

ENTERPRISE ZONE REFUNDABLE RENEWABLE ENERGY INVESTMENT TAX CREDIT



JANUARY 2020
2020-TE3

EVALUATION SUMMARY

THIS EVALUATION WILL BE INCLUDED IN COMPILATION REPORT SEPTEMBER 2020

YEAR ENACTED	2015
REPEAL/EXPIRATION DATE	December 31, 2020
REVENUE IMPACT	\$1.9 million (TAX YEAR 2016)
NUMBER OF TAXPAYERS	39
AVERAGE TAXPAYER BENEFIT	\$49,479
IS IT MEETING ITS PURPOSES?	It has met one of its two purposes to a limited extent, but has not met the other.

WHAT DOES THIS TAX EXPENDITURE DO?

For taxpayers who place a renewable energy producing property in service in an enterprise zone on or after January 1, 2015, and before January 1, 2021, the Enterprise Zone Refundable Renewable Energy Investment Tax Credit [Section 39-30-104(2.6), C.R.S.] (Renewable Energy Credit) allows those taxpayers to elect to receive a refund of 80 percent of the amount they would have received under the Enterprise Zone Investment Tax Credit [Section 39-30-104(1)(a), C.R.S.] (EZ Investment Tax Credit). Taxpayers forgo 20 percent of the EZ Investment Tax Credit amount for the ability to receive the refund.

Taxpayers that claim the Renewable Energy Credit may only receive a refund of up to \$750,000 per income tax year, but may continue to claim annual refunds until the full value of the credit is received.

WHAT IS THE PURPOSE OF THIS TAX EXPENDITURE?

The legislative declaration in House Bill 15-1219 states that the purposes of the Renewable Energy Credit are: (1) “to allow for the reduction in the state’s overall liability for certified enterprise zone investment tax credits” by reducing the credit amount otherwise available by 20 percent for taxpayers who elect to claim the refundable Renewable Energy Credit and (2) “to increase renewable energy investment and thus increase associated jobs and expand the tax base in rural Colorado.”

WHAT DID THE EVALUATION FIND?

We determined that, since the Renewable Energy Credit's enactment in 2015, it likely has increased the revenue impact to the State as opposed to reducing the State's liability for the EZ Investment Tax Credit, though it could have this effect in future years. We also determined that the Renewable Energy Credit may help increase renewable energy investment in the state and thus, increase the property tax base in rural Colorado, but to a limited extent.

WHAT POLICY CONSIDERATIONS DID THE EVALUATION IDENTIFY?

The General Assembly may want to consider the Renewable Energy Credit's effectiveness in reducing the revenue impact to the State, increasing renewable energy investments, and increasing the rural tax base.

ENTERPRISE ZONE REFUNDABLE RENEWABLE ENERGY INVESTMENT TAX CREDIT

EVALUATION RESULTS

WHAT IS THE TAX EXPENDITURE?

The Enterprise Zone Refundable Renewable Energy Investment Tax Credit [Section 39-30-104(2.6), C.R.S.] (Renewable Energy Credit) functions as an alternative credit option for taxpayers who make renewable energy investments within enterprise zones and qualify for the Enterprise Zone Investment Tax Credit [Section 39-30-104(1)(a), C.R.S.] (EZ Investment Tax Credit).

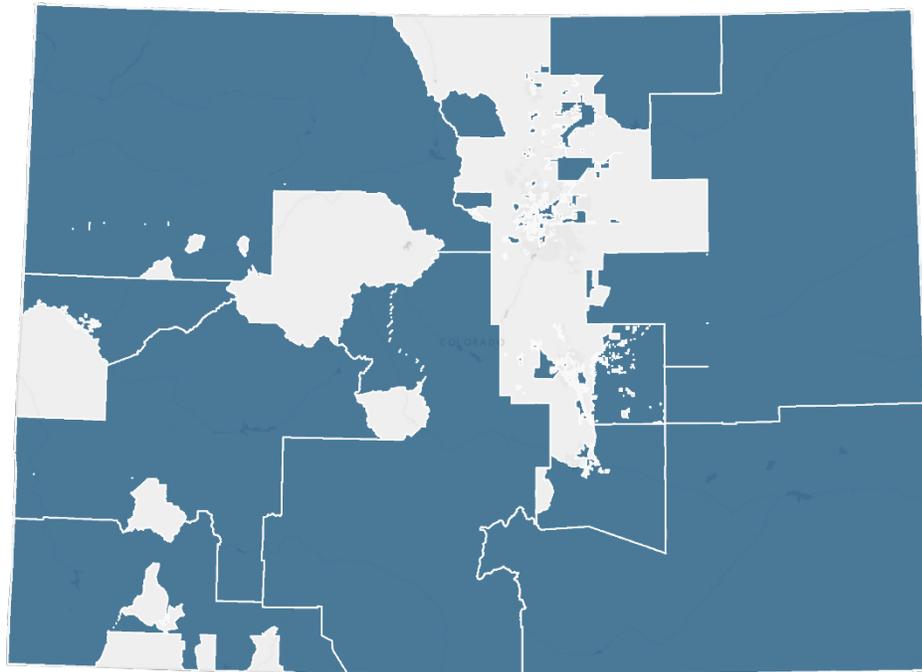
In addition to the Renewable Energy Credit, currently there are nine other income tax credits and one sales tax exemption that are part of the enterprise zone program. To qualify for any of the enterprise zone program tax expenditures, including the Renewable Energy Credit, companies must locate and make investments or conduct certain activities, such as hiring new employees, within areas designated as “enterprise zones.”

To be designated as an enterprise zone, an area must have a population of 115,000 or fewer people (150,000 or fewer for rural areas), and meet one of the following criteria:

- Unemployment rate at least 25 percent above the state average.
- Population growth rate less than 25 percent of the state average.
- Per capita income less than 75 percent of the state average.

The Economic Development Commission designates areas as enterprise zones with input from the Office of Economic Development and International Trade (OEDIT). EXHIBIT 1.1 shows the boundaries of the areas designated as enterprise zones as of June 2019.

EXHIBIT 1.1. MAP OF COLORADO ENTERPRISE ZONES
AS OF JUNE 2019



■ AREAS WITHIN AN ENTERPRISE ZONE

SOURCE: Office of the State Auditor mapping of Office of Economic Development and International Trade enterprise zone boundary data.

