



Geoffrey E. Snyder
Commissioner of Revenue

Sean R. Cronin
Senior Deputy Commissioner

Informational Guideline Release

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PROPERTY TAX EXEMPTIONS FOR SOLAR POWERED, WIND POWERED, FUEL CELL POWERED AND ENERGY STORAGE SYSTEMS

[Chapter 8, § 61, 62, 63, 97 and 98 of the Acts of 2021](#)
(Amends **[G.L. c. 59, § 5, cl. 45](#)**; Adds **[G.L. c. 59, § 5, cl. 45B](#)**)

This Informational Guideline Release (IGR) provides assessors, local officials and energy system owners with information about property tax exemptions for solar powered systems, wind powered systems, fuel cell powered systems and energy storage systems, including under a negotiated tax agreement.

Topical Index Key:

Assessment Administration
Personal Property
Valuation

Distribution:

Assessors
Mayors/Selectboards
City/Town Councils

**PROPERTY TAX EXEMPTIONS FOR SOLAR POWERED, WIND POWERED,
FUEL CELL POWERED AND ENERGY STORAGE SYSTEMS**

Chapter 8, § 61, 62, 63, 97 and 98 of the Acts of 2021
(Amends G.L. c. 59, § 5, cl. 45; G.L. c. 59, § 5, cl. 45B)

SUMMARY:

These guidelines explain the municipal finance provisions of assessing solar powered, wind powered, fuel cell powered and energy storage systems under G.L. c. 59, § 5, cl. 45 and cl. 45B, as amended by Chapter 8 of the Acts of 2021, An Act Creating A Next-Generation Roadmap for Massachusetts Climate Policy (the Act).

The Act amended clause 45 to provide clarity for local officials when determining whether certain energy systems are exempt from local property taxes. That determination will be based upon a combination of factors including the type of system, the ability of that system to produce certain levels of electricity measured in relation to the real property where it is located, whether a solar or wind powered system is co-located with a verified energy storage system and whether the municipality has entered into an agreement for payments in lieu of taxes (PILOT) for that system. **The amended clause 45 exemption will become effective for the first time for property tax assessments as of the January 1, 2022 assessment date for fiscal year 2023.**

As with all property tax exemptions, the burden is on the property owner seeking the exemption to demonstrate eligibility for the exemption as of the eligibility date. If the property does not qualify for the exemption, the property will be taxable unless another exemption applies. These guidelines are in effect and supersede any inconsistent prior written statements or documents and are made pursuant to Section 105 of the Act.

GUIDELINES:

I. APPLICATION PROCEDURE

A. Application Deadline

A taxpayer must file an application on an approved form with the board of assessors in the first year for which the exemption is sought (State Tax Form 128). The application is due the same date as abatement applications for that fiscal year, i.e., on or before the due date of the first installment of the actual tax bill. G.L. c. 59, § 59. Assessors may not waive the filing deadline or act on a late-filed application. Barring any changes to the system or land, once the exemption is granted, there is no requirement to reapply under clause 45 annually.

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B. Appeals

An applicant aggrieved by the assessors' action on an application for an exemption may appeal to the state Appellate Tax Board, or the county commissioners if they live in a county where county government has not been abolished. The appeal must be filed within three months of the date the exemption was denied or deemed denied if the assessors did not act. [G.L. c. 59, §§ 64 and 65](#).

II. EXEMPTION QUALIFICATIONS

A. Eligibility and Effective Date

[Clause 45](#) exemption status is determined as of January 1 for the following fiscal year. All eligibility requirements for the exemption must be met as of that date. For exemptions allowed under [G.L. c. 59, § 5](#), the exemption qualifying date is generally July 1 “unless another meaning is clearly apparent from the context.” [G.L. c. 59, § 5](#). Here, since the process for assessing real property, reporting taxable personal property, valuing, assessing and abating personal property all relate to the January 1 date, January 1 is the clearly apparent exemption qualifying date.

Given that local property taxes are assessed as of January 1 for the following fiscal year, as noted above, **the amended [clause 45](#) exemption will become effective for the first time for property tax assessments as of the January 1, 2022 assessment date for fiscal year 2023**. A determination as to whether property qualifies for the exemption for fiscal year 2023 will be made as of January 1, 2022.

B. Ineligible Systems

The amended [clause 45](#) does not apply to solar powered systems developed under [G.L. c. 164, § 1A](#) or solar, wind or energy storage systems owned by distribution or electric companies as defined under [G.L. c. 164, § 1](#).

