



Informational Guideline Release

Bureau of Local Assessment
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Supersedes IGR 98-403 and Inconsistent Prior Written Statements

VALUATION AND TAXATION OF ELECTRIC GENERATING FACILITIES

(G.L. c. 59. § 38H(b))

This Informational Guideline Release (IGR) provides assessors and other local officials with information about the valuation and taxation of electric generating plants and facilities, including under a negotiated tax agreement.

Questions should be addressed to the Bureau of Local Assessment.

Topical Index Key:

Assessment Administration
Personal Property
Valuation

Distribution:

Assessors
Mayors/Selectboards
City/Town Councils

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Supersedes IGR 98-403 and Inconsistent Prior Written Statements

VALUATION AND TAXATION OF ELECTRIC GENERATING FACILITIES

(G.L. c. 59, § 38H(b))

SUMMARY:

These guidelines address the valuation and taxation of electric generation facility property. Since 1997 when the electric industry was restructured, the generation of electricity has been conducted by independent, non-utility producers in a deregulated environment. Non-utility generating companies include those producing electricity from conventional power plants and in more recent years, from renewable energy facilities. Transmission and distribution of the electricity continues to be performed by regulated local electric utilities.

Generating plants and facilities are subject to the same market forces as other non-regulated property bought and sold based on investor expectations and are valued and taxed in the same manner as similar property. Alternatively, communities hosting generating plants or facilities owned by electric generation companies or wholesale electric generation companies may enter into agreements for payments in lieu of tax with the owners as a revenue stability measure. Under this option, the parties establish a valuation method for often difficult to appraise power plants or other generating facilities in order to have the owner's annual property tax obligation determined in a predictable and stable manner over the life of the agreement. The agreement must provide for payments over the life of the agreement equivalent to what would have been assessed as property taxes on a full and fair cash valuation basis. These agreements are an alternative means for the company to meet its property tax obligations over the term, not to obtain tax breaks. Payments under the agreement are treated as part of the annual property tax levy for Proposition 2½ and tax classification purposes.

These guidelines are in effect. They supersede Informational Guideline Release (IGR) No. 98-403, *Valuation and Taxation of Electric Generating Property*, and any inconsistent prior written statements.

GUIDELINES:

I. OVERVIEW

Municipalities hosting power plants or other generating facilities owned by electric generation companies or wholesale electric generation companies as defined in [G.L. c. 164, § 1](#) have two avenues of taxing their property. The first is to value and assess property taxes in the same manner as other taxable property. The second avenue is a voluntary payment in lieu of tax agreement (tax agreement) that is based on good faith negotiations and is the equivalent of assessing taxes on the full and fair cash valuation of the plant.

II. ASSESSING PROPERTY TAXES

Municipalities may assess property taxes on the taxable property of an electric generating facility 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 to the owner of the plant, facility or other generating property.

A. Exempt Generating Plant or Facility Property

Electric generating plant or facility real and personal property exempt from taxation includes:

- Buildings, structures and personal property of resource recovery facilities (the land remains taxable and a per ton tax on solid waste processed is substituted). [G.L. c. 16, § 24A](#).
- Buildings, structures, devices, appliances, machinery, equipment or other real or personal property constructed, installed or placed in operation as an air or water pollution control device certified as effective by the appropriate state pollution control agency. [G.L. c. 59, § 5\(44\)](#).
- Real and personal property of any hydropower facility constructed after January 1, 1979, except transmission lines from the facility, for a period of up to 20 years (the owner must first enter into an agreement to make an annual payment in lieu of taxes of at least five percent of its gross income in the preceding calendar year). [G.L. c. 59, § 5\(45A\)](#).

B. Taxable Generating Plant or Facility Property

1. Taxable Real Property

All land, buildings, structures and other improvements to real estate of an electric