The EZ Investment Tax Credit allows taxpayers to claim an income tax credit for 3 percent of the qualified investment in business property that they make in an enterprise zone. To qualify, the investment must be in depreciable property, such as manufacturing machinery, agricultural structures, solar panels, and wind turbines. This credit is not refundable, meaning that taxpayers can only use it to the extent that they have tax liability. Taxpayers whose EZ Investment Tax Credit exceeds their tax liability cannot receive a refund for the excess amount, but can carry the credit forward for 14 years to be applied in future tax years. For income tax years beginning on or after January 1, 2014, the amount that may be claimed by a taxpayer in an income tax year is the lesser of

(1) \$5,000 of the taxpayer's tax liability plus 50 percent of any portion of the tax liability that exceeds \$5,000, or (2) \$750,000.

The Renewable Energy Credit, created by House Bill 15-1219, allows taxpayers that place a new qualified renewable energy producing property in service in an enterprise zone on or after January 1, 2015, and before January 1, 2021, and that qualify for the EZ Investment Tax Credit, to elect to receive a refund of 80 percent of the EZ Investment Tax Credit amount. In exchange for receiving a refund, the taxpayer forgoes 20 percent of the EZ Investment Tax Credit. Taxpayers that claim the Renewable Energy Credit may only receive a refund of up to \$750,000 per income tax year, but may continue to claim annual refunds until the full value of the credit is received. A taxpayer may make the refund election for more than one new renewable energy investment per income tax year, but the taxpayer is still subject to the \$750,000 annual cap.

Taxpayers that elect to claim the Renewable Energy Credit in lieu of the EZ Investment Tax Credit calculate their credit as shown in EXHIBIT 1.2.

EXHIBIT 1.2. CALCULATION OF THE RENEWABLE ENERGY CREDIT

Total Qualified Investment x 3% = EZ Investment Tax Credit

EZ Investment Tax Credit x 80% = Renewable Energy Credit

SOURCE: Office of the State Auditor analysis of Sections 39-30-104(1)(a) and (2.6), C.R.S.

A qualified renewable energy investment for purposes of the Renewable Energy Credit is defined by statute [Sections 39-30-104(2.8) and 40-2-124(1)(a), C.R.S.] as a project that generates electricity from any of the following eligible energy resources:

- Solar
- Wind
- Geothermal
- Biomass
- Small-scale hydroelectricity

- Energy produced by a generation unit with a nameplate capacity of 15 megawatts or less that converts the otherwise lost energy from the heat of exhaust stacks or pipes to electricity that does not combust additional fossil fuel
- Resources using coal mine methane and synthetic gas produced by decomposition of municipal solid waste if the Public Utilities Commission determines that the electricity generated is greenhouse gas neutral
- A fuel cell using hydrogen derived from an eligible energy resource

Statute [Section 40-2-124(1)(a), C.R.S.] specifically provides that fossil and nuclear fuels and their derivatives are not eligible energy resources.

To claim the Renewable Energy Credit, taxpayers must receive pre-certification from the local enterprise zone administrator with jurisdiction over the enterprise zone in which the taxpayer intends to place in service a renewable energy investment property prior to making the investment. After the taxpayer places the renewable energy property in service, the taxpayer must complete a certification application and receive approval from the local enterprise zone administrator. Both the pre-certification and certification processes are completed online through the OEDIT website. If the local enterprise zone administrator approves the certification, the taxpayer is issued a certificate, which they must attach to their Colorado income tax return that they file with the Department of Revenue.

Taxpayers claim the Renewable Energy Credit by completing the Enterprise Zone Credit and Carryforward Schedule (Form DR 1366) and filing that form with their Colorado income tax returns, where they also report the amount claimed. Pass-through entities, such as partnerships and S-corporations, must file the DR 1366 which calculates the credit available for its partners or shareholders. The partners or shareholders must then also complete and file the DR 1366 with their respective income tax returns to claim the Renewable Energy Credit.

WHO ARE THE INTENDED BENEFICIARIES OF THE TAX EXPENDITURE?

The legislative declaration in House Bill 15-1219 states that the intended beneficiaries of the Renewable Energy Credit are taxpayers that purchase renewable energy property that generates electricity within enterprise zones.

House Bill 15-1219 also states that intended beneficiaries are rural communities located in enterprise zones because they may experience job growth and an increased property tax base. In addition, the General Assembly intended for the State to benefit from this credit by reducing the State's liability for future certified renewable energy EZ Investment Tax Credit carryovers.

WHAT IS THE PURPOSE OF THE TAX EXPENDITURE?

The legislative declaration in House Bill 15-1219 states that the purposes of the Renewable Energy Credit are:

- 1 “to allow for the reduction in the [S]tate’s overall liability for certified enterprise zone investment tax credits” by reducing the credit amount otherwise available by 20 percent for taxpayers who elect to claim the refundable Renewable Energy Credit, and
- 2 “to increase renewable energy investment and thus increase associated jobs and expand the tax base in rural Colorado.”

IS THE TAX EXPENDITURE MEETING ITS PURPOSES AND WHAT PERFORMANCE MEASURES WERE USED TO MAKE THIS DETERMINATION?

We determined that the Renewable Energy Credit is not currently meeting its first purpose of reducing the State's liability for certified renewable energy tax credits. Since the Renewable Energy Credit's enactment in 2015, we determined that it likely has increased the revenue impact to the State by allowing taxpayers to claim credits sooner and for tax years for which they have no tax liability to offset,

rather than reducing the State's liability for certified EZ Investment Tax Credits. Although the State may eventually realize additional revenue, depending on the future tax liabilities of the companies that have claimed the Renewable Energy Credit, we could not quantify the extent to which this is likely to occur.

We also determined that the Renewable Energy Credit may be meeting its second purpose because it has likely provided some additional incentive to encourage renewable energy investment in the state and thus, increased the property tax base in rural Colorado. However, we were unable to quantify the extent to which the renewable energy investments would have happened if the Renewable Energy Credit did not exist and it appears that other factors likely had a more significant impact on businesses' decisions to make the investments.

Statute does not provide quantifiable performance measures for this tax expenditure. Therefore, we evaluated the Renewable Energy Credit using the following performance measures that we created.

