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A balancing act:
Property tax treatment of
renewable energy facilities

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Introduction

Renewable energy is a dynamic industry experiencing surging demand as the United States (US) responds to climate change. As states adopt and increase renewable energy portfolio standards and fuel prices continue to rise, so does the interest in renewable energy investments. These projects have the potential to generate significant property tax revenue for counties, cities, towns, and school districts that rely on property tax as a key source of funding.



Assessment of renewable facilities

Renewable energy facilities can pose many issues for property tax treatment for both taxpayers and assessing authorities, including:

- **Configurations of renewable energy facilities**—States differ in the assessment of property based on resource, size, and off-take. Some facilities are small enough in scale to meet the energy needs of a single building or residence while others are utility-scale and similar in generation capacity to large traditional fuel facilities. For larger-scale facilities, off-take strategies may vary depending on the type of power purchaser (e.g., regulated utilities and merchant energy providers). The varying scale and usage of renewable energy facilities can lead to different property tax treatment.
- **Assessing authority**—The varying scale and usage of renewable energy facilities may also present issues with regard to whether state agencies or local assessors are responsible for valuing the property and administering exemptions. Local assessors may have different insight into the economic conditions within their communities, but state agencies may be able to support resources that have specialized valuation capabilities.
- **Classification**—Renewable energy facilities may be comprised of both real and personal property. This leads to classification-related questions, such as should renewable energy facilities be classified as real or personal property, and should the facility be valued as an overall economic operating unit or instead by reference to its individual component parts? Stated differently, are these facilities more properly valued based on their investment (cost) or on their earnings capacity (income)?
- **Basis for tax**—If renewable energy facilities are valued using a cost approach, which capital expenditures should be assessed, and how should federal income tax credits and attributes, such as renewable energy credits and emissions credits, be treated? Some states have eliminated the use of traditional approaches to property tax valuation and, instead, value renewable energy facilities using a flat amount per megawatt (MW).

Incentives and exemptions

Given the scale of capital investment required, certain renewable energy facilities could face substantial property tax assessments, absent incentives and exemptions.

Across the country, states are setting ambitious renewable energy goals and creating economic incentives to help meet them. State legislatures have balanced the interests of their citizenry in incentivizing the development of renewable energy, with the interests of local jurisdictions that may lose out on property tax revenues on account of such incentives. Some states created new, statewide statutory incentives or exemptions specific to renewable energy facilities, while other states created renewable energy incentive or exemption regimes that are at the option of the local jurisdictions. Other states have, instead, added renewable energy facilities into existing economic incentive programs.



State discussion

California, Texas, and Virginia each have taken a different approach to incentivizing investment in renewable energy. California provides for an exclusion from property tax assessment for qualified active solar energy equipment. The exclusion is not permanent and is only available until there is change in ownership that qualifies as a change in control. The exclusion also sunsets in 2024. Texas provides economic benefits for solar projects through its existing law, referred to as Chapter 312 and 313 incentives. These programs provide for a reduction in property tax if the company commits to a certain capital spend. Virginia classifies certain solar assets as pollution control equipment and provides a stepped-down exemption from property tax based on the size, commercial operation date, and date of the filed interconnection agreement. The state also allows the local jurisdiction to offset this exemption by assessing a charge referred to as a “revenue share assessment,” which is based on the same criteria. These approaches are discussed in more detail below.



