#### National Center for Healthy Housing conference call March 2<sup>nd</sup> 2009

Sustainable Resources Center, Inc. is a non profit organization based in Minneapolis Minnesota, serving low-income children, families and communities throughout Minnesota. SRC has two program areas each representing 50% of total agency budget. Low Income Weatherization Assistance Lead Hazard Control, including community outreach and education.

> Sustainable Resources Center, Inc. Minneapolis. MN

# U.S. Department of Energy Weatherization Assistance Program.

#### Mission

Reduce energy costs for low income Americans by increasing the energy efficiency of their homes, while ensuring their health and safety.

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March 2, 2009

# Operation

DOE works in partnerships with state and local agencies to implement the program. > Weatherization programs operate in all 50 states, the District of Columbia and among Native American Tribes. These local agencies provide weatherization services to every county in the nation.

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#### Operation

Many of these agencies provide other services, such as:

Housing rehab programs
 Lead hazard reduction
 Emergency repair or financing
 Home foreclosure prevention

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#### Needs assessment

High energy usage can create an unmanageable burden for low-income families. Low-income families often cut back on other necessities to pay their energy bills.

The Weatherization programs identify households most in need of services.

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# Prioritization

> High energy usage or burden Senior citizens > People who have disabilities Families with children Disaster relief and emergency situations for people who income qualify for the program. (some people are not aware that they are eligible for services)

#### **WAP Services**

Weatherization technicians use advanced energy audits and diagnostic equipment to identify the most cost effective, energy savings for each home.
All installed measures must have a savings to investment ratio (SIR) of greater than 1 to be an allowable expense

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## **WAP Services**

Measures may include, but not limited to: > Adding insulation. > Sealing attic bypasses, reducing air leakage and improving comfort. > Heating and cooling system safety and efficiency checks. Tune ups and replacements as needed. Client education

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#### **Technical Advancements**

Weatherization agencies have established a professional delivery system to provide quality energy efficiency services and materials. The integration of advanced technologies have increased the programs impact.

## Health and Safety

DOE has policies and provides guidance on > Asbestos > Mold > Lead > All Weatherization crews are required to attend Lead Safe Weatherization training. (this policy and training course are currently being reviewed and updated)

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## Health and Safety

In Minnesota all houses are inspected after the work has been completed. Due to our cold climate, homes are tightened up as much as possible. In general we achieve a 20% to 30 % reduction in air leakage.

# Health and Safety

Special attention is paid to checking for: Carbon Monoxide Spillage or backdrafting of combustion appliances Depressurization limits of the home (caused by exhaust fans) Proper ventilation, to insure good indoor air quality.

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Diagnostics	Diagnostic Test Report and Ventilation Worksheet: Includes blower door readings,	Ventilation Moisture
Diagnostico	attic pressures taken by auditor, contractors and inspector; pressure balance worksheet and worst case draft test.	Control Air Filtration
Weatherization Audit	Input Report: Information about house, client and fuel usage, info about house components including walls, windows, doors, unfinished attics, finished attics and foundations	Ventilation
Mechanical	Heating System Summary: Includes detailed description of system, flue gas analysis, vent tests, carbon monoxide and heat rise tests, normal operating conditions draft test, thermostat details, description of furnace components such as burner and pilot, blower and belt, controls and accessories including air filter. Water heater description and operations are also examined including flue gas analysis, carbon monoxide, venting information, water temp	Ventilation Moisture Control
Enhanced Ventilation	Ducts/Infiltration - Air/Duct Leakages: Blower door readings, zonal pressure readings, pressure balance readings, pressure pan readings, base load for water heater.	Ventilation Moisture Control Air Filtration
Health and Safety	Smoke detector, co monitor needed, attic: recessed lights, chimney/flue shielding, wiring problems, ventilation inadequate, water leaks, moisture problems, vermiculite; Walls: wiring problems, water leaks, moisture problems, lead based paint, asbestos; Basement/CrawIspace: vapor barrier needed, wiring problems, water leaks, plumbing leaks, moisture problems, worst case draft, wood stove/fireplace, cook stove, clothes dryer, bath/kitchen exhaust fans, heat exchanger.	Ventilation Moisture Control Air Filtration
Humidity Control	Moisture meter readings, assessing existing air flow rates	Moisture Control
Measures	Weatherization Audit Recommended Measures: Includes the annual energy savings, energy saving measure economics, materials, loads and measures work orders.	Ventilation Moisture Control
(cel Energy Home Electric	Savings Program	
Electric Usage Tool	Energy Use Evaluation: Annual electric costs to operate water heater, clothes dryer, refrigerator, light bulbs, air conditioner	Behavior Modification
Appliance Recycling/Replacement	Old appliance info collected, appliance exchanged for Energy Star rated new appliance	Energy use reduction
Department of Housing and	Urban Development	
Basic Educational Component	Lead Safe Weatherization	Behavior Modification

Lead Compliance	Paint Inspection/Risk Assessment - ECOSpec	Lead hazard
		mitigation
	Lead Hazard Control	Lead hazard
		mitigation
	Clean to Clearance	Lead hazard
		mitigation
	Clearance Testing	Lead hazard
		mitigation
cation Team		
Education and	In-home visual assessment and education	Behavior
Outreach		Modification
Education and	Blood lead level screening with filter paper	Behavior
Outreach		Modification

liance for Healthy Homes		
Extended Education	"How Your House Works!" An EZ guide and workbook to Home Health principles	Behavior Modification
epartment of Housing and Urban D	evelopment	
Health and Safety	Help Yourself to a Healthy Home	Behavior Modification
	Arsenic -EPA	Hazard mitigatior
	Radon Test – Minnesota Department of Health	Hazard mitigatior
	Humidity Control	Moisture Control Behavior Modification
eattle/King County		
Extended Education	Home Environmental Checklist: Survey of dust and cleaning, ventilation and moisture, pets and pests, safety by observation and interview.	Moisture Control Behavior Modification
ity of Minneapolis - HUD Healthy He	omes Grant	
Asthma/Allergy	SRC will take and receive referrals from the City of Minneapolis with regard to suspected/confirmed cases of children with asthma	Asthma Referrals
innesota Department of Agriculture	•	
Extended Education	Pest Management Kit	Behavior Modification

American Lung Association AmeriCorps Programs Head Start Community Action Agencies State Health Departments City/County Government Universities, Community Colleges Department of Agriculture U of MN Extension Offices Housing and Urban Development Grantees

#### PARTNERS

Find your local weatherization provider Talk to agency Executive Director Talk to WX Manager Talk to WX Auditors Talk to WX clients

#### **WORKING WITH WX**

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