PERFORMANCE MEASURE #1: *To what extent has the RENEWABLE ENERGY CREDIT reduced the State's foregone revenue for certified enterprise zone investment tax credits?*

RESULT: As of Tax Year 2016, the Renewable Energy Credit has increased the State's foregone revenue related to enterprise zone credits, though the credit has only been available since Tax Year 2015 and it is uncertain whether this revenue loss will eventually be offset in future years. Specifically, 39 taxpayers claimed \$1.9 million in Renewable Energy Credits in Tax Year 2016, the most recent year for which complete data was available. Based on our review of Department of Revenue taxpayer data, at least \$1.88 million (97 percent) was claimed by taxpayers who had no taxable income for the year (or in any recent years) and so they would not have been able to apply any EZ Investment Tax Credits in 2016 if they had not elected to use the Renewable Energy Credit. Therefore, nearly all of this amount represents revenue the State would have kept as of Tax Year 2016 if the Renewable Energy Credit was not available and taxpayers instead took the EZ Investment Tax Credit.

However, the State may save costs in the future, if the taxpayers who claimed the Renewable Energy Credit (forgoing 20 percent of the EZ Investment Tax Credit they could have claimed) would have otherwise been able to claim the full value of the EZ Investment Tax Credit by carrying it forward into future years. Because the Renewable Energy Credit has only been available since Tax Year 2015, we were not able to determine whether this will occur to a sufficient extent to offset the initial revenue loss and result in a cost savings for the State. However, in general, the taxpayers who claimed the Renewable Energy Credit have not generated significant taxable income or tax liability in recent years, such that they would be able to use non-refundable tax credits. This is because companies in the renewable energy industry have focused in recent years on making capital investments to expand their capacity to generate electricity and have tended to generate large operating losses in excess of their revenues. Companies can carry-forward and apply these losses to offset taxable income in future years using net operating loss deductions [Section 39-22-304(3)(g), C.R.S. and 26 USC 172]. If this trend continues, it is possible that the State will ultimately incur additional costs due to the Renewable Energy Credit, since many of the taxpayers who claim it would not have otherwise been able to claim the EZ Investment Tax Credit due to a lack of taxable income.

Furthermore, the State cannot save costs when taxpayers claim refunds for Renewable Energy Credits in excess of \$10.5 million. This is because although the amount of both the Renewable Energy Credit and EZ Investment Tax Credit that a taxpayer may claim is capped at \$750,000 per year, with the Renewable Energy Credit, any amounts in excess of \$750,000 can be carried forward indefinitely, whereas under the EZ Investment Tax Credit, these amounts can only be carried forward until the carryforward period has expired, which is 14 years for renewable energy investments placed in service on or after January 1, 2018. Thus, the most a taxpayer could take in EZ Investment Tax Credits for a single project is \$10.5 million (14 years x \$750,000), so any Renewable Energy Credits in excess of that amount results in an overall revenue loss for the State.

Based on our review of the credits certified by OEDIT, seven of the 183 taxpayers certified for an EZ Investment Tax Credit with a qualified renewable energy investment in Tax Years 2015 through 2018, were certified for a credit larger than \$750,000, with the largest credit being \$10.6 million.

In addition to its direct revenue impact, the Renewable Energy Credit may result in an opportunity cost to the State because when taxpayers claim it, the State is likely forgoing current year revenue in exchange for future savings. Although it is unclear how the State may have used the money refunded under the credit, this impact can be quantified using a rate to account for the time value of the funds. For example, applying the average inflation rate for Denver-Boulder-Greeley in Calendar Years 2010 through 2018 of 2.55 percent, for Renewable Energy Credits under \$750,000 that a taxpayer can use in a single year, the taxpayer would need to generate sufficient tax liability that would have otherwise allowed them to claim the EZ Investment Tax Credit within 8 years for the State to save costs. This period falls to 5 years, if the opportunity cost is calculated using the 4 percent average rate the State paid for bonds it issued during Fiscal Year 2020. As discussed above, the likelihood of the State saving costs is further reduced for larger credit amounts.

PERFORMANCE MEASURE #2: *To what extent has the RENEWABLE ENERGY CREDIT increased renewable energy investment in the state and the number of jobs associated with these investments?*

RESULT: The companies that claimed the Renewable Energy Credit reported significant investments and hiring for projects that qualified them for the credit; however, because there are many factors that may drive companies' decisions to go forward with renewable energy projects, we could not quantify the extent to which the credit caused companies to make investments and create associated jobs. Based on the available evidence, it appears that the credit may provide some additional incentive to locate projects in Colorado within enterprise zones, although the credit is likely not the deciding factor in most cases.

Due to data constraints, we focused our review on companies that

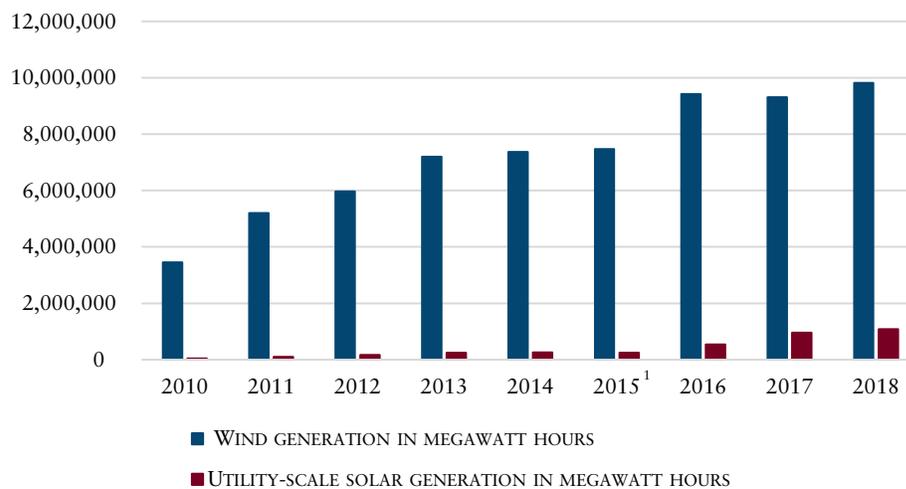
claimed the credit for qualified renewable energy investments of over \$5 million (hereafter referred to as “large-scale investments” in this report). These large-scale investments make up nearly all of the renewable energy investment dollars for which credits were claimed.

