



Legislative Council Staff

Nonpartisan Services for Colorado's Legislature

Room 029 State Capitol, Denver, CO 80203-1784

Phone: (303) 866-3521 • Fax: (303) 866-3855

lcs.ga@state.co.us • leg.colorado.gov/lcs

Memorandum

October 2, 2020

TO: Interested Persons

FROM: Andrea Denka, Research Analyst, 303-866-4781

SUBJECT: Incentives to use Solar Power in Colorado

Summary

This memorandum provides an overview of the financial incentives for solar power offered by utilities in Colorado, as well as other incentives, including net metering programs and state tax incentives.

Background

Currently, Colorado has no statewide financial incentive to promote the use of residential solar power. However, in 2004, Colorado passed a statewide renewable energy standard (RES). The RES requires qualifying retail utilities to obtain a minimum percentage of their power from eligible renewable energy sources, such as solar. Qualifying retail utilities provide retail electric service to at least 40,000 customers. With the passage of the RES, all qualifying retail utilities were required to generate or purchase 3 percent of their energy from renewable energy sources by 2010, 6 percent by 2014, and 10 percent by 2015. The Colorado General Assembly has passed two additional bills to increase the state's RES for utilities. House Bill 10-1001 increased the RES for qualifying retail utilities to 30 percent renewable generation by 2020, and Senate Bill 13-252 requires qualifying cooperative utilities, which are customer-owned utilities, to generate 20 percent of their electricity from renewable energy sources.

Incentives to use Solar Power

Although many renewable technologies can be used to create electricity, solar power has become an easily accessible and cost-effective option, in particular solar systems using photovoltaic (PV) panels. Many electric utilities in Colorado have invested in PV panels to produce the electricity needed to serve their customers and meet the RES. Utility customers are also able to purchase or lease their own PV panels to power their homes. Solar power can benefit homeowners by lowering monthly utility costs, increasing property values, and reducing carbon emissions compared to other energy sources.

Utility incentives. Utilities in Colorado have developed and implemented programs to encourage their customers to install and use PV panels. Table 1 lists utility incentive programs offered for the installation and use of residential solar power in Colorado.

**Table 1
Colorado Utilities Offering Solar Incentives**

Utility	Type of Incentive	Link to Program
Black Hills Energy	Solar Power Program	Link
Colorado Springs Utilities	Residential Energy Efficiency Rebate Program	Link
Fort Collins Utilities	Home Efficiency Loan Program	Link
Glenwood Springs Electric	Rebate Program	Link
Holy Cross Energy	Renewable Energy Rebate Program	Link
La Plata Electric Association	Renewable Generation Rebate Program	Link
San Miguel Power Association	Renewable Energy Program	Link
Xcel Energy	Solar Rewards Program	Link

Source: North Carolina State University Clean Energy Technology Center.

Local Incentives. In addition to utilities offering incentives, numerous local governments offer incentives to encourage the use of PV panels. Table 2 lists local government programs offered for the installation and use of residential solar power in Colorado.

**Table 2
Colorado Local Governments Offering Solar Incentives**

Local Government	Type of Incentive	Link to Program
City of Aspen	Residential Energy Efficiency Rebate Program	Link
City of Boulder	Residential Solar Rebate Program	Link
	Sales and Use Tax Rebate	Link
Eagle County	Energy Smart Colorado Loan and Rebate Program	Link
Garfield County	Energy Smart Colorado Loan and Rebate Program	Link
Gunnison County	Energy Smart Colorado Loan and Rebate Program	Link
Lake County	Energy Smart Colorado Loan and Rebate Program	Link
Pitkin County	Energy Smart Colorado Loan and Rebate Program	Link
Summit County	Residential Solar Rebate Program	Link

Source: North Carolina State University Clean Energy Technology Center.

Enterprise zone investment tax credit. Colorado taxpayers may claim an enterprise zone (EZ) investment tax credit for a property used to produce electricity through a qualified renewable energy investment. Qualified renewable energy investments include: hydrogen fuel cell systems, recycled coal mine methane and synthetic gas systems, and renewable energy systems that use solar, wind, geothermal, biomass, or hydropower power to generate electricity. More information about the EZ investment tax credit can be found on the Colorado Department of Revenue (DOR) website [here](#).

Net metering programs. Colorado residents are also incentivized to adopt solar through the use of net metering, a billing mechanism in which electric utilities purchase excess electricity produced by their customers, typically using PV panels. Electric utilities in Colorado are required to develop their own net metering programs and must compensate customers for their monthly and annual excess generation.¹ To implement net metering, a utility measures and values both a customer's electricity use and output. By crediting customers for their excess electricity that is generated and put back into the electric grid, net metering programs reduce utility costs for consumers who install PV panels, which incentivizes their use.

Property tax exemption. Colorado offers a property tax exemption for certain residential PV systems.² To qualify for an exemption, a PV system must be located on residential property, used to produce electricity primarily for residential use, and produce less than 100 kilowatts of electricity. More information on the residential renewable energy property tax exemption can be found on the Colorado Department of Local Affairs website [here](#).

Sales and use tax exemption. Colorado offers a sales and use tax exemption for the purchase of any storage equipment or component used in the production of electricity from renewable energy sources. Qualifying components include: solar modules, inverters, supporting structures, control systems, and concentrating solar power components such as mirrors. This exemption also applies to biogas production systems used to produce electricity. More information on this exemption can be found on the DOR website [here](#).

Weatherization Assistance Program. The Colorado Energy Office (CEO) Weatherization Assistance Program offers a limited-scale income-qualified rooftop solar program. Under this program, up to 300 households per year can receive PV panels at no cost. According to CEO, rooftop PV is installed on certain households that already qualify for the weatherization assistance program to lower the home's electricity costs and to ensure that the panels will provide a high return on the investment. More information on the CEO rooftop solar program can be found [here](#).

¹Section 40-2-124, C.R.S.

²Section 39-1-102 (1), C.R.S.