California

California has seen heavy growth in renewable energy as the state pushes ambitious renewable energy portfolio standards to achieve its goal of becoming 100% reliant on renewable energy by 2045.¹ California offers an exclusion from property tax assessment for new construction of solar energy facilities.²

New construction exclusion—Active solar energy systems

In December 2012, the California State Board of Equalization issued *Guidelines for Active Solar Energy Systems New Construction Exclusion* (“2012 Guidelines”). The 2012 Guidelines describe how qualifying active solar energy systems placed in service through December 31, 2024, may be excluded from property tax assessment. The 2012 Guidelines define active solar energy equipment to include “...storage devices, power conditioning equipment, transfer equipment, and parts related to the functioning of those items and parts and spare parts...” Such a system includes only equipment used up to, but not including, the stage of conveyance or use of the electricity. Essentially, this definition captures equipment used up to the final stage of power generation—typically, a “step up” transformer that increases the output voltage to meet the voltage requirements of the transmission grid.³ Any plant or equipment used after the stage of conveyance and any non-active solar energy equipment is not eligible for the exclusion. The 2012 Guidelines also provide insight as to which parts of an active solar energy system are valued as real property. Real property increases in value subject to Proposition 13 limitations, as opposed to business personal property, which typically depreciates in value. However, the guidelines do not address all possible fact patterns, which has led to inconsistent local treatment across the state. This inconsistency affects which property is considered part of the active solar energy system, how the solar energy systems are valued, reporting requirements, and the boundary of the exclusion (i.e., the stage of conveyance).

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Structuring issues

The 2012 Guidelines state the exclusion will remain in place until there is a change in ownership that is considered a change in control, under Proposition 13 standards. This treatment can cause technical issues in the form of ownership, as developers and investors attempt to structure projects

to obtain financing and monetize federal investment credits without triggering a change in ownership or change in control under CRTC 64(c) and (d) and a corresponding loss of the exclusion. In 2021, California enacted CRTC 64.1, which provides there is no loss of the solar exclusion for projects that are structured as “partnership flips,” an often-used financing vehicle for solar projects. Specifically, neither an initial transfer of a capital or profits interest in the legal entity nor any subsequent change in the allocation of the capital and profits of the legal entity among the members shall be deemed to constitute a transfer of control or loss of the exclusion. The exclusion does not apply to any interests in real property owned by the legal entity, and interests in real property will be reassessed under Proposition 13 when there is a change in ownership of such property that is considered a change in control of the legal entity that occurs upon the “flip.” For this purpose, “initial transfer” means transfers of interests in a partnership or limited liability company that occur prior to the date the active solar energy system is placed in service for federal income tax purposes. It is not clear whether the exclusion may be lost if the members who first engage in the initial transfer thereafter change their ownership directly or indirectly in the solar energy project—such as by selling their interests to new partners or members—prior to the flip.

Solar Task Force

To assist with the administration of the solar energy exclusion, the California State Board of Equalization established a “Solar Task Force” in 2019 to consider and address questions posed by interested parties seeking clarification with regard to issues presented by the solar energy exclusion, such as which plant and equipment are considered active solar energy equipment, what is the point of the stage of conveyance, and what are the acceptable methods of valuation when there is a loss of the exclusion. The Solar Task Force was also charged with the responsibility for standardizing the reporting of solar energy property. The activities of the Solar Task Force were put on hold during the COVID-19 pandemic.

The exclusion from assessment for active solar energy systems appears to have had its desired effect, as the number of projects in California has grown significantly.⁴ However, the heavy concentration of solar energy properties in certain counties has led to concerns about the loss of property tax revenue in those counties, leading some to urge the governor and California Public Utilities Commission to repeal the exclusion.⁵ Some counties have also implemented development fees to offset any losses in property tax revenue.⁶



Texas

Over the past 20 years, developers of renewable energy have been building projects in Texas. At the end of 2021, operating capacity in the state for wind, solar, and energy storage projects totaled 44,171 MWs and accounted for approximately 22% of the operable renewable capacity in the US.⁷ Solar projects increased in Texas from 13.9 MW to 3,992.5M MW.

Chapter 312 and 313 incentives

Property tax incentive programs in Texas are intended to encourage investment in new facilities. The incentives decrease the property taxes during the first years of a project’s life. These programs, commonly referred to as Chapter 312 and 313 incentives, were designed by the Texas legislature to attract investment in the state and do not focus specifically on renewable development. First passed in 1987, the Property Redevelopment and Tax Abatement Act, codified in Chapter 312 of the Texas Tax Code, permits cities, counties, and special districts to enter into tax abatement agreements with taxpayers that make certain qualified investments.

