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FortZED to take major role in city's 'smart' effort

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The Fort Collins Zero Energy District, or FortZED, is expected to make great strides in 2010, and its major players are hoping it will make big headlines throughout the year.

The year 2010 is when FortZED and the federal grant money funding it and other renewable energy projects in Fort Collins will grow some legs, their boosters hope.

One of the big changes the city will see this year is the city's advanced metering initiative funded by a federal $18.1 million Smart Grid Investment Grant.

The grant will be used to install "smart meters" on every home in the city, allowing the city to provide immediate electricity consumption data to utilities customers.

Currently, residents have to wait until they receive their electricity bill to learn how much power their homes consumed in the previous month. The new meters will allow residents immediate access to hourly power consumption data, Fort Collins Light and Power Manager Steve Catanach said.

Full implementation of the project isn't expected to be complete until 2011, but, he said, "we're starting a conversation with City Council on how to match (U.S. Department of Energy) funding. There will be a lot of news about that in 2010."

The city and FortZED partners in 2010 will be entering the second year of the DOE's Renewable and Distributed Systems Integration program, which focuses on integrating renewables, energy storage, electricity demand response technology and other local sources of electricity into the power grid.

FortZED and its partner companies received a $6.3 million grant from the DOE for the program in 2008. The program's goal: to reduce carbon emissions and other air pollutants through boosting the use of renewables and improving the efficiency of electric grids nationwide.

"The purpose of the project we're working on is to demonstrate how different forms of distributed energy can be used to handle peak load management on a distributed network," said Jeff Harrell, sales and marketing director for Spirae, one of the partners participating in FortZED.

Spirae, he said, in 2010 will be finalizing the implementation of technology that will allow distributed sources of power generation to handle peak loads.

Distributed energy generation includes solar panels atop private businesses and other renewable energy sources installed on buildings and private property throughout the region.

"We're really looking at how distributed energy can be used to provide reliability," Harrell said.

One of Fort Collins' leaders in distributed energy generation is New Belgium Brewing Co.

"FortZED is a major initiative for us in 2010," said Jenn Orgolini, sustainability director for New Belgium, which is installing an 870-panel, 200-kilowatt solar array atop its packaging hall.

One of several sources of distributed energy at the brewery, New Belgium is installing a 200-kilowatt engine that will burn both diesel and natural gas. The engine will be used only when the brewery receives a signal from the city saying power demand is peaking, Orgolini said.

As New Belgium and other companies in Fort Collins firm up their distributed energy generation technology in the next year, 2011 will be the year they'll show how well it all works during a yearlong demonstration period.

In addition to the many advantages of developing a "smart grid," Orgolini said, "I also think there's the potential when we show how successful this project is, it will attract more economic development to Northern Colorado."

Progressive companies, she said, may be attracted to the area's "thought leadership" in renewables and distributed generation.