

Corporation (WECC) provided data on weatherization from Wisconsin and worked with ORNL and the Alliance to Save Energy on a field test during the winter of 1985-86. The field test involved 66 occupied, low-income, single-family houses in and around Madison, Wisconsin. The three primary objectives of the test were to:

- (1) determine the energy savings and the relative benefits from a combination of envelope and mechanical equipment retrofits that were selected following the new audit-directed retrofit procedure;
- (2) determine the energy savings and benefits due to performing infiltration reduction work following a recently developed infiltration reduction procedure; and
- (3) study general occupant behavior and house thermal characteristics and their possible change following retrofit installation.

Funding for the innovation and its field test came from many sources:

- DOE's Office of Buildings and Community Systems;
- DOE's Low-Income Weatherization Assistance Program;
- the State of Wisconsin's Department of Health and Social Services; and
- Wisconsin utilities (Wisconsin Power and Light, Wisconsin Gas, and Madison Gas and Electric).

A total of \$50K to \$60K of DOE funding was spent at ORNL to develop the original version.

Using State of Wisconsin funds, WECC then improved upon the original ORNL version by adding extra features such as a fuel normalization scheme. The result was the WECC single-family audit - version 1.2. Additional versions of the audit were subsequently developed by WECC with internal funds and funding from Wisconsin utilities. Versions in the 2.0 series of the WECC audit included more elaborate infiltration procedures and an audit user's manual. The latest version, WECC audit 3.0, has the capability of auditing one- to four-unit multifamily buildings. The total expenses incurred by WECC in its development efforts were approximately \$120K.