Based on OEDIT data, companies claiming the credit for large-scale investments reported making approximately \$981.8 million in renewable energy investments associated with the credits. These investments have increased electricity generation capacity from solar and wind sources by at least 602 megawatts in Colorado since 2015 according to information reported by the companies, which was 4 percent of Colorado’s total net summer capacity in 2017 and, according to the companies, enough capacity to power approximately 182,000 homes. Furthermore, the companies reported to OEDIT that the large-scale investments that qualified for the credit created 25 full-time jobs with an average annual salary of approximately \$100,000; 60 temporary jobs with an average annual salary of approximately \$48,000; and 621 contractor jobs.

Though total investment and jobs associated with these large-scale investments are substantial, it is also likely that a significant amount of this investment and job creation would have occurred regardless of the Renewable Energy Credit. This appears to be the case since several of the large-scale investments for which taxpayers claimed the Renewable Energy Credit were in various stages of planning prior to the credit’s enactment in 2015. Further, some of the large-scale investments were adjacent to a company’s existing renewable energy facility that was built prior to 2015, which may have also had an impact on the company’s decision to develop a new renewable energy facility in that location. Additionally, as shown in EXHIBIT 1.3, according to U.S. Energy Information Administration data, combined electricity generation in Colorado from wind and solar sources, two of the most common sources of renewable energy in Colorado, have been increasing since at least 2010, 5 years prior to the credit becoming available, which indicates that factors outside the credit are likely driving renewable energy investment. However, there was a noticeable increase in

electricity generation from wind (31 percent increase) and solar (333 percent increase) sources between 2015, when the Renewable Energy Credit first became available, and 2018, but we were unable to determine the amount of this increase that was attributable to projects for which the Renewable Energy Credit was claimed.

EXHIBIT 1.3. ELECTRICITY GENERATION IN COLORADO FROM WIND AND UTILITY-SCALE SOLAR SOURCES 2010 THROUGH 2018



SOURCE: Office of the State Auditor analysis of U.S. Energy Information Administration data on electricity generation from wind and solar sources.

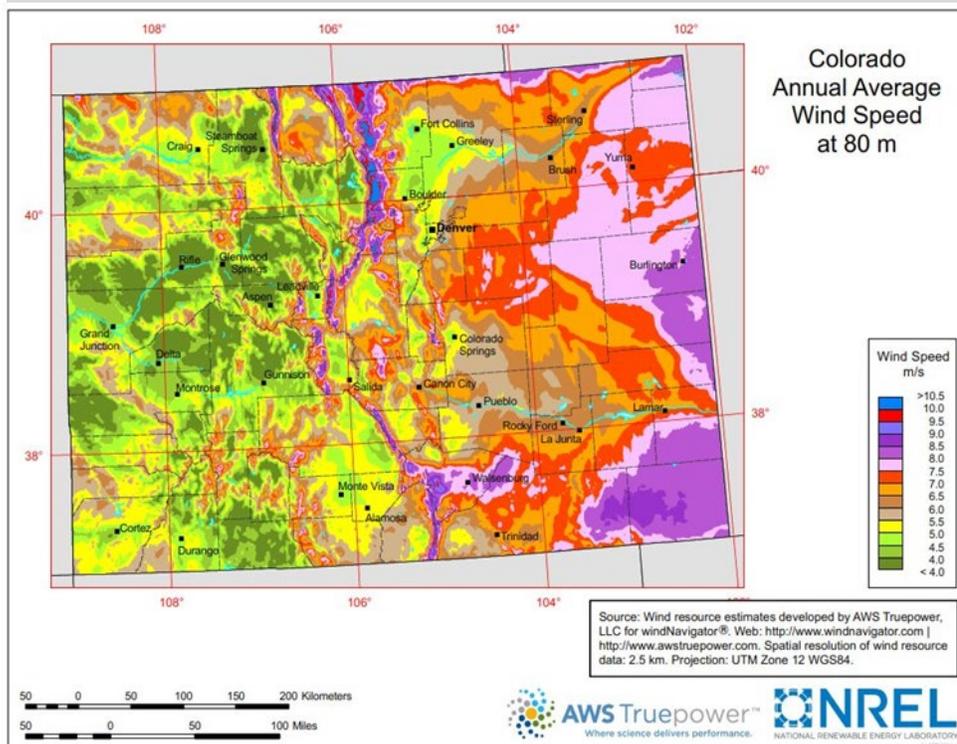
¹ This is the year that the Renewable Energy Credit was first available.

In addition, in 2004, Colorado voters passed a Renewable Energy Standard, which generally requires utilities to obtain 30 percent of their energy from renewable sources by 2020. This requirement may have also played a significant role in increasing investments in renewable energy.

Stakeholders reported that although they prefer to locate in an area where they can receive a tax credit and that the ability to receive a refund makes the Renewable Energy Credit more beneficial, they consider many other factors when determining where to locate a renewable energy project, including availability of the resource, transmission capabilities, and availability of land. Colorado, particularly the eastern and southern parts of the state, receives a significant amount of wind and sun and is therefore, a favorable location for renewable energy development. As shown in EXHIBIT 1.4,

eastern and southeastern Colorado have average wind speeds of between 6.5 and 9.5 meters per second. According to WINDEXchange, which is a platform supported by the U.S. Department of Energy and facilitated by the National Renewable Energy Laboratory, wind speeds of 6.5 meters per second and greater are generally considered to provide a suitable environment for developing wind projects.

