



40TH
ANNIVERSARY

Weatherization Assistance Program



President Gerald Ford

The Weatherization Assistance Program was signed into law on August 14, 1976, a result of the Energy Crisis of the 1970s.

National Weatherization Day is celebrated on October 30 each year.





Department of Energy PSA photo, 1970s

“The fundamental fact remains that the United States
has entered a new age of energy and
we have not yet adjusted our habits, expectations, and
national policies to the new age ...



Energy Crisis Hitting Home

“... a fourth essential has been added
to the age-old necessities of life.

Besides food, clothing, and shelter, we must have energy.

It is an integral part of the nation’s life support system.”

A Time to Choose America's Energy Future,

Energy Policy Project of the Ford Foundation, New York, New York, 1974





Beginning in 1974,
three University of Maine engineers
provided technical guidance
that was used to develop the WAP:

Richard Hill, Norman Smith, Charles Kittredge



University of Maine press release, June 19, 1981

In the late 1960s-early 1970s,
Bates College Professor Richard Saul
worked on the equations that tied
weatherization with energy cost savings,
focusing on lower-income households.



Federal Energy
Administration
Washington
D.C. 20461



PROJECT
RETRO-TECH

Home
Winterization
Job Book
for

Name: _____

Address: _____

WORK RECORD

Assignment	Supervisor	Date Completed
HOME EVALUATION:		
Field Inspection (pg. 1-7)	_____	_____
Heat Loss Calculation (pg. 8)	_____	_____
JOB SHEET (pg. 9-10):		
Order Materials	_____	_____
Install Materials	_____	_____

JUNE 1975 158

“Joe Citizen weatherizes by hunch and intuition,”
said U-Maine Engineering
Professor Richard Hill,
but the methods used
by the UMO faculty members
have been much more scientific.



University of Maine press release, June 19, 1981

**BEING COMFORTABLE
IN WINTER
MEANS
KEEPING WARM AT MINIMUM COST**

**MOST HOMES
CAN USE MUCH LESS FUEL
WITHOUT SACRIFICING COMFORT**

From Project RetroTech

“The federal limit
for weatherizing any one home
was \$800, but a number of homes
may require weatherization costing
more than that amount.”



University of Maine press release, June 19, 1981

HEAT LOSSES BY CONDUCTION THROUGH FLOORS

Floor Exposure Factor:
Select the appropriate factor from the descriptions below:

- Building on posts or pilers with no skirts below floor 1.0
- Crawlspace skirted 0.8
- Rock wall basement 0.6
- More than two feet of basement wall exposed above grade 0.8
- Building on slab 0.5
- Building with tight crawl space 0.5
- Building with tight basement (heated or unheated) 0.5

R-Value of Floor:
List below all materials in floor deck, including carpet but neglecting floor joists, starting from inside surface and working down.

Insert 'R' value for each component from Table 1

Material	Thickness	R' Value
Interior Surface	---	.68
Interior Surface	---	.68

FILL IN AT JOB SITE

sq.ft. X Floor Exposure Factor X District Heating Factor ÷ Total R' Value = Heating Units Required

Potential Savings on Floor Heat Losses
Floors can sometimes be insulated to reduce heat loss but this is often difficult, and where water pipes are below the floor may cause freezing problems during very cold spells. However, every floor should be protected from drafts, etc., so that it has a floor exposure factor of 0.5. With this exposure factor for this building, the heat loss through the floor would be:

sq.ft. X **0.5** Floor Exposure Factor X District Heating Factor ÷ R' Value from Above = Potential Heating Units

Subtract the potential heating units from those now required and Enter Here

Potential Heating Savings

TYPE OF HEAT LOSS	HEATING UNITS REQUIRED	POTENTIAL HEATING SAVINGS	PROPOSED CHANGES TO STRUCTURE	HEATING UNITS TO BE SAVED
CONDUCTION THRU: FLOORS				

PAGE 3 162

“It was the responsibility of the UMO team to determine in which weatherization areas the \$800 would be most effective.”



