

Cover Letter

Resolve 2025, chapter 116, *Resolve, to Require the Governor's Energy Office to Study Taxation of Renewable Energy Infrastructure* (L.D. 1355 or the Resolve) was signed into law by Governor Janet Mills on July 1, 2025.¹ The Resolve directs the Governor's Energy Office (GEO), now the Maine Department of Energy Resources (DOER), to evaluate Maine's current taxation of renewable energy infrastructure and the potential adoption of a uniform capacity tax. The study must examine the statutory and historical framework for taxation of solar, wind, and battery storage infrastructure in Maine and other states; the effects of new projects, including depreciation, on state-municipal revenue sharing; and challenges in determining just value for property tax purposes. It must also assess the use, complexity, cost, and appropriateness of tax increment financing (TIF) and credit enhancement agreements (CEA) for renewable energy projects, and consider whether uniform taxation of renewable energy infrastructure and exclusion of such revenue from state-municipal revenue-sharing formulas may encourage renewable energy infrastructure development, advance the State's clean energy goals and benefit municipalities and counties in the State.

The Resolve directs the DOER to consult with the Office of Tax Policy, representatives from the renewable energy industry and other experts in the state and municipal and county officials with relevant experience and solicit public comments on the study. The Resolve specifies that DOER may develop and include recommendations and any suggested legislation in its report to the Legislature due November 4, 2026.

Instructions for Public Comment

At this interim stage, DOER is making the technical report available for public comment.

Public comment on the report's findings and proposed policy options will inform the recommendations developed by DOER in consultation with Maine Revenue Services. Comments may be submitted by email to doer@maine.gov no later than October 16, 2026.

Funding Disclosure

The DOER received technical support on this work from the Center for American Progress (CAP) and Montana State University. This report was completed with support from the U.S. Climate Alliance. Its content does not reflect the views of the Alliance or any other organization.

¹ Resolve, to Require the Governor's Energy Office to Study Taxation of Renewable Energy Infrastructure, H.P. 878 - L.D. 1355, (July 1, 2025), available at <https://legislature.maine.gov/legis/bills/getPDF.asp?paper=HP0878&item=6&snum=132>.

Draft Recommendations Framework for Public Comment

As of 2024, Maine’s clean energy industry contributes \$3 billion annually to Maine’s economy.² Like other large, industrial projects, renewable and clean energy projects bring local investment and new sources of revenue. These projects contribute tax revenue and leases for landowners, provide significant jobs during construction, and a smaller number of permanent jobs for maintenance and operations. In recent years, Maine has added more than two gigawatts of local clean energy across thousands of projects, with more scheduled to come online in the years ahead. This represents a significant expansion of the state’s energy infrastructure, underscoring the importance of ensuring that projects built in Maine deliver affordable electricity while being responsibly integrated into host communities.

One of the primary pathways for renewable energy projects to contribute to Maine’s local communities is through property tax revenue, though the amount of tax revenue a project pays and how much can be retained locally can vary dramatically. Municipal-level assessment of large industrial projects introduces variability in assessed values as local assessors have different capacities, experience, and interpretation of assessment methods. Developers report that they can find it challenging to navigate the large variability in valuation, tax liability, and depreciation schedules between municipalities for renewable energy projects in Maine. This study included a survey of municipal officials (n=13) to understand their experience with renewable energy taxation. While the sample size of this survey wasn’t large enough to draw definitive conclusions, a majority of the municipalities that responded to the survey stated that they would find additional standardization and guidance from the state on how to evaluate projects useful.

DOER, in consultation with MRS, seeks to explore solutions that increase transparency, predictability, and tangible revenue for communities without introducing unnecessary complexity. In response to the Resolve and based on the findings of the Maine Renewable Energy Public Revenue Assessment and stakeholder feedback, two potential approaches are presented below. The final report will include findings and recommendations informed by public comment.

Property Tax Valuation Based on an Income Approach

While traditional industrial appraisals rely heavily on the cost approach, construction costs in rapidly evolving technology sectors like renewable and clean energy do not always accurately reflect market value. An income approach—including a Discounted Cash Flow

² https://www.maine.gov/energy/sites/maine.gov.energy/files/inline-files/2025%20Maine%20Clean%20Energy%20Industry%20Report_Final.pdf

(DCF) model—offers a more consistent representation of a project’s value and is increasingly used by states to value renewable energy projects for taxation.

Standardizing valuation using an income approach increases consistency and predictability for developers and municipalities while retaining full local control over mill rates and other aspects of the property tax structures. Towns can continue establishing Tax Increment Financing (TIF) districts to shelter valuation from state revenue sharing formulas and negotiate local Credit Enhancement Agreements (CEAs) with developers.

The State could provide guidance for municipal assessors, such as publishing discount rates, price estimates, and other criteria to use when valuing projects locally. Alternatively, the State could centralize income-based valuation with values certified to municipal assessors. Assuming appropriate findings of fact, the Legislature could consider developing legislation prioritizing the income approach as a method for establishing the ‘just value’ of such facilities.

Complete Personal Property Tax Exemption for Utility Scale Renewable Energy Projects and Implementation of a New Uniform Capacity or Generation Tax

A growing number of states deploy uniform capacity taxes in lieu of traditional personal property taxes on renewable energy generation and battery storage facilities. A capacity tax is paired with a property tax exemption. Revenue is distributed to local governments, including municipalities, counties, school districts and special districts in proportion to property tax collections.

This structural shift can address localized appraisal inconsistencies, stabilize local revenues and address the problem of high early tax payments and steep revenue declines caused by asset depreciation, and provides a transparent, and predictable system. However, because projects become exempt from property taxes, traditional TIF districts and CEAs would no longer apply to equipment personal property, and municipal reimbursement for property tax revenue loss would need to be considered.

Implementing a uniform capacity tax would involve a State law providing a full exemption for utility-scale clean energy personal property from local ad valorem property taxation. In its place, the State could levy a new uniform excise tax based on nameplate capacity (per MW) or the prior year’s electricity generation (per kWh). The legislature would have to address how the new tax interacts with municipal revenue sharing and school equalization formulas and consider options for municipalities to use revenue flexibly.

More information, including methods, local fiscal impacts, and peer state models can be found in Section 3 of the technical report beginning on the next page.

Maine Renewable Energy Public Revenue Assessment

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Introduction

The Center for American Progress has conducted a comprehensive study of clean energy fiscal policy in Maine. The study is designed to provide a transparent, data-driven framework for understanding how clean energy projects are assessed for tax purposes, how revenue is collected and allocated among jurisdictions, and interactions between local revenue and state revenue sharing programs.

This technical report will be used to inform the Maine Department of Energy Resources (DOER, formerly the Governor’s Energy Office) in examining and evaluating systems of taxation of renewable energy infrastructure, and exploring the feasibility of a Uniform Capacity Tax, as directed by Resolves 2025, Ch. 116, “Resolve, to Require the Governor's Energy Office to Study Taxation of Renewable Energy Infrastructure”.³ The Study will be submitted to the Maine Legislature by November 4, 2026.

As Maine advances toward its statutory goals of 80% clean electricity by 2030 and 100% by 2040, renewable and clean energy projects will interact more frequently with Maine’s municipal property tax framework. Renewable and clean energy development is growing⁴ across the country, and in Maine, and with this growth comes both opportunities and challenges for communities. Like other large, industrial projects, renewable and clean energy projects can bring significant investment and new sources of revenue. These projects can also provide significant jobs⁵ during construction, and a smaller number of permanent jobs for maintenance and operations. These projects contribute tax revenue and leases for landowners - though the value of those contributions varies significantly.

The entering and exiting of major industries can have particularly large impacts on small, rural and agricultural communities, where the majority of utility-scale projects are expected to be built.⁶ When a large project moves into a municipality or other local government jurisdiction, they bring additional value and revenue that can be captured by local governments, who then provide most of the services people feel directly—public safety, schools, health care, public parks, trash pickup and more. These local services are the primary link between large industrial facilities, community well-being, and locally led economic development.

Across the country, the amount of revenue a project pays and how much can be retained locally can vary dramatically⁷ based on the policies that state and local jurisdictions have in place. It is critical that communities understand these potential impacts, so they can negotiate and advocate for fair, stable, and predictable revenue that meets local needs. Good fiscal policy should also allow for investments that can

³ Resolve, to Require the Governor's Energy Office to Study Taxation of Renewable Energy Infrastructure, H.P. 878 - L.D. 1355, State of Maine (July 1, 2025), available at <https://legislature.maine.gov/legis/bills/getPDF.asp?paper=HP0878&item=6&snum=132>.

⁴ Rhodium Group/MIT-CEEPR. (n.d.), “Clean Investment Monitor,” available at <https://www.cleaninvestmentmonitor.org/us>.

⁵ U.S. Department of Energy, “U.S. energy and employment report” (Washington DC: 2024), available at https://www.energy.gov/sites/default/files/2024-10/USEER%202024_COMPLETE_1002.pdf.

⁶ U.S. Department of Energy, “Solar futures study” (Washington, DC: 2021), available at <https://www.energy.gov/sites/default/files/2021-09/Solar%20Futures%20Study.pdf>; U.S. Department of Agriculture, Economic Research Service, “Charts of note: Wind Development Varies by Region” (Washington, DC: 20214), available at <https://www.ers.usda.gov/data-products/charts-of-note/chart-detail?chartId=109244>.

⁷ Strategic Economic Research/Clean Tomorrow, “Comparison of Property Tax Treatment for Solar and Battery Storage in Seven States” (2025), available at https://sitingsolutions.com/wp-content/uploads/2026/01/FINAL-Clean-Tomorrow_Property-Tax-Report.pdf.

diversify and grow the local and regional economy from the use of local energy resources and infrastructure.

Local tax and spending policies are complex, often making budget processes opaque for decision-makers and residents alike. While property tax records are public—allowing anyone to look up a property’s valuation and tax bill—revenue from a single large-scale project never appears as a line item in a municipal budget. Instead, new property value blends into the jurisdiction's overall tax base, meaning tax gains rarely translate into direct, trackable funding for specific programs like teacher raises or faster emergency service response times. Lack of visibility of benefits can make it difficult for communities to negotiate fair use of their resources or secure funds to diversify their economy. Potential mismatches between what developers promise in terms of tax revenue and what is actually received can erode trust. This can ultimately lead to increased community opposition and resistance to future projects.

This Study aims to make state and local revenue from clean energy projects in Maine transparent. The goal is to help state decision makers, local leaders, and the public see how revenue is collected and how it is spent by state and local governments on tangible services that affect people’s lives. This project begins with a data and policy analysis of Maine’s state and local fiscal policy related to clean energy projects. Next, it provides a synthesis of insights from key stakeholders with knowledge of and experience with Maine’s fiscal policy and energy systems. It also provides a survey of renewable energy tax policy in peer states in New England and nationally. It discusses policies that other states have adopted to address key challenges with clean energy fiscal policy. Lastly, we discuss how these strategies may be applied in Maine and their potential local fiscal implications.

The next step in this Study will estimate revenue from a representative project. Reconstructing the statutory framework and applying it to a project characteristic of development in Maine offers an additional method to ensure the policy assessment is accurate and for stakeholders to visualize the tax structure and make it transparent.

Section 1: How Maine taxes renewable energy projects

State and local governments generate revenue from multiple sources, primarily through property, sales, and income taxes. States may also have specific taxes on energy infrastructure and generation. This section describes Maine’s statutes that dictate how revenue is generated by renewable energy projects, how revenue is allocated among different jurisdictions and uses, and interactions between local revenue and state revenue sharing formulas and policies.

Property Tax

General structure

All real and personal property is subject to property taxes unless otherwise exempted. In Maine, property tax assessments for all property, including renewable energy properties, happen at the municipal level. Local governments, including municipalities, school districts, counties, and special districts provide the services and infrastructure that most people rely on in their communities. Generally, local governments

set their property tax rates (mill levies) to raise needed revenue to provide services within some constraints established by the state government.

The basic property tax formula in Maine is:

$(\text{Assessed Value} - \text{Exemptions}) * \text{Mill Levy} = \text{Tax Revenue}$

Property Assessment

Municipal assessors are responsible for determining “just value” of renewable energy properties using several standard appraisal methods. Maine Revenue Services conducts assessments for projects sited in Unorganized Territory (UT).

By law and practice, assessors may use one or several of three approaches to determine the market value of projects (cost, income, sales comparison).⁸ Both the land used for renewable energy projects (real property) and the generation equipment and infrastructure (broadly and commonly, but not always, categorized as personal property) are assessed for property taxes. Municipal assessors have discretion on which assessment approaches to use and how to apply them to renewable energy real and personal property. Most appraisals use the cost approach to value new large industrial facilities, though there is variability.

Cost Approach

The cost approach calculates the replacement cost of new renewable energy generation equipment and related infrastructure less depreciation (RCNLD). The cost method estimates the cost to build or replace an equivalent facility today, then applies a depreciation schedule for physical wear and functional obsolescence as solar and wind technologies rapidly improve. One common approach is straightline depreciation over a project’s useful life. However, there is currently no standardized depreciation schedule or definition of “useful life” in Maine for solar panels or other renewable energy technologies. A stakeholder conversation on valuation of commercial solar arrays convened by MRS, for example, noted the uncertainty with depreciation of relatively new technology in Maine and offered several potential methods, including straightline depreciation, warranty periods of the equipment, income tax depreciation schedules, or the net energy billing contract period.⁹ Currently, municipal assessors retain discretion on how to apply depreciation to cost-based valuation.

Income Approach

The income approach values a facility based on its projected future revenue. The most common approach is the discounted cash flow (DCF) analysis. DCF estimates income from future electricity generation based on a project’s size (installed capacity) and the type of technology (solar, wind, hydro), and a projected price for electricity sales. A discount rate is an estimate of how much a dollar will be worth in the future. It is applied to a project’s future revenue projection. The DCF approach accounts for declining

⁸ Maine Revenue Services Department of Administrative and Financial Services (2025) *Report on the Valuation of Commercial Solar Arrays*. Available at <https://legislature.maine.gov/doc/11437>

⁹ Ibid.

energy production over the project's life and translates net operating income into a present-day value using a capitalization rate.