Abatement agreements limit the increase in the value of real property and/or tangible personal property for up to 10 years. The program was extended on four occasions and is currently set to expire on September 1, 2029.

While the Chapter 312 subsidies directly impact property taxes imposed by counties, cities, and special districts, the Texas Economic Redevelopment Act, codified in Chapter 313 of the Texas Tax Code, permits school districts to enter into appraised value limitation agreements that provide savings for taxpayers on the maintenance and operations (M&O) portion of the tax. Taxes imposed by school districts in 2019 represented approximately 54% of the total property taxes levied by local taxing units.⁹ In other words, if a property was subject to a total property tax rate of 2%, the average levy associated with school district M&O taxes would be 1.08%. On average, M&O levies comprise 80% of the total school district levy and thus account for approximately 43% of all property tax collections in Texas.¹⁰ Due in part to the significant property tax savings allowed by the Chapter 313 program, qualifying investments have grown steadily since it was established and renewable projects are a large portion of the program. As of June 2022, there were 948 active Chapter 313 agreements in the state, with 640 of these covering investments in renewable projects. The Chapter 313 program expired on December 31, 2022.¹¹ However, all agreements that were reviewed and approved by the comptroller and the participating school district before December 31, 2022, will remain in effect until their termination date. The Texas legislature is next scheduled to convene on January 10, 2023. It is unclear whether any replacement for the Chapter 313 program will be enacted.

Virginia

In 2019, Virginia established statewide energy production standards to increase the state's reliance on renewable energy sources, targeting 30% of total energy production to come from renewable resources by 2030.¹² With these standards, Virginia targets having 5,500 MW of renewable operating capacity in 2028.¹³ At the end of 2021, the state had renewable operating capacity of 2,215 MW of which 2,203 MW was solar.¹



Pollution control equipment—Stepped-down exemption

Unlike California and Texas, Virginia classifies solar energy equipment and battery energy storage systems (BESS) as pollution control equipment. Under the Code of Virginia, § 58.1-3660, certified pollution control equipment and facilities are defined as a separate class of property that is exempt from state and local taxation. However, unlike other certified pollution control equipment, the property tax exemption for solar and BESS does not extend to real property or all business personal property.¹⁵ Prior to 2021, qualifying projects that reached commercial operation were assessed on 20% of their value with the remaining 80% exempt from property taxation. In 2021, the exemption was amended to be stepped down over the life of the asset—specifically, in the first five years, 80% of the assessed value is exempt from property tax; in years six through 10, the exemption drops to 70% of assessed value; and after year 11, the exemption drops further to 60% of assessed value. In addition, the exemption is available based on the size of the facility and the status of the interconnection agreement or 1) projects greater than 20 MW and less than 150 MW for which an initial interconnection agreement was filed with an electric utility or regional transmission organization after January 1, 2015, and first in service on or after January 1, 2017, and 2) projects greater than 5 MW and less than 150 MW for which an initial interconnection request is filed on or after January 1, 2019. The exemption is not available for projects for which construction begins after July 1, 2030.

Revenue share assessment

Local jurisdictions are allowed to partially offset the revenue loss from the exemption and assess a revenue share of up to \$1,400 per MW of generation capacity.¹⁶ The revenue share will increase by 10% on solar and BESS beginning on July 1, 2026, and every five years thereafter for projects approved by the jurisdiction by January 1, 2021. However, if a revenue share ordinance is adopted, the exemption for the project increases to 100%, which effectively prevents jurisdictions from collecting both property tax revenue and a per MW charge.¹⁷

The local jurisdiction is not allowed to assess a revenue share on all projects. The ability to do so is based on the size of the project, type, and when the interconnection agreement was filed.¹⁸

Effective July 1, 2022, solar photovoltaic projects of less than 5 MW are taxed by the local jurisdiction at a rate that does not exceed the real estate rate in the jurisdiction, and the exemption is 80% (first five years), 70% (second five years), and 60% (all remaining years in service). Additionally, these small projects may be subject to the revenue-sharing provisions of Code of Virginia § 58.1-2636.



