

In September, Duke Energy CEO Jim Rogers and Cisco CEO John Chambers, along with Charlotte Center City Partners CEO Michael Smith, Charlotte Mayor Anthony Foxx, and former President Bill Clinton, announced an ambitious public/private collaboration at the 2010 Clinton Global Initiative called *Envision: Charlotte*. One of the goals for *Envision: Charlotte* is reducing electricity usage in the nation's 18th largest city by up to 20 percent by 2016 and transforming the city's "uptown" area (within the Interstate 277 loop) into the most energy-efficient urban core in the nation.

Envision: Charlotte is a unique partnership that brings together Duke Energy, Cisco, local government, Massachusetts Institute of Technology, University of North Carolina at Charlotte, and major local private employers. The group's initiative seeks to bring the major sustainability efforts in the Charlotte area under one umbrella and creates a replicable model for sustainability, energy efficiency, and innovation by combining smart grid technology with energy education.

Targeting Commercial Buildings

The foundation of *Envision: Charlotte* is Duke's Smart Energy Now (SEN) program, a joint effort by the utility and Cisco to demonstrate the benefits of deploying smart-grid technology and behavior-based energy efficiency programs (that is, programs targeting energy use habits and consumption patterns). *Envision: Charlotte* focuses on commercial buildings—its documented energy savings will serve as a basis for demonstrating to the community the viability of the reduction goals.

Duke will equip around 70 commercial buildings in the city (representing about 17 million square feet of real estate, over 90 percent of the city's total commercial space) with communication infrastructure, including energy monitoring technology, interactive data displays, near-real-time usage data, and customized advice on maximizing efficiency in operations and behaviors, all at no up-front cost to the participants. Major corporate tenants like Bank of America and Wells Fargo already have made commitments to participate—their buildings, along with Duke's Charlotte headquarters, represent 12 million square feet of space.

"Teaming Duke Energy with our major employers is what creates this opportunity," said Smith. "There was a missing component to achieving true sustainability, and it was what defines the downtowns: the buildings. The combination of using the buildings and taking advantage of our great public-private working relationships gives Charlotte the opportunity to do something extraordinary."

Duke hopes to generate an atmosphere of excitement that translates into participation in sustainability around the city; an atmosphere Vincent Davis, director of SEN community partnerships at Duke, believes will be a key component of the success of this initiative.

THE POWER OF PUBLIC/PRIVATE PARTNERSHIP

By Lisa V. Wood,
executive director of the Institute
for Electric Efficiency.

Still, the company wants to create customer buy-in and provide results before hype. "To build trust with the community, we want to deliver something first," said Charles Pfeiler, project manager of Smart Energy Now. "Tangible results will drive participation."

Pfeiler also points out that the program is a pilot. Duke Energy is seeking regulatory approval for evaluation,

measurement, and verification methodologies developed for SEN's behavior-based energy savings—the utility has filed to include the program in its Save-a-Watt energy-conservation incentive model. Duke and Cisco also will conduct a preliminary two-building mini-pilot to test the technology. For the main program, there will be an enrollment period in the first half of 2011 followed by a 12-18 month implementation period.

"The program could revolutionize the way we look at energy efficiency and commercial real estate in the regulated market environment," said Michael Regan, southeast energy and air policy director at the Environmental Defense Fund and *Envision: Charlotte* initiative steering committee member. "We've seen a few progressive approaches proposed in competitive markets in the Northeast and West Coast where higher prices are a driver of efficiency," he said. "This program offers the opportunity to implement an innovative approach in the Southeast where electricity prices have been relatively low, but where the social cost of increasing demand from fossil-fueled sources is unaffordable."

Creating a Phenomenon

"We don't expect the information and displays to achieve *Envision: Charlotte*'s 20-percent reduction goal on their own," said Davis. Instead, Duke expects that once participants start seeing the results of their actions, they will look for other opportunities to increase their sustainability and energy efficiency efforts, specifically continuous and retro building commissioning. The *Envision: Charlotte* steering team also is soliciting ideas from the public for other projects that will increase Charlotte's sustainability.

The most important factor in creating a phenomenon around efficiency is a collaborative process that yields credible results. Regulators and customers respond positively to collaboration, and enlisting a broad cross-section of community stakeholders—utilities, local and state governments, business leaders, environmental advocates, and academia—confers credibility on the programs and minimizes controversy by resolving concerns from many points of view. ♦



INSTITUTE FOR
Electric Efficiency

ELECTRIC PERSPECTIVES

NUCLEAR FUEL RECYCLING

.....
Partnering for Technology

.....
Know Your Customers

.....
Utility Stocks Deliver