For renewable energy projects, income may also be determined using prior-year net generation and electricity sales.

Market Approach

The market approach uses actual sales of comparable properties to value similar projects. The market approach is most commonly used to value residential property where comparable sales of houses, apartments, and mobile homes are readily available. It is rarely applied to large-scale renewable projects due to a lack of comparable sales within a single municipality.

Exemptions

There are also two major exemptions that reduce the taxable value of renewable energy equipment, and therefore the total taxes owed: The Business Equipment Tax Exemption (BETE)¹⁰ and the Renewable Energy Investment Exemption.¹¹

1. Before they begin operations, BETE fully exempts equipment from property taxes. The town is reimbursed by the state for half the taxes that would have been paid in most cases, although a municipality could receive a higher reimbursement rate under certain circumstances.¹² Notably, grid scale batteries (with storage capacity of 2MW or greater) were recently excluded¹³ from the BETE program over concerns that the 50% reimbursement would not be enough to account for the reduced revenue and the additional demand for services - e.g. infrastructure upgrades, additional fire services.
2. After projects begin producing electricity, the Renewable Energy Investment Exemption¹⁴ exempts residential and some commercial renewable energy equipment (including solar and wind) from property tax. This exemption applies to net-metered projects or projects that have entered into an interconnection agreement with a utility before June 1, 2024.¹⁵ In tax year 2025, the reimbursement cost to the state was \$10,262,295 to offset the effect of this on local property tax revenue, as mandated by the Maine Constitution. However, this exemption was scaled back in 2025, meaning that utility-scale solar projects are no longer covered under this exemption for tax

¹⁰ Maine Revenue Services. (n.d.). *Business equipment tax programs*. <https://www.maine.gov/revenue/taxes/tax-relief-credits-programs/property-tax-relief-programs/business-equipment-tax-programs>

¹¹ Maine Revenue Services. (n.d.). *Property tax exemptions*. <https://www.maine.gov/revenue/taxes/tax-relief-credits-programs/property-tax-relief-programs/property-tax-exemptions>

¹² Maine Revenue Services, "Business Equipment Tax Exemption" (2025), available at <https://www.maine.gov/revenue/sites/maine.gov.revenue/files/inline-files/bull28.pdf>

¹³ An Act to Clarify the Status of Energy Storage Systems with Regard to the Business Equipment Tax Exemption and the Business Equipment Tax Reimbursement Program (2025). *L.D. 819*. https://legislature.maine.gov/legis/bills/display_ps.asp?LD=819&snum=132

¹⁴ Maine Revenue Services. (n.d.). *Property tax exemptions*. <https://www.maine.gov/revenue/taxes/tax-relief-credits-programs/property-tax-relief-programs/property-tax-exemptions>

¹⁵ NC Clean Energy Technology Center, "DSIRE database: Solar and Wind Energy Property Tax Exemption," available at <https://programs.dsireusa.org/system/program/detail/22141/solar-and-wind-energy-property-tax-exemption> (last accessed September 2026); Maine Revenue Services, "Solar Energy Equipment Exemption," available at https://www.maine.gov/revenue/sites/maine.gov.revenue/files/2024-12/bulletin%20no%202029_solar.pdf.

years beginning on or after April 1, 2025, unless they meet certain conditions.¹⁶ According to stakeholder interviews, a reason this exemption may have been scaled back was due to concerns that a too generous exemption was incentivizing too rapid buildout and too many renewable energy projects, crowding out other land uses, particularly for farmland and housing.

Real Property Valuation

The land under renewable energy projects and related buildings and other facilities permanently affixed to the land are appraised for tax purposes. Real property valuation is typically based on comparable sales within a municipality (a market approach), but appraisers may also use lease rates for renewable energy projects (e.g., and income approach). Land valuation must consider Maine's four current land use programs¹⁷ that offer property owners a reduction in assessed value: Farmland, Open Space, Tree Growth, and Working Waterfront. These programs are designed to encourage the maintenance of certain types of land uses by reducing their tax burden. Removing land from a current use program, for instance, transitioning land from farming to solar panels results in a penalty "equal to the taxes that would have been paid in the last five years if the property had not been in farmland, less the taxes that were paid, plus any interest on that balance."

The Certified Ratio

Maine's Constitution mandates that all property—residential, commercial, and industrial—be assessed equally according to its "just value" (fair market value). Although properties are taxed each year, municipalities don't revalue properties every year, leading stakeholders to perceive that actual market value and assessed value can be different, particularly for places where rapid growth or decline in property values is occurring. For example, a home valued at \$100,000 may increase in value the following year, but it may not be revalued for tax purposes, meaning the home will still pay taxes on \$100,000 of value until it is revalued by the municipal assessor. To address this, the State Tax Assessor normalizes differences in assessed value-to-market value between municipalities by applying a "certified ratio."¹⁸ Adjusting taxable value by the Certified Ratio, the state ensures it isn't over-reimbursing towns that have artificially low on the books values if it hasn't revalued properties for a number of years.

The Certified Ratio can result in a tax shift that raises or lowers taxes for renewable energy facilities based on the value of the renewable energy facility relative to other properties. If a town-wide revaluation results in a large increase in residential property assessments, the residential share of the tax base increases. This can cause an effective tax decrease for industrial owners, including renewable energy projects, even if their property value stayed the same because the mill levy is set based on the revenue needed to fund the municipal budget, not based on the total taxable value of a town. The opposite may also be true. If the municipality has not revalued residential property for one or more years, resulting in an underassessment of residential property, a new renewable energy facility may pay a relatively larger share of total municipal taxes.

¹⁶ Maine Revenue Services. (2024). *Property tax bulletin No. 29: Solar energy equipment exemption*. https://www.maine.gov/revenue/sites/maine.gov.revenue/files/2024-12/bulletin%20no%2029_solar.pdf

¹⁷ Maine Revenue Services. (n.d.). *Land use property tax programs*. <https://www.maine.gov/revenue/taxes/tax-relief-credits-programs/property-tax-relief-programs/land-use-programs>

¹⁸ Maine Revenue Services, "State Valuation," available at <https://www.maine.gov/revenue/taxes/property-tax/state-valuation> (last accessed September 2026).

Property Tax Mill Levies

In Maine, municipalities collect property taxes to fund their budgets. School districts, counties, and special districts receive a portion of the taxes collected by the municipalities. Maine's Unorganized Territory has its taxes valued and collected directly by the state.¹⁹ If projects span jurisdictions, each local government assesses the portion in their district.

Local governments set property taxes. Municipalities first develop an annual budget that delivers desired services and infrastructure. The tax rate is the number of mills required to raise necessary revenue based on the total taxable value of the jurisdiction. An increase in valuation doesn't mean an increase in revenue. Rather, it could lead to lower mill levies, meaning new taxable property is used to lower tax rates rather than increase revenue and spending.

The lowest cumulative mill levy is Garfield Plantation in Aroostook County with a tax rate of 0.09%. The highest cumulative levy is more than 35 times higher in East Millinocket in Penobscot County (3.35%). For Unorganized Territory, the tax rate also varies,²⁰ ranging from 0.2% to 0.9% (as of 2025). Whatever the municipality's tax rate, the same rate is applied to both real and personal property.

Tax Increment Financing (TIF) and Credit Enhancement Agreements

In Maine, Tax Increment Financing (TIF)²¹ districts are statutorily authorized mechanisms that allow municipalities to capture and retain local property tax revenue generated by new development within the district. A TIF district may be initiated by a municipality anticipating growth in a specific area, or at the request of a private developer or business. In the state's Unorganized Territory(UT), county governments establish these districts in place of the municipality. The majority of utility-scale renewable energy projects in Maine are sited within TIF districts.

The core function of a TIF is the retention of the "tax increment"—the new revenue resulting from the increase in assessed property value within the district. While a TIF does not alter the project's appraised value or the local mill rate, it provides a fiscal "shelter" for the municipality. Under Maine's school funding and municipal revenue-sharing formulas, an increase in local taxable value typically triggers a proportional decrease in state aid. By capturing the new valuation within a TIF, municipalities can retain new tax revenue without losing their state-level funding allocations. This allows towns to fund essential infrastructure and development programs²²—the permitted uses of which are defined by state statute.²³ Alternatively, through a Credit Enhancement Agreement (CEA), a portion of the revenue may be returned

¹⁹ Maine Revenue Services. (n.d.). *Property tax*. <https://www.maine.gov/revenue/taxes/property-tax>

²⁰ Maine Revenue Services. (n.d.). *Unorganized territory tax rates*. <https://www.maine.gov/revenue/taxes/property-tax/unorganized-territory/tax-rates>

²¹ Maine Department of Economic and Community Development. (n.d.). *Municipal tax increment financing (MTIF)*. <https://www.maine.gov/decd/MTIF>

²² Ibid.

²³ Maine Revised Statutes, (2023). *Title 30-A, § 5227 Municipal Development Districts*. <https://legislature.maine.gov/statutes/30-A/title30-Asec5227.html>.

to the developer²⁴ to offset project costs. CEAs are often used as a competitive incentive to attract capital-intensive investments.

Administrative Challenges and Inequities

Despite their benefits, TIFs introduce administrative complexity,²⁵ cost, and financial risk. Stakeholder interviews indicate that the legal and consulting costs required to negotiate a TIF and CEA range from \$50,000 to \$80,000. These upfront costs can be prohibitive for smaller, rural communities with limited administrative capacity. Because TIF-sheltered value is excluded from state-wide revenue sharing calculations, municipalities that utilize TIFs may effectively capture a larger share of the state pool available for revenue sharing to all municipalities. This creates a subtle tax shift onto communities that do not—or cannot—use TIFs to shelter their new developments.

Because TIF revenue is restricted to specific economic development uses, TIFs can make revenue available for infrastructure and economic development purposes but reduce flexible General Funds. In a few cases, rapid technological depreciation or unexpected changes in asset valuation resulted in significant drops in project value and forced municipalities²⁶ to return previously collected revenue to developers, highlighting the potential long-term fiscal risks of these 20- to 30-year agreements.

Siting and Original Assessed Value (OAV)

Understanding the current revenue associated with renewable energy projects in Maine is critical to informing potential reforms. We are currently analyzing data from municipality commitment books, including original assessed value of projects. Data on assessed value inside and outside of TIF districts will allow for an evaluation of how much municipalities are currently receiving from renewable energy projects and the relative difference in assessments between jurisdictions.

Additional Taxes on Renewable Energy Projects

While property taxes are the major way that renewable energy projects generate revenue for local communities, renewable energy companies also pay income and sales taxes collected by the state. Income and sales taxes are not directly returned to jurisdictions where renewable energy projects are located. Rather, they are deposited into the state General Fund and pay for state services, including transfers to local governments statewide. We review them briefly below.

Income taxes

Companies owning and operating renewable energy projects in Maine and their employees are subject to corporate and personal income taxes. Project owners are subject to normal income taxes in Maine, which range from 3.5-8.93%²⁷ for corporate income tax (Maine taxable income) or 5.8-7.15%, plus a potential 2% surcharge²⁸ for individual income tax (Maine adjusted gross income). Many factors affect the calculation of Maine taxable income or Maine adjusted gross income in determining the amount of

²⁴ Ibid.

²⁵ Maine Renewable Energy Association. (April 9, 2025). Re: Public Hearing, LD 1355, Resolve, to Require the Office of Tax Policy to Study Taxation of Renewable Energy Infrastructure. <https://legislature.maine.gov/legis/bills/getTestimonyDoc.asp?id=188767>.

²⁶ Bill Trotter (April 11, 2021). Maine counties chafe at lower-than-expected payments from wind farms. *Bangor Daily News*. <https://governorswindenergycoalition.org/maine-counties-chafe-at-lower-than-expected-payments-from-wind-farms/>.

income tax liability. Income taxes are collected by the state and are not a source of direct revenue for local governments.

Sales Tax

Broadly, sales tax applies to the retail sale of tangible personal property and taxable services unless otherwise exempted. "Tangible personal property" is defined to include electricity. Taxable services is defined to include the transmission and distribution of electricity. Three exemptions are of particular note.

Sales Tax for Wholesale Electricity

Utility-scale renewable energy projects operate as "wholesale" generators. Under Maine law, sales of electricity for the purpose of resale are exempt (technically an exclusion) from sales tax. Consequently, when a wind or solar farm sells electricity to a utility or through a Power Purchase Agreement (PPA), the transaction is non-taxable at the producer level.

The state's 5.5% sales tax is applied only at the retail level when electricity is delivered to the end-user. For residential consumers, current law exempts the first 750 kWh²⁷ of electricity per month.

Electricity Used for Net Billing

Relatedly, the relevant exemption structure includes the sales tax exemption for electricity purchase through a net energy billing arrangement:

- **36 MRSA 1760.80. Electricity used for net billing.** Sale or delivery of kilowatt hours of electricity to net energy billing customers as defined by the Public Utilities Commission for which no money is paid to the electricity provider or to the transmission and distribution utility.

Sales Tax Exemption for Machinery and Equipment

Renewable energy developers are largely shielded from the upfront capital costs of sales tax through Maine's industrial users exemption (for property used in production).²⁸ This provision exempts machinery and equipment used directly and primarily in the generation of electricity from the state sales tax, including wind turbines, rotors, and towers, solar panels and racking systems. There was also a limited sales tax refund provision for battery energy storage systems under 36 MRS ch221 §2021, which applied to sales tax on purchases between 1-1-2023 and 12-31-2025.²⁹

Maine levies a 5.5% uniform sales tax, with higher rates for certain goods and services, such as prepared foods and short-term car rentals. Maine does not allow municipal levies, meaning municipalities do not collect revenue directly from non-exempt sales related to renewable energy generation and related spending in their jurisdictions. The state shares 5% of sales taxes with municipalities to offset property taxes, but revenue sharing is not proportional to local collections, but rather is based upon a weighting

²⁷ Maine Revenue Services. (2022, November 15). *Instructional Bulletin No. 13: Sales of fuel and utilities*. https://www.maine.gov/revenue/sites/maine.gov.revenue/files/2024-12/bulletin%20no%2029_solar.pdf.