**EXHIBIT 1.4. COLORADO AVERAGE ANNUAL WIND SPEED
AT 80 METERS ¹
SEPTEMBER 2010**

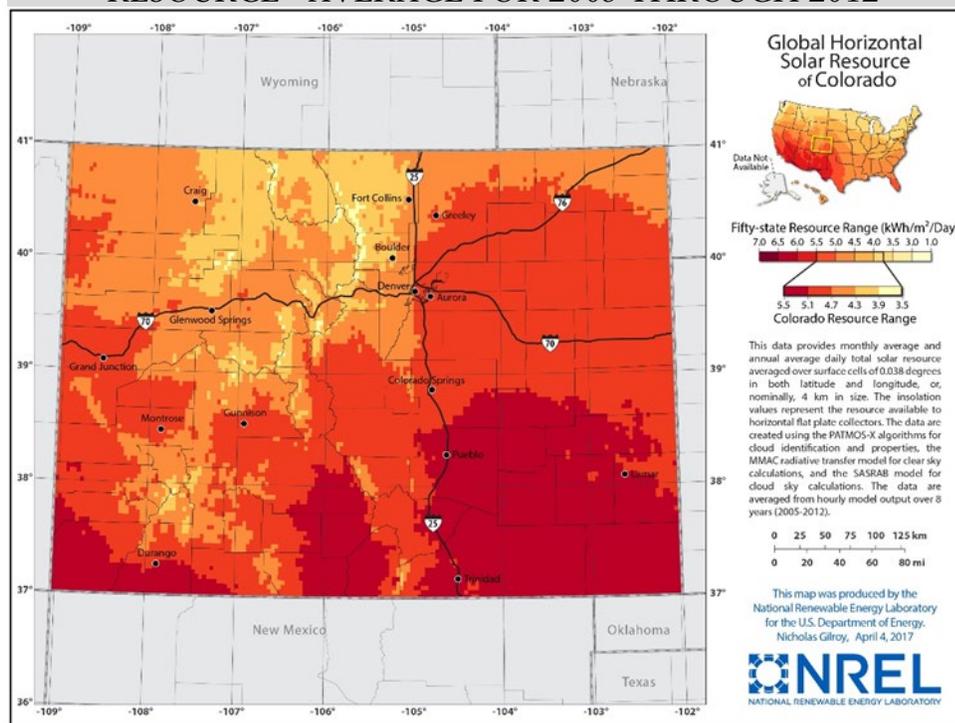


SOURCE: Map produced by AWS Truepower and the National Renewable Energy Laboratory.

¹ According to WINDEXchange, utility-scale, land-based wind turbines are generally installed between 80 and 100 meters high.

As shown in EXHIBIT 1.5, Colorado, particularly eastern and southern Colorado, is also a significant source of solar resource.

EXHIBIT 1.5. COLORADO GLOBAL HORIZONTAL SOLAR RESOURCE¹ AVERAGE FOR 2005 THROUGH 2012



SOURCE: Map produced by the National Renewable Energy Laboratory.

¹ Global horizontal resource, sometimes referred to as global horizontal irradiance, is the amount of irradiance falling on a surface that is horizontal to the earth and is considered to be an important measure for determining where to install solar panels.

Though locations in Colorado with the greatest wind and solar resources are primarily located in enterprise zones, stakeholders and utility companies mentioned that the existence of adequate transmission infrastructure is also an important factor in their decision to go forward with renewable energy investments. According to stakeholders, the infrastructure in some enterprise zones could not handle the additional capacity that large-scale renewable energy projects would add, which can be a limiting factor for development that may outweigh the incentive created by the Renewable Energy Credit. Companies that want to develop energy projects in areas where existing infrastructure is not sufficient can pay for upgrades to the infrastructure, but the cost can be significant. For example, in 2016, a Tri-State interconnection system impact study estimated that for a company that wanted to put a 500 megawatt wind facility in Cheyenne and Kit Carson Counties, the interconnection system upgrades would cost the company \$154.3 million and take approximately 4 years to complete.

PERFORMANCE MEASURE #3: *To what extent has the RENEWABLE ENERGY CREDIT expanded the property tax base in rural Colorado?*

RESULT: We found that large-scale investments made by companies that claimed the Renewable Energy Credit have resulted in an increased property tax base in some areas of rural Colorado. However, we were unable to quantify the extent to which the credit was responsible for this increase since companies making these investments consider many factors when deciding where to locate renewable energy projects. Further, because the credit has only been in place since Tax Year 2015, it is possible that its impact of property tax collections could grow in future years.

As of July 2019, local governments within five counties in enterprise zones have received, in total, approximately \$3.1 million in property tax payments as a result of large-scale investments for which the companies claimed the Renewable Energy Credit. Additionally, these local governments will receive an estimated \$1.8 million for 2019 property taxes when they are paid in 2020. We obtained property tax data from the Division of Property Taxation in the Department of Local Affairs for companies that made large-scale investments and claimed the Renewable Energy Credit in Income Tax Years 2015 through 2017. These large-scale investment projects, by statute [Section 39-4-102(1.5), C.R.S.], must be assessed by the Division of Property Taxation for property tax purposes. EXHIBIT 1.6 shows the total amount of property tax payments made to local governments attributable to these renewable energy investments in Property Tax Years 2017 through 2019 and the percentage of total local government property tax revenue that property tax from these investments represents in each year. We do not report property tax revenue for Property Tax Year 2016 to protect taxpayer confidentiality as required under Section 39-21-113(4)(a) and (5), C.R.S. Additionally, there is generally a delay between when a property is placed in service (i.e., when a taxpayer is eligible to claim the Renewable Energy Credit) and when it is first assessed for property tax purposes. These two factors account for the difference in our reporting years of Renewable Energy Credit claims and property tax

revenue attributable to the properties for which the Renewable Energy Credit was claimed.

**EXHIBIT 1.6. PROPERTY TAX REVENUE FROM LARGE-SCALE RENEWABLE ENERGY INVESTMENTS BY TAXPAYERS THAT CLAIMED THE RENEWABLE ENERGY CREDIT IN INCOME TAX YEARS 2015 THROUGH 2017
PROPERTY TAX YEARS 2017 TO 2019**

	2017	2018	2019	TOTAL
Property Tax Payments for Large-Scale Renewable Energy Investments	\$1,512,534	\$1,557,977	\$1,832,976 (Estimated ¹)	\$4,903,487
Percent of Total Property Tax Revenue of Counties	0.11%	0.10%	Not available	

SOURCE: Office of the State Auditor analysis of Division of Property Taxation and county data.

¹ For 2019, the values reported are estimated and the taxes are estimated based on the prior year mill levy. These taxes will be paid in 2020.

Neither the statute that contains the Renewable Energy Credit [Section 39-30-104, C.R.S.] nor the legislative declaration of House Bill 15-1219, which created the credit, provide a definition of “rural” for the purposes of evaluating whether this credit has increased the tax base in *rural* Colorado. However, for the purposes of determining the boundaries of enterprise zones, statute [Section 39-30-103(1.5.), C.R.S.] defines a rural area as:

- “A county with a population of less than fifty thousand people, according to the most recently available population statistics of the United States [B]ureau of the [C]ensus.”
- “A municipality with a population of less than fifty thousand people, according to the most recently available population statistics of the United States [B]ureau of the [C]ensus, that is located ten miles or more from a municipality with a population of more than fifty thousand people.”
- “The unincorporated part of a county located ten miles or more from a municipality with a population of more than fifty thousand people, according to the most recently available population statistics of the United States [B]ureau of the [C]ensus.”

