Boulder Municipalization Study Issue Paper #4

What you should know about Boulder's Proposed Energy Programs Budget.

July 15, 2013

Issue #4: Boulder's operating budget does not replicate Xcel Energy's programs

In February 2013, the City of Boulder released a study explaining how it believes it can finance a takeover of Xcel Energy's electric utility system and business within the city as well as in certain areas of Boulder County. As part of that process, the city asked the community and Xcel Energy to provide detailed feedback. Despite the city refusing to make public all of its assumptions and modeling outputs, Xcel Energy is preparing a series of white papers to outline concerns. The City of Boulder study is being used as justification for spending millions of dollars and city resources to determine whether, and if it should forcibly acquire the electric utility business from Xcel Energy, most likely through a condemnation (eminent domain) process expected to take years to complete.

To ensure those customers potentially affected by Boulder's decision have a more complete perspective on the issue and in response to the city's request for feedback, Xcel Energy is providing a series of white papers which examine key assumptions and conclusions in Boulder's study. These papers are posted on YourBoulderEnergy.com.

The first white paper examined the impact of Boulder's proposal to not incorporate bond payments in customer rates in the first 18 months of operation. Plus nearly all of Boulder's projected financial benefits of a municipal utility occur after 2030, making their forecast highly speculative. The second white paper shows how Boulder mischaracterized the effect of a potential future carbon tax – which does not exist today – to create hundreds of millions of dollars in their forecast of municipal utility financial benefits. The third white paper explains how Boulder's cost estimates hinge on the availability of low-cost wind and demonstrates how hundreds of millions of dollars are at stake if Boulder's assumption of a federal tax credit, which is set to expire in 2013, turns out to be incorrect.

This fourth paper addresses Boulder's budget for energy programs. Boulder's proposed energy programs for customers have **no apparent budget to replace Xcel Energy's solar, or demand response programs, and its proposed investment in energy efficiency and other green programs do not measure up to Xcel Energy's current programs.**

Boulder's energy program budget

Chart 1 includes line item budgets taken from the city's February 26, 2013, memo concerning assumptions made in Boulder's current study of costs to form an electric utility. The annual operating budget reveals the city is planning to only offer $2.2 million in energy rebates, hire a five-person staff at an annual cost of $520,000 to administer the energy programs, dedicate $1.7 million for overhead expenditures such as marketing and planning, and include $52,000 for staff support. In addition, the city is proposing only $250,000 a year for research and development, though these expenditures appear under the city's "distribution" budget so it is not clear what type of research and development they are planning to perform.

Chart 1. Boulder's budget for energy programs

Energy Services	$520,000	Staff includes 5 Conservation and Energy Services ($80,000) + 30% loading factor
Energy rebates	$2,230,000	Energy rebates
Energy Programs	$1,710,000	Includes overhead, marketing, planning, program delivery, indirect programs, etc.
Staff support	$52,000	Support for staff- includes trainings, additional office expenses. Calculated as additional 10% on labor costs

Its budget for energy efficiency is not only based on outdated 2009/2010 data but – and perhaps most surprising is the fact that – the city is not including any local solar generation programs in its budget. Here is a quote from its April 16, 2013, memo regarding the latest study:

"To be clear, it was not assumed that renewable energy would come from localized generation initially. The modeling assumes that Boulder would procure energy from clean sources such as wind and solar, based on Power Purchase Agreements (PPAs) from independent power providers. That power is generated and fed onto the transmission system, not the local distribution system."

Close examination of the city's study reveals its proposed energy supply only includes acquiring existing solar installed at Xcel Energy customer sites within Boulder. The study does not include any budget for renewable energy credit (REC) payments to those existing customers.

An inadequate budget for replacing Xcel Energy program benefits

Xcel Energy and the Boulder community have a long history of working together to bring to the community a comprehensive and evolving portfolio of energy programs. Boulder residents can participate in any of the 35-plus programs Xcel Energy offers to help customers use less energy, reduce energy use during periods of peak demand or increase renewable (green) generation. Many of the programs align or complement current or past efforts that city and county staff have offered but Boulder's study simply does not include a budget to allow a similar offering of customer programs.

Green Programs

Boulder residents participate in green energy programs, such as Solar*Rewards® and Windsource,® at a rate of a community two to five times its size, which brings enormous financial benefits to customers in sums often exceeding $10 million a year. From 2006 to 2012, Xcel Energy spent on average **more than $5 million a year in solar energy rebates and REC payments** to Boulder customers.

In other words, as of 2012, about $35 million flowed back into the community of Boulder from its participation in the Solar*Rewards program along with all the local jobs created in the solar industry that are based in Boulder. Boulder accounted for 1,816 (14 percent) of Xcel Energy's 12,855 Colorado solar installations as of 2012. Since Boulder is approximately 3.4 percent of Xcel Energy Colorado customers, it is taking advantage of the company's solar programs equal to a city about four times its size (14 percent divided by 3.4 percent).