²⁸ Maine Revenue Services. (2013, October 1). *Industrial users blanket certificate of exemption*. <https://www.maine.gov/revenue/sites/maine.gov.revenue/files/inline-files/STA117BlanketIndustrial10012013.pdf>.

²⁹ Title 36: Taxation, Part 3: Sales and Use Tax, Chapter 222 (2021), available at <https://legislature.maine.gov/statutes/36/title36sec2021.html>.

of its population and local property tax burden factors.³⁰

Uniform Capacity Tax

The Maine Revenue Services Office of Tax Policy and the Governor’s Energy Office previously explored a Uniform Capacity Tax on renewable energy generation, but did not pursue this after considering the interaction with Maine’s existing property tax system, as well as the potential benefits and costs to administer the program. One purpose of this study is to provide additional information about a uniform capacity tax to the state legislature through additional stakeholder interviews, policy analysis, and lessons from previous legislative and administrative studies and proposals.

As will be discussed later in this report, the type of taxation (e.g., property tax or new capacity tax) and the tax rate can be considered separately. A uniform capacity tax streamlines valuation and administration relative to property taxes in several states who have adopted the tax. The installed capacity of a project may also be used as a method to value projects for property taxes, potentially avoiding questions of just taxation and retaining local control via the general property tax structure.

Case study: Oakfield Wind

In 2009, Oakfield in Aroostook County created a new TIF³¹ to support the capturing of tax revenue of a new wind project by First Wind. The Project would add 50 turbines with a total nameplate capacity of 148 MW (nameplate capacity is the maximum power generation possible under ideal conditions) to Oakfield and neighboring Unorganized Territory.³² The wind farm generated 350 thousand MW hours of electricity in calendar year 2025, operating at an average capacity factor of 27%.³³ The agreement also included a credit enhancement agreement³⁴ (CEA) in which some of the tax revenue would be returned to the developer.

The TIF was estimated to generate about \$14.3 million over a 20-year period, including a \$600,000 gift to the town, considered as part of the “tangible benefits” clause of the environmental permit application with the Maine Department of Environmental Protection. The usage of the TIF funds were voted on by the residents, and the town identified projects that it could fund with the money, including construction of a public safety building, fire station equipment, road reconstruction, and other projects.

Case Study: Downeast Wind

³⁰ Maine legislature, “Transfers for Municipal Revenue Sharing,” available at <https://legislature.maine.gov/doc/7187> (last accessed September 2026).

³¹ Cyr, J. (2011). Oakfield OKs wind farm TIF district plan. *The County*. <https://thecounty.me/2011/11/23/news/oakfield-oks-wind-farm-tif-district-plan/>

³² Project characteristics come from the Energy Information Administration EIA-860 Generator Report. The Oakfield Wind Project’s Plant ID is 57002. [Annual Electric Power Industry Report, Form EIA-860 detailed data with previous form data \(EIA-860A/860B\) - U.S. Energy Information Administration \(EIA\)](#).

³³ Project performance data come from the Energy Information Administration EIA-923 Survey. [Form EIA-923 detailed data with previous form data \(EIA-906/920\) - U.S. Energy Information Administration \(EIA\)](#).

³⁴ Town of Oakfield, Maine. (2009). Credit Enhancement Agreement between Town of Oakfield, Maine and Evergreen Power II, LLC. <https://www.oakfieldme.org/vertical/sites/%7BD2794B8C-60B4-4246-A7A2-B97C2A034DA9%7D/uploads/%7B8F9BD6E3-779E-4A21-9596-A7482F4B138E%7D.PDF>

In 2020, a TIF was created³⁵ in unorganized Washington County for Downeast Wind. This project would bring 30 turbines to the county with a total nameplate capacity of 126 MW (nameplate capacity is the maximum power generation possible under ideal conditions).³⁶ The wind farm generated 264 thousand MW hours of electricity in calendar year 2025, operating at an average capacity factor of 24%.³⁷ This TIF would bring in \$20 million³⁸ for the local community, including for infrastructure, economic development, public safety, and other projects. This TIF was particularly important since the majority of the project's wind turbines were planned for Unorganized Territory. Without a TIF, the revenue from the project gets distributed between all UTs in the state,³⁹ reducing direct benefits for the host community. This more recent case is also notable for including nearly \$4 million in flexible community benefit dollars, which could be used for property tax relief, town improvements/infrastructure, education, and other purposes. The TIF agreement also included a CEA, which split the revenue⁴⁰ of the project 70:30 between the developer and the town, respectively.

Other Considerations

A number of tax interactions and state programs may affect actual revenue to local governments. For example, states may limit what can be collected, states may reduce state aid if local revenue increases—offsetting the benefits of local tax collections—or states may offer incentives to developers that reduce local revenue. This section reviews aspects of state fiscal policy that affect local tax collections and total revenue.

State Revenue Sharing

Maine shares a portion of sales, corporate and individual income, and franchise tax receipts, among others⁴¹. This is used to offset municipal property taxes. It is distributed based on municipality population and mill rate, to help reduce tax burdens in areas with the highest mill rates.

Municipal Levies No Longer Capped

In many states, local governments are limited in how much they can levy by the state. What this functionally means is that though developers state they will contribute a certain amount of tax revenue,

³⁵ Washington County Board of Commissioners, Maine. (2020, February 24). Minutes of the Washington County Commissioners' Public Meeting on the Washington County Downeast Wind Municipal Development and Tax Increment Financing District. <https://washingtoncountymaine.com/images/february-24-2020-public-hearing-on-the-downeast-wind-municipal-development/>

³⁶ Project performance data come from the Energy Information Administration EIA-923 Survey. The Downeast Wind Plant ID is 68185. [Form EIA-923 detailed data with previous form data \(EIA-906/920\) - U.S. Energy Information Administration \(EIA\)](#).

³⁷ Project characteristics come from the Energy Information Administration EIA-860 Generator Report. [Annual Electric Power Industry Report, Form EIA-860 detailed data with previous form data \(EIA-860A/860B\) - U.S. Energy Information Administration \(EIA\)](#)

³⁸ Downeast Wind. (2020). *What Benefits will Downeast Wind Bring to the Local Community?*. https://cdn.prod.website-files.com/6aa3fecf9554aac6b7b2310f/6aa427b7c17dac78f17b5787_Apex_Downeast_infographic.png

³⁹ Whelan, L. (2020, January 23). First of two hearings highlights wind farm's TIF terms with county. *The Quoddy Tides*. <https://www.quoddytides.com/first-of-two-hearings-highlights-wind-farms-tif-terms-with-county/>

⁴⁰ Ibid.

⁴¹ Maine Municipal Association. (2021). *The history of revenue sharing*. https://www.memun.org/DesktopModules/Bring2mind/DMX/API/Entries/Download?EntryId=486&Command=Core_Download&language=en-US&PortalId=0&TabId=214; Maine Office of the State Treasurer. (n.d.). *Calculate revenue sharing*. <https://www.maine.gov/treasurer/revenue-sharing/monthly-distributions/calculate-revenue-sharing>

there are many limits on property tax levies that counties or municipalities lose significant property tax revenue locally. Maine has limited growth of state General Fund appropriations,⁴² local tax levies, and county assessments based on personal income and population growth, though this was repealed in 2024.⁴³ This system may have been perceived to be ineffective, as every town was allowed to vote to exceed these limits. At the local level, this means that municipalities have the option to raise levies on all property tax payers, without limitations by the state.

School Equalization Lessens Reliance on Local Property Taxes

Maine's Essential Programs and Services (EPS) funding formula is designed to ensure all students' educational opportunities are equalized and not reliant on the property wealth of their hometown. School districts across Maine have substantially different capacity to raise revenue from property taxes. A referendum in 2008 required the state to pay for 55% of school funding statewide to ensure Maine's EPS formula as sufficient funding to guarantee quality education statewide.

The EPS formula is:

State share = Determined EPS for the school administrative unit - Required local share of those costs

For determining the budget to support essential programs and services, the formula has three weights to determine how much each district receives: 1) socioeconomic characteristics such as free lunch and poverty (number of students that are below 1.5 times the poverty level); 2) English as a second language (ESL) student numbers; 3) and the percent of special education students in each district.

The formula is weighted most heavily on local property valuation from property value—meaning relative disparities in property valuation is the largest factor that determines state aid to a district. Relative socioeconomic characteristics comprises about 15% of the formula.

The relative weight of local taxable value presents some challenges. The formula can distort aid to counties that have high-value property like second homes along lakes and the coast (e.g. in Washington County) but relatively low wages, income and high poverty rates. Loss of students in rural municipalities with declining populations also means that these districts will receive less state aid, which is problematic because costs don't necessarily go down in proportion to enrollment (i.e., municipalities have to maintain infrastructure, and other costs are rising). This is a particular challenge for rural districts that are losing students more rapidly.

Three factors affect the total impact of new property taxable value on state aid. First, the state aid formula considers a three-year average of property assessments, so it will be three years before the full value of a new industrial facility will be factored into the state aid formula (it has a ramp-down effect, not a sudden

⁴² Maine Office of the State Economist. (2005). *LDI: First Year of Progress*.

<https://www.maine.gov/dafs/bablo/sites/maine.gov.dafs.economist/files/pub/05-LD1-Summary.pdf>

⁴³ An Act to Support Municipalities by Repealing the Law Limiting the Municipal Property Tax Levy, S.P. 895 - L.D. 2102, State of Maine (April 9, 2024) available at <https://legislature.maine.gov/legis/bills/getPDF.asp?paper=SP0895&item=3&snum=131>.

loss of aid). Second, properties are assessed at the local level on an annual basis, so if a project is built after April 1st, it is not considered part of the taxable value until the following year's cycle. Third, local districts may also make adjustments to the mill rate, essentially using some of the new taxable value to lower mill levies, not necessarily capturing all the new value as revenue for the school district. Lowering local levies results in less net revenue from a new renewable energy project. All of these features mean that individual projects may not directly result in a proportional change in state aid based on an increase in local taxable value. However, it can be challenging for school districts to anticipate the actual impact of renewable energy projects on school district budgets and education services.

In 2026, Maine passed LD 2226, Amending the Essential Programs and Services School Funding Formula. Public Law 2026, ch. 737 amends multiple sections of the MRSA to refine the EPS school funding formula. Beginning in fiscal year 2027-28, and for each subsequent fiscal year, the commissioner shall make a regional adjustment in the total operating allocation for each school administrative unit.⁴⁴

Projects May Trade “Tangible Benefits” for Expedited Development

Wind projects may be incentivized to provide additional benefits for communities, through statutes which allows them to receive expedited consideration if they include a community benefits package. As part of the permit application process, projects are statutorily required⁴⁵ to provide information on the “tangible benefits” the project’s construction will provide to the host community.⁴⁶ Tangible benefits include property tax payments resulting from the development,⁴⁷ payments as part of community benefit agreements, reduced property tax levies that benefit all property owners in a jurisdiction, construction-related payments, reduced electrical rates, and other comparable benefits.

Key Challenges in Clean Energy Fiscal Policy

This interim technical report identifies the key statutes and policies that dictated how renewable energy projects contribute to Maine’s local communities, challenges presented by Maine’s property tax structure, and challenges unique to renewable energy infrastructure.

Challenges in Maine’s Property Tax Structure

The primary pathway for renewable energy projects to contribute to Maine’s local communities is through property tax revenue. Municipal assessors have considerable discretion in applying an appropriate methodology to determine the just value of any given item of taxable property.⁴⁸ Municipal-level assessment of large industrial projects introduces potential variability in assessed values as local assessors

⁴⁴ An Act to Amend the Essential Programs and Services School Funding Formula, H.P. 1503 - L.D. 2226 (April 16, 2026), available at <https://legislature.maine.gov/legis/bills/getPDF.asp?paper=HP1503&item=3&snum=132>.

⁴⁵ Maine Revised Statutes, title 38, § 484. (2025). *Standards for development* available at <https://www.mainelegislature.org/legis/statutes/38/title38sec484.html>.

⁴⁶ Maine Revised Statutes, title 35-A, § 3454. (2023). *Determination of tangible benefits; requirements*. <https://www.mainelegislature.org/legis/statutes/35-a/title35-Asec3454.html>;

⁴⁷ Downeast Wind LLC. (2020). *Site Location of Development Act Permit Application Section 28 Tangible benefits*. https://www.maine.gov/dep/ftp/projects/downeast-wind/archive/applications/site/Section%2028_Tangible%20Benefits.pdf

⁴⁸ The state has authority to promulgate guidance and other materials to help them in their work; local assessors may or may not rely on such guidance.

have different capacities, experience, and interpretation of assessment methods. Developers report that they can find it challenging to navigate the large variability in valuation, tax liability, and depreciation schedules between municipalities for renewable energy projects in Maine. The inevitable variability resulting from municipal-level assessment is the basis of some of the challenges with the current structure faced by affected parties, as identified in this Report.

In an effort to improve predictability and consistency, Maine’s legislature convened a working group to figure out how to best support municipalities in assessing value, but concluded that it is difficult to identify a single best way to do assessment. They noted that lack of information and standardization⁴⁹ makes it challenging to do market and income methods. Consideration of uniform valuation using capacity is complicated by Maine’s Home Rule authority and constitutional requirement related to just value. Maine’s Home Rule authority provides municipalities with broad discretion to address matters of local concern, while preserving the Legislature’s authority to establish statewide policy where uniformity is necessary. Article IX, §8 of Maine’s Constitution provides that “all taxes upon real and personal estate, assessed by authority of this State, shall be apportioned and assessed equally according to the just value thereof.” This is often referred to as the “just value” clause, which means that unless a specific provision of the Constitution says otherwise, property subject to tax must be assessed on the basis of its fair market value. More evaluation will be necessary to understand how valuing projects using capacity, in particular, would comply with just value requirements.

