

Energy Ratings for Rental Units

If a property's energy use were made visible, would that be sufficient incentive to convince landlords to invest in energy-efficient capital improvements? That's the question the Meadville Community Energy Project (MCEP), based at Allegheny College in northwestern Pennsylvania, set out to answer when it began field-testing an innovative program aimed at encouraging efficiency in rental housing.

The solutions that lead to energy savings in owner-occupied housing have not worked in many rental units. Although landlords may have the means to carry out energy-efficient capital improvements to their rental property, they typically have little incentive to pay for energy-saving measures, especially in areas like Meadville where tenants usually pay the utility bills. While tenants are generally motivated to reduce their utility bills, they frequently don't have the means to install any energy-saving equipment, other than the occasional plastic-covered window or low-flow showerhead. MCEP decided that one way to entice landlords to invest in energy efficiency might be to make a prop-

erty's energy use more visible, through the use of a home energy rating. If a landlord could advertise a property's home energy rating, then tenants could shop for a rental unit with the most reasonable total costs—rent plus utilities.

Ratings: A Possible Solution

In 1998, MCEP launched its pilot program with the modest goal of rating just ten rental properties. MCEP solicited prospective landlords through articles in the local newspaper, interviews on radio stations, and contacts on their community advisory board. MCEP selected the Erie County Redevelopment Authority

(ECRA), a weatherization agency, to conduct audits using the REM/Rate rating software developed by the Architectural Energy Corporation. Foundation funding allowed MCEP to offer energy ratings for \$50, or one-third the usual cost.

The ECRA auditing team visited interested landlords and assessed the energy-using features of each of their properties. MCEP then analyzed this information, using REM/Rate, to develop two products: (1) a star rating; and (2) a list of cost-effective efficiency improvements most appropriate for the property, complete with estimated installation costs and payback times.

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New Research Facility in Texas

A new research facility is opening that will shed light on how buildings perform in hot and humid climates—and it will be aptly located in Austin, Texas. The Texas Institute for the Indoor Environment (TIEE), which is a product of the combined efforts of four Texas universities, will include twin 1,200 ft² test homes and a teaching/research center. The twin test homes will enable researchers to model duct leakage, evaluate combustion safety issues, identify source control procedures for chemical pollutants, and generally scrutinize a wide range of variables that affect energy and indoor air quality (IAQ). With more than 3,000 hours each year when the dew point temperature exceeds 70°F, Austin is a prime location for a facility investigating the problems that a hot and humid climate can create.

In addition to conducting new research, TIEE will disseminate to practitioners and to the public practical information related to the indoor environment. It will also provide seed funding for relevant research activities. To achieve these goals, TIEE plans to publish a newsletter for subscribers, establish an institute Web site, develop

educational software, and provide free seminars and workshops that will be open to the public.

For its first venture into hosting free public seminars, TIEE chose to focus on IAQ. TIEE had 110 attendees at the first lecture in the IAQ series (Indoor Air Quality: Reflection and Recognition), and 170 at the second (Indoor Air Quality in Homes); and more than 250 have preregistered for the next two seminars (Indoor Air Quality in Schools and The Health Effects of Poor Indoor Air Quality). The general public is clearly eager for the freshest IAQ news.

—Doug Garrett

Doug Garrett is the owner of Building Performance & Comfort in Leander, Texas.



Auditors Sarita Kinney and Steve Kerr of the Erie County Redevelopment Authority measure a property's air leakage rate as part of determining its rating.

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These results were then mailed to each landlord and discussed in a follow-up visit.

By the summer of 1999, nine landlords had taken part in the pilot, resulting in the rating of 15 rental units. Tenants in the properties represented a cross section of the rental community in Meadville, including college students, senior citizens, low-income families, and professionals. In terms of energy usage, REM/Rate modeling predicted that the pilot homes would use an average of 76,000,000 btu per year, for a typical rating of three stars, and they had a large potential for cost-effective energy savings. If all the participating landlords invested in the conservation measures recommended by MCEP, for an average cost of \$2,850, they would improve their dwellings' energy ratings by 33%. These measures would save an average of \$600 per year, yielding an average payback time of five and one-half years. Some of the more common measures to be recommended included installing attic insulation and sidewall insulation, air sealing, cleaning and tuning the heating system, and installing a night setback thermostat.

In evaluating the pilot, MCEP interviewed participating landlords to find out what motivated them to get involved. Landlords cited three main reasons for participating in the pilot:

- The ratings would give them recog-

nition for energy efficiency improvements they had already done.

- For those who were considering specific improvements, such as replacing a furnace, the program could offer guidance in making the most cost-effective and energy-efficient choices.

- For those who knew generally that their properties needed improvement, the program could provide guidance about which energy improvements would be most worthwhile.

A number of landlords mentioned that they were surprised at how easy and straightforward some of the efficiency changes were. Several saw participation in the pilot as a chance to show their tenants, and the larger community, that they were responsible property owners.

What's Next for MCEP?

MCEP's pilot was a success in demonstrating that area landlords are interested in investing in energy efficiency and that a large potential exists for cost-effective improvement in participating rental properties. However, the pilot also highlighted several areas MCEP needs to address in expanding this pilot within the community. Chief among them is the need to give tenants in rated properties the tools to be more responsible for their energy usage. MCEP has addressed this need in its second round of ratings, which was begun last November, by developing a tenant partnership agreement. Under this partnership, tenants agree to participate in an education session and choose three energy-saving activities to implement, in exchange for

which they receive a compact fluorescent lamp.

Another step to making energy efficiency in rental properties a reality is



MCEP interns Matt Frank and Liz Long place a sign in front of a rated property after completing the tenant education session.

helping landlords take the leap from learning what needs to be done to actually installing conservation measures. To help landlords find contractors who can properly weatherize a building, MCEP plans to start a contractor-training and -certification program. MCEP's ratings pilot also highlighted the need for a funding mechanism to help participating landlords afford conservation improvements, as well as to lure additional landlords into the program. Although it is too early to know if Meadville's rental sector will wholeheartedly adopt the ratings approach, MCEP believes that home energy ratings can be an important step in helping landlords and tenants realize that energy efficiency can be in their own, as well as the community's, interest.

—Kathleen Greely

Kathleen Greely is codirector of the Meadville Community Energy Project.



MCEP Advisory Board member Joe Galbo III, landlord Fran Richmond, and auditor Sarita Kinney discuss making rental properties more energy efficient.

For more information:

Visit the Meadville Community Energy Project Web site at <http://welcome.to/mcep>. Contact Kathleen Greely at kgreely@allegh.edu.