HPwES
  - Huge savings opportunity from deep whole-home retrofits
  - HPwES is currently only available in St Louis Metro East
  - Past pilots have fizzled out due to loss of funding – we need a *SUSTAINABLE* program model
- MEEA received grant from DCEO BITE program to create ***statewide*** implementation **plan**
  - Will be completed May 31, 2010
  - Several core group meetings w/ experts in the field
  - First Stakeholder Group meeting Jan 13
  - Your input is requested!



# Your Input Requested!

## 1. Outreach & Marketing

- How does IL create tools and interest to get recruit citizens to complete the retrofit?
- Can we incorporate or utilize the utility-letter-writing program model that lets customers know how they compare with their neighbors?
- Can we target the highest energy-users?

## 2. Scalability & Economies of Scale

- How does IL move away from the one home at a time to a whole block/community or more of the 'weatherization' model?

## 3. Financing & Incentives

- How does IL maximize the various funding potential to enable residents to adopt the measures
- How to best involve the utilities? What approach will work best for everyone involved?

## 4. Contractors/Consultants & Training

- How does IL create a contractor & consultant infrastructure that succeeds in an economic business model?
- BPI will be the cornerstone of IHPwES' contractor/consultant training requirements; what else will be needed?

# Performance Based HVAC Program

- Issue
  - Average furnace in US operates at 59% efficiency
  - HVAC unit replace may not increase system efficiency
  - Duct work is around \$2000 per home vs. much more for unit only
  - Few contractors/customers realize the business potential
- Solution & Benefit
  - Incent the improvement of system performance
    - From X% to y% (verified)
  - Can quantify actual btu/kwh savings per unit
  - Can ID energy hog homes to go through improvement
  - Allows HVAC program not tied to system replacement

# Performance based HVAC Example

## The Tale of Two Systems

### 100k BTU Output Furnace Replacement

Current Annual Heating Cost = \$1353 (60% Installed Eff.)

#### Replace Unit Only w/ 95% AFUE

- Installed Eff. Decreased to 57%
- Reduced Heating Bill by \$173/yr
- \$5,000 Cost
- \$1,500 Tax Credit
- \$450 Utility Incentive
- Total Investment = \$3,050
- Payback = 17.6 years
- Est. Equipment Life = 15 years
- ROI over Life of Equip. = \$2,595
- Residual Return After Payback = **(\$455)**

#### Replace Unit + Duct Renovation

- Installed Eff. Increased to 89%
- Reduced Heating Bill by \$597/yr
- \$7,000 Cost
- \$1,500 Tax Credit
- \$450 Utility Incentive
- Total Investment = \$5,050
- Payback = 8.5 years
- Est. Equipment Life = 15 years
- ROI over Life of Equip. = \$8,955
- Residual Return After Payback = **\$3,905**

# Illinois ENERGY STAR® Appliance Rebates

## Program Details

- [www.Illinoisenergy.org/appliances](http://www.Illinoisenergy.org/appliances)
- Timing
  - Jan 31 – until funded expended – **HVAC/water heaters**
    - Water Heaters are 25% in retail only
  - April 16 – 25, 2010 – **White Goods**
    - 15% point of sale discount in retailers
    - Additional \$50 or \$100 (if refrigerant based) mail in rebate for haul away/recycling

Product type	Required Efficiency Level	Rebate Amount
Central Air Conditioners	≥SEER 16 *	\$500 discount at time of purchase
Air Source Heat Pumps	≥SEER 16 *	\$1,000 discount at time of purchase
Propane Furnaces	AFUE ≥ 95% *	\$350 discount at time of purchase
Gas Furnaces	AFUE ≥ 95% *	\$350 discount at time of purchase
Gas Boilers	AFUE ≥ 90% *	\$1,200 discount at time of purchase

# Illinois ENERGY STAR® Appliance Rebates

<b>IL ENERGY STAR Appliance Rebates Program Budget Allotment</b>	
<b>Program Segment</b>	<b>Budget</b>
Water heater rebates (Jan 31 - Apr 15)	500,000
Mail-in recycling rebates	1,000,000
Retailers 10-day sale (Apr 16 - 25)	4,000,000
Northern HVAC contractors	2,300,000
Southern HVAC contractors	900,000
Backup funds	2,674,264
<b>Total allotted for rebates</b>	<b>11,374,264</b>