According to stakeholder interviews, municipalities feel they have little control over the state’s tax policy decisions and exemptions that result in the erosion of the local tax base. Multiple exemptions create a narrower tax base. Because the state reimburses local governments for less than the full value of exemptions (at least 50% in most cases), a narrower tax base can lead to a tax shift to properties not receiving exemptions.⁵⁰ Additionally, state incentives that lower local revenue can shift the tax burden onto other sectors or result in lower spending. Major challenges this analysis identified so far for additional exploration include:

- **Lack of revenue visibility:** In many places, revenue from projects can disappear into general funds where it is unclear how much individual projects contributed. As demonstrated by the Oakfield Wind and Downeast Wind case studies, which both utilize TIFs, local tax revenues and other benefits can amount to significant investment in the tens of millions.
- **Valuation of energy projects can be inconsistent:** Assessing energy equipment is conducted by local assessors, who may have different interpretations about how to apply methodologies required for large and complex projects. This creates unpredictability for developers regarding their tax obligations. Consequently, there is high demand from developers and municipalities for state-level guidance. This finding is supported by an independent report published in 2025, the Maine Clean Energy Financing Study, which highlighted the urgent need for standardized

⁴⁹ Maine Revenue Services Department of Administrative and Financial Services (2025) *Report on the Valuation of Commercial Solar Arrays*. <https://legislature.maine.gov/doc/11437>.

⁵⁰ The state reimburses over 50% for some exemptions, including the homestead exemption (up to 76%) and certain circumstances under the business equipment exemption; Maine Revised Statutes, title 36, § 685, available at <https://www.mainelegislature.org/legis/statutes/36/title36sec685.html>.

methodologies in assessing the taxable value of energy projects. Finally, recent modifications to the Business Equipment Tax Exemption and the Renewable Energy Investment Exemption address concern that reduced revenue from eligible projects may not cover increased service demands or that subsidized projects may outcompete alternative land uses.

- **Tax Increment Financing Districts can be complex and bring variable revenues:** Most projects utilize TIFs, which allow municipalities to "shelter" new revenue from state revenue-sharing and education funding formulas, directing funds to the purposes set out by the TIF. TIFs can be established for a variety of local purposes and needs, such as economic development, downtown revitalization, or affordable housing. Incremental value sheltered in a TIF district may also be incorporated into a Credit Enhancement Agreement (CEA). A CEA can provide an incentive to the project developer by lowering their property taxes, enhancing the economic viability of the project which may facilitate access to lower-cost financing. TIFs can be complex and costly to negotiate, creating inequities for counties with limited administrative resources. Historically, some communities have faced challenges with equipment depreciating faster than anticipated, leading to abatement repayments to developers.
- **Increased property values don't directly translate to higher school district budgets:** Continued consolidation of school districts and the current school funding formula that guarantees all school districts equal financing has the effect of offsetting new property valuation with less state aid. The actual change in a districts' revenue is not immediate and can be opaque.

Key Challenges in Clean Energy Fiscal Policy

The National Conference of State Legislatures (NCSL) Tax Policy Handbook for State Legislators defines principles for evaluating state revenue systems to include criteria such as reliability, equity, compliance/administration, responsiveness to competition, economic neutrality, and accountability.⁵¹ While useful, principles designed to assess a state's mix of general recurring revenue sources are not sufficient to assess taxes on energy resources. Energy systems can produce variable, time limited revenue and projects can stress infrastructures and services in rural areas. Energy generation projects require taxes designed to specifically address challenges created by the structural characteristics of the project themselves, policies aligned with state and local goals related to energy policy and economic development, and tax policies sensitive to the geography and capacity of jurisdictions where projects are commonly located. The criteria used to evaluate taxes on renewable energy and clean energy projects that generate revenue for local governments in other states, as well as their relevance to Maine, is described below.

- **Compliance/administration:** Valuing large, complex renewable energy projects for property taxes raises challenges related to capacity, transparency, and equity. In Maine, projects are locally assessed by more than 400 individual municipal governments with different capacities, different interpretations about how to apply valuation methodologies, and various desired outcomes. Maine convened a stakeholder council to recommend improved guidance and assistance to municipal

⁵¹ National Conference of State Legislatures, "Tax Policy Handbook for State Legislators: Third Edition" (Denver, CO: 2010), available at <https://documents.ncsl.org/wwwncsl/Task-Forces/SALT/TaxPolicyHandbook3rdEdition.pdf>.

assessors, but consistent direction and resources remain elusive.⁵² Several challenges are endemic to renewable energy, not to all types of commercial or industrial development, because of the pace and scale of technology advancement and deployment that make project lifecycles difficult to evaluate, for example. Ease of compliance and administration is evaluated when considering peer state policies. It is beyond the scope of this report to provide a legal assessment. Policy options will have to be evaluated for compliance with constitutional and statutory requirements, but these are separate from technical fiscal policy questions.

- **Revenue Sharing and Substitution:** Maine’s municipal revenue sharing program is designed to help towns, cities, and plantations offset the property tax burden and fund essential services. Revenue is shared with municipalities using a formula that includes municipal populations, state valuations and tax assessments. The formula means an increase in local valuation can be offset by lower revenue sharing payments. Maine also offers a variety of exemptions from property taxes, including business incentives that include renewable energy projects. The state offsets about half of the revenue impact of state exemptions on local governments. However, the delta between lower local tax collections and state aid means municipalities are paying a share of state business incentives. Reduced tax liability on some projects and sectors can result in a tax shift to other property owners to pay for municipal budgets. The outcome of Maine’s revenue sharing formula and property tax exemptions is that new valuation from renewable energy facilities may not lead to proportional increases in total local revenue.

Statewide school finance equalization formulas perform a vital function across the state. They serve as an essential fiscal safety net for rural school districts that struggle to fund K-12 education due to compressed local property tax bases and chronic student enrollment declines. By establishing a guaranteed funding floor per pupil, these formulas ensure that a child's educational opportunity does not depend entirely on the real estate or industrial wealth of their hometown. However, when evaluated through the lens of local economic development and clean energy deployment, these formulas function as a tax substitution mechanism rather than an additive revenue source for host communities. For communities hoping a large new taxable project will lift school budgets, the equalization formula can prevent these benefits from materializing. It may not be a direct 1:1 loss in state education funding for every new dollar in property tax revenue, but it is also not the case that schools see direct budget increases proportional to increased valuation and tax revenue from renewable energy development.

- **Variable Negotiations:** Policies that enable negotiations between developers and local governments, such as Tax Increment Financing Districts (TIF) and associated Credit Enhancement Agreements (CEA) can provide benefits, but TIFs and CEAs are complex and costly to negotiate, creating inequities for jurisdictions with limited administrative resources. Many municipalities utilize Tax Increment Financing districts (TIFs) to "shelter" new revenue from state revenue-sharing formulas and capture more revenue locally. A TIF enables municipalities and other jurisdictions to capture increased property valuation—and therefore

⁵² Maine Revenue Services, “Report on the Valuation of Commercial Solar Arrays” (Augusta, ME: Department of Administrative and Financial Services, 2025), available at <https://legislature.maine.gov/doc/11437>.

property tax revenue—to be used for special purposes inside a specific geography. Specified uses are established in state law, including downtown redevelopment, infrastructure, housing, economic development, and others. TIFs may also include a Credit Enhancement Agreement (CEA) negotiated between the municipal government and the developer. A CEA is essentially a local incentive: the municipality may share a portion of the incremental revenue with developers to cover project costs. CEAs can lower project costs and offer certainty around tax obligations, which may improve the credit worthiness of the developer to institutional lenders and elevate a project's credit profile.

- **Timing:** Public service demands and infrastructure strain spike heavily during a project's construction phase (e.g., road wear from heavy equipment, increased emergency service readiness, workforce housing availability). However, traditional property tax systems do not generate revenue until 6 to 18 months after commercial operation begins—potentially causing a structural cash-flow deficit for local governments when they need resources most. For example, property taxes in Maine are assessed on April 1 of each year and taxes are due in two installments on September 15 and March 15 of the following year. That means a municipality may not receive full tax payment for a project that begins operation in January until September of that year and March of the following year.

Furthermore, rapid technological obsolescence—renewable energy systems can have accelerated replacement of technologies with newer, more efficient alternatives due to fast innovation cycles and markets in solar PV, wind, and storage technologies— and straight-line depreciation mean project valuations can plummet steeply over time, destabilizing long-term local budgeting.

Section 2: State Comparisons

In order to provide Maine with context to consider when evaluating policy options, this section provides an analysis of all the states who have altered their ad valorem property tax structures to address how utility scale commercial renewable energy projects are taxed. This analysis highlights similar approaches taken by very different states that were designed to address consistency, transparency, and local benefits. While additional analysis would be needed to understand compatibility with Maine's existing constitutional structure, these examples are offered to provide insight into the available policy solutions, why specific policy decisions were made and to inform policy recommendations.

Solutions From Peer States

This section examines state policies that address the criteria above in ways that aim to resolve these structural fiscal challenges. These 13 peer states included in this report were selected through a nationwide survey of states and consultation with experts. A comprehensive list of states can be found in Table 1. These potential solutions were identified through a literature review and consultation with an advisory council of academic and public finance experts. Identified policies are evaluated by reviewing statutes and governmental reports and through structured interviews with state officials, local leaders, and

renewable energy developers who possess direct experience designing and implementing these frameworks.

This report presents three primary policy models currently deployed across the United States to stabilize local public finance:

- **Property tax exemption paired with a new uniform tax:** Implementing standardized, predictable fees based on project nameplate capacity size or actual generation output in lieu of traditional personal property taxes.
- **Modified property tax valuation:** Valuing properties for taxation is standardized using capacity, generation, or income (discounted cash flow) based methods that improve transparency and revenue consistency. Modifying valuation can be implemented at the state or local level, and retain local taxation authority and other aspects of the property tax structure, including TIFs and CEAs.
- **Payments in Lieu of Taxes (PILOTs):** Enabling voluntary, structured property tax-replacement contracts between developers and local host jurisdictions.

Property tax replaced with uniform capacity or generation tax

A growing number of states deploy uniform capacity or generation taxes in lieu of traditional personal property taxes on renewable energy generation and battery storage facilities. This structural shift directly addresses the primary challenges of ad valorem property tax frameworks by eliminating localized appraisal inconsistencies, neutralizing high early tax payments and steep revenue declines caused by asset depreciation, and providing a transparent, predictable, and easily administered system.

Several fundamental principles characterize these alternative tax systems across peer states:

- **Personal Property Tax Exemption:** These mechanisms always apply in lieu of personal property taxes on energy infrastructure. These models exempt personal property (equipment and related infrastructure) and do not alter the baseline taxation, zoning, or incentives associated with the underlying land (real property).
- **Centralized Administration:** State agencies generally assess capacity or generation and collect taxes directly or certify valuation for local governments to assess taxes directly.
- **Standardized Revenue Allocation:** Revenue is allocated among local jurisdictions based on existing property tax distribution methods, utilizing standardized statutory ratios or actual local mill levies.

While capacity and generation taxes provide substantial operational benefits over traditional cost-based property valuations, they do not resolve every fiscal challenge. For example, these mechanisms do not automatically solve the temporal mismatch between intense construction-phase infrastructure demands and delayed revenue collections. Because states typically assess these alternative taxes annually—matching the property tax calendar—tangible local revenue only materializes in the year after a project achieves commercial operation.

Furthermore, these systems do not eliminate revenue volatility, as each model introduces distinct fiscal tradeoffs. Capacity taxes link a developer's tax liability directly to a project's physical footprint and nameplate size. While this stabilizes annual revenue collections, it decouples tax obligations from actual construction costs and operational performance, which vary significantly based on project location, regional economics, and technology types.

Generation taxes link a developer's tax liability directly to operational performance and market revenues. However, it can introduce year-over-year revenue volatility for local budgets due to fluctuating weather patterns, generation curtailments, or scheduled maintenance downtime. The level of variability and implications for local budgets is relatively modest when compared to standard property valuation and depreciation schedules.

The following case studies illustrate how peer states design and implement uniform capacity and generation tax systems.

The Uniform Capacity Tax Model

A uniform capacity tax charges a single, standardized fee based on a project's nameplate capacity (measured in megawatts, or MW), completely independent of actual electricity production. A capacity tax is paired with a property tax exemption. Revenue is distributed to local governments, including municipalities, counties, school districts and special districts in proportion to property tax collections. A uniform capacity tax provides maximum predictability for both developers projecting operational costs and local governments budgeting for long-term services. Because it bypasses the need to track real-time generation or assess depreciating physical assets, it minimizes administrative costs.

Nebraska: Since 2010, Nebraska has exempted renewable equipment from personal property taxes, charging instead a flat excise tax on nameplate capacity of wind, solar, biomass, and landfill gas facilities.⁵³ The goal of the long-standing capacity tax was to support the development of wind energy infrastructure in Nebraska, while providing predictable revenues to local governments. One stated reason for the adoption of a capacity tax was to address challenges with depreciation, which required developers to pay steep up-front costs, but made it difficult for local governments to budget consistently over the following years as depreciation reduced revenues. The excise tax was designed to maintain the same level of revenue, but spread out over the project lifespan - the tax rate of \$3,518 per MWh was calculated to be revenue neutral when compared to an estimate of the total traditional property taxes that would be generated by the project, taking into account typical-at-the-time project lifespans, capital costs, property tax rates, and depreciation schedules. A legislative review of the law suggests it successfully drove predictable local revenues and accelerated project deployment for wind and solar generation. The analysis recommended updating the 2010 rates to account for modern battery storage technologies. Legislation proposed in 2025 would have raised these rates, but failed to pass.⁵⁴

⁵³ Nebraska Rev. Stat. 77-6203, Legislative bill 1010, (April 14, 2026), available at <https://www.nebraskalegislature.gov/laws/statutes.php?statute=77-6203>; Committee on Natural Resources, "LR 159 Interim Study Report" (Lincoln, NE: 2025), available at <https://govdocs.nebraska.gov/epubs/L3765/B058-2025.pdf>.

