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For Immediate Release

Cape Light Compact Residential Smart Home Energy Monitoring Pilot Produces Proven Savings for Participants

The evaluation results are in:

Cape & Vineyard participants reduced their daily energy use by almost 10 percent

Barnstable, MA, April 14, 2010 – A final report issued by independent evaluator, PA Consulting Group, found that Cape Light Compact’s Residential Smart Home Energy Pilot, "...was successful on many fronts, including customer savings and its objectives to save energy." Cape Light Compact’s 100 actively engaged pilot participants from Cape Cod and Martha’s Vineyard **reduced their daily energy use by 9.3 percent** or 2.9 kWh per day, the second highest decrease when compared to results from similar smart monitoring programs tested throughout North America. Seventy-five percent of program participants reduced energy consumption during the program. One-third reduced average energy consumption by 4 or more kWh per day.

Over the course of one year, Cape Light Compact’s Residential Smart Home Energy Monitoring Pilot participants conserved approximately 105,850 kWh of electricity, the equivalent of CO2 emissions saved by over 16 acres of pine forest or the greenhouse gas emissions avoided by recycling 25.6 tons of waste instead of sending it to the landfill.

"I used to get my electric bill and be either happy or angry about the cost, but I had no idea how to really take charge of my energy use," said pilot participant Jeff Treiber of Dennis. "Cape Light Compact’s program now gives me the information I need to make more informed choices. The real-time feedback and energy-saving advice support my efforts to reduce energy use in my home every day. Plus it’s fun; other pilot participants are in the same system, facing the same challenges, and ‘competing’ for points, which help motivate us to stay engaged. I’ve consistently exceeded my goal of saving 25% over last year’s electrical use and that has meant a reduction in cost of more than \$80 a month. Even more important, I’ve saved the environment more than a ton of carbon into the atmosphere over the past year without sacrificing my lifestyle."

Cape Light Compact designed and implemented a Residential Smart Energy Monitoring Pilot program in 2009 to evaluate potential energy savings from in-home energy monitoring systems, gain insight to behavioral aspects of energy use, and inform future residential Smart Grid projects. The response to the pilot announcement was outstanding, with more than 300 residents requesting an available spot in the program. Participants were motivated to join the Cape Light Compact pilot so they could become more aware of their energy use and to reduce household energy.

Pilot participants had in-home monitoring systems, developed by GroundedPower, Inc. of Gloucester, MA, installed for a period of one year. They received information and training regarding the system and had access to an internet-based dashboard. The online dashboard offered participants feedback on their energy consumption by providing real-time viewing of current energy use and demand, savings metrics in kWh, dollars, and CO2 emissions, and provided opportunities to learn about and sign-up for energy saving activities (e.g., unplugging chargers when not in use). Participants were also part of a community network and could view electricity usage of other similar households in the pilot and communicate with other pilot members each other through a social networking system.

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"Cape Light Compact is excited to be the first Energy Efficiency Program Administrator in the country to offer Grounded Power's breakthrough technology to our customers," said Briana Kane, Residential Program Coordinator for Cape Light Compact. "The results from the pilot are extremely encouraging - it proves that customers who have the tools to monitor their real-time energy use on a daily basis learn to change their behavior and effectively reduce their electricity consumption."

Participants were asked what they find most useful about the home energy monitoring system:

"We go on [to the online dashboard] every day and sometimes even five times a day. I've gone from doing three loads of laundry a day down to one load a day. Once you realize the impact of some of one's actions and how it affects energy use, one adjusts his/her usage, and that is what we've done."

"It makes me more conscious on what I'm doing so I make a better attempt for [energy] savings. I've installed energy efficient lamps; I've installed light bulbs throughout the house; I turn the computer off at night [and] things like that. They are checking on me all the time, which is good."

"We could turn something on to get an idea of how one thing would really cost us [a lot of money], and to notice the time of day when we were using more [energy]. We could understand why and what we were turning on. So, when we saw the big spikes, we were able to figure out what it was from, which allowed us to change our pattern in using things that were big spikes. Good example - when we get up in the morning [and] we turned the 60 inch plasma screen on; we didn't realize what a big energy user that was. So, we bought a small 22 inch energy efficient TV for the kitchen. So, we only use the plasma screen for special shows. But we use the small TV for news and smaller shows. We eat dinner in the kitchen now - that was a big savings to us that brought our bill down 25 to 30 dollars a month."

More Cape Light Compact Residential Smart Home Energy Monitoring Pilot Evaluation Results

- 95% were satisfied with use of the on-line monitor while 87% expressed satisfaction with the information available, the level of detail on the site and their actual savings to date.
- 80% logged on to the site weekly with on quarter doing so daily and nearly half more than three times a week.
- High effectiveness ratings of 7.0 or above were given for visibility of real-time energy use and for understanding usage and cost savings, while comparisons with goals and suggested actions close behind at 6.94 and 6.82.
- Participant interest was high with 90 percent saying they were interested in keeping the system after the pilot period.
- Participants indicate an average willingness to pay approximately \$8/month to have this capability.
- Sharing information through the social network "was an important component of the pilot."
- Two-thirds said savings matched expectations
- Only about 17% were very concerned about on-line security and even fewer, about 8%, were concerned about sharing energy use information with other participants.

[Click here](#) or go to <http://www.capelightcompact.org/reports.html> to view the entire report issued by independent evaluator PA Consulting Group.

About Cape Light Compact

Cape Light Compact is a regional inter-municipal agency authorized by 21 towns on Cape Cod and Martha's Vineyard to protect consumer interests, secure competitive electricity prices, and offer green power options for our 200,000 residents. The Compact also provides a variety of activities and programs to support regional energy efficiency, renewable power development, and award-winning energy education. For more information on Cape Light Compact's energy efficiency programs visit www.capelightcompact.org or call 1-800-797-6699.