



STATE OF CONNECTICUT  
OFFICE OF POLICY AND MANAGEMENT



Jeffrey R. Beckham  
Secretary

January 1, 2023

The Honorable Norman Needleman  
The Honorable David Arconti  
The Honorable Steven Cassano  
The Honorable Cristin McCarthy Vahey  
Co-Chairpersons, Energy and Technology, Planning and Development Committees  
Legislative Office Building, Room 3900  
Hartford CT 06106

RE: Solar Tax Statutory Framework Legislative Report

Dear Senators Needleman and Cassano and Representatives Arconti and McCarthy Vahey:

The enclosed annual report is respectfully submitted pursuant to Section 5 of Public Act 22-14. The Office of Policy and Management recommends a consistent statewide solar tax framework that provides stability for both assessment purposes and solar production, advances state policies, and allows for municipal revenue. We appreciate the time and commitment of the working group members.

If you have any questions, please contact Dr. Joanna Wozniak-Brown at 860-418-6252 or [Joanna.Wozniak-Brown@ct.gov](mailto:Joanna.Wozniak-Brown@ct.gov).

Sincerely,

Jeffrey R. Beckham  
Secretary

C: Dr. Joanna Wozniak-Brown, OPM, Climate & Infrastructure Policy Coordinator  
Senator Gary Winfield, Vice Chair, Energy & Technology  
Representative Raghieb Allie-Brennan, Vice Chair, Energy & Technology  
Senator Paul Formica, Ranking Member, Energy & Technology  
Representative Charles Ferraro, Ranking Member, Energy & Technology  
Will Ginn, Clerk, Energy & Technology  
Representative Christine Goupil, Vice Chair, Planning & Development  
Senator Tony Hwang, Ranking Member, Planning & Development  
Representative Joseph Zullo, Ranking Member, Planning & Development  
Michael Jefferson, Clerk of the Senate, State Capitol  
Frederick Jortner, Clerk of the House, State Capitol  
Jennifer Bernier, Office of Legislative Research  
Diane Pizzo, Collection Mgmt. Unit, State Library

## Current and Proposed Statutory Framework for Solar Taxation Section 5, Public Act 22-14

Section 5 of Public Act 22-14 required that the Office of Policy & Management (OPM) provide a report to include, but need not be limited to (1) a summary of the current statutory framework for the application of personal and real estate property taxes on commercial solar generation projects with a nameplate capacity rating of fifty kilowatts (kW) or more, and (2) recommendations for statutory changes that would remove inconsistencies in the current statutory framework and allow for equitable property tax treatment of commercial solar generation projects across the state.

In June 2022, OPM invited two representatives from the Connecticut Conference of Municipalities, the Connecticut Council of Small Towns, industry representatives, and the Connecticut Association of Assessing Officers to participate in an informal workgroup to discuss the current and potential statutory framework. The following persons participated:

CT Solar and Storage Association	William Herchel
CT Solar and Storage Association	Jeffrey Macel
CT Council of Small Towns	Jonathan Luiz
CT Council of Small Towns	Danielle Chesebrough
CT Conference of Municipalities	Doug Thompson
CT Conference of Municipalities	Jason Bowsza
CT Association of Assessing Officers	Jennifer Lineaweaver
CT Association of Assessing Officers	John Chaponis

The workgroup met virtually on four occasions across October and November of 2022. Additional information was gathered where necessary.

### **Background and Current Statutory Framework**

Public Act 22-14 requested a particular focus on installations that have a nameplate capacity  $\geq 50$  kW. There are three current programs that could relate to  $\geq 50$  kW installations including:

- Virtual Net Metering (VNM) (PA 11-80; CGS 62-44u)
- Non-Residential Solar Renewable Energy Solutions (NRES) Program (successor program to the expiring Low Emission Renewable Energy Credit and Zero Emission Renewable Energy Credit (LREC/ZREC) and Virtual Net Metering (VNM) programs)
- Shared Clean Energy Facility (SCEF) Program (PA 18-50)

Since state statutes on taxation of solar installations do not relate to a specific nameplate capacity, the discussions of the workgroup instead operated on an assumption of non-residential installations and for non-residential installations that could exceed 50 kilowatts. The discussions were not limited to conditions required of the above programs.

In Connecticut, municipalities administer assessment and taxation and OPM provides statutory guidelines for property tax exemption and tax credit programs for municipalities. Notably, as explained on [our website](#), OPM does not have the authority to override a determination from a local assessor or tax collector, nor provide legal opinions on assessment and taxation legislation that municipal officials administer.

Municipal taxation focuses on real estate (or real property) and personal property. Excepting state statutes that direct otherwise, municipalities determine what is taxable and what is exempt. Real estate is all land and all improvements (such as buildings, fences, and paved driveways), as well as easements to use air space (Chapter 203 - Sec. 12-64) and taxation of such real property is related to a percentage of the fair market value (Chapter 203 - Sec. 12-62, Sec. 12-62a and Sec. 12-63). Some uses such as farm, forest, open space, and maritime heritage are valued based on use instead of fair market value basis (Chapter 203 - Sec. 12-107b through Sec. 12-107f and Public Act 07-127). Personal property, generally, is anything that is moveable and not a permanent part of real estate, including items such as business-owned furniture, fixtures, machinery or equipment, motor vehicles (registered or unregistered) that anyone owns (Chapter 203 - Sec. 12-71) Notably, farm equipment and personal property on farms are not exempted from personal property tax while certain manufacturing equipment can be.

The state legislature has adopted various tax exemptions related to solar energy installations. These include:

- Section 12-81(56) provides for real property exemption for active solar energy heating or cooling systems where the where the solar system valuation exceeds the conventional system valuation.
- Section 12-81(57) also has provisions for exemptions and was noted as particularly problematic (particularly 12-81(57)(D)) by the working group as the exemptions do not apply consistently across the solar programs and is the source of legal conflict. Some municipalities have interpreted it to mean that solar installations are taxable as real and/or personal property and some property owners have interpreted it to mean the installations are exempt. Additional assessment reductions were noted where the primary use of the land was agricultural and received a Public Act 490 designation and there was a secondary use of solar energy production.
- Section 12-81(57)(A) provides for a residential and farm exemption.
- Section 12-81(57)(F) does allow a municipality, by legislative vote, to abate 100% of property taxes for Class I renewable energy sources not to exceed the term of the power purchase agreement.

PA 22-14 eliminated the rooftop restriction with an amendment to Section 16-244z of the 2022 supplement to the general statutes, which permitted “the entire rooftop space of a customer's own premises developed pursuant to subparagraph (B) of subdivision (1) of subsection (a) of this section and owned by a commercial or industrial customer may be used for purposes of electricity generation and participation in the solicitation conducted by each electric distribution company pursuant to subdivision (4) of subsection (a) of this section.” Previously, the size of the installation was designed to meet the needs of the site’s electricity usage and not for maximum use of the building’s rooftop, which may produce more than the site’s electricity needs. Most of the exemptions mentioned in CGS 12-81(57) were contingent on not exceeding the name plate capacity except in Section 12-81(57)(D), which related to participation in virtual net metering.

Across municipalities, there have been different approaches to taxation of solar as personal property, real property, and/or different on-site uses. At times, this has resulted in extensive legal conflicts. It also creates uncertainty for the solar market in forecasting cost and revenue per project. The municipalities expressed an interest in reliable and reasonable tax program, especially for generation that exceeded on-site usage and/or served other locations. The working group agreed that the existing statutes were difficult for all involved and that a consistent and clear framework would improve on the difficulties.

## **Recommendations for Statutory Changes**

The state of Connecticut has strong policy goals for greenhouse gas (GHG) reduction and elimination, renewable energy production, and resilience. Many of the policies and goals have been established in state statute and in state-wide plans, including:

- CGS 16-245a lists specific targets for renewable energy production with the most future goal being:  
“On and after January 1, 2030, not less than forty per cent of the total output or services of any such supplier or distribution company shall be generated from Class I renewable energy sources and an additional four per cent of the total output or services shall be from Class I or Class II renewable energy sources.”
- CGS 22a-200a [Public Act 22-5] lists specific greenhouse gas reduction targets with the most future goal being: “Not later than January 1, 2050, to a level at least eighty percent below the level emitted in 2001.”
- CGS 22a-200a [Public Act 22-5] also listed a specific greenhouse gas reduction target for energy served to Connecticut customers: “Not later than January 1, 2040, to a level of zero per cent from electricity supplied to electric customers in the state.”
- CGS 16-243y established microgrid and resilience grant and loan pilot program to support local distributed energy generation for critical facilities or resilience projects.
- CGS 16a-3l and 16-50k require specific considerations of impacts to prime farmland or core forest and for reuse of landfills and brownfields in renewable energy production.

Notably, Governor Lamont’s Executive Order 21-3 directed the Connecticut Department of Energy and Environmental Protection (DEEP) to include specific strategies in the new Comprehensive Energy Strategy including reductions in GHG emissions to meet the reduction targets and to improve the resilience of the state’s energy sector to extreme weather events, fuel commodity price spikes, and other disruptions.

To improve on the existing framework, based on the workgroup’s recommendations, and to meet the established policy goals, the state legislature should consider:

- A general exemption (real and/or personal property) for on-site usage of solar, whether for residential or commercial land uses;
- Policies that incentivize roof-top, canopy, and other solar development that does not remove buildable land in planned development areas or impede use of agricultural soils;
- Definition clarity on what constitutes a solar “facility”; and,
- A clear, foreseeable, and consistent tax structure for the state that is not reliant on participation in particular solar energy programs or a specific kW production threshold.

An additional exemption should be considered for renewable energy sources that provide energy for public service functions such as critical facilities or resilience hubs. Section 12-81 does provide for tax exemptions on properties owned by the municipality or state or for other public purposes; however, there may be energy generated off-site to the exempted property and the producing property may not be otherwise exempt.

To that end, the workgroup had ranging conversations about the different permutations of real, personal, Payment In Lieu of Taxes (PILOT), and/or Uniform Capacity Tax (UTC) that could address the concerns listed above. There was significant discussion during previous legislative sessions about the implementation of a PILOT or UTC program. Our New England neighbors and New York each have different policies and programs. A program that is different than a real or personal property tax

structure usually allows for either real or personal property tax then establishes a production-related tax on a per kW basis. If that was implemented, it was generally agreed in the workgroup that using the production estimates from the design-build would be more cost-effective than on-going reporting on actual production.

Without a cost-modelling exercise, it would be difficult to opine what the costs or income would be to the solar industry or municipality under the different structures if that was a necessary consideration in the decision. Municipalities may have different opinions on a program applied statewide and negotiations may be necessary as to what clear and foreseeable structure still addresses municipal options for taxation and achieves the state's policy goals. Senate Bill 993 in 2021 proposed an annual assessment per kilowatt of plant capacity with other conditions. It was voted favorably out of Energy and Technology Committee but not brought to the full legislature during that session.

It should be noted that changes to taxation framework may also apply to other or future renewable energy sources e.g. wind, fuel cell, etc.