⁵⁴ Committee on Natural Resources, "LR 159 Interim Study Report" (Lincoln, NE: 2025), available at <https://govdocs.nebraska.gov/epubs/L3765/B058-2025.pdf>; (Introduction) Legislative Bill 468 of 2025, 109th legislature, first sess. (January 21, 2025), available at <https://nebraskalegislature.gov/FloorDocs/109/PDF/Intro/LB468.pdf>.

One important consideration for other states is how revenue is allocated from the new tax. Nebraska distributes revenue to local jurisdictions similar to how revenue was generated proportionally using local mill levies. In 2025, the first 5% of Nebraska's wind excise tax revenue was diverted for community colleges in the areas where wind energy infrastructure is located.⁵⁵ One caution to exempting renewable energy from property taxes and levying a new capacity tax is that the legislature may look at revenue from the new tax as money they can appropriate for new purposes. Ensuring local governments do not lose revenue through reappropriation requires political will to ensure simplification on the revenue side does not allow for changes to spending.⁵⁶

Wisconsin: The state exempts wind and solar projects larger than 1 MW from local property taxes.⁵⁷ Instead, developers pay a license fee directly to the state, which then redistributes the funds to host communities through a utility aid program at a flat rate of \$5,000 per MW. The state recently expanded this program to include energy storage facilities. It splits payments between counties and municipalities using standardized ratios, capped by local population limits.

Washington: Washington state originally adopted a capacity tax in 2023 that only exempted the state's portion of the property tax levy (approximately 15% to 20%⁵⁸).⁵⁹ Recognizing the need for deeper structural reform, the legislature passed an overhaul effective January 1, 2028, that exempts renewable energy and storage personal property from local and state property taxes.⁶⁰ In lieu of personal property taxes, renewable energy generation projects pay a per-MW excise tax tailored by technology type (wind, solar, and battery storage) for a period of 10 to 15 years. Similar to Wisconsin, this reform aimed to address depreciation and provide predictable, consistent payments to local governments.⁶¹ This move is revenue neutral - lifetime revenue from the excise tax is estimated to stay roughly the same as the current system.⁶² To address inflation, changing technology and markets, Washington's legislature can adjust excise rates every five years for new projects. This bill only applies to new and re-powered facilities - existing facilities are grandfathered into the rate active at the time of their application.

⁵⁵ Nebraska Revised Statute 77-6204 of 2026, Legislative Bill 1010, (April 14, 2026), available at <https://nebraskalegislature.gov/laws/statutes.php?statute=77-6204>

⁵⁶ Anila Yoganathan, "Some Nebraska communities are cashing in on renewables. Others are being left behind," Grist, August 12, 2026, available at <https://grist.org/cities/some-nebraska-communities-are-cashing-in-on-renewables-others-are-being-left-behind/>; Nebraska Governor's Policy Research Office, "2024 Tax Report" (Lincoln, NE: 2024), available at https://nebraskalegislature.gov/FloorDocs/108/PDF/Agencies/Governor/851_20241108-095552.pdf.

⁵⁷ Carolina Resor and Hayley Sakwa, "Local Property Tax Impacts of Large-Scale Wind and Solar Projects" (WI: University of Michigan, 2025), available at <https://graham.umich.edu/media/files/Wisconsin-Property-Tax-Final.pdf>; Dept. of Revenue Washington State, "Renewable energy generation or storage excise tax," available at <https://dor.wa.gov/taxes-rates/other-taxes/renewable-energy-generation-or-storage-excise-tax> (last accessed August 2026).

⁵⁸ [How Property Taxes Work in Washington State: A Simple Guide for Homeowners - Tri-City Regional Chamber of Commerce](#)

⁵⁹ Generation or storage of renewable energy of 2023, RCW 84.36.680, Washington State, 68th Legislature, 2023 Regular Session (July 23, 2023), available at <https://app.leg.wa.gov/RCW/default.aspx?cite=84.36.680>.

⁶⁰ Renewable Northwest "Washington's New Clean Energy Tax Bill & Why It Matters," available at <https://renewablenw.org/washingtons-new-clean-energy-tax-bill-why-it-matters> (last accessed August 2026).

⁶¹ Dept. of Revenue Washington State, "Renewable energy generation or storage excise tax," available at <https://dor.wa.gov/taxes-rates/other-taxes/renewable-energy-generation-or-storage-excise-tax> (last accessed August 2026).

⁶² Renewable Northwest "Washington's New Clean Energy Tax Bill & Why It Matters," available at <https://renewablenw.org/washingtons-new-clean-energy-tax-bill-why-it-matters> (last accessed August 2026).

75% of the funds from this tax are distributed to local governments through a community investment grant, which counties and cities can receive funds from if they adopted a model ordinance developed by the state or one less restrictive.⁶³ The remaining funds go to a Tribal Capacity Grant Program, which can be used for activities including development of clean energy, activities supporting climate resilience or adaptation, and applying for state and federal funding.⁶⁴

Connecticut: Connecticut passed an energy omnibus in 2025, which included provisions to exempt certain (Class 1) renewable energy sources from traditional equipment property taxes (real property taxes remain the same), and replace them with a uniform capacity tax of \$10,000 per megawatt (MW) of nameplate capacity for solar PV systems over 1MW.⁶⁵ The tax applies for 20 years, starting on July 1, 2026. It exempts projects built on state-owned land, brownfields, landfills, rooftops, and solar canopies. House Bill No. 5442 was passed a year later to address some timing-mismatches with the tax exemption and capacity tax implementations from the initial law, and clarify that municipalities and developers can sign a separate agreement that will supersede the capacity tax.

Lawmakers designed the omnibus to provide for immediate relief on electricity bills and to make changes that will help with energy reliability and affordability over the longer-term.⁶⁶ The property tax exemption was added to the omnibus to create a clear, consistent framework for how solar PV projects are treated for property tax purposes — balancing incentives for renewable energy with fiscal accountability.. Before the law, inconsistent municipal property valuations were perceived to create uncertainty that stalled development and undermined Connecticut's clean energy policies.

Vermont: Vermont adopted a Uniform Capacity Tax (UCT) in 2012, amending it over the years to increase the solar facility threshold and add in battery storage.⁶⁷ The current UTC (as of 2021) is \$4.00 per kW of plant capacity (total AC nameplate capacity) for solar energy plants greater than 50 kW and \$0.50 per kWh of plant energy rating for energy storage facilities greater than 600 kWh.⁶⁸ The UTC replaces the statewide school property tax levy. The UCT revenue goes into the same statewide Education Fund as the statewide school property tax levy.⁶⁹

Vermont funds its schools through a statewide education property tax with two rates— a “homestead” rate for homes and a “non-homestead” for businesses, rentals and second homes, which is currently \$1.643 per

⁶³ ENGROSSED THIRD SUBSTITUTE HOUSE BILL 1960 of 2026, State of Washington, 69th Legislature, 2026 Regular Session. (February 3, 2026), available at <https://lawfilesexternal.wa.gov/biennium/2025-26/Pdf/Bills/House%20Passed%20Legislature/1960-S3.PL.pdf#page=1>.

⁶⁴ ENGROSSED THIRD SUBSTITUTE HOUSE BILL 1960 of 2026, State of Washington, 69th Legislature, 2026 Regular Session. (February 3, 2026), available at <https://lawfilesexternal.wa.gov/biennium/2025-26/Pdf/Bills/House%20Passed%20Legislature/1960-S3.PL.pdf#page=1>.

⁶⁵ AN ACT CONCERNING ENERGY AFFORDABILITY, ACCESS AND ACCOUNTABILITY, Substitute Senate Bill No. 4, Public Act No. 25-173, State of Connecticut, (July 1, 2025), available at <https://www.cga.ct.gov/2025/act/Pa/pdf/2025PA-00173-R00SB-00004-PA.PDF>.

⁶⁶ Grace Lowe, “Connecticut Passes Legislation to Advance Energy Affordability and Reliability,” NASEO, July 25, 2022, available at <https://www.naseo.org/news/article?NewsID=4158>.

⁶⁷ David K. Burton and Richard T. Page, “Vermont’s Valuation Policies For Solar Energy Plants Could Be A Model For Other U.S. States”, Solar Industry, July 2015, available at <https://www.akingump.com/a/web/36745/aoi1v/vermonts-valuation-policies-for-solar-energy-plants-could-be.pdf>

⁶⁸ 32 V.S.A. § 8701 Uniform capacity tax, Vermont General Assembly. (July 1, 2021), available at <https://legislature.vermont.gov/statutes/section/32/215/08701>; Vermont Department of Taxes, “2021 Legislative Highlights,” available at <https://tax.vermont.gov/tax-law-and-guidance/tax-legislation/2021> (last accessed August 2026).

⁶⁹ 32 V.S.A. § 8701 Uniform capacity tax, Vermont General Assembly. (July 1, 2021), available at <https://legislature.vermont.gov/statutes/section/32/215/08701>.

\$100 of property value⁷⁰. These rates are amongst the highest in the U.S. As a result, some people have complained that the UCT is not offsetting revenue lost from the “non-homestead” education property tax. There have been recent efforts to raise the UCT, including a recent bill introduced to increase it to \$16 kW per solar project and \$2.00 for battery storage.⁷¹ But this faced increased pushback from the renewables industry and did not move forward.

These solar projects still pay municipal property taxes unless the municipality votes for tax exemption or has entered into a contract to stabilize the taxes.⁷² They are valued using a discounted cash flow (DCF) method, and the appraisal value should be 70% of the value that the valuation model calculated based on a 25-year expected project lifespan.⁷³ The tax is paid at an equivalent amount each year for either 25 years or the end of the project’s life, whichever comes first. Energy storage facilities also have to pay a municipal property tax—unless they also have a municipality exemption or contract to stabilize the taxes—in which both the real and personal property is appraised as \$0.25 per kWh of plant energy rating.⁷⁴

The Generation Tax Model

Generation taxes levy a standardized fee based on the actual megawatt-hours (MWh) of electricity a project produces annually.

Minnesota: Minnesota has operated a production tax framework for decades, exempting wind and solar equipment from personal property taxation while retaining standard real property taxes on the underlying land.⁷⁵ Solar installations greater than 1 MW pay a flat solar production tax of \$1.20 per MWh⁷⁶. The state scales its wind energy production tax based on the nameplate capacity of the facility:⁷⁷

- *Large-Scale (> 12 MW):* \$1.20 per MWh (\$0.0012 per kWh)
- *Medium-Scale (2 to 12 MW):* \$0.36 per MWh (\$0.00036 per kWh)
- *Small-Scale (0.25 to 2 MW):* \$0.12 per MWh (\$0.00012 per kWh) *Political subdivisions owning small-scale wind projects of 2 MW or less are entirely exempt.*

Developers must submit an annual production report and submit it to the Commissioner of the State Department of Revenue by January 15. Host counties collect this revenue in the same manner as personal property taxes, distributing 80% to the host county and 20% to the host city or township. The

⁷⁰ Vermont Department of Taxes, “Application of the New Statewide Adjustment,” available at <https://tax.vermont.gov/statewide-adjustment> (last accessed August 2026); Vermont Department of Taxes, “Education Tax Rate Calculations | FAQs,” available at <https://tax.vermont.gov/property/education-property-tax-rates/faqs> (last accessed August 2026).

⁷¹ (Introduced) An act relating to the Uniform Capacity Tax and Farm Security Special Fund, VT H0712, Vermont General Assembly. (2025-2026), available at <https://www.billtrack50.com/billdetail/1937723>.

⁷² Vermont Department of Taxes, “Taxation of Solar Plants and Energy Storage Facilities,” available at <https://tax.vermont.gov/sites/tax/files/documents/FS-1068.pdf> (last accessed August 2026).

⁷³ Vermont Department of Taxes, “Valuation of Solar Plants and Energy Storage Facilities,” available at <https://tax.vermont.gov/municipal-officials/solar-valuation> (last accessed August 2026).

⁷⁴ Ibid.

⁷⁵ Minnesota Department of Revenue, “Solar Energy Production Tax,” available at <https://www.revenue.state.mn.us/solar-energy-production-tax> (last accessed August 2026).

⁷⁶ Ibid.

⁷⁷ Minnesota Department of Revenue, “Wind Energy Production Tax,” available at <https://www.revenue.state.mn.us/wind-energy-production-tax> (last accessed August 2026).

Commissioner certifies the assessment, and taxes are paid to County Treasurers with taxes due in two equal installments on May 15 and October 15, following the property tax structure. Land underneath solar facilities is reclassified as 3a commercial property.⁷⁸ Unlike solar installations, the land beneath a wind turbine retains its original zoning classification (typically agricultural), meaning a new wind project does not alter or inflate baseline real property tax assessments.

According to the Center for Rural Affairs, this tax framework has worked well in Minnesota. It has brought employment opportunities, direct payments to landowners, and new tax revenue streams, which have helped pay for local emergency services and infrastructure improvements.⁷⁹ It has been especially successful regarding wind energy, which generated 25% of the state's electricity in 2023 and delivered \$16.1 million in revenue to 28 counties that year.⁸⁰

Hybrid Capacity and Generation Tax

By combining both mechanisms, a hybrid tax model ensures that local governments secure a guaranteed revenue floor while allowing them to share in the financial upside of high-performing projects. While these case studies are newer, the fact that multiple states with differing contexts (e.g. different RTO/ISOs, utility structures, implementation of Home/Dillon's rule, etc.) have adopted uniform capacity taxes suggests that it may be able to be adapted to various policy contexts.