University of Maine press release, June 19, 1981

**IT IS NOT "COLD" THAT COMES IN--
IT IS THE HEAT WE BUY THAT ESCAPES TO THE OUTSIDE**

The factors to be used:

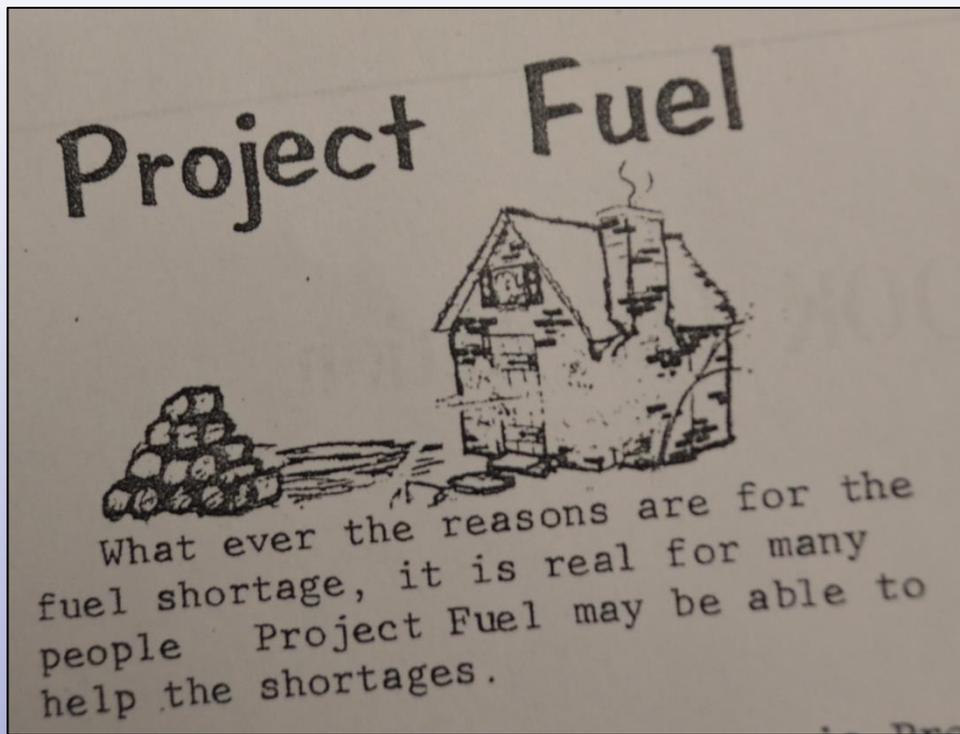
- * The number of times the door is opened in the average day
- * Amount of time the door is open
- * Degree days
- * Velocity of wind
- * Size of door
- * Volume of the house



University of Maine press release, June 19, 1981

WHO WAS FIRST?





One of the first weatherization programs offered by a community action agency in Maine was Project Fuel – in 1974.



The program will offer these winterizing services: capping (attic insulation), plastic storm windows, caulking, and assisting with alternative heating systems. In addition, some general home repair such as, repairing broken windows and cracked doors will also be done.

Developed by the then Franklin County Community Action Council, it provided basic winterizing for the elderly, disabled, and low income people of the county.

The council is now Western Maine Community Action Agency.



In 1976, Community Concepts started its weatherization pilot program as an energy conservation program and a jobs program to help get families back to work during the energy crisis of the 1970's. Since then, CCI has weatherized at least 10,000 homes.



CCI was recognized by the U.S. Department of Energy for having the first-ever weatherization program in the nation.

In 1976,
the Weatherization
Assistance Program
became part
of the newly created
Division of
Community Services,
part of the executive
branch of state
government.



Mike Baran and a heating system.





Mike Baran & Trainer John Snell at
Infrared Scanner Training in Ellsworth in 1988



