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

December 1, 2021

TO: Interested Persons

FROM: Christina Van Winkle, Senior Environmental Analyst, 303-866-6289

SUBJECT: Colorado State Tax Expenditures for Renewable Energy Resources

Summary

This memorandum provides information on state tax expenditures for renewable energy resources. State tax expenditures include individual and corporate income tax credits, deductions, and exemptions, and sales and use tax exemptions. Renewable energy resources include solar, wind, geothermal, greenhouse gas neutral biomass, and certain hydroelectricity, as defined in Colorado Statute under the Renewable Energy Standard.[1]

The information contained in this memorandum is drawn from the 2020 Tax Profile and Expenditure Report, published biennially by the Department of Revenue, as well as evaluation reports produced by the Office of the State Auditor (OSA).[2]

Tax Expenditures for Renewable Energy

This section describes the tax expenditures related to renewable energy resources, with revenue impacts for state income tax and sales and use tax expenditures summarized in Table 1.

Income Tax Expenditures

Enterprise zone non-refundable renewable energy investment tax credit. The Enterprise Zone Investment Tax Credit allows taxpayers to claim a nonrefundable income tax credit for three percent of qualified investments made in an enterprise zone. Taxpayers who placed a new renewable energy investment in an income tax year commencing on or after January 1, 2014 and before January 1, 2018 are authorized to carryover any excess credits for 22 income tax years following the year the credit was originally allowed. Credits resulting from investments in renewable energy property placed in service on or after January 1, 2018, may be carried forward for 14 years.

---

[1] Section 40-2-124, C.R.S.

[2] Department of Revenue Tax Profile and Expenditure Reports can be accessed here: https://cdor.colorado.gov/data-and-reports/tax-profile-and-expenditure-reports. The Office of State Auditor tax expenditure evaluation reports can be accessed here: https://leg.colorado.gov/node/1147256.

Enterprise zone refundable renewable energy investment tax credit. Enacted in 2015, taxpayers who place new renewable energy investments in service after January 1, 2015 and before January 1, 2021, that qualify for an enterprise zone investment tax credit may elect to receive a refund of 80 percent of the amount of the credit, and forego the remaining 20 percent as a cost of this election. If 80 percent of the credit is $750,000 or less, the taxpayer will receive the full refund in the first year. If the credit is greater than $750,000, the taxpayer will receive annual refunds not to exceed $750,000 per income tax year until 80 percent of the credit is refunded.

A 2020 evaluation by the OSA determined that the refundable tax credit may, to a limited extent, have incentivized additional large-scale investments in renewable energy. Since companies consider multiple factors when making decisions to invest in renewable energy, including availability of renewable resources (e.g. wind speeds and solar irradiance), transmission capabilities, and availability of land, the evaluation was not able to determine to what extent investments can be attributed to the refundable tax credit.

Sales and Use Tax Expenditures

Components used in the production of electricity from a renewable energy source. The sale, storage, use, or consumption of a component used in the production of electricity from a renewable energy source is exempt from state sales and use taxes. Between July 1, 2009 and June 30, 2017, the sale, storage, use, or consumption of a component used in solar thermal systems was exempt from state sales and use taxes. An evaluation report of this tax exemption is tentatively planned for 2022.

Biogas production components sales tax exemption. Between May 17, 2014 and June 30, 2019, the sale, storage, use, or consumption of a component used in a biogas production system for the production of biogas used for sales to a power generator, as a transportation fuel, or as a renewable natural gas was exempt from state sales and use taxes, but this exemption was repealed effective July 1, 2019. According to the 2018 evaluation by the OSA, the revenue impact of the biogas production components sales tax exemption was between $1.2 and $2.2 million between May 2014 and July 2018, with an indeterminate number of tax payers benefitting from the exemption. The evaluation determined that the exemption may have provided minor incentives to develop biogas facilities in the state, but likely did not cause a significant increase in biogas energy production capacity.

Property Tax Exemptions

In addition to tax expenditures for renewable energy resources, Colorado exempted from property tax the percentage of alternating current electricity capacity of a community solar garden (CSG) that is attributed to residential, governmental, and several other property tax-exempt subscribers for property tax years 2015 through 2020. Property taxes are assessed at the county level and, therefore, a statewide estimate of the value of this property tax exemption is not available. Based on the fiscal analysis of the legislation that enacted this property tax exemption (House Bill 14-1101), the exemption was expected to reduce local government property tax revenue by $525,200 in FY 2015-16 and $675,200 in FY 2016-17. The latter years of this exemption would have resulted in greater reductions in local government property tax revenue as more CSG's became operational.

In addition, renewable energy personal property that is located on a residential property and produced energy that is used by the residential property is exempt from Colorado property taxation. The revenue impact of these tax exemptions is not estimated in this report.

During the 2021 legislative session, the General Assembly passed Senate Bill 21-293, which, among other things, temporarily reduces the assessment rates for nonresidential property used to produce renewable energy from 29.0 percent to 26.40 percent in tax years 2022 and 2023. The bill is expected to reduce local government property tax revenue from renewable energy property by $1.7 million in tax year 2022 and $1.8 million in 2023.

The below table provides information on the revenue impacts, number of taxpayers, and average taxpayer benefit for tax expenditures related to renewable energy resources.

Table 1
Colorado Renewable Energy Income Tax and Sales and Use Tax Expenditures

Tax Expenditure	Tax Year for Estimates	Revenue Impact	Number of Taxpayers	Average Taxpayer Benefit	Source
Enterprise Zone Non-refundable Renewable Energy Investment Tax Credit	2018	$31,000	NA	NA	*Department of Revenue, 2020 Tax Profile & Expenditure Report*
Enterprise Zone Refundable Renewable Energy Investment Tax Credit	2016	$1.9 million	39	$49,479	*Office of the State Auditor, 2020 Evaluation Report*
	2018	$2.5 million	NA	NA	*Department of Revenue, 2020 Tax Profile & Expenditure Report*
Components Used in the Production of Electricity from a Renewable Energy Source[1]	2019	$6.2 million[2]	NA	NA	*Department of Revenue, 2020 Tax Profile & Expenditure Report (Evaluation report tentatively planned for 2022)*
Biogas Production Components Sales Tax Exemption	May 2014 to July 2018	$1.2 million - $2.2 million	NA	NA	*Office of the State Auditor, 2018 Evaluation Report*

Source: Compiled by the Legislative Council Staff from information published by the Department of Revenue and Office of the State Auditor.
NA = Not available due to taxpayer confidentiality requirements.
[1] Includes revenue impacts from biogas production components sales tax exemption.
[2] Includes revenue impact from sales tax returns. Excludes revenue impacts from retailer's use return and claims for refund.