

AFFORDABLE ENERGY

A New Jersey program links utilities to provide home performance services for low-income residents.



When you're short on money to pay for basic utility services, sometimes it takes a little creativity to get by.

In New Jersey, one woman heated water on her stove – for two years – after her water heater stopped working. Another 85-year-old woman needed a way to stay warm when her gas-fired boiler quit. Her solution? Four electric space heaters and a gas oven.

"People, regardless of their income status, should not have to sacrifice comfort and safety in their homes," says Maria Frederick, Working Group Convener for New Jersey Comfort Partners. "These are basic needs that can greatly influence a person's day-to-day life. We have programs in this country that help low-income people pay for necessities like food. We need similar programs that can help them have a decent and comfortable place to live."

Like many of their regulated counterparts across the country, each of the investor-owned gas and electric utilities in New Jersey had an energy-affordability initiative to help low-income customers. In 2001, under the direction of the New Jersey Board of Public Utilities (BPU), the utilities joined together to design a single, comprehensive energy-conservation program for all low-income residents statewide. The result: New Jersey Comfort Partners.

The Comfort Partners program is co-managed by seven utilities: PSE&G, Jersey Central Power & Light, Atlantic City Electric, Rockland Electric, Elizabethtown Gas, NJ Natural Gas and South Jersey Gas.

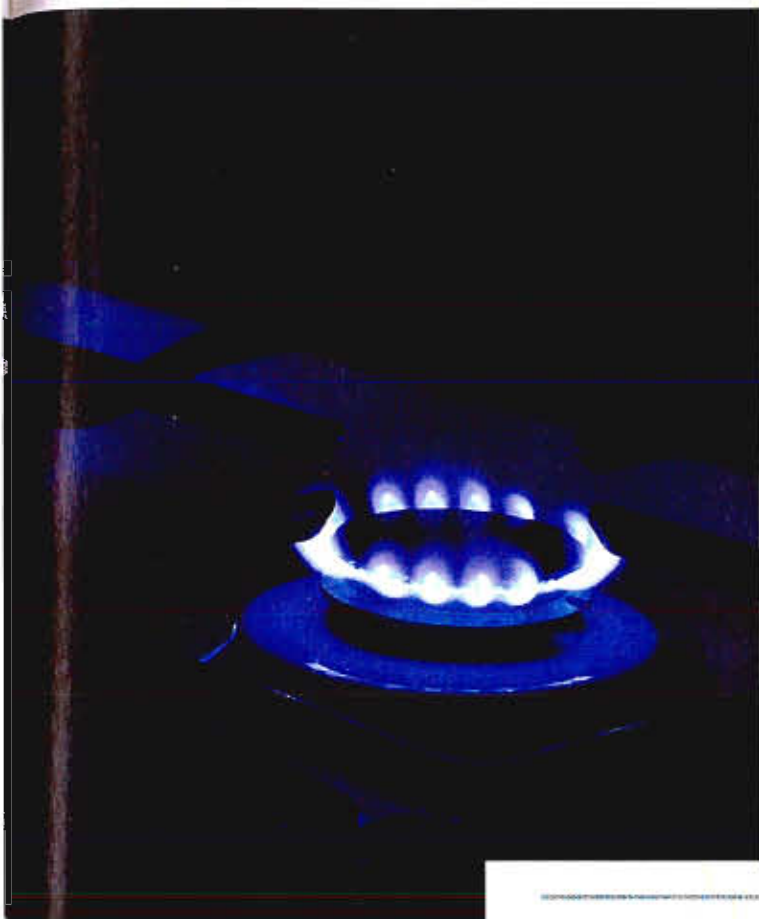
The collaboration and commitment of these organizations has led to a large-scale program that remains unmatched in the industry. To date, Comfort Partners has helped more than 27,000 income-eligible households better manage their utility costs by conserving energy.

The program, which addresses all energy sources at once, helps participants achieve energy affordability through a combination of energy education and the installation of measures that simultaneously improve building thermal performance and baseload efficiencies. The gas and electric companies split the costs according to energy usage, allowing the contractor to do more with the joint funds to better serve the customer.

"This is the only large-scale utility-managed program that addresses both fuel sources," Frederick says. "We realize savings by sharing costs and sending one contractor to serve customers of two utilities."

The co-ordination challenge

In the fall of 2005, the American Council for an Energy-Efficient Economy (ACEEE) recognized Comfort Partners as an exemplary low-income energy efficiency program. Receiving this award from one of the industry's most recognized professional organizations required overcoming several challenges. The program implementers encountered a wide range of housing types and conditions throughout the state, including a large percentage of deteriorated, aging structures, which presented some of the most pressing needs.



"It was clear we needed outside partners with a high level of specialized knowledge and expertise," Frederick explains. "It would have been too costly to train our own staff for something this comprehensive and far-reaching."