Four of the five large-scale investments by taxpayers that claimed the Renewable Energy Credit are located in areas that meet that definition of rural, though only two are located in counties considered to be entirely rural (we do not list them here to protect taxpayer confidentiality as required under Section 39-21-113(4)(a) and (5), C.R.S.). In one of these two entirely rural counties, of the total property tax revenue collected by the county, 3.1 percent was attributable to the investments from the Renewable Energy Credit in 2017 and 2018. The other rural county only had a partial property tax assessment of the renewable energy property in 2018 since the project was not in operation for the full year. The property tax generated from that project comprised 0.01 percent of the total property tax revenue in that county in 2018. Property tax revenue from this project in subsequent years is expected to be more substantial. The average population weighted property tax revenues in these two counties was \$10.8 million in 2018. The other two projects, while located in areas that meet the statutory definition of rural, are located within counties that have significant urban populations and larger property tax bases. As a result, the property tax revenues associated with the large-scale investments that qualified for a Renewable Energy Credit in these two counties did not significantly increase the property tax base overall in the counties. However, the property tax revenue attributable to non-county property taxes (e.g., municipal property taxes, school district property taxes) may be significant for the immediate areas in which the projects are located. However, we lacked the data to determine how substantial the impact may be on these other local taxing districts.

WHAT ARE THE ECONOMIC COSTS AND BENEFITS OF THE TAX EXPENDITURE?

According to Department of Revenue and OEDIT data, 39 taxpayers claimed approximately \$1.9 million in Renewable Energy Credits in Income Tax Year 2016, which was the most recent year of complete data available. For Income Tax Year 2016, we determined that at least \$1.88 million (97 percent) of the Renewable Energy Credit amount was claimed by taxpayers that would have been unable to claim the EZ

Investment Tax Credit because they did not have Colorado tax liability. However, the credit has only been available since Tax Year 2015 and the State may recoup some of this revenue in future years, if the taxpayers who claimed the Renewable Energy Credit have tax liability and would have eventually been able to claim the full EZ Investment Tax Credits had they not elected to claim the Renewable Energy Credit. As previously discussed, companies that have made large-scale renewable energy investments in Colorado in recent years have generally been able to claim large net operating loss deductions and typically have not had any tax liability, so for the revenue impact of the Renewable Energy Credit to be offset, this trend would need to change.

In addition, it is likely that the revenue impact of the Renewable Energy Credit will grow in future years. Several taxpayers have Renewable Energy Credits that are in excess of the \$750,000 annual credit limit that they will be able to carry forward until they claim the entire Renewable Energy Credit for which they have already qualified. Assuming the taxpayers continue to claim refunds each year until these credits are fully exhausted, the State will provide refunds on existing Renewable Energy Credits being carried forward totaling \$19.5 million by 2033. This total does not take into consideration additional taxpayers that may subsequently make qualified renewable energy investments and claim the Renewable Energy Credit, which could increase the annual revenue impact, or existing taxpayers that make additional qualifying renewable energy investments and claim the Renewable Energy Credit, which would extend the time that the State is obligated to pay out refundable credits.

WHAT IMPACT WOULD ELIMINATING THE TAX EXPENDITURE HAVE ON BENEFICIARIES?

If the Renewable Energy Credit were eliminated, companies that make renewable energy investments within enterprise zones would no longer be able to claim refundable credits, though they could still use the EZ Investment Tax Credit to offset their tax liability. Therefore, the financial impact on beneficiaries would be dependent on the extent to which these companies will have tax liability to offset using non-refundable credits in

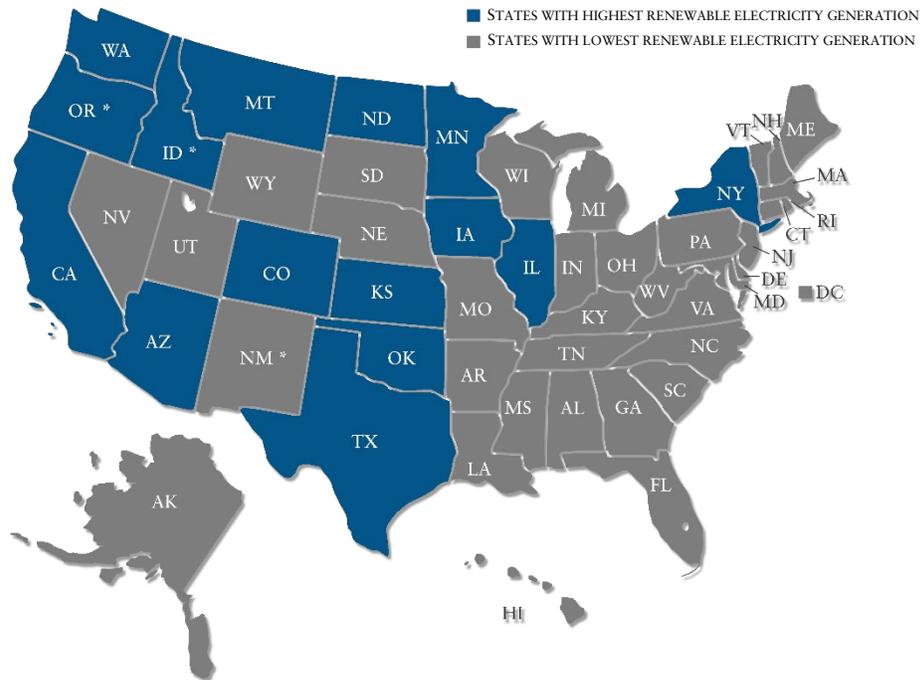
future years. As discussed, companies that have made large-scale renewable energy investments in Colorado in recent years have generally been able to offset all of their tax liability because they typically have generated large operating losses as they have expanded their renewable energy generation capacity that can be deducted from their taxable income. Therefore, non-refundable credits may not offer significant tax benefits to these companies unless this trend changes.

Overall, the potential reduction in available tax benefits if the Renewable Energy Credit were eliminated could reduce the incentive renewable energy companies have to locate and expand operations in Colorado. However, our discussions with stakeholders indicate that the availability of tax credits is one factor among many that companies consider when deciding whether to go forward with a renewable energy project and they are not typically the deciding factor.

ARE THERE SIMILAR TAX EXPENDITURES IN OTHER STATES?