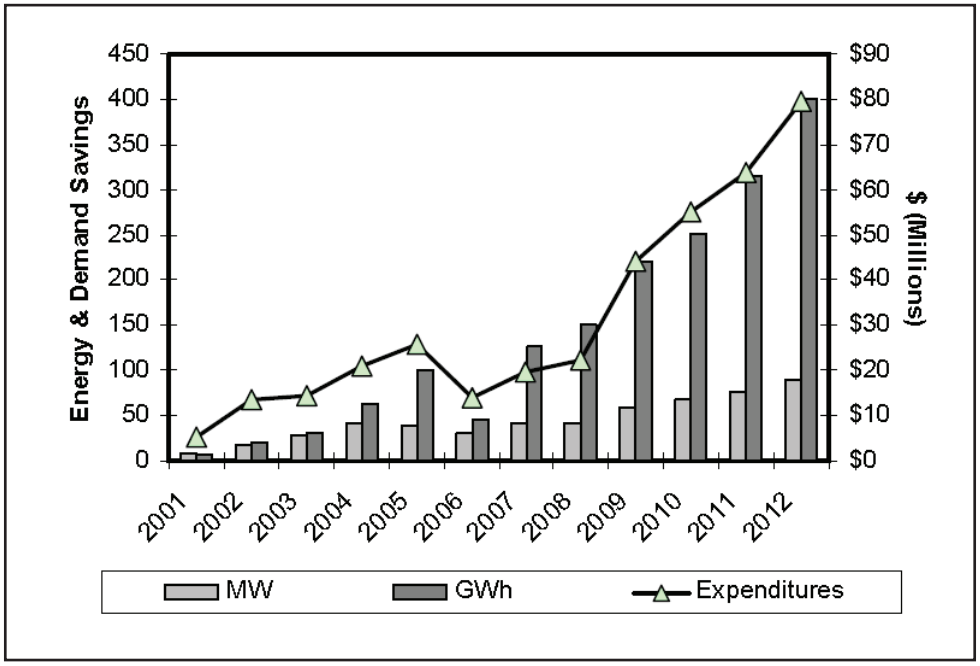
Today, approximately 3 percent of the electricity consumed in Boulder is supplied by solar energy installations from Xcel Energy's programs. While 3 percent may not sound like much, it is almost 30 times the national average (U.S. Department of Energy's 2012 statistics[1] indicate only 0.11 percent of the nation's electricity supply is from solar generation).

Energy Efficiency and Demand Response

Boulder residents have participated in Xcel Energy's energy efficiency programs at a rate of a city several times larger than its size. The problem with the city's study is it assumed outdated energy efficiency and demand response program budgets from 2009 and 2010 as its baseline budget. Xcel Energy has since grown its demand side management (DSM)* program portfolio to record levels, which has helped customers save more energy than ever before.

As Chart 2 taken from Xcel Energy's 2012 DSM Program report shows, the company's Colorado expenditures for DSM programs nearly doubled from 2009-2010 levels to $80 million in 2012. Not shown is that the Colorado Public Utilities Commission (CPUC) approved a record $83 million budget for DSM expenditures in 2013 with even higher energy savings targets. Even if Boulder customers participated in these programs at a lower level than its historical pace, such as a city only twice its size, expenditures in Boulder would be expected to approach **$7 million per year just for DSM programs alone** compared to the $4.5 million in the city budget identified above.

Chart 2. Xcel Energy's DSM program expenditures through 2012



*DSM includes energy efficiency programs that help customers use less energy year round and demand response programs that encourage customers to reduce their energy use for a few hours at a time when there is high demand for electricity on the system.

As an example of the effectiveness of these programs, Xcel Energy exceeded its 2012 Colorado energy savings goals by more than 20 percent, with energy savings equivalent to the amount of electricity consumed by all of Boulder residences and small commercial customers. To reach these high levels, **Xcel Energy employs nearly 80 energy efficiency and DSM experts in Colorado, including engineers, program developers, program managers, customer representatives and a variety of other professionals who work full- or part-time on DSM. This is in sharp contrast to the five employees in the city's budget.**

[1] http://www.eia.gov/electricity/monthly/current_year/february2013.pdf

There are several thousand Boulder residents who participate in Saver's Switch,® an important demand response program that helps reduce demand for electricity, typically on hot summer days when customer demand spikes. The study budget does not appear to have any funding for demand response, or load management as it is sometimes called.

Demand response is very important in helping a utility plan its long-term resource needs and manage unexpected spikes in demand. These programs contribute to improved reliability of the electricity system during these periods. It also can provide indirect environmental benefits. If a utility experiences unplanned demand for energy, the typical immediate option is to purchase energy from another utility or generator for a few hours until demand subsides. This can be costly and result in using power generated from less-efficient resources.

Conclusions

Boulder residents participate in Xcel Energy's industry-leading solar, energy efficiency and demand response programs at an equivalent rate of a city several times its size. Losing access to these programs results in what could be $10 million or more in annual benefits that would no longer be made available to Boulder customers if it pursues forming an electric utility. These lost benefits are not fully captured in the City of Boulder's proposed municipal electric utility operating budgets.

In 2011, Boulder voters narrowly approved examining a takeover of Xcel Energy's electric system within its borders. Those who voted for the issue likely would not have made that decision if they knew that one of the key assumptions for Boulder's financial study would be minimal customer energy programs and no budget for replacing Xcel Energy's existing solar programs.

Other key but potentially flawed assumptions in Boulder's study will be addressed in future white papers to provide a more complete picture of the potential costs and risks of forming a start-up utility. The Boulder City Council is set to make a decision August 6, 2013, to authorize condemnation to form a city-run electric utility.