Looking forward

Economic and tax policy are closely related and can assist in driving the development of capital projects. Incentives are often temporary inducements to spur development. Many state governments are dealing with incentives being relied upon as a permanent subsidy of the operations of the facility. As the renewable energy industry matures, states may look to modify current incentives by either reducing or eliminating them, while being mindful of evolving federal policies and new technology.

An example of a newly adopted federal policy is The Inflation Reduction Act (“IRA”), P.L. 117-169. The IRA impacts the renewable energy industry by providing for the expansion of production and investment tax credits and applies some retroactively, with phase out provisions. The credits in the IRA can help moderate the impact of inflation on the cost of capital as inflation can cause both the cost of fossil fuels (which relatively can make renewables more affordable) and components of renewable projects to rise—long-term projections about whether one pressure is more dominant than the other will impact the attractiveness of renewable energy investments, with or without state and federal support in the form of credits and other incentives.

An example of new technology is Battery Energy Storage Systems (BESS), which can store energy produced by renewable fuel sources until the power is needed. New technologies, such as BESS, can raise questions for incentives

or exemptions that have been designed around production. States vary in whether BESS is defined as a renewable resource and subject to the same treatment as solar or wind or, instead, should be treated as general business machinery and equipment. BESS that are charged with a renewable resource arguably contribute to the displacement of energy produced through fossil fuels, thus helping jurisdictions meet renewable energy goals, but do not produce energy on their own. BESS are also frequently co-located at the sites of renewable energy production facilities, and the property tax treatment can vary based on whether the BESS is installed behind the meter or in front of the meter, what resource is used to charge the BESS, if the BESS can charge from the grid, or for what period. When emerging technologies are not specifically addressed in a jurisdiction’s laws, new rules and regulations or other administrative guidance are needed. Industry groups can help drive clarification. And until there is clarification, the presence of regulatory risk may be higher in some jurisdictions as the practices and policies evolve.

As the industry continues to evolve with the development and expansion of different resources, states are responding by modifying their regulations and practices for incentives and exemptions, updating their definitions for what types of technology are considered renewable, revisiting reporting requirements and their approach to assessing renewable energy facilities. It is important for companies to understand the current property tax rules and regulations for existing, new, and planned projects and to revisit annually for any changes.

Endnotes

1. CA SB 100, Chapter 312.
2. CA R&TC § 73.
3. CA R&TC § 73, *Guidelines for Active Solar Energy Systems New Construction Exclusion*.
4. California Energy Commission, "[California solar energy statistics and data](#)," accessed December 16, 2022.
5. Julie Cart, "[Wrangling over renewables: Counties push back on Newsom administration usurping local control](#)," CalMatters, August 4, 2022.
6. John Cox, "[Solar charges make Kern 'whole' in state tax dispute](#)," Bakersfield Californian, July 10, 2022.
7. US Energy Information Administration (EIA), "[2021 Form EIA-860](#)," September 22, 2022.
8. Id.
9. Id, p. 10.
10. Texas Comptroller of Public Accounts, "[2021 school district rates and levies](#)," accessed December 16, 2022.
11. Texas Comptroller of Public Accounts, "[Chapter 313 School Value Limitation Agreement Documents: Agreement List as of June 30, 2022](#)," accessed December 16, 2022.
12. Virginia Department of Environmental Quality, "[Renewable energy](#)," accessed December 16, 2022.
13. Id.
14. EIA, "[2021 Form EIA-860](#)."
15. Code of Virginia § 58.1-3660.
16. Code of Virginia § 58.1-2636.
17. Id.
18. Code of Virginia § 58.1-3660.

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