T-Handled Reamer
for making holes in
furnace pipe for testing



The Weatherizers



Mike Baran & Tony Gill, a BBQ at
Division of Community Services

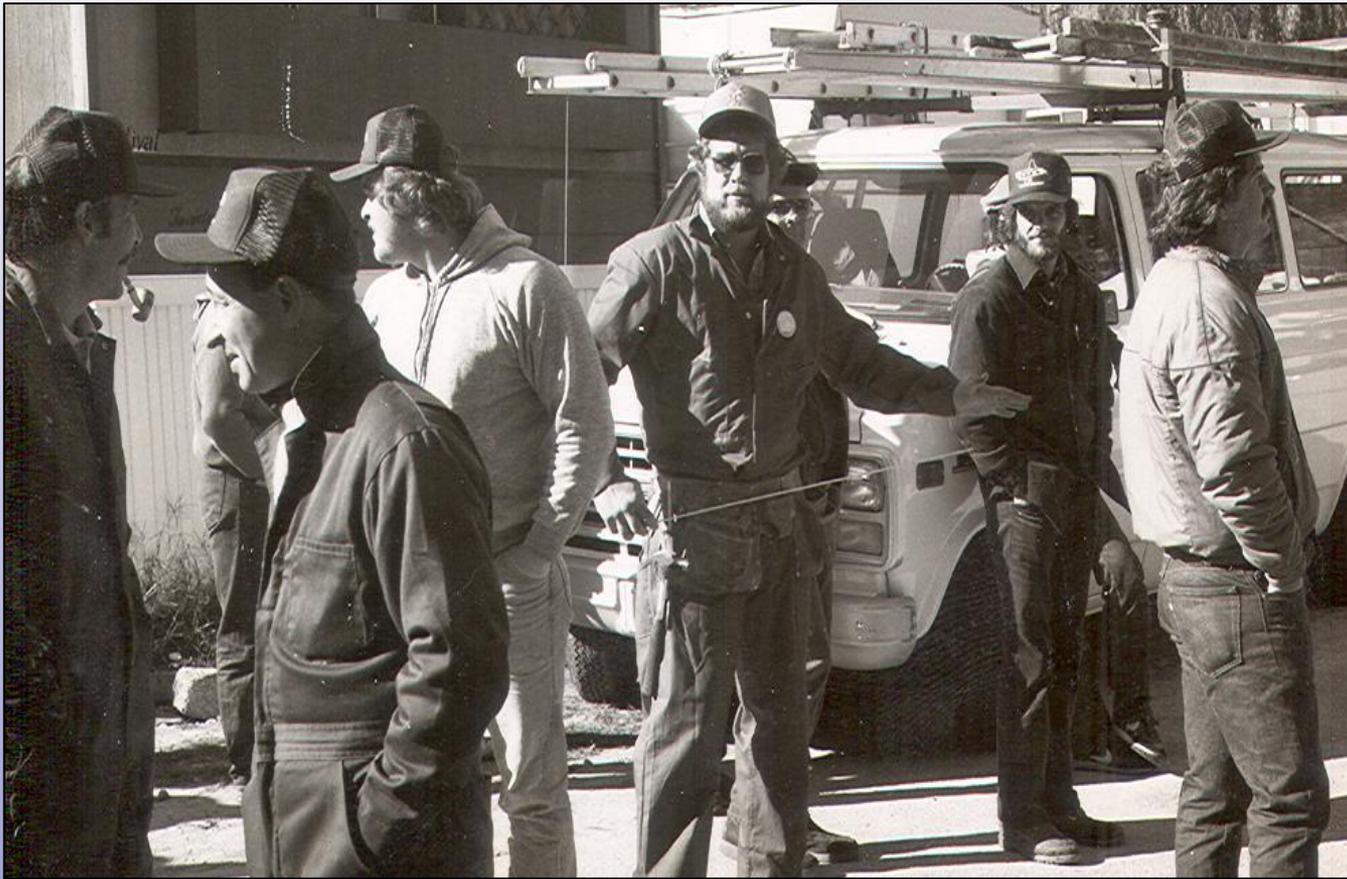


A Milwaukee Drill
for drilling holes for wall insulation



**The
Weatherizers**

The Weatherizers



1987 New England Mobile Home Retrofit Conference in Manchester, NH. Pictured (left to right) are: Bob Neff and Guy Quattrucci from Division of Community Services (DCS), Mark Grondin of CCI, Mike Baran of DCS, contractor Art Van Wornt and Tony Dingley of CCI.



Shank holder





The Weatherizers

Drill Bit and Shaft for drilling holes in walls for cellulose insulation





First Infrared Scanner training in Maine for the Weatherization Assistance Program, held in 1988 in Ellsworth. Pictured (left to right) Unknown; Raymond Levesque of ACAP; Tony Gill of Division of Community Services (DCS); Phil Davis of ACAP; Unknown; Bob Neff, Guy Quattrucci, and Mike Baran, all of DCS; Charley Allen of Community Concepts Inc.; Gary Brown and Karen Peterson of DCS; and unknowns



The Weatherizers



All of the Maine attendees at 1987 New England Mobile Home Retrofit Conference in Manchester, New Hampshire.



**The
Weatherizers**



The 1988 New England Mobile Home Retrofit Conference in Lisbon, Maine, the Community Concepts crew demonstrates the installation of membrane roof.



The Weatherizers



The Weatherization Assistance Program moved to MaineHousing in 1990.





MaineHousing's role includes the distribution of federal resources to nine community action agencies statewide for weatherization services, as well as to keep current on weatherization standards that could produce greater efficiencies in Maine's aging housing stock.





Did You Know?

The Weatherization Assistance Program...



Has weatherized over 7.4 million homes since it began in 1976



Improves the health and safety of residents leading to fewer hospitalizations and missed school days



Helps reduce greenhouse gas emissions- the WAP lead to a 7,382,000 metric ton carbon reduction in 2010 alone





Did You Know?

The Weatherization Assistance Program...



Saves low-income families an average of \$250 to \$450 per year in heating, cooling and electric costs



Returns \$4.10 to households and society for every \$1 invested in the program



Helps the country reduce its dependence on foreign oil and reduce carbon emissions





More than 70,600 homes
weatherized in Maine!