We examined the tax expenditures that are available for renewable energy projects in the 14 states with the highest generation of electricity from renewable sources, according to 2017 data from the U.S. Energy Information Administration. Colorado was ranked 15 in renewable energy production in 2017. In 2017, these 15 states, including Colorado, produced 73 percent of the electricity generated from renewable sources in the United States. As shown in EXHIBIT 1.7, with a few exceptions, these states are in the western half of the United States.

EXHIBIT 1.7. MAP OF UNITED STATES SHOWING 15 STATES WITH HIGHEST GENERATION OF ELECTRICITY FROM RENEWABLE SOURCES IN 2017



SOURCE: Office of the State Auditor analysis of U. S. Energy Information Administration data.

EXHIBIT 1.8 summarizes the tax incentives available in these states. As shown, 10 of the 14 other states do not offer an investment tax credit for renewable energy projects; however, most offer some form of tax incentive for these types of projects. These include sales tax exemptions for purchases of components used to generate renewable energy (Colorado also has this type of exemption), property tax exemptions, and production tax credits, which provide tax credits based on the amount of renewable energy the facilities produce.

EXHIBIT 1.8. TAX EXPENDITURES AVAILABLE FOR RENEWABLE ENERGY PROJECTS IN THE 14 STATES WITH THE HIGHEST PRODUCTION OF ELECTRICITY FROM RENEWABLE SOURCES

STATE	INVESTMENT TAX CREDIT?	OTHER INCENTIVES
California	NO	Sales Tax Exemption, Property Tax Exclusion (solar) (expires 2025), and Income Tax Exclusion for grants and other financial incentives
Washington	NO	Partial Sales Tax Refund (expires 2030)
Texas	NO (expired 2018)	Property Tax Exclusion, Sales Tax Exemption
Oregon	NO	Tax Credit Auction ¹
New York	YES, 4% of investment ²	
Oklahoma	NO	Production Tax Credit (refundable election available at 85% of nonrefundable tax credit, expires 2021, expired 2017 for wind facilities)
Iowa	YES, 15% of investment capped at \$20,000 (solar facilities only)	Production Tax Credit (wind facilities only)
Kansas	NO	
Minnesota	NO	
Arizona	YES, \$5 million on investments greater than \$100 million (total credits allowed limited to \$10 million per year) but facility must use 51% of the energy produced (expires 2025)	Production Tax Credit (expires 2021)
Idaho	NO	
North Dakota	NO	
Montana	NO	Partial Property Tax Exemption (small-scale equipment only), Investment Income Credit
Illinois	YES, 25% of investment (for angel investors only) (expires 2021)	

SOURCE: Office of the State Auditor analysis of U.S. Energy Information Administration electricity generation data and other state tax laws.

¹ Oregon auctions off \$1.5 million of renewable energy tax credits annually. The credits are offered in \$500 increments and can be used against the personal and corporate income tax and the corporate excise tax. Depending on a company's tax situation, many of them are able to deduct the cost of the purchase at the federal level as a charitable contribution. They can then apply the \$500 tax credit at the state level to receive a double benefit.

² New York's credit is an investment tax credit that is not limited to renewable energy property, but renewable energy property qualifies for the credit.

In addition, we also looked at other states in the Mountain-Plains region: Nevada (ranked 18 in electricity generation from renewable sources), South Dakota (ranked 24), Nebraska (ranked 25), New Mexico (ranked 27). Wyoming (ranked 30), and Utah (ranked 32). Of these states, Nevada, South Dakota, and Wyoming do not have a state income tax, and Nebraska and Utah currently offer production tax credits for renewable energy. Utah also offers an investment tax credit for some renewable energy property. New Mexico's refundable renewable energy production tax credit expired in 2018.

ARE THERE OTHER TAX EXPENDITURES OR PROGRAMS WITH A SIMILAR PURPOSE AVAILABLE IN THE STATE?

EZ INVESTMENT TAX CREDIT [Section 39-30-104(1)(a), C.R.S.]. As discussed, the Renewable Energy Credit is an adaptation of the EZ Investment Tax Credit, which allows taxpayers to claim a nonrefundable income tax credit for 3 percent of the qualified investment that they make in an enterprise zone when the property is used solely and exclusively in an enterprise zone for at least 1 year. Credits resulting from investments in renewable energy property that was placed in service prior to January 1, 2018, may be carried forward for 22 years. Credits resulting from investments in renewable energy property placed in service on or after January 1, 2018, may be carried forward for 14 years. For income tax years beginning on or after January 1, 2014, the amount that may be claimed by a taxpayer in an income tax year is the lesser of (1) \$5,000 of the taxpayer's tax liability plus 50 percent of any portion of the tax liability that exceeds \$5,000, or (2) \$750,000.

SALES TAX EXEMPTION FOR COMPONENTS USED IN THE PRODUCTION OF ELECTRICITY FROM RENEWABLE SOURCES [Section 39-26-724(1)(a), C.R.S.]. This provision generally exempts purchases of components used at renewable energy production facilities. The sales tax exemption does not apply to any components beyond the point of generator step-up transformers located at the production site (e.g., transmission and distribution lines used to transport and distribute the energy), energy storage devices, or remote monitoring systems so it is possible that renewable energy companies that build large-scale renewable energy facilities will be subject to sales tax on a portion of their projects. Statute [Section 29-2-105(1)(d)(I), C.R.S.] generally provides that municipalities and counties with state-collected local sales taxes must conform to the State's sales tax base. However, some state exemptions, including the exemption for components used in the production of electricity from renewable energy sources, are optional for local governments with state-collected sales taxes and must specifically be adopted by the local government if it wants to offer the exemption at

the local level. As of June 2019, 28 out of the 152 municipalities with state-collected municipal sales tax had adopted the local sales tax exemption, and 22 out of the 51 counties with state-collected county sales tax had adopted it. We examined Department of Revenue sales tax and exemption information on the counties in which taxpayers that claimed the Renewable Energy Credit for large-scale investments and found that all except one of these counties either exempt components used in the production of electricity from renewable sources from county sales tax or do not have a county sales tax.

PROPERTY TAX EXEMPTION FOR COMMUNITY SOLAR GARDENS [Section 39-3-118.7(2), C.R.S.]. This provides that for property tax years beginning on or after January 1, 2015, but before January 1, 2021, the alternating current electricity capacity of a community solar garden that is attributed to residential, governmental, and several other property tax-exempt subscribers is exempt from property tax.

