

New West Feature

Western Utilities Aim For Increased Efficiency

Can a push to reduce electricity usage reduce the need for new power plants in the Rockies despite the region's population growth?

By Allen Best, 5-03-11

In 1989, energy activist Amory Lovins noticed a simple typo — “negawatt” for “megawatt” — in a report. That simple mistake, thought Lovins, co-founder of the Rocky Mountain Institute, captured the essence of what he believed should be done. Instead of building new power plants, he advocated using existing electrical generation more efficiently.

That idea of negawatts continues to gain purchase in the West as investor-owned utilities, which are overseen by state utility commissions, begin to bend down the growth in electrical demand even while earning profits.

Last week, for example, the Colorado Public Utilities Commission set energy-saving goals for Xcel Energy, the state's largest provider of electricity and gas. The PUC specified that Xcel should aim to institute electrical savings equivalent to 1.14 percent of sales beginning in 2012, escalating to 1.68 percent of sales in 2020. The PUC, in its written opinion, called these targets “properly ambitious yet realistically achievable.”

The Southwest Energy Efficiency Project, an activist group, estimates that if Xcel succeeds, the savings in Colorado will shave electrical use by four billion kilowatt hours per year in 2020. That's unlikely to close power plants, but it's could eliminate the need to build a 575-megawatt power plant for base-load generation, says Howard Geller, the group's founder.

This doesn't mean that power plants will be retired because of slackened demand. Brisk population growth continues across most parts of the West, with no end in sight. Colorado, for example, now has more than 5 million people, with 8 million expected by 2040. But the urgency to build new power plants has faltered, and not just because of the slowed economy.

Colorado illustrates changed thinking in the West, where utilities in recent years have started tackling energy efficiency with as much vigor as they once reserved for building new power plants.

“Ten years ago, this region was all about energy production. Energy efficiency was not even talked about,” says Geller, whose group is active in the Four Corners states plus Nevada and Wyoming. In 2001, electrical utilities spent only \$21 million on energy efficiency programs in the six states his group monitors. This year they will likely spend \$370 million.

States have not embraced efficiency equally. Wyoming, which supplies 10 percent of all energy consumed in the United States, has been skeptical. “We have made inroads in Wyoming,” says Geller. “I wouldn’t say we have been wildly successful in Wyoming.”

Utah, if not less conservative than Wyoming, has more enthusiastically climbed aboard this efficiency bandwagon. It wasn’t always the case. There, demand and supply had been marching to the same drummer. Between 1998 and 2008, according to the Energy Information Administration, demand grew 36 percent while generating capacity increased 37 percent, mostly by addition of natural gas-burning plants.

Now, Utah has begun pushing efficiency and conservation as economically preferable to building new coal or gas plants. A report last October by the [American Council for an Energy-Efficiency Economy](#) ranked Utah 12th in energy efficiency initiatives in the nation, compared to 23rd the year before.

As has long been the case, California leads the nation in energy efficiency initiatives, while Oregon is third and Washington sixth. In that same ranking Colorado fell to 19th, although the new goals may push it back up.

What explains Utah’s new direction? Geller points to the leadership of former Gov. John Huntsman Jr., now a likely candidate for the Republican nomination for president. He embraced adoption of statewide, non-binding energy efficiency goals, says Geller, and the state’s utility commission was supportive. Rocky Mountain Power, the state’s dominant electrical supplier, also bought into the idea, as has Qwestar, the natural gas provider.

Arizona has given investor-owned utilities higher efficiency goals that are even higher than those given to Xcel in Colorado. Jim Wontor, manager for demand-side management programs for Arizona Public Service, the state’s largest electrical provider, calls energy efficiency the “least-cost resource.” Because the population of the Southwest is growing so rapidly, “we need to think about how, 10 to 15 years from now, we’re going to meet the growing demand for electricity.”

Adds Wontor, “If you’re in Michigan, you’re probably not thinking about new power plants or increased efficiencies.”

Setting efficiency goals is one thing, and getting consumer buy-in quite another. [Global Shades of Green](#), a 2008 study of environmental attitudes by London-based market research firm TNS, found that 23 percent of U.S. residents were highly environmentally motivated and active.

Among the green-shaded segments in the United States identified in the study are Eco Centrics, described as well-educated, high-income individuals in the urban South and West who tend to be vegetarians and recyclers.

An even larger group was dubbed The Respectful Stewards, a.k.a. Madre de Tierra Verde, which is overwhelming made up of less-educated, lower-income Hispanics who live in large households.

Then there are the Frugal Earth Mothers, females in lower-income rural households who embrace environmentally friendly activities to reduce day-to-day costs.

In this effort to slacken demand, the obvious question is what's in it for the utility? Plenty, in the case of Xcel, which provides electricity and gas to 1.4 million customers in Colorado. Last year, for example, Xcel claimed a \$17.5 million bonus for its success in promoting energy efficiency programs. If it hits the new goals, says the Colorado PUC, Xcel can claim up to \$30 million for shareholders and also recover program expenses.

Money for bonuses and expenses come from consumers. That means that even as consumers become more efficient with electricity, they are likely to pay more per unit.

However, even without enormous strides in efficiency, electrical rates charged Xcel customers were going up anyway, Geller points out. Coal prices have been increasing, but the biggest cause was to pay for Xcel's two-thirds stake in the new Comanche 3 coal-fired power plant, which cost \$1.3 billion. If demand can be slackened, there will be no need to build another expensive coal-fired power plant.

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