

the skinny

COLORADO AMENDMENT 37: WHAT DOES IT MEAN TO YOU?

In November 2004, Colorado became the first state ever to adopt a renewable energy standard by popular vote. Amendment 37 requires that qualifying Colorado utilities generate 10 percent of their electric supply from renewable energy sources by 2015.

THE RULES:

- ☀ Colorado utilities with more than 40,000 customers are required to meet the requirements of Amendment 37. Currently, this standard applies only to Xcel Energy and Aquila but additional utilities in the state are expected grow to 40,000 customers within a few years.
- ☀ The required percentage of renewable energy accelerates in increments: 3% by 2007; 6% by 2011; and 10% by 2015.
- ☀ Qualifying technologies include wind, solar, geothermal, biomass, small hydro, and fuel cells.
- ☀ Qualifying Rural Electric Cooperatives and Municipal Utilities must self-certify that they plan to meet the standard.

THE SOLAR SET ASIDE:

Amendment 37 stipulates that four percent of the renewable energy requirement come from solar electric systems or photovoltaics (PV). Since Rural Electric Cooperatives and Municipal utilities can "self certify" out of the solar requirement, this provision applies specifically to Xcel Energy and Aquila. Half of this requirement must come from individual customers' (homeowners and businesses), distributed solar systems.

- ☀ The solar requirement for customer systems amounts to about 30 Megawatts (MW) of PV being installed by 2015. This is equivalent to providing solar power to 15,000 Colorado homes.
- ☀ Xcel and Aquila must establish rebate programs for its residential and business customers installing PV. While the minimum rebate called for in Amendment 37 is \$2 per watt; it is likely that the financial incentives will be closer to \$4/watt. The rebates will significantly improve the economics of installing home PV systems and are expected to be in place by 2006 (see box at right).
- ☀ Rebates will be retroactive to December 1, 2004 for residential and commercial systems up to 10 kW, so PV systems installed now will be eligible for rebates once the program is in place.
- ☀ The amendment specifies that retail electric rates may not be impacted by more than 1% (about \$0.50 on an average residential monthly utility bill).
- ☀ Amendment 37 also provides guidance on net metering policy (see page 2 for more on net metering).

Thinking of installing a PV system? Here's what you need to know.

Before you install a PV system on your home, it is a good idea to maximize energy efficiency to make your PV system as cost-effective as possible.

A 2,000 watt (2 kW) PV system could reasonably provide about half of the electricity needs of an energy efficient 2,000 square foot home.

Here's the cost breakdown:

- ☀ 2,000 watt PV system without rebates: about \$16,000 installed
- ☀ with \$2/watt rebate: \$12,000
- ☀ with \$4 rebate: \$8,000
- ☀ add in a 30% (up to \$2,000) Federal tax credit (beginning Jan. '06, now you're at: \$6,000
- ☀ with net metering, a 2,000 watt system would save the homeowner about \$530 per year on their electric bill.
- ☀ As energy rates rise, the yearly electricity savings increase as well.

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NET METERING

Net metering is an additional economic incentive for homeowners and businesses that install renewable energy systems that are connected to the grid. True net metering uses a single meter that runs forward when the system draws electricity from the utility and backward when the PV system produces more electricity than the home or business is using (i.e., supplies power to the grid). Excess electricity production is carried over from month to month and utility bill credits are settled at the end of the year.

Amendment 37 requires Xcel and Aquila to offer net metering to their customers. Xcel Energy recently implemented new net metering tariffs and rules for residential and commercial customers with solar PV systems up to 10 kilowatts (kW). Further negotiation is being conducted at the PUC to design net metering rules for systems larger than 10 kW.

SO, WHAT'S NEXT?

The utilities and the renewable energy community submitted two sets of draft rules for implementing and enforcing Amendment 37 to The Colorado Public Utilities Commission and have been working to establish "consensus" rules through ongoing negotiations over the summer. The PUC held public hearings and on October 7th will hold deliberative hearings to vote on compromise rules. Either party may file an appeal. Final rules are expected to be released in early 2006 and implemented shortly thereafter.

A NOTE ABOUT FEDERAL SOLAR TAX CREDITS

The Federal Energy Bill passed in July, 2005 includes first residential tax credit for solar energy in the past two decades. The bill creates a new 30% tax credit for residential solar installations; capped at \$2000. It applies to all forms of solar energy systems including PV and Solar thermal technologies that are installed after December 31, 2005 and before January 1, 2008. When combined with Amendment 37 rebates, the 30% tax credit applies to the after-rebate purchase amount of new systems.

LEARN MORE

Information on A-37 rule making: www.dora.state.co.us/puc - click on "Amendment 37"

State and Federal renewable energy incentives: www.dsireusa.org

Information on Solar Energy: National Renewable Energy Lab: www.nrel.gov

Americans for Solar Power: www.forsolar.org

American Solar Energy Society: www.ases.org

Center for ReSource Conservation: www.conservationcenter.org

www.conservationcenter.org

303.441.3278

Thinking of installing a PV system? Here's what you need to know about Net Metering.

Xcel has two tariffs for net metering PV systems at residential (R) and commercial (C) facilities. They feature true net metering including:

- System size up to 10 kW
- System owners must meet Xcel's interconnection standards and sign an interconnection agreement
- Xcel pays for and installs a net meter
- Net excess production is carried over to the following month
- If net production is negative at the end of the year, the customer will be paid at the "incremental cost of electricity supply averaged over the prior twelve months"
- Charges otherwise are the same as Xcel's normal R and C tariffs

Contact Xcel to find out more:

Residential Service: 800-895-4999

Business Solutions Center: 800-481-4700