C. Eligible Systems

1. System Capable of Producing Not More Than 125 Per Cent

Eligible for exemption are a solar powered system, wind powered system or a solar or wind powered system that is co-located with an energy storage system, as defined in [G.L. c. 164, § 1](#), that is capable of producing not more than 125 per cent of the annual electricity needs of the real property upon which it is located. Real property is defined for the purposes of [clause 45](#) to include both contiguous or non-contiguous real property within the same municipality in which there is a common ownership interest. Clause 45 does not require that the system provide electricity to the real property on which it is located (or with which there is a common ownership interest).

Accordingly, if the owner of a qualifying system has abutting or other real property in the same municipality as the system, the measurement of the

maximum allowable system capacity is 125 per cent of the aggregate annual electricity needs of all those properties.

For example, if a solar array in the west side of Town were owned by Owner X, who also owned various properties on the east side of Town, the maximum energy generation of the system would be measured against the annual electricity needs of the combination of all of Owner X's real property. However, property located outside of the municipality where the system is located would not be counted toward the maximum.

The burden is on the applicant to demonstrate the capacity of the system qualifies for the exemption. This may include, but is not limited to, the production of solar generation estimates and the aggregation of past electric bills. Beyond the first year in which capacity is demonstrated, verification does not need to be repeated on an annual basis unless adjustments are made to the system or the applicable property.

2. Verified Energy System

A solar or wind powered system or a solar or wind powered system that is co-located with energy storage that is equal to or less than 25 kilowatts in capacity is eligible for exemption. However, the capacity of the system must be verified by Department of Energy Resources incentive program documentation or electric distribution company permission to operate documentation.

3. System Entered into a Tax Agreement

If the system owner and the municipality where the system is located so agree, the property tax obligation of a solar or wind powered system or energy storage system, or a combination thereof, may be satisfied by payments in lieu of taxes (PILOT). More information about PILOT agreements can be found below in section III.

4. Qualified Fuel Cell Powered System

The Act creates a new property tax exemption under [clause 45B](#) for a “qualified fuel cell powered system, the construction of which was commenced after January 1, 2020, that is capable of producing not more than 125 per cent of the annual energy needs of the real property upon which it is located.”

A qualified fuel cell powered system is defined as an “integrated system comprised of a fuel cell stack assembly and associated components that converts fuel into electricity without combustion and is being utilized as the primary or auxiliary power system for the real property upon which it is located, which shall include contiguous or non-contiguous real property owned or leased by the owner, or in which the owner otherwise holds an interest.”

There is no local option acceptance required for this new exemption. It will become effective on the January 1, 2022 assessment date for fiscal year 2023.

III. PILOT AGREEMENTS

The amended [clause 45](#) authorizes cities and towns to enter into a PILOT agreement with the owner of a solar or wind powered system or energy storage system, or a combination of the same.

As noted above, the amended [clause 45](#) does not apply to solar powered systems developed under [G.L. c. 164, § 1A](#) or solar, wind, or energy storage systems otherwise owned by distribution or electric companies as defined under [G.L. c. 164, § 1](#).

A municipality is not required to enter into a PILOT agreement. Municipalities may instead assess property taxes on the taxable property of an electric generating system in the same manner as the assessment of taxes on other taxable property. Assessors assess taxes based on the full and fair cash value of the property as of the January 1 assessment date. **For more information about what data should be collected for such assessments and the different approaches to valuation, please see [IGR 21-17](#).**

A. Entering PILOT Agreements

A PILOT agreement under the amended [clause 45](#) includes all personal property taxes regarding the system and any real property taxes attributable to the land on which the system is located provided the land and the system are in common ownership. If the land on which the system is located is not owned by the same person or entity that owns the qualifying system, the taxes on the land cannot be included in the PILOT agreement. Instead, a separate assessment and tax bill regarding the real property taxes must be issued to the owner of the land. The owner of the land will continue to be assessed real estate taxes.

1. Authority to Negotiate Agreement

If a PILOT agreement is desired, the municipality is required to act through “its authorized officer.” An “authorized officer” is one given authority by the municipality’s legislative body to negotiate and, potentially in addition, to execute the PILOT. The legislative body of the host city or town may vote to authorize the chief executive board or officer (CEO) of the municipality (selectboard, mayor or manager), or some other municipal officer or officers, such as the assessors, to negotiate and execute the PILOT agreement. The authority may also be given to some combination of officers, such as the CEO and assessors, and may set parameters for any negotiated agreement.

