



YOUR ENERGY COLORADO NEWSLETTER

Issue 67

March 2017

Welcome to the 67th issue of CSU Extension's 'Your Energy Colorado' Newsletter. The mission of YourEnergy Colorado is to facilitate sustainable energy decisions in the state. As the name infers, we put the power to determine Colorado's energy future in **your** hands.

This newsletter is distributed as a way to give the public, our partners, and Extension staff updates on CSU Extension energy work and its context among all things energy. Please forward this newsletter to anyone you think might be interested. Also feel free to send us your organization's energy-related news and events for listing in future newsletters. **And don't forget to Like us on [Facebook](#) to get energy tips and commentaries on emerging energy news.**

AND YES, WE DO HAVE ANOTHER NEW LOOK/LOGO. WE ARE PLANNING TO STICK WITH IT AND HOPE YOU LIKE IT!



SPIFFY ONLINE SOLAR CALCULATOR RELEASED

With solar installations and solar financing options continuing to grow in the state, CSU Extension has developed an online calculator that provides costs and benefits for those considering taking the leap. The calculator goes beyond existing estimators by allowing for rooftop or groundmount arrays, loan interest rates, monthly lease payments, utility incentives, maintenance, and other realistic inputs to be analyzed. The calculator also provides numerous default values to allow for simpler use as desired. Results include costs, savings, payback, return-on-investment, a 20-year cash flow statement, and an optional comparison of purchasing versus leasing a system.

Whether you're considering solar, are a solar installer looking for a trusted third party analysis for your customers, or are just curious, check out the spiffy new calculator here:

<http://solarcalc.colostate.edu>



Solar Electric (PV) Calculator

This calculator can be used to figure out the size, costs, and benefits of a grid-tied solar PV system for the home or business. It can be used for both owning and leasing a system.

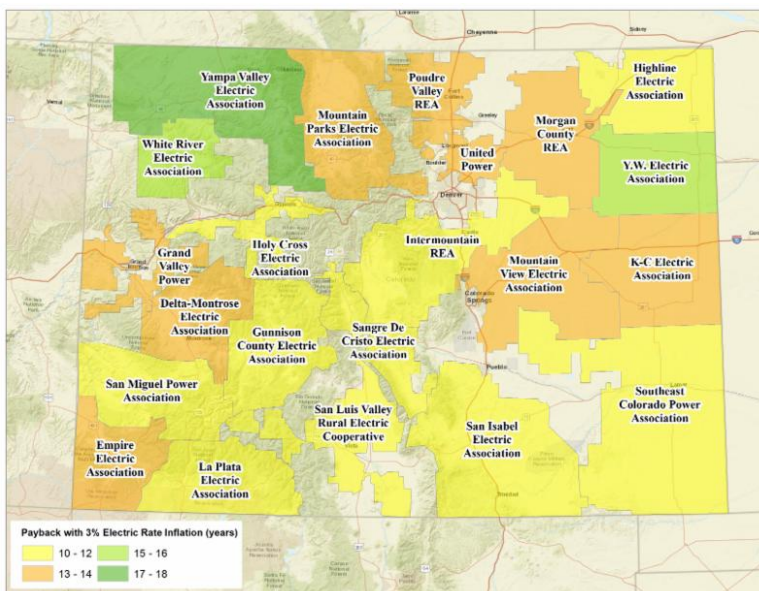
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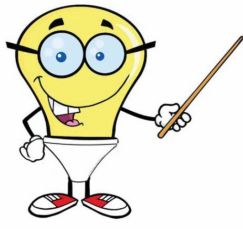
[Check out our spiffy new calculator here!](#)

INTERACTIVE SOLAR PAYBACK MAP OF RURAL COLORADO

In addition to the solar calculator, Extension has also produced an interactive online map of solar paybacks in Colorado's rural electric association service territories. This tool allows individuals to see and compare estimates of solar costs, benefits, incentives, and payback periods for all 22 rural electric cooperative service territories in the state. Turn on different layers to easily visualize the financial state of solar across rural Colorado.



[Check out the interactive version here!](#)



ENERGY -IN- BRIEFS

To Flare or Not to Flare?

There's been a lot of talk in the energy world recently about a BLM rule finalized in the waning days of the Obama administration that would limit methane emissions on public lands. Among other things, the rule requires the flaring of methane on federal and Indian lands to be cut in half over time. The intention behind the rule is to capture more of the natural gas produced at oil and gas wells so that it can be used on- or off-site. When flared (a.k.a. burned), methane emissions become carbon dioxide, which is better (but still not good) for the climate. With the new administration and Congress signaling their desire to repeal this rule, we felt a little background is warranted.

[Read more.](#)

LED Life Cycles

The U.S. Department of Energy projects that LED lighting will achieve 48% of all lighting sales by 2020 and 84% of sales by 2030. LEDs are supposed to live long. As in, "if you turn on an LED household bulb for 4 hours per day, it should last you 34 years" long. Of course, as with compact fluorescents (and most things we buy these days), you're bound to get a dud. So it's only natural that we ask ourselves what we're going to do when all these new bulbs go dim.

[Read more.](#)

The Future of Rates

Back in November, the Colorado Public Utilities Commission (PUC) approved a proposal by Xcel Energy to pilot two new residential electric rates that may very well become widespread in the near future. With the pilot program just beginning its rollout (Xcel aims to enroll up to 20,000 customers in 2017), we thought it would be a good time to explain just what these new rates might mean for consumers throughout the state.