South Dakota: South Dakota explicitly splits its utility-scale renewable energy tax structure into a dual-rate framework that applies to any wind farm built after June 30, 2007, and all utility-scale solar facilities.⁸¹ The system completely replaces personal property taxes on the energy infrastructure. Developers pay a flat Nameplate Capacity Tax equal to \$3.00 per kilowatt (kW) of installed capacity (equivalent to \$3,000 per MW). Simultaneously, developers pay an annual Production Tax on actual generation. For wind facilities built after March 31, 2015, the rate is \$0.00045 per kWh (\$0.45 per MWh); for solar facilities, the rate is \$0.00090 per kWh (\$0.90 per MWh). (Wind facilities built between 2007 and 2015 remain grandfathered at \$0.00065 per kWh).⁸²

Each tax is paid to the State Department of Revenue on February 1 following the calendar year of production. The capacity tax is prorated accordingly for the first calendar year the facility is placed into operation and generates gross receipts. For the production tax, developers submit detailed annual production logs to the Secretary of Revenue. The state retains 20% of the production tax for the State General Fund and redistributes the remaining 80%—alongside 100% of the capacity tax—directly to the county treasurer where the project resides. Local county auditors then allocate funds using a statutory

⁷⁸ Minnesota Department of Revenue, "Glossary: C," available at <https://www.revenue.state.mn.us/mndor-pp/11691?type=html>.

⁷⁹ Center for Rural Affairs, "Fact Sheet: Minnesota Solar Energy Tax Revenue," available at <https://www.cfra.org/sites/default/files/publications/MN%20Solar%20Energy%20Tax%20Revenue%20fact%20sheet%2002-2025%20WEB.pdf> (last accessed August 2026).

⁸⁰ Center for Rural Affairs, "Fact Sheet: Minnesota Wind Energy Tax Revenue," available at <https://www.cfra.org/sites/default/files/publications/MN%20Wind%20Tax%20Revenue%20Fact%20Sheet%2002-25%20WEB.pdf> (last accessed August 2026).

⁸¹ Taxation of Electric, Heating, Water and Gas Companies, Chapter 10-35, South Dakota Codified Laws, available at <https://sdlegislature.gov/Statutes/10-35>.

⁸² South Dakota Department of Revenue, 2022, Renewable Energy Facility (Wind & Solar), available at <https://dor.sd.gov/media/riuhxv2u/renewable-energy-facility.pdf>.

formula: 50% to the host school districts, 35% to the host county, and 15% to the organized townships. If a turbine sits in an unorganized township, the county absorbs the township 15% share.⁸³

Federal Public Lands: Renewable energy projects cited on federal public lands are exempt from state and local property taxes. Only 1.5% of Maine’s land area is federal public lands. Nationally, 27% of the U.S. total land area is public and a lot of renewable energy is already constructed on these lands. The federal leasing structure is equivalent to a royalty paid to the landowner for the right to lease land for energy generation rather than a property tax levied to pay for governmental services and infrastructure. The method of valuation is offered here as another example of how a capacity tax may be structured.

The One Big Beautiful Bill Act (OBBBA), signed into law on July 4, 2025 (P.L. 119-21), introduced a statutory framework⁸⁴ for competitive leases, acreage rents, and capacity fees for wind and solar energy projects sited on public lands, including Bureau of Land Management and U.S. Forest Service lands.⁸⁵ Developers pay a bonus to win a lease at auction, then pay the greater of either an annual acreage rent or a capacity fee once the project is operational. The capacity fee is calculated as 3.9 percent of the project's annual gross proceeds from the sale of electricity produced. For projects cited on a mix of federal and non-federal land, the capacity fees are prorated based on the share of the right-of-way footprint on public lands relative to the total development area footprint. The federal capacity fee is structured differently from states in that it is a percent of gross receipts, rather than a fixed rate per MWh of energy produced.

Payment-In-Lieu of Taxes (PILOT) Agreements

Payment-in-Lieu of Taxes (PILOT) agreements are formal contracts between developers and communities that replace traditional property taxes. PILOT policies vary by state, but governments often utilize them because they offer greater predictability and certainty than standard property tax valuations. PILOTs also provide greater flexibility for communities and developers to align tax policy with the specific structural characteristics of renewable energy projects.

While many PILOT programs include targeted incentives and stipulations, it is important to note that PILOTs are *not* community benefit agreements (CBAs). PILOTs are standardized within a state, whereas a CBA is negotiated between a developer and municipality for each individual project. The requirements of a CBA can vary drastically within a state, and they do not have to follow the generation or capacity tax payment structure that most PILOTs include.

The baseline design of a PILOT determines how effectively it achieves these goals. Several common statutory characteristics of interest include:

- **State-Level Enabling Legislation:** State laws authorize PILOT frameworks. Some statutes permit local-level negotiations within established sideboards, while others mandate standardized fees.

⁸³ South Dakota Renewable Energy Association, 2026, Fiscal Impact of Renewable Energy in South Dakota, available at: <https://sodakrenewables.org/fiscal-impact-renew-energy/>.

⁸⁴ US Code of Federal Regulations (2025). 43 CFR § 2806.52. <https://www.ecfr.gov/current/title-43/subtitle-B/chapter-II/subchapter-B/part-2800/subpart-2806/subject-group-ECFR8cbf73f23187665/section-2806.52>

⁸⁵ The new statutory framework does not encompass battery storage facilities, geothermal, hydropower, or other renewable sources on federal public lands.

- Optional Opt-In Mechanisms: PILOT frameworks can operate as voluntary programs, allowing both communities to opt into the agreement.
- Capacity- or Generation-Based Payment Structures: PILOT payments typically depend on a project's installed capacity or electricity generation, yielding more predictable and stable local revenue.
- Targeted Incentives and Stipulations: PILOT frameworks can incorporate specific planning requirements, incentives, exemptions, and stipulations to encourage desired deployment practices. These stipulations offer an important regulatory tool to accomplish policy goals for energy developments that do not rely on standard tax exemptions.

At least 15 states in the U.S. have the option for clean energy developers to opt into PILOTs, including Michigan and Ohio. In addition to creating a more predictable and continuous revenue stream for communities, PILOTs can also resolve revenue offsetting—increasing revenue to communities without adding costs for developers—and improve transparency.⁸⁶ The agreement between a local government and a developer is public, and the payment amount is transparent and tangible for communities. Many PILOT agreements also include benefits for the community beyond the statutorily defined payment amount. This makes it easier for local governments and communities to decide if they want to support potential new projects in their neighborhood.

Additionally, some PILOT programs have an automatic start date—like in Michigan, where all qualified projects start on December 31st in the year that the project is granted the Solar Energy Facility Exemption Certificate.⁸⁷ This could help address some of the mismatch between when developers have to start paying their taxes versus when they begin operations.

Michigan: In 2023, Michigan passed two laws (Public Acts 108 and 109) which make up the Solar PILOT Option Law.⁸⁸ The goal of the solar PILT was to simplify tax revenue projections and tax bill calculations, making it easier for both local governments and developers to anticipate the revenue and costs.⁸⁹ This law gives solar energy developers the option to enter into a 20 year PILOT agreement and apply to become a “qualified solar energy facility” that will be built within a “solar energy district.” Each facility within a “solar energy district” will have to pay \$7,000 per MW of nameplate capacity annually beginning on December 31st of the year the agreement is signed. If the project is built in a federally recognized Opportunity Zone, brownfield, or state-owned land, the PILOT rate is reduced from \$7,000 to \$2,000 per MW. And after the 20 year period, the revenue mechanism returns to ad valorem taxation.

⁸⁶ Eli Gold, “Payment in Lieu of Taxes Considerations and Model Interpretation,” (Ann Arbor, MI: University of Michigan, 2021), available at https://closup.umich.edu/sites/closup/files/uploads/3_12_PILT_Memo_and_Explainer_CLOSUP.pdf.

⁸⁷ Michigan Department of Treasury, “Solar Energy Facilities Taxation Act Frequently Asked Questions,” available at <https://www.michigan.gov/taxes/property/exemptions/environmental-and-energy/solar-energy-facility-exemption/folder/frequently-asked-questions> (last accessed August 2026).

⁸⁸ Solar energy facilities taxation act of 2023, State of Michigan, 102nd Legislature, regular session of 2023, (July 27, 2023), available at <https://www.legislature.mi.gov/documents/2023-2024/publicact/pdf/2023-PA-0108.pdf>; Enrolled House Bill No. 4318, Act No. 109, State of Michigan, 102nd Legislature, regular session of 2023, (July 27, 2023), available at <https://www.legislature.mi.gov/Bills/Bill?ObjectName=2023-HB-4318>; Michigan Townships Association, “Solar PILT Option Now Law,” available at <https://michigantownships.org/solar-pilt-option-now-law/> (last accessed August 2026).

⁸⁹ University of Michigan Graham Sustainability Institute, “Strategies for Renewable Energy Revenue,” (Ann Arbor, MI: 2026), available at <https://graham.umich.edu/media/files/Strategies-for-Renewable-Energy-Revenue.pdf>.

A report from the University of Michigan’s Graham Sustainability Institute suggests communities adopting a PILOT can collect more or less revenue when compared to the existing ad valorem tax model depending on local millage rates.⁹⁰ Jurisdictions that maintained relatively high local property tax rates could see less revenue from a PILOT, and vice versa. This reveals an important question when designing a new PILOT policy (or a uniform capacity or generation tax model). The new structure could be designed to generate revenue roughly equivalent to existing property taxes, trading an arguably more accurate estimate for each project for a more transparent, predictable, easier to administer, and consistent system. Alternatively, a new tax system could be designed to increase revenue or offer developers lower costs.

Ohio: Ohio’s PILOT option, initially passed in 2010, applies to solar, geothermal, wind, biomass, combined heat & power, fuel cells using non-renewable or renewable fuels, hydroelectric (small), and anaerobic digestion projects over 250kw.⁹¹ Any projects under 250kw are automatically exempt from property taxes and do not need to opt-into a PILOT.⁹² To become a “qualified energy project”, all projects over 250kw have to apply to the OH Department of Development, with projects above 20 MW also needing approval from the Board of County Commissioners in each area the project is located. If approved, they are exempt from tangible and real property taxes and have to pay a capacity tax, with projects of 20MW having to meet a set of deadlines and requirements.

Under Ohio’s PILOT, solar developers have to pay a uniform capacity tax of \$7,000 per MW, and projects over 20MW could be required to pay up to \$9,000/MW.⁹³ The cost for other energy types depends on the number of Ohio-based employees during construction—at least 75% employees is \$6,000/MW, at least 60% is \$7,000/MW, and at least 50% is \$8000/MW. All projects over 20MW (and occasionally projects over 5MW) must also meet the following requirements:

3. Employee at least 70% of Ohio-based employees
4. Train and equip local fire and emergency responders
5. Repair or rebuild roadway infrastructure after project construction is complete Establish partnerships with universities, apprenticeships, and other career-training organizations
6. Provide the Department of Development with project information on an annual basis

A 2024 report by Chambers for Innovation & Clean Energy found that Ohio’s PILOT program has been successful in creating jobs, ensuring committees receive a steady stream of funding, and directing that funding to where it needs to go.⁹⁴ Their findings showed that thus far, PILOTs helped to create 70,000 construction jobs and had a \$20 billion impact on total lifecycle economics. And much of the revenue

⁹⁰ Ibid.

⁹¹ Ohio Department of Development, “Qualified Energy Project Tax Exemption,” available at <https://development.ohio.gov/business/state-incentives/qualified-energy-project-tax-exemption> (last accessed August 2026).

⁹² DSIRE “Qualified Energy Property Tax Exemption for Projects 250 kW or Less,” available at <https://programs.dsireusa.org/system/program/detail/4217/qualified-energy-property-tax-exemption-for-projects-250-kw-or-less> (last accessed August 2026).

⁹³ DSIRE “Qualified Energy Property Tax Exemption for Projects over 250 kW (Payment in Lieu),” available at <https://programs.dsireusa.org/system/program/detail/4311> (last accessed August 2026); Section 5727.75 | Exemption on tangible personal property and real property of certain qualified energy projects, House Bill 15, 136th General Assembly, (August 14, 2025), available at <https://codes.ohio.gov/assets/laws/revise-code/authenticated/57/5727/5727.75/8-14-2025/5727.75-8-14-2025.pdf>.

⁹⁴ Gilbert Michaud, Farzaneh Khayat, and Claire Bonham, “Impact Analysis of the Ohio Pilot Program” (Chambers for Innovation & Clean Energy, 2024), available at <https://www.chambersforinnovation.com/impact-oh-pilot>.

(59-63%) has gone to school districts, allowing them to hire more teachers and improve the student-to-teacher ratio. Other counties were able to use the money on social services, including a \$4.9 million community center, providing additional services to people living with developmental disabilities, and increasing availability of addiction-related treatments.

Modified property tax structures

Other states have reformed the existing property tax system to improve predictability and income stability. This can take the form of states providing standardized guidance for valuation that can help even out the amount of revenue that can be expected throughout a project's lifespan or generally provide more consistency for evaluation.