2. Approval of Agreement

To be binding, the legislative body of the municipality must vote to approve the negotiated PILOT agreement, unless it has voted to authorize the CEO or other combination of officers to execute the agreement on the behalf of the municipality without further legislative body action.

B. Estimating Property Tax Revenues

In order to determine whether a PILOT agreement is in the municipality's financial interest, the current or projected full and fair cash value of the system should be determined, together with a revenue projection based upon the assessment of regular property taxes.

1. Role of Board of Assessors

The board of assessors is responsible for establishing full and fair cash values of property for local tax assessment purposes. Assessors must determine what a willing buyer under no compulsion to buy would pay for the property of a willing seller with no compulsion to sell. Ordinarily this determination is made on an annual basis, using information gathered over the year. This would be the method the assessors would use in the valuation of non-exempt systems if a PILOT agreement has not been negotiated or is not in effect.

If a multi-year PILOT agreement is being considered instead, the assessors should make projections of full and fair cash value for each year of the agreement, taking into account system additions and retirements. These projections may be speculative to the extent there is uncertainty involved with a complex industry. However, assessors should use their best efforts to make these projections.

2. Role of Legislative Body

The legislative body has the power to authorize negotiations and to approve PILOT agreements. Accordingly, the legislative body needs information as to the value of the property. It may rely on information provided by the assessors or seek an independent appraisal of projected values for the purpose of determining whether an agreement is in the municipality's financial interest.

3. Role of Chief Executive Officer

The CEO may be authorized to negotiate and execute a PILOT agreement on behalf of the municipality. The CEO may also rely on information provided by the assessors or seek an independent analysis of projected values.

C. Agreement Requirements

The primary purpose of PILOT agreements is to stabilize the projected revenue stream over the life of the agreement.

1. Agreement Term

A PILOT agreement may have a term for up to 20 years; however, the owner of the system and the municipality may agree in writing to a PILOT agreement for a period longer than 20 years.

2. Value and Tax Levy

Agreements should fix values or formulas for determining values (rather than fixing tax payments). However, there is no statutory requirement to include the value upon which payments are based in the text of the agreement. Even so, there should be a record basis for the valuation of the qualifying facility used in determining payments in lieu of taxes. Valuation must be approximately equivalent to full and fair cash value, as prescribed under [G.L. c. 59, § 38](#), and sufficient to comply with the certification process mandated at [G.L. c. 40, § 56](#) and [G.L. c. 58, § 1A](#). Values supporting the PILOT payment should also be consistent with the requirements of law in assessing utility properties. See [LFO-2019-1](#).

Unlike [G.L. c. 59, § 38H\(b\)](#) PILOTs, there is no statutory language requiring the values of the qualifying systems be included in the tax base for purposes of determining the levy ceiling and levy limit. As such, [clause 45](#) PILOT agreement payments are reported on page 3 of the tax rate recapitulation as general fund estimated receipts. Further, because these values are not included in the tax base for purposes of determining the levy ceiling and levy limit, the value of any new facilities constructed that are the subject of a [clause 45](#) PILOT agreement will not be counted as “new growth” under Proposition 2-1/2 while the PILOT agreement is in effect.

3. Payment and Billing

Agreements should establish the same billing and collection procedures for negotiated amounts, which would include payment schedules, late payment consequences and collection remedies, as are used for annual property taxes. Unless otherwise provided in the PILOT agreement, payments should be billed and collected in the same manner as property taxes.

D. Documentation

The Commissioner of Revenue must approve a municipality’s tax rate annually and review its assessments every five years in order to certify compliance with the legal standard of full and fair cash value assessments. In order to fulfill these requirements, the Bureau of Local Assessment requires certain information and documentation about the taxation of electric generating systems.

The assessors must maintain property records for the taxable real and personal property of the electric generating systems. The records must be updated each year to show the assessed value or negotiated agreement value.

A host community entering into a PILOT agreement under [clause 45](#) must submit the following to the Bureau of Local Assessment no later than the year scheduled for certification:

- A copy of the executed PILOT agreement along with a certified copy of the legislative body vote authorizing, approving or ratifying it.

- Appraisal documentation used to support the estimates of full and fair cash value included in any PILOT agreement. This documentation need only be submitted to the Bureau of Local Assessment once but should be available in connection with a 5-year certification review process. The agreement should be resubmitted if amended as to the valuations to be used.
- A copy of any executed amendment to the agreement.