[Read more.](#)

TECH-IN-FOCUS: CHIMNEY BALLOON

If you've never heard of a chimney balloon, you're not alone. Why would you want a balloon in your chimney, you ask? To seal air leaks of course! Fireplaces make up 14% of an average home's air leaks, and leaky, poorly insulated homes can use up to five times as much energy as tightly sealed, well insulated homes. Which is why sealing up leaky fireplaces is a no brainer.

Fireplace dampers can do the job to some degree. But air can leak through even a closed damper and many dampers warp over time with fireplace use. (Picture all that heated air your furnace and insulation have worked so hard to keep in the house just streaming up your chimney.) This is where the chimney balloon (aka chimney plug) comes in.



A work of art, it is not. It is literally a hefty balloon with a tube for blowing in air and a stand for pushing

and holding it snugly in place. And positioning is really the key. I got one recently and it took me about 30 minutes to install. (But someone who does it all the time could do it in 5 minutes or less.) Much of my time was spent guessing and checking the appropriate level of air to blow into the balloon before pushing it into place (not too much but enough to let you insert it properly). It's a bit of dirty work – on your knees or back with a headlamp to stuff all gaps with the partially inflated balloon, blowing it up fully and supporting it with the stand, and then inspecting your work for leaks.

But once installed you really can't feel drafts. In other words, it works. If you burn fires in your fireplace regularly, it may be somewhat of a nuisance to have to remove and then reinstall the balloon with each use. But you'd likely get to be a pro in installing it before long. For those of us who rarely utilize our fireplaces, be sure to check the air level in the balloon from time to time. I felt that mine lost a little air after a few weeks but it was extremely simple to blow more into the tube. So that's the skinny on a product that seems to deliver on its promises.

FARM ENERGY WORKSHOPS

Colorado farmers and ranchers spend more than \$400 million every year on energy, equaling 7 percent of the industry's total expenses. At the same time, energy technology is becoming more advanced and less expensive. In a series of six workshops delivered in Lamar, Burlington, Sterling, Greeley, Montrose, and Monte Vista, over 100 participants learned about opportunities for on-farm efficiency and renewables.

Former Colorado Ag Commissioners John Stulp and Don Ament moderated the events, which included presentations on Colorado's climate from State Climatologist Nolan Doesken of CSU, precision agriculture from CSU's Raj Khosla, on-farm renewable energy from CSU Extension's Cary Weiner, farm energy audits from Michael Turner of the Colorado Energy Office, and small hydropower from Sam Anderson of the Colorado Department of Agriculture. The workshops were organized by Darrell Hanavan, formerly of Colorado Wheat, and were sponsored by the Rocky Mountain Farmers Union, Colorado Farm Bureau, Colorado Corn Administrative Committee/Colorado Corn Growers Association, Colorado Livestock Association, Colorado Potato Administrative Committee and Western Dairy Association.



IN THE NEWS

- [U.S. Solar Surged 95% to Become Largest Source of New Energy, Chris Martin, Bloomberg Markets, 2/14/17](#)
- [Pueblo City Council commits to 100 percent renewable energy by 2035, Colleen Sikora, ABC News Channel 13, 2/13/17](#)
- [Rollout of Chevy Bolt May Mark Turning Point For Electric Car Market, Robert Siegel and Andrea Hsu, NPR, 2/13/15](#)
- [Utilities vote to close Navajo coal plant at end of 2019, Ryan Randazzo, The Republic, azcentral.com, 2/13/17](#)
- [Oil well blowout north of Denver near Sand Hills spews hydrocarbons, shutting roads for](#)

- [two days, The Denver Post, Bruce Finley, 1/23/17](#)
- [Colorado coal mine can stay open, Obama administration rules, Denver Business Journal, 1/19/17](#)
- [Kathleen Staks to Head Colorado Energy Office, Denver Post, 1/17/17](#)
- [As Trump Energy Agenda Takes Shape, Colorado Lawmakers Consider Impacts, CPR, by Michelle Fulcher, 1/5/2017](#)

RESOURCE SPOTLIGHT: NEWSOLAR CALCULATOR

Check out our new, spiffy, online solar calculator!

DID YOU KNOW?

According to data from the U.S. Energy Information Administration, about 40 billion cubic feet of methane is vented or flared on federal and Indian land in 2015. Cutting this in half would prevent over 1 million metric tons of CO₂ from entering the atmosphere, the equivalent of emissions from a 225,000 passenger cars. On the financial side, this amount of methane could be valued at over \$80 million by natural gas distribution utilities and produce about \$10 million of government royalties.

Learn more about oil and gas in Colorado.

UPCOMING EVENTS

- **March 13-15**
Solar Power Colorado 2017 Conference – Broomfield.
[More info and registration here.](#)

And come visit Your Energy Colorado booths at these events:

- **April 22**
[Wild Animal Sanctuary](#) Earth Day Educational Event – Keenesburg, CO
- **April 29-30**
2017 Durango Home & Ranch Show
[More info here.](#)

YOUR ENERGY COLORADO RESOURCES

- Like the [Your Energy Colorado Facebook page](#) for energy tips, news commentaries, and more
- Download and/or print CSU Extension energy [factsheets](#)
- [Calculate your savings](#) from switching lightbulbs, a new furnace, a low-flow showerhead, adding insulation and more
- Assess your [solar potential, costs, and benefits](#)

- Conduct a [DIY home energy audit](#)
- Watch [energywebinars](#)
- Borrow a [HomeEnergy Audit Loan \(HEAL\) program kit](#) from your local Extension office
- Use a lesson plan from [CSU Extension's clean energy curricula](#)
- Ask an [energy expert](#)
- Track energy legislation in Colorado and nationwide using the CSU Center for the New Energy Economy's [Advanced Energy Legislation Tracker](#)



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