Comfort Partners chose to work with Honeywell, which had helped manage similar programs for four of the participating utilities. Honeywell was also able to develop a methodology for applying the program design to effectively address the needs of a wide variety of building types. As the primary contractor for Comfort Partners, Honeywell Utility Solutions assisted with the design and launch of the program. The company currently enlists customers; prioritizes which customers have the greatest savings opportunity or need; conducts full-site evaluations of residences; provides customer energy education; and installs conservation measures through an experienced staff and team of subcontractors. Additional duties included staff training, collecting data for evaluation, co-ordinating services with community-based organizations, and assisting customers with bill payment performance.

"It's the same challenge that faces every other business: How do you efficiently maximize resources and services?" says John Augustino,

Program Manager for Honeywell Utility Solutions. "In our case, that means maximizing the number of cost-effective energy saving measures and services that can be delivered with program funds. The end goal is to benefit the greatest number of customers in the most expeditious manner possible."

A model for best practices

"Historically, energy audits were prescriptive. Energy-saving measures were pre-determined and not necessarily based on the specific needs of the house," Augustino says. "With Comfort Partners, we take a whole-house approach and address the unique needs of each household."

The process begins with a comprehensive audit of the house, rather than an individual aspect, to determine all energy use and savings opportunities. Using modern diagnostic techniques, highly-trained technicians individually assess each home and determine which measures will have the most impact on energy efficiency.

The technicians then develop an energy-reduction work plan. Some of the measures include upgrading insulation in the attic or walls, sealing cracks, fixing leaks in the duct systems, and replacing inefficient refrigerators. Other services and measures include providing efficient lighting products, hot-water conservation measures, new thermostats, and heating/cooling equipment maintenance. Additionally, the technicians review, test and correct a wide range of health and safety concerns. On average, program services are delivered within 30 days.

Because Comfort Partners addresses both gas and electric consumption, the measures implemented on one side often help the other. For example, air-sealing a house will help reduce electric air conditioner costs, as well as gas heating costs. "The utilities involved with each customer project get 100 percent of the benefit, but don't pay 100 percent of the costs," says Augustino. "Also, if you reduce the electric bill, the customer has more money to pay the gas bill and vice versa."

This combined approach helped bring together the seven New Jersey utilities to offer a uniform service and has been a key factor in the program's success.

Supporting clean-air goals

The customer who heated water on her stove called her utility upon hearing about Comfort Partners and received, among other things, a new water heater.

And the woman who relied on her system of space heaters and gas oven? Technicians installed a new boiler after discovering the old one had a cracked heat exchanger that was elevating the carbon monoxide levels in the air. Besides the obvious health benefits, the projected savings from retiring the four space heaters was 7300kWh per year. "The word has gotten out," says Frederick. "Neighbors are telling neighbors about the program, which is the best measure of its success."

Reducing the energy burden on those low-income customers who have the most difficulty paying will also help keep them from falling behind on payments. Not only does that avoid a shutoff for the cus-

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tomer, but it also saves the utility time and money for not having to send collection letters, pay someone to physically shut off the energy or absorb the fees associated with reconnecting a customer.

And through the program's health and safety diagnostics, hundreds of customers were saved from potentially life-threatening health risks, such as carbon monoxide poisoning. In all, thousands of at-risk residents have received life-improving services through this vital program, all while reducing environmental impact and long-term social cost burdens for all of New Jersey.

Besides the energy savings, the program contributes to clean air goals in New Jersey. Extrapolating from the estimated energy savings, program services through the end of 2005 have cut carbon dioxide emissions by more than 117 million pounds. In clean air terms, this reduction is equivalent to taking 13,700 cars off the road or planting 15,900 acres of trees.

New Jersey's Comfort Partners program also integrates the participant outreach effort with the statewide Universal Service Fund (USF), which provides low-income residents with financial assistance for gas and electric bills. Beyond services within the scope of Comfort Partners, Honeywell field technicians and customer-service repre-

Comforting statistics

In 2005, 6400 participants received much-needed energy-saving measures and services at a program cost of \$14 million. An impact analysis for program work performed in these homes revealed significant savings such as:

- Total estimated annual electric savings of 5.7 million kWh
- Total estimated annual gas savings of 48,730 therms
- Total projected lifetime electric savings of 106.4 million kWh
- Total projected lifetime gas savings of 18.5 million therms

sentatives identify and link participants to a host of other available assistance resources — from repair loans and emergency payments, to food and childcare assistance, and other social services. The program works co-operatively with a statewide network of community-based organizations to co-ordinate delivery of multiple assistance resources.

Energy costs drive demand

Rising fuel costs have led to heightened interest from consumers struggling to pay their bills, as well as increasing interest from the program sponsors to serve more people.

"The need is still great, so we're hoping to serve 7500 new customers in 2006," Frederick says. "The board [BPU] has been generous in providing funding for the program because they see how effective it is in helping customers save energy." Program surveys confirm consistently high customer satisfaction.

"We've already helped tens of thousands of people, yet we have much to look forward to," Frederick said. "The Comfort Partners program promises to deliver a positive impact on the lives of many more New Jersey residents in the months and years to come." ■