COLORADO RENEWABLE ENERGY STANDARD [Section 40-2-124(1)(c), C.R.S.]. Created in 2004, this provision requires qualifying utilities, excluding municipal-owned facilities and some cooperative electric associations, to produce a growing percentage of their total electricity using renewable sources, though the electricity is not required to have been generated in Colorado. The provision culminates with a final goal of 30 percent of all electricity coming from renewable sources in 2020 and beyond. The State allows utilities that do not meet the standard to supplement their renewable energy production by purchasing credits.

FEDERAL INCOME TAX CREDITS. There are two federal income tax credits available for renewable energy property investments, but a taxpayer may not claim both credits for the same investment. The Federal Energy Credit [26 USC 48] allows a business to claim an income tax credit for 30 percent of the property's basis (basis is typically the cost of the property) for solar, qualified small wind, and fuel cell energy property; 12 percent of the property's basis for wind energy property; and 10 percent of the property's basis for geothermal, microturbine, and combined heat and power energy property. The Federal Energy Credit is gradually being phased out for wind, solar, and qualified fuel cell energy property. The

Federal Renewable Electricity Production Credit [26 USC 45] allows a taxpayer to claim an income tax credit based on the amount of electricity the taxpayer produces from renewable energy sources and sells for 10 years after the property is placed in service. The Federal Renewable Electricity Production Credit is also gradually being phased out and is no longer available to most new renewable energy facilities. Renewable energy facilities that were placed in service prior to January 1, 2018, may continue to claim the credit for 10 years after they were first placed in service. New wind energy facilities are eligible for this credit as long as their construction began prior to January 1, 2020.

WHAT DATA CONSTRAINTS IMPACTED OUR ABILITY TO EVALUATE THE TAX EXPENDITURE?

We were unable to match OEDIT and Department of Revenue data for some businesses that claimed the Renewable Energy Credit. As a result, we could not conduct a complete analysis of these taxpayers' use of the credits, which were generally limited to small-scale qualifying renewable energy investments. In Tax Years 2015 and 2016, these small-scale investments comprised less than 1 percent of the total renewable energy investments for which taxpayers claimed the Renewable Energy Credit.

Department of Revenue staff reported that data for partnerships are largely responsible for why Department of Revenue and OEDIT data do not match for these taxpayers. Specifically, when a partnership elects to claim the Renewable Energy Credit and pass the credit through to its partners, it is supposed to file the Enterprise Zone Credit and Carryforward Schedule (Form DR 1366) and calculate the credit available for its partners, show the credits being passed through to the partners on its tax return, and then use the Pass-through Entity Enterprise Zone Credit Distribution Report (Form DR 0078A) to report the credit amounts being distributed to each partner. The partners must then also complete and file the DR 1366 with their respective income tax returns to claim the Renewable Energy Credit and indicate the partnership name and account number, and their percentage of ownership in the partnership at the top of the DR 1366. However,

according to the Department of Revenue, not all partnerships are filing partnership returns and individual partners are instead claiming the credits on their returns. For these taxpayers, the Department of Revenue does not have data to show the business entity from which the credit originated. Since OEDIT data only tracks certifications at the business entity level, it is difficult to match the credits claimed by partners to the business that was certified for a credit. Furthermore, when taxpayers claim any enterprise zone tax credit, they are required to attach the certificate provided by OEDIT to their tax returns. However, GenTax, the Department of Revenue's tax processing system, does not capture the certificates, and Department of Revenue staff reported that it is possible that some taxpayers do not submit their OEDIT certificates with their income tax returns.

Because this data constraint is largely driven by taxpayers not following the Department of Revenue's reporting requirements, addressing it would require more stringent review of taxpayer returns. However, according to the Department of Revenue, due to resource constraints, its staff does not review all returns for taxpayers who claim the credit and therefore cannot enforce this reporting requirement in all cases.

WHAT POLICY CONSIDERATIONS DID THE EVALUATION IDENTIFY?

THE GENERAL ASSEMBLY MAY WANT TO CONSIDER THE RENEWABLE ENERGY CREDIT'S EFFECTIVENESS IN MEETING ITS PURPOSE OF REDUCING THE REVENUE IMPACT TO THE STATE. Our review found that, since the Renewable Energy Credit has been available, it has likely increased the cost to the State rather than reduced its future liability for EZ Investment Tax Credits. We lacked data to determine whether over a longer period the Renewable Energy Credit would be beneficial to the State. However, based on witness testimony for House Bill 15-1219 and Senate Bill 13-286, as well as the fact that some renewable energy companies have substantial net operating losses that they are carrying forward, it is possible that some companies that claimed the Renewable Energy Credit would not be able to utilize the EZ Investment Tax Credit in its entirety before the carryforward period expires. Therefore, the

State may not realize an increase in future year revenue sufficient to offset the cost of the credit.

On the other hand, if this credit were not in place, these companies may not receive significant tax benefits from the EZ Investment Tax Credit and may be less likely to go forward with renewable energy projects in enterprise zones or may reduce the size of the projects. Since encouraging renewable energy investment was also a purpose of the credit, the General Assembly may want to weigh its potential benefits in this regard against the possibility of increased revenue losses.

THE GENERAL ASSEMBLY MAY WANT TO CONSIDER THE RENEWABLE ENERGY CREDIT'S EFFECTIVENESS AT ENCOURAGING RENEWABLE ENERGY INVESTMENTS IN THE STATE AND INCREASING THE PROPERTY TAX BASE IN RURAL AREAS. As discussed, we found that the credit is meeting its purpose of encouraging renewable energy investment to some extent because about \$981.8 million in renewable energy investments have been associated with projects for which taxpayers claimed the credit and the credit may have incentivized some of these investments. However, we could not quantify the proportion of these investments that were caused by the credit and based on our discussions with stakeholders, review of factors likely to influence businesses decisions regarding the location of renewable energy projects, and other states' incentives, it appears that the credit has not been the most important factor for most businesses in determining whether to make renewable energy investments in the state. In addition, although the credit has only been available since Tax Year 2015 and its impact could grow, at the time of our review, properties for which the Renewable Energy Credit was claimed had generated \$3.1 million in local government property tax revenue from Property Tax Years 2017 and 2018, and four of the five large-scale investments made by taxpayers who claimed the credit were located in rural areas.