Rhode Island- Capacity Based Valuation Model: Rhode Island has set out to become a leader in renewable energy, with the formation of its Renewable Energy Growth (REG) Program in 2014 followed by several policies aimed at both distributed and utility scale renewable energy resources.⁹⁵ One approach they took to spur utility-scale renewable development was by creating a reasonable, consistent, and predictable capacity-based tax framework for both tangible and real property taxes of commercial projects. In 2016, Rhode Island established a fixed valuation of \$5.00 per kilowatt (KW) of alternating current (A/C) nameplate capacity for tangible property taxes on commercial renewable projects, including solar, wind, hydro, and biomass.⁹⁶

They initially left the real property tax formula for these projects alone, but some municipalities attempted to hike up those payments by reclassifying or reassessing the land value based on the new renewable equipment. For example, in a 2021 lawsuit the Town of Lincoln was able to successfully increase a landowner's real property assessed value from \$7,500 per acre to \$40,000 per acre on the 10 acres that a solar project was built on.⁹⁷ Due to this and similar instances, in 2022 Rhode Island established that renewable energy projects should only be taxed at a value that does not consider the cost of the renewable additions (with a provision that this did not apply to any revenue collected before December 2022).⁹⁸ And last year they developed a real property tax formula of \$3.50 per KW of alternating nameplate capacity.⁹⁹

Illinois- Capacity-Based Valuation Model: Beginning in 2025, Illinois established a capacity-based assessment structure that sets the Full Cash Value (FCV) of solar facilities at \$218,000 per MW and

⁹⁵ Rhode Island Office of Energy Resources, "Renewable Energy Growth Program (REG Program)," available at <https://energy.ri.gov/renewable-energy/wind/renewable-energy-growth-program-reg-program> (last accessed August 2026).

⁹⁶ Rhode Island Office of Energy Resources, "Rules and Regulations for Commercial Renewable Energy Systems Tangible Tax Value," available at <https://energy.ri.gov/sites/g/files/xkgbur741/files/documents/renewable/OER-Rules-and-Regulations---Commercial-Renewable-Energy-Systems-Tangible-Tax-Value.pdf> (last accessed August 31); RI Gen Law Section 39-26-5, (July 9, 2021), available at <https://law.justia.com/codes/rhode-island/title-39/chapter-39-26/section-39-26-5/>.

⁹⁷ Polseno Properties Management, LLC v. Keeble (R.I. 2023), Rhode Island Supreme Court, (February 21, 2023), available at <https://law.justia.com/cases/rhode-island/supreme-court/2023/2021-299.html#:~:text=That%202019%20assessment%20showed%20that%20the%20assessed,Adjusted%20Land%20to%2010%20AC%20for%20Solar.%E2%80%9D>

⁹⁸ Levy and Assessment of Local Taxes, H 8220 SUBSTITUTE A, State of Rhode Island General Assembly, (May 6, 2022), available at <https://webserver.rilegislature.gov/BillText22/HouseText22/H8220A.pdf>

⁹⁹ Levy and Assessment of Local Taxes, H 8220 SUBSTITUTE A, State of Rhode Island General Assembly, January Session (May 6, 2022), available at <https://webserver.rilegislature.gov/BillText22/HouseText22/H8220A.pdf>; Levy and Assessment of Local Taxes, S 0439 SUBSTITUTE A, State of Rhode Island General Assembly, January Session (February 26, 2025), available at <https://legiscan.com/RI/text/S0439/2025>.

\$360,000 per MW for wind facilities.¹⁰⁰ FCV refers to the estimated market value of a property, which is used for determining property taxes. To prevent inflation from eroding local purchasing power over a project's lifecycle, the state multiplies this base rate by a dynamic trending factor. Illinois's property assessment based on capacity creates predictable and consistent valuation for valorem tax without the uncertainty and opaque nature of cost-based valuation and traditional depreciation schedules.

Iowa- Special Valuation Method and Tax Increment Financing: In Iowa, county officials can opt to use a special valuation method for wind turbines via passage of an ordinance. Wind turbines are initially assessed at 0% of their net acquisition cost in the first year, and that percentage grows by 5% every year until 30%.¹⁰¹ This special valuation reduces developer tax burden early in the project's life allowing developers to recover costs more quickly. It also offers predictable and stable revenue, particularly in the out years of a project's operational life, sustaining revenue relative to property tax structures that depreciate the taxable value of wind turbines over their useful life.

The resulting funds can be distributed either through the traditional tax system or captured in a Tax Increment Financing (TIF) district that enables the local government to allocate revenue to a special fund that can be used to finance needed infrastructure improvements. This essentially allows a local government to bond and construct projects right away, utilizing revenue from the wind project captured in the TIF to repay the bonds.

The special valuation and TIF district offer advantages over Iowa's default generation tax on energy systems that levies a 0.06 cents/kilowatt hour (kWh) produced. To date, all counties have passed required ordinances to adopt the special valuation method for taxing wind projects.¹⁰²

New York- Standardized Discounted Cash Flow Method: In 2025, NY passed legislation to standardize valuation using a single method—discounted cash flow—to provide more certainty and transparency for developers.¹⁰³ All local governments must use the new state-defined method to value renewable energy projects sited within their jurisdictions. A discounted cash flow method estimates the value of an investment, in this case a renewable energy project, based on its expected future revenue and expenses.¹⁰⁴ The state provides local assessors with a standardized model for estimating the cash flow from a project based on technology type, capacity, tax load, and NY grid region, among other factors.¹⁰⁵

Before 2025, New York's property tax structure had been implemented at the local level. Local governments could consider property tax exemptions for renewable energy projects, or alternatively value

¹⁰⁰ Illinois Department of Revenue, "Commercial Solar Energy Systems Valuation," <https://tax.illinois.gov/content/dam/soi/en/web/tax/localgovernments/property/documents/commercialsolarenergysystemsvaluation.pdf> (last accessed August 2026).

¹⁰¹ Iowa Code § 427B.26 of 2024 available at <https://www.legis.iowa.gov/docs/code/427B.26.pdf>; Iowa Department of Revenue, "Policy Memo; Wind Towers Acquisition Cost," (March 15, 2010), available at <https://revenue.iowa.gov/media/222/download?inline>.

¹⁰² <https://www.cfra.org/sites/default/files/publications/05-23-windswept-fields-of-opportunity-web.pdf>

¹⁰³ <https://www.nysenate.gov/legislation/laws/RPT/575-B>

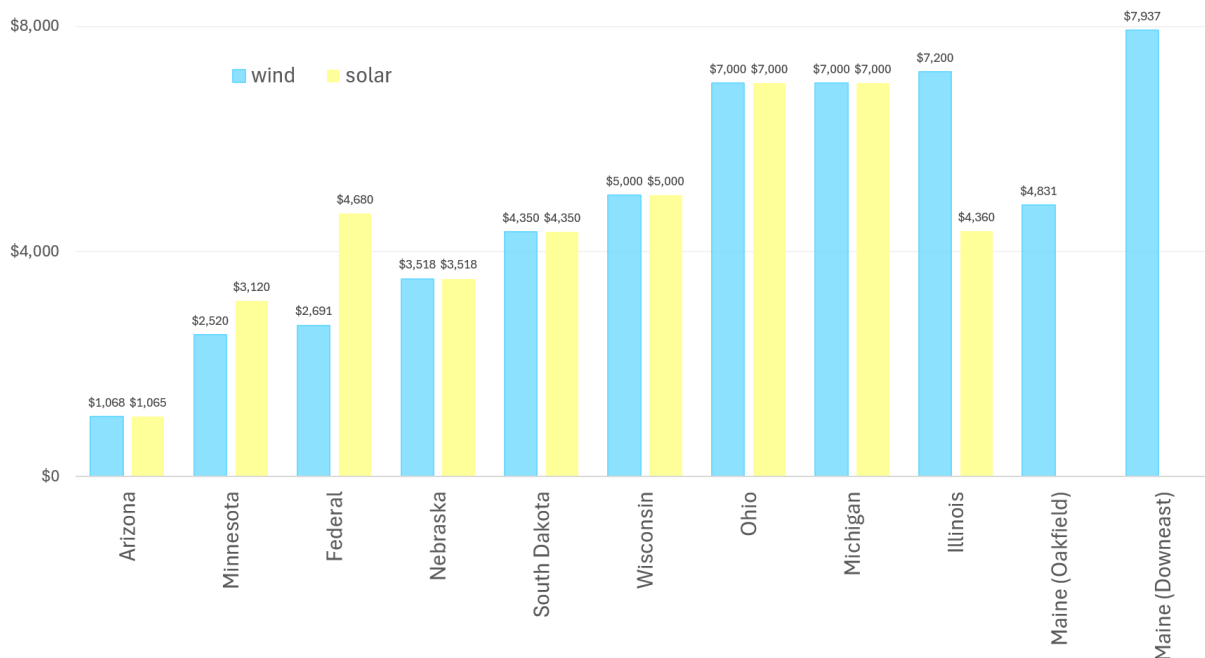
¹⁰⁴ <https://www.tax.ny.gov/research/property/renewable-appraisal.htm>

¹⁰⁵ <https://www.tax.ny.gov/pdf/ORPTS/Solar-Wind-Appraisal-Model-User-Guide.pdf>

projects using various methods. Local valuation created a patchwork of how the property tax system was applied, arguably for different local goals including using the tax system to block renewable energy projects, creating uncertainty for developers.¹⁰⁶

Notably, the original version of this law - enacted in 2021¹⁰⁷ with the associated Real Property Tax Law 575 b - was challenged by a lawsuit and ultimately deemed unconstitutional.¹⁰⁸ The Albany County Supreme Court found that the change infringed upon the authority of local assessors by leaving too much to the discretion of the state Department of Taxation and Finance.¹⁰⁹ The legislature then amended this law¹¹⁰, clarifying how expenses including host community benefit payments, decommissioning, and community solar should be handled.¹¹¹ It also specifies that federal investment and production tax credits and state renewable energy credits should not be included as revenue in the discounted cash flow analysis, which was one of the major concerns raised in the previous version.¹¹² It is expected that excluding these credits in the value of the property will reduce revenues from clean energy projects.

Figure 1: Per-MW Revenue from Wind and Solar Generation in Comparison States



Note: Comparison states are only those included as examples in this report for which state and local taxes are based on uniform capacity and generation fees. Generation fees (\$ per MWh) are calculated

¹⁰⁶ <https://nysfocus.com/2025/12/01/hochul-green-energy-transition-wind-solar-tax-rate-trump-credits>

¹⁰⁷ <https://www.tax.ny.gov/research/property/renewable-appraisal.htm>

¹⁰⁸ <https://www.farrellfritz.com/insights/tax-tracker/real-property-taxation-of-solar-and-wind-energy-systems-in-new-york-state-update-new-amendments-to-rptl-%C2%A7575-b-intended-to-clarify-the-states-assessment-model/>

¹⁰⁹ https://www.nycourts.gov/REPORTER/3dseries/2025/2025_25054.htm

¹¹⁰ <https://www.nysenate.gov/legislation/bills/2025/A8332>

¹¹¹ <https://www.barclyadamon.com/alerts/new-york-state-clarifies-property-taxation-of-wind-and-solar-projects>

¹¹² <https://www.herald-courier.com/articles/nys-supreme-county-overturns-real-property-law-575-b/>

using EIA data on net generation from renewable sources¹¹³ to calculate the average MWh of electricity generated for a MW of installed solar and wind capacity. Maine's estimates are based on high-level summaries of the Oakfield and Downeast wind projects estimated total contributions over a 20 year period. They are rough estimates that offer a comparison between states and should not be interpreted as actual payments on a per MW basis.

These state comparisons establish an analytical framework based on Maine's existing fiscal policy and identified challenges to help the state evaluate alternative clean energy tax models. By examining uniform capacity and generation taxes, structured PILOT agreements, and reforms within the existing property tax structure across peer states, this analysis provides stakeholders in the state with policy ideas that have improved transparency, predictability, and consistency in different states. Ultimately, these peer-state insights demonstrate how modern tax design can improve upon unpredictable, ad-hoc patchworks of local negotiations with a standardized, predictable system that benefits both developers and local governments.

Section 3: Policy Options for Renewable Energy Taxation in Maine

This section summarizes strategies that U.S. states in New England and nationally have utilized to address key challenges related to clean energy fiscal policy, and how they may be applied to Maine. The 13 states analyzed have adopted a uniform capacity, generation, or income method to value projects for property tax purposes or have exempted renewable energy from property taxes and adopted a new uniform capacity or generation tax.

Approaches to Taxing Renewable Energy in Peer States

Transparency and consistency in taxing large, income-generating renewable energy projects are not challenges unique to Maine. Many states have taken steps to reform their property tax systems for renewable energy to improve transparency and consistency, often with the goal of deploying more renewable energy and providing tangible benefits to communities at the same time.

Among states that have reformed their tax structure, reforms vary along two independent dimensions: the *type* of reform, and the *method* used to value or tax a project. States adopt one of three reform types, and within each type, apply one of three valuation or taxation methods. Some constellation of these reforms improve predictability, transparency, ease of administration, and consistency of revenue over the life of a project when compared to current cost-based method of valuation and depreciation.

Types of Reform

There are three primary types of reform adopted by other states:

- **Property tax exemption paired with a new uniform tax:** States exempt renewable energy projects from property tax and levy a new, statewide capacity or generation tax in its place. The state collects this tax and disburses revenue to local taxing jurisdictions — schools, counties, and cities — using the same ratio by which standard property tax revenue is allocated among those jurisdictions.

¹¹³ <https://www.eia.gov/renewable/annual/>

- **Modified property tax valuation:** States retain the existing property tax structure — including local mill levies — but change how projects are valued, moving away from the cost approach toward a capacity, generation, or discounted cash flow method (described below). This approach improves transparency and consistency while retaining local control over mill levies, and is generally designed to reduce or eliminate the revenue effects of depreciation.
- **Payments in Lieu of Taxes (PILOTs):** States establish statutory direction for PILOTs, which function similarly to a new uniform tax but may be optional rather than mandatory. PILOTs are defined by clear statutory terms for how payments are calculated and levied, distinguishing them from community benefit agreements, which instead rely on negotiation between developers and communities over a range of potential benefits.

Valuation and Taxation Methods

Within any of the three reform types above, states apply one of three methods to value or tax a project:

- **Uniform capacity:** A fixed fee applies to a project's installed, or nameplate, capacity. States use the resulting figure either as the taxable value for property tax purposes or as the direct basis for a tax.
- **Uniform generation:** A fixed fee applies per kilowatt-hour of electricity a project generated in the prior year.
- **Income approach (discounted cash flow):** A discounted cash flow model estimates a project's value from its expected future cash flows. This method reflects the value of an income-generating property more directly than a construction-cost-based approach, but is also more complex to administer, since it depends on estimates of future generation, electricity prices, and a discount rate reflecting an expected return on capital.

Because these two dimensions are independent, the same method can appear under different reform types. A state modifying its property tax valuation may adopt a capacity, generation, or income-based method, and states that instead impose a new uniform tax or authorize PILOTs draw on the same three methods. The table below describes how these examples have been adopted by different states. All of these examples address taxation of personal property through the property tax system. States also tax real estate that is used for renewable energy projects.

Table 1: State Reforms to Renewable Energy Tax Policy Based on Capacity, Generation, and Income Approaches.

Type of Tax	Valuation Method	Applicability	State Examples	Example Formula
Property Tax Exemption	Uniform Capacity Tax	Personal Property	CT, NE, WI, WA, VT, SD (hybrid), ND (hybrid) ¹¹⁴	Fixed fee per MW

¹¹⁴ North Dakota replaces their personal property tax with a “wind generation tax” made up of a combination of nameplate capacity (\$2.50 per kw) and generation (\$0.5 mill per kwh); North Dakota Legislative Council, “Property Taxes on Wind Turbines,” available at <https://ndlegis.gov/files/resource/committee-memorandum/17.9496.01000.pdf> (last accessed September 2026); North Dakota Office of State Tax

Property Tax Exemption	Uniform Generation Tax	Personal Property	MN, SD (hybrid), ID ¹¹⁵ , ND (hybrid)	Fixed fee per kWh based on previous year's production
Modified Property Tax	Valuation Based On Uniform Capacity	Personal Property	RI, IL	Fixed fee per MW
Modified Property Tax	Valuation Based On Income Approach	Personal Property	NY, IA, CO ¹¹⁶	(kWh * price) * discount rate
PILOT	Uniform Capacity Tax	Personal Property	MI, OH, MA ¹¹⁷ , OR ¹¹⁸ , VA (opt-in revenue agreement) ¹¹⁹	Fixed fee per MW in addition to other requirements

Policy Options for Consideration

Option 1: Complete Personal Property Tax Exemption for Utility Scale Renewable Energy Projects and Implementation of a New Uniform Capacity or Generation Tax

Method: The most comprehensive reform would involve state law providing a full exemption for utility-scale clean energy personal property from local *ad valorem* property taxation. Real property taxes would still apply to land utilized for renewable energy and associated buildings and real property. In its place, the state would levy a new uniform excise tax based on nameplate capacity (per MW) or the prior year's electricity generation (per kWh). The state would collect the tax centrally and redistribute the revenue back to the host municipality, school district, and county. The state is constitutionally required to reimburse municipalities for 50% of the revenue lost due to property tax exemptions. The new tax could

Commissioner, "Electric Generation and Distribution Tax," available at <https://www.tax.nd.gov/electric-generation-and-distribution-tax> (last accessed September 2026).

¹¹⁵ Idaho replaces their personal property tax with a generation tax based on gross revenue: 3% for wind and geothermal production, and 3.5% for solar production. Idaho Statute Title 63, Chapter 6: Exemptions from Taxation (2026), available at <https://legislature.idaho.gov/statutesrules/idstat/Title63/T63CH6/SECT63-602JJ/>; Idaho Statute Title 63, Chapter 35: Cooperative Electrical

Associations - Taxing Gross Earnings (2007), available at <https://legislature.idaho.gov/statutesrules/idstat/Title63/T63CH35/SECT63-3502B/>

¹¹⁶ Property tax for utility-scale clean energy projects are valued using a state-wide specialized valuation formula that considers both nameplate capacity and generation. It also includes a 5% depreciation per year over 30 years, with the taxable value not exceeding the "depreciated value floor calculated using the cost basis method". Colorado Senate Bill 21-020, General Assembly of the State of Colorado, Regular Session (2021), available at https://leg.colorado.gov/bill_files/51737/download; <https://leg.colorado.gov/bills/sb21-020>.

¹¹⁷ Massachusetts has a PILOT program for wind and solar utility-scale projects.

¹¹⁸ Oregon offers a fee in lieu of property taxes for solar projects, in which the fee is between \$5,500 to \$7,000 per MW of nameplate capacity.

¹¹⁹ Similar to a PILOT program, Virginia offers solar and energy storage systems the ability to opt-out of personal property tax and replace that with a revenue share of up to \$1,400 per mw based on solar generation capacity or battery storage capacity.

be designed to replace 100% of property tax exemption, on average, for all taxing jurisdictions by distributing revenue using proportional ratios of local mill levies or adhere to a fixed statutory formula established by the Legislature (e.g., 50% to schools, 15% to host counties, 35% to municipalities).

Local Fiscal Mechanics: This model provides revenue transparency and predictability and streamlines and lowers the cost of administering renewable energy taxes. However, because projects become exempt from property taxes, traditional TIF districts and CEAs would no longer apply to energy equipment personal property. The legislature would have to address how the new tax interacts with municipal revenue sharing and school equalization formulas, and make provisions for municipalities to use revenue flexibly, including in negotiated credit enhancement agreements with developers. The best method, consistent with other states, would be to distribute new revenue from the excise/capacity tax directed back to the same taxing jurisdictions where the exempt property is located. This effectively results in 100% revenue sharing, and revenue from the excise tax to school districts would be considered by the state funding formula.

Peer State Models: Nebraska imposes a flat capacity tax of \$3,518/MW in lieu of personal property taxes. Wisconsin charges a state utility license fee (\$5,000/MW) and redistributes aid to local governments using fixed statutory ratios. South Dakota utilizes a hybrid model, levying a \$3.00/kW capacity tax alongside a \$0.00045/kWh production tax, distributing 80% of local proceeds through a statutory formula (50% schools, 35% counties, 15% townships). Minnesota collects a production tax (\$1.20/MWh) and splits revenue 80% to the host county and 20% to the host township. Washington enacted a full property tax exemption effective 2028, replacing it with a technology-specific per-MW excise tax.

Option 2: Property Tax Valuation Based on an Income Approach

Method: Maine could adopt a default standardized method for valuation within Maine's existing property tax structure, allowing for variations from the default based on a showing that other methods are more appropriate. An income approach using a Discounted Cash Flow approach would value projects based on an estimate of future cash flow, as described above. However, it could fit within Maine's current constitutional framework. This method is more complicated and less transparent compared to the capacity approach. Because the model requires estimates of future price, electricity generation, and a discount rate, A Discounted Cash Flow approach requires that assessors estimate future electricity generation and prices, and a discount rate based on the expected return on capital. Care would need to be taken in making these assumptions to ensure that this method results in a more accurate reflection of market value for taxation purposes. Income-based valuation could be centralized at the state level with values certified to municipal assessors. Alternatively, the state could provide guidance, such as publishing discount rates, price estimates, and other criteria for municipal assessors to use when valuing projects locally.

Local Fiscal Implications: Standardizing valuation using an income approach increases consistency and predictability for developers and municipalities. Hanging only valuation methods retains full local control over mill rates and other aspects of the property tax structures. Towns can continue establishing Tax Increment Financing (TIF) districts to shelter valuation from state revenue sharing formulas and negotiate local Credit Enhancement Agreements (CEAs) with developers. There would be no changes to state

certification of municipal property values, state revenue sharing formulas, or state school funding formulas.

Peer State Models: New York mandates a standardized discounted cash flow model for all local assessors. Vermont requires municipal assessors to value solar and storage assets using a state-defined discounted cash flow model held constant over a 25-year lifespan.

Option 3: Property Tax Valuation Based on Capacity

Method: Staying within Maine’s property tax system could be accomplished by adopting policy similar to a modified property tax system used in several states. This idea would centralize valuation of renewable energy projects or require local valuation of renewable energy projects using a standardized capacity fee. This option would have to be evaluated to determine if it complies with Maine’s constitutional requirements related to just value taxation.^{120,121}

Valuation based on a project’s capacity is the most transparent, easy to administer and provides the most consistent and predictable revenue over the life of a project. A capacity-based valuation system requires only two variables: each project’s installed (nameplate) capacity and a valuation schedule per MW of installed capacity. Each project’s capacity is publicly available information from the U.S. Energy Information Administration and state sources. Valuation rates can be set based on technology (e.g., solar, onshore wind, battery storage) and project size (e.g., projects above or below a MW threshold). Because capacity-based valuation is implemented through a standard schedule, it may be less representative of actual project values. Before establishing assessment rates, the state would evaluate existing tax liability and how a valuation schedule could be set to approximate just value as determined by other methods. This added requirement of a centralized “just valuation check” is likely to add one-time procedural complexity and timing concerns to establish the new policy.

Local Fiscal Implications: Standardizing valuation using project capacity increases consistency and predictability for developers and municipalities. Changing only how projects are valued for taxation retains full local control over mill rates and other aspects of the property tax structures. Towns can continue establishing Tax Increment Financing (TIF) districts to shelter valuation from state revenue sharing formulas and negotiate local Credit Enhancement Agreements (CEAs) with developers. There would be no changes to state certification of municipal property values, state revenue sharing formulas, or state school funding formulas.

The valuation schedule could potentially be set to be revenue neutral with respect to current valuation for the municipalities of the State as a whole, though there would be significant deviation for particular

¹²⁰ The Office of Tax Policy has reviewed the Report, and the Recommendations therein. It is the view of the Office of Tax Policy that Option 3 is likely inconsistent with the “just value” provision of Maine’s Constitution. By its nature, it appears that Option 3 would tax renewable energy infrastructure property by multiplying the tax rate by nameplate capacity (maximum power generation possible under ideal conditions), rather than by “just value”. Policymakers considering Option 3 should bear in mind that its implementation would appear to require amending Maine’s Constitution.

¹²¹ <https://legislature.maine.gov/legis/statutes/36/title36sec701-A.html>..

municipalities and taxpayers. Or valuations could be set that provide lower rates as an incentive to developers, or higher valuations to return more revenue to municipalities and other taxing jurisdictions.

Peer State Models: Illinois sets a standardized Full Cash Value per MW (\$218,000/MW for solar; \$360,000/MW for wind) adjusted by an annual inflation factor, which local assessors apply directly to local mill rates. Rhode Island assigns a fixed tangible property value of \$5.00 per kW of installed capacity for commercial renewable systems. Rhode Island also applies a fix rate per kW of installed capacity to value real property used for renewable energy generation.

Option 4. Leave Current System in Place

The last option is for the legislature to leave the status quo in place and continue to improve transparency, predictability, compliance, and administrative burdens with the current property tax system. Without pursuing changes to the way renewable energy projects are valued or putting a new tax in place, the state could improve predictability, including through providing guidance to local assessors about valuation of renewable energy projects, collecting data to inform standardized recommendations, and continuing stakeholder discussions as done previously.¹²² While this could make incremental improvements in standardization, this option would not address the larger transparency, predictability, or value of payments described in this report.

Legal and Economic Considerations for Valuation Reform

Establishing "Just Value" via the Income Approach

Maine's Constitution mandates that assessors evaluate all property according to its "just value." While traditional industrial appraisals rely heavily on the cost approach, construction costs in rapidly evolving technology sectors do not always accurately reflect market value. Rapid innovation, supply chain shifts, and functional obsolescence mean a project's physical construction cost rarely aligns with its true economic worth.

An income approach—including a Discounted Cash Flow (DCF) model—or a standardized capacity/generation proxy offers a consistent representation of a project's value and is increasingly used by states to value renewable energy projects for taxation. These methods value energy infrastructure based on its actual economic utility: its ability to generate electricity and produce revenue over its operational lifecycle. An income approach models the true value of the facility to both the asset owner and the landowner leasing the site. Additional legal analysis would need to be done to understand how these approaches would meet Maine's just value requirement.

Aligning Taxation with Lifecycle Economics

From a tax equity perspective, policies that levelize or "flatten" annual tax obligations eliminate the severe front-loaded tax burden that developers face under traditional straight-line depreciation. For municipalities, levelized valuation eliminates sharp revenue drops, preventing fiscal cliffs that destabilize local government budgets, reduce state aid, and shift tax obligations to the rest of the tax base.

¹²² <https://legislature.maine.gov/doc/11437>

Distinguishing Personal Property from Real Property (Land)

Policy options presented in this brief focus on the taxation of personal property, including , solar PV panels, racking, wind turbines, power electronics, and battery storage systems (which can occasionally be viewed as real property). The underlying land (real property) remains fully subject to real property taxation using a variety of assessment methods. To ensure consistency across real property assessments, Maine could establish an income-based valuation methodology for land using prevailing renewable energy lease rates, offering a standardized approach for land converted to energy production. Further research regarding the constitutionality of such an approach would be required.

Transition Rules and Grandfathering

Policymakers must decide whether new valuation methods or new taxes apply strictly to future projects or would apply to existing generation capacity:

- **Option A (Forward-Looking Application):** Applying reforms only to projects entering commercial operation after a specified statutory date protects existing municipal budgets and developer contracts. However, this creates a dual administrative system where legacy projects remain under traditional municipal assessment while new projects utilize the updated framework. Further research regarding the constitutionality of a forward-looking approach would be required.
- **Option B (Comprehensive Conversion):** Converting all existing projects to the new framework establishes immediate statewide consistency. This approach requires state modeling to project how tax liabilities and municipal revenues will shift across active facilities.

Calibrating Revenue Neutrality

Each policy option could be calibrated to achieve overall revenue neutrality—meaning the reform is designed to generate aggregate revenue equivalent to current property tax collections statewide. Because historical municipal assessments vary across Maine (how widely is unknown), achieving revenue neutrality at the state level will inevitably produce local-level variations. Certain municipalities may see modest revenue increases while others experience decreases relative to historic baselines. Likewise, certain taxpayers may see their tax burden increase while others see a decrease. Alternatively, the Legislature could adjust baseline rates to intentionally provide targeted incentives for clean energy deployment or secure additional revenue for host communities.