

A portrait of Akemy Acosta, a woman with long brown hair, smiling. She is wearing a dark blue sleeveless top with ruffles. The background is a blurred outdoor setting with greenery.

*"It's great that Pecan Street is working with renters... We need to be part of this change... And we like to save on our energy bill, too!"*  
--Akemy Acosta

Jim Mayfield approaches the space-age device on his wall and waves his hand in front of it. "Speak to Daddy," he says. Like magic, Mr. Mayfield's Nest thermostat lights up, and he smiles. "I don't even have to touch it. It's smarter than I am."

That's not how most people talk about their thermostats. But Mr. Mayfield isn't most people. He's part of Pecan Street's energy research network, and in addition to his Nest thermostat, he can see minute-by-minute detail of the energy he uses in his small apartment. "I can see that my water heater and oven are the bad guys," he said. "They use an incredible amount of energy. My air conditioner use is surprisingly low" — a fact he attributes to his east-facing windows and second-story apartment. "My neighbors upstairs act as insulation."

A retired mortgage broker, Mr. Mayfield lives in Wildflower Terrace, a senior living apartment complex located in the redeveloped Mueller neighborhood in Austin, Texas. Mueller was where the non-profit Pecan Street Inc. launched its research in 2010, but the participation of residents at Wildflower is new, thanks to funding from the Verizon Foundation.

# EMPOWERING A GREATER AUSTIN

Pecan Street has expanded across Texas and into California and Colorado. But most of its research is focused on early adopters — younger and more affluent consumers that tend to try new technology and gadgets before the rest of us. The Verizon Foundation wanted to bring this cutting edge energy technology to older and lower-income customers, and its funding allowed Pecan Street to recruit participants in Wildflower and other apartment complexes around Austin.

In total, 140 apartment residents are part of the Verizon-funded research. In addition to the energy-related equipment that is used in all Pecan Street research homes, the Verizon Foundation provided Samsung Galaxy tablets and wireless service so participants that did not have broadband Internet or computers in their homes could use Pecan Street's online energy portal.

"I fought to the bitter end against the computer revolution," Mr. Mayfield said. "Heck, I was like that with the microwave. But this technology has become part of my routine, part of my day."

Jonathon Salama's family lives five minutes from Mueller in the M Station apartments. Mr. Salama's career took him to Iraq, where he was a construction contractor for the State Department and Department of Defense, and then to Houston, where he owned a pizza franchise. They moved to Austin in 2009, and his wife will soon begin a doctoral program UT-Austin's nursing school.

They joined Pecan Street's research to help spur energy innovation. "There's no such thing as cheap energy," he said. "Nothing is free. I saw that when I worked Iraq. Every drop of oil comes with a cost. We need to change how we think about and use energy, and this research is an important part of that change."

The Salamas got into the research to make the world a better place, but the new technology was a welcome bonus. "We're not high-tech people," Mr. Salama said. "My cell phone is an antique." The tablet, however, has allowed them to video chat with their oldest daughter, who is studying political science in their native Jordan. They have also noticed the impact the technology has had with other families that are participating. For many of the families, he said, the tablet is their first taste of mobile computing. "We know that being tech-savvy will give our children a competitive advantage as they grow up, so we welcome it. This research has been a way for many of us to join the future, not just watch it happen."



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## *Real Customers. Real Research. In Real-Time.*

Pecan Street is conducting the country's most advanced consumer energy research. Based in Austin, TX, the organization has recruited more than 1,200 volunteer participants in Texas, California and Colorado. In addition to getting instant and in-depth insight about their own energy use, participants are contributing to the largest energy database on the planet, which is being used by researchers around the world. Learn more at [www.pecanstreet.org](http://www.pecanstreet.org)



On the other side of Austin, Alan and Akemy Acosta and their second-grade daughter live in the thick of the Internet generation. Ms. Acosta is well versed in tech tools like Facebook and Twitter. Their daughter is a whiz on the tablet. They rely on technology to keep in touch with Ms. Acosta's family in Mexico, where she grew up and studied. But before becoming involved in Pecan Street's research, they did not see much connection between technology and energy, other than the fact that their favorite gadgets need to be plugged in.

"We didn't know how much energy we used or that we could change it that much," Ms. Acosta said. "The ability to see our energy use on a computer screen has had a big impact." For example, she is much more deliberate about using curtains to shade the windows during the day. They interact with their Nest less often than Mr. Mayfield does, but the device's auto-settings have helped shave their air conditioning bill.

Most powerful is the impact the research has had on how she views the world. "I think about energy now," she said. "I notice all the solar panels in town. I recognize hybrids on the road. It's like a flip was switched on in my head."

She has also noticed a spark within her family in Mexico. Austin is known for being a modern, tech-savvy town. But issues like energy efficiency and renewable energy are not mainstream back home or, she says, in Austin's Hispanic communities. "It's great that Pecan Street is working with renters. We need to be part of this change, too. And we like to save on our energy bill, too!"

Edisson Guevara has lived at the Sierra Ridge apartments for 13 years. An engineer that studied and worked in Germany and in his native Ecuador, he has lived a self-described simple life that is closely tied to his faith. "Pope Francis tells us to live within our means, to tread lightly and be aware of what you are using," he said. "That doesn't just mean living within your financial means, but also being responsible."

Mr. Guevara's first view of his energy use made a big impact. He noticed how much energy was being consumed by things even when they were turned off. His dishwasher, for example, is rarely used. But simply being plugged in sucks a slow trickle of energy which, over time, adds up.

"Every little bit makes a difference," he said, "and when you have less money, every little bit matters."

Unlike some participants that check their energy portal every day, Mr. Guevara checks his monthly, when his energy bill comes. "I use it to make sense of the money I spend, and being able to go back and pick apart my usage has taken the mystery out of my bill. I get it now."

The ability to look backward helped him realize it was time for a new computer. He is finishing work on a book of prayers to the Blessed Virgin Mary, which recently meant long nights at the computer. And those long nights resulted in a bigger bill than he was expecting. "I realized it was time to upgrade, and when I shopped, I paid attention to how much power each model would use."

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