IV. **PRIOR YEAR PILOT AGREEMENTS**

The Act removes solar and wind power facilities and qualified fuel cell powered systems from the PILOT agreement provisions of [G.L. c. 59, § 38H\(b\)](#) but provides that a facility that generates electricity through solar or wind may instead execute a PILOT agreement under [clause 45](#).

The Act further states that current PILOT agreements for solar or wind powered systems are not required to be amended, modified or renegotiated as a result of the Act. This applies to agreements entered into or executed before the effective date of the Act, June 24, 2021.

Please see [IGR 21-17](#) for more information about [G.L. c. 59, § 38H\(b\)](#) PILOT agreements.

IV. **PRIOR EXEMPTIONS GRANTED UNDER CLAUSE 45**

The Act grandfathers solar or wind systems that were determined exempt under [clause 45](#) before its amendment. However, this savings clause is confined to the remaining term of that exemption (“twenty years from the date of the installation of such system or device”) and is limited to systems producing “less than 150 per cent of the annual electricity needs of the real property on which it is located.” [Section 98 of the Act](#). This is distinct as the measurement of the annual electric needs of this grandfathering provision only applies to the property where the system is located and not non-contiguous properties in the same municipality under common ownership. However, if a system is not grandfathered under this provision, the owner may apply for and receive the new [clause 45](#) exemption if eligible.

For example, if an owner has a qualifying solar powered system on one parcel of land that produces more than 150 per cent of the electric needs of that parcel they could not be grandfathered as exempt. However, if that owner has 5 other parcels in the municipality under common ownership and the solar powered system is not capable of producing more than 125 per cent of the electricity needs of all of these parcels, they may be eligible for the new [clause 45](#) exemption. It is recommended that each city and town reach out to their existing [clause 45](#) exemption recipients to ensure that if a system will not be grandfathered the owner is aware of their duty to timely file an application to be considered for the new [clause 45](#) exemption as noted above.

As noted above, the consideration of prior year exemptions will be made for the first time for property tax assessments as of the January 1, 2022 assessment date for fiscal year 2023.

FREQUENTLY ASKED QUESTIONS

1. When can a city or town enter into a PILOT agreement?

Only when explicitly permitted by statute to do so.

2. Is a city or town required by statute to enter into a [clause 45](#) PILOT agreement?

No.

3. Are solar panels taxed as real or personal property?

Whether the solar panels and related machinery are personal property or become part of the real estate is based upon the degree of attachment. See *Boston Edison Co. v. Board of Assessors of Boston*, 402 Mass. 1 (1988) (Taxable machinery of a utility used in the manufacture of electricity, and significantly attached to a parcel of real estate, but traditionally assessed as personal property, may be assessed as either real or personal property.)

4. Do PILOT payments received pursuant to a [G.L. c. 59, § 38H\(b\)](#) agreement still constitute new growth and as part of the tax base?

Yes. The language to that effect has remained unchanged.

5. Why don't the amounts received from a [clause 45](#) PILOT constitute new growth?

There is no language in [clause 45](#) that indicates amounts received are to be included in the tax base. Language to that effect can be found in [G.L. c. 59, § 38H\(b\)](#) but is absent from the amended [clause 45](#).

6. Can a municipality waive or otherwise reduce the amount of local property taxes owed by an electric generating system?

A municipality, including its chief executive, assessors and legislative body, has no power or legal authority to waive property taxes. Under the home rule amendment to the Massachusetts Constitution, the power to tax is reserved to the state legislature. [Mass. Const. Amend. Article 89, sec. 7](#). As a result, cities and towns may only assess, abate, exempt and collect taxes as expressly authorized by state law. Therefore, the municipality has no power to waive any property taxes related to an electric generating system.

7. How does the installation of solar or wind farms on classified land impact the classification of land under Chapters [61](#), [61A](#) and [61B](#)?

Please see [CHAPTERLANDS FREQUENTLY ASKED QUESTIONS \(FAQS\)](#) for more information about solar and wind farm effects on chapterland.

8. I have a [38H\(b\)](#) agreement for a solar powered system. Though solar powered systems are no longer permissible for PILOT consideration under that statute, is my current agreement grandfathered?

Yes. The owner and municipality may also opt to enter into a PILOT agreement under the amended [clause 45](#) for such a system.

9. Can the city or town renegotiate a current solar powered system [38H\(b\)](#) agreement pursuant to [clause 45](#)?

Yes. However, by doing so you will be removing the value of that current agreement from your tax base.