MORE THAN CHILD’S PLAY

From web-based games with cartoon mascots to interactive classroom programs with giveaways, utilities are grabbing kids’ attention to teach them about energy efficiency — a message carried back home to parents, too. **BY M. DIANE MCCORMICK**

“Natural gas, make it last! Natural gas, make it last!”

David Nestor of Piedmont Gas thinks it’s “pretty neat” when 300 kids packed into a school auditorium for an interactive stage show take up an energy-conservation chant. It’s proof that Piedmont’s education efforts are diversifying to “a broader base” by aiming at youth.

“A lot of times, we reach homeowners through bills and bill inserts, but the next generation of natural gas consumers are the kids of today,” he said.

Nationwide, natural gas utilities are pointing their education efforts toward teaching kids about efficient use of resources. While safety weaves throughout all the messaging, the drive to reduce at-home energy use, pique interest in STEM (science, technology, engineering and math) careers and create tomorrow’s energy-savvy consumers makes it clear that energy education is much more than child’s play.
Varied Programs
No two communities are alike, and neither are the approaches that natural gas utilities employ to reach kids with energy efficiency education.

Charlotte, North Carolina-based Piedmont Gas contracts with National Theatre for Children to present live stage shows in 55 to 65 schools a year. The current version of the scripted, two-actor production, with teachers’ guides, shares messages of energy efficiency and safety. “Some of the kids don’t even have natural gas, but it’s helping the basis for STEM programs,” said Nestor, manager of sustainability, gas technology and policy. “It focuses on natural resources and gets the kids involved.”

The gas and electric combination utility Avista Corp., based in Spokane, Washington, developed Wattson, a cartoon dog superhero able to sniff out gas leaks. Wattson has evolved since his creation as an energy efficiency hound during the 2001 Western energy crisis. He has offered low-cost/no-cost energy-saving tips for low-income families and has appeared in print ads and collateral print materials and as a live mascot visiting classrooms. Today, the mascot is in a video that teachers can access online, and the cartoon Wattson acts as a web-based retriever of energy-use and safety messages. “He’s broadened to serve as the vehicle for messaging youth and families,” said Kristine Meyer, community investment manager, gas and electric at Avista.

Consumers Energy, the gas and electric combination utility, works with the National Energy Foundation to deliver interactive classroom presentations on energy efficiency, sometimes in conjunction with other utilities. The NEF is a nonprofit organization dedicated to the development, dissemination and implementation of supplementary educational materials and programs. The presentations, geared to fourth- through seventh-graders and reaching 33,000 students a year, are aligned with state science standards. The kids get toolkits filled with energy-saving tips and devices, such as aerators and low-flow showerheads. “One student wrote in a thank you note ‘Those products really changed our home.’ Another student wrote, ‘Even my dad thinks it’s cool,’” said Theresa Schmidt, energy efficiency program manager, gas and electric at Consumers.

In the District of Columbia, Washington Gas recently partnered with electric utility Pepco to create the interactive, video game-inspired YOUtility Challenge within Junior Achievement Finance Park in Prince George’s County, Maryland. The Finance Park puts a real-life spin on financial literacy for visiting eighth-graders, who get a family scenario and a “salary” with which to make choices about paying bills and buying frills. The center will serve 9,000 students in the county and southern D.C., with additional possibilities for summer programs and events for non-public school students, said Washington Gas Marketing Manager Nekole Johnson. She was initially shocked at the sophisticated messages about controlling energy spending being conveyed to eighth-graders, but the students surprised her. “They got
“If students are given new understanding at an early age, they make those changes naturally as they grow into adulthood and grow into that population that controls energy usage in their homes.”

—Anne Lowe, Vice President of Operations, National Energy Foundation

it,” she said. “They all individually walked away with a greater sense of the real world.”

The key to success, utilities agree, is customizing to meet local needs. Consumers Energy uses materials designed by NEF but puts them through a “rigorous approval process here,” said Schmidt. “We do updates on an annual basis to freshen them up. The overall message does not change, but we customize materials and messages for the area that the school is in.”

Piedmont’s live theatrical performances emerged from a filing with the North Carolina Utilities Commission in 2010, when the utility proposed employing National Theatre for Children to “educate the youth of the state and increase their science (knowledge) and education on natural gas,” Nestor said. Piedmont also works with NEF to offer classroom materials, such as posters and workbooks, that teachers can download independently of the production.

When natural gas utilities work with other energy suppliers, it can mean setting aside old rivalries. In their collaboration, Washington Gas and Pepco were obligated to forgo any messages about the advantages of one energy source over another.

“It really showed a good front for the two utilities, who obviously have competing viewpoints, to come together on something as important as energy and financial literacy,” said Johnson.

Avista intentionally created the versatile Wattson as a proprietary brand that would be “differentiated from other utility providers in the region,” said Meyer. “The use of the dog was reflective of the Avista brand as responsive and forward-thinking, but also, it enabled us as a dual fuel utility to message consistently with a single character. When you talk about messaging around natural gas, he can say things like, ‘If you smell gas, get out,’ because he’s a dog. At the same time, when he’s talking about electricity, he flies around and alerts people to wasteful energy habits.”

Goals for education outreach vary among utilities, said Anne Lowe, vice president of operations for the National Energy Foundation. In many cases, utilities seek “savings in the number of therms used, because it’s part of their efficiency portfolio,” she said.

“However, I doubt there is a utility that exists that isn’t hoping to influence what’s happening in the home presently and what’s going to happen with future energy users to reduce that energy and to extend their natural resources and capacity to provide for all of the customers in their service territory,” Lowe said.

Driving the Message Home

When Consumers Energy’s student audiences are given their boxes full of energy-saving devices to take home, the presenters tell them it’s their turn to teach their parents.

“All of a sudden, they sit up a little bit straighter,” Schmidt said.

When kids are at the controls, it seems, households change their habits. Piedmont Gas’ theatrical program and take-home workbooks have built-in messages about conserving water to help save energy, testing for air leaks by hanging ribbons on a door and reminding parents to turn down the thermostat, said Nestor.

“A lot of research says that kids will take the messages they hear and learn back to the home,” he said. “It’s not an exact science, but the idea is they’ll tell their parents, ‘Hey, I learned that natural gas has a rotten egg smell.’ There are a lot of ideas catered to how students, teachers and parents can interact.”

Avista’s Meyer called it the “pester power” of kids to convince their parents to make changes and, in the process, “develop lifelong energy-change behaviors” for themselves. She compared today’s energy efficiency education to the seat belt campaigns that targeted previous generations.

“There are things now we take for granted without a thought and habits that are positive,” she said. “You don’t realize...
Avista Corp.’s Wattson, the energy efficiency mascot, serves as an engaging tool to get important lessons to young children.

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where that behavior came from, but there was a time the behavior was very, very different, and we are hopeful that the same evolution will come in the wise use of energy resources.”

Efforts to change behaviors must reach children early in life, said Lowe.

“If students are given new understanding at an early age, they make those changes naturally as they grow into adulthood and grow into that population that controls energy usage in their homes,” she said. “Children are just so open to new ideas. When we share them in schools and provide a way to take that education and information home, parents are very open to making changes suggested by their kids.”

While outcome measurements differ, some utilities can chart results in energy saved. Through a third-party evaluator estimating installation rates of the devices sent home, Consumers Energy calculated that its presentations saved 33,200 mcf and 2,700 megawatt hours in 2015. At 93 percent, the night-light had the highest
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pickup rate, with showerheads coming in at 51 percent and aerators at 43 percent. Students seem to appreciate the shower timer, but “I don’t think the parents do,” Schmidt admitted.

Planting STEM Seeds
Introducing STEM concepts and developing the future workforce—for utilities and their communities—are hallmarks of many energy education programs.

“The energy industry is going to be a viable, very important industry throughout the life of the students, and (they could) start thinking about maybe becoming a part of it,” Lowe said.

Avista developed and maintains its classroom materials with input from teachers. One direct mailing encouraging teachers to visit its website offers the incentive of a $100 classroom grant to the first respondents.

“Engaging those kids and those teachers in a quality material that imparts concepts surrounding energy, which is inherently a STEM lesson, we feel is worth that investment,” said Meyer. “It puts that $100 into the classroom, and the teachers know best how to use that money to enhance the experience for their kids.”

The investment is “about mutual benefit,” Meyer added. STEM disciplines produce living-wage jobs, and “we see those kinds of career opportunities as very strong things for economic development and community development.”

Consumers Energy’s collaboration with the Michigan Department of Education to align programs with state educational standards “is part of the program’s success,” said Schmidt. And when presenters share the different kinds of jobs available in their fields and that Consumers Energy is a great place to work, “these kids are pretty pumped up.”

Energy education “really plants the seed” of interest in STEM careers with something that’s not on a chalkboard, said Piedmont’s Nestor. “Hopefully, kids are adapting to it and saying, ‘That was pretty fun, learning about energy. Maybe that’s something I want to do.’ I’m an engineer myself, so you have to make it a little fun now and then.”

Making Smart Consumers
In the age of smart thermostats, smart cars and smart homes, energy education is about creating smart consumers. The days of simply paying a bill to ensure flames on the stovetop are over, utilities agree. Empowerment is in.

“Our consumers want to have choices,” said Meyer. “Arming them with the information to make good choices is part of that strategy. When you’re able to discern the value of energy and use it wisely and safely, then you can also better manage your energy bills, and you can impact environmental objectives that people may have related to energy consumption.”

Consumers Energy put energy education for kids in the conversation surrounding a recent announcement that its energy efficiency programs have helped homes and businesses save more than $1 billion since 2009. The utility had worked under state energy requirements since 2008, but even after the law expired in 2015, “energy efficiency is here to stay as far as what we do because it’s such an asset,” said Senior Public Information Director Brian Wheeler.

“We’re seeing a lot of success right now, but thanks to this good work, we have a generation of kids that are going to become adults and consumers of energy on their own, and hopefully have these good habits that help us build on that,” Wheeler said.

Johnson of Washington Gas found that Finance Park’s simulations exposing students to life’s hard choices, such as paying the utility bill or buying a new car, “helped them understand the work involved in getting these things.”

“It was helpful for them to understand there were certain components that they could not do without,” she said. “If some of them ran over budget, they could cut off the amount of clothing they bought or eliminate the car and take the bus, but you need energy. You need heat. You need hot water. These are necessities.”

Energy education keeps utilities in step with the innovation-oriented consumer of the future, said Johnson. These are the customers increasingly accustomed to “some of these new Wi-Fi and smart-enabled thermostats, like the Nest product from Google,” she said.

“It’s making energy cool and savvy and techy,” Johnson said. “You’re interconnected on a daily basis. You can turn off things remotely. This is the wave of the future. This is how folks are going to look to engage. To the degree that we can do things like this helps us to be relevant and to be part of those conversations.”

Washington Gas’ YOUtility Challenge program offers its lessons through a video game platform, engaging with students in a method they are already familiar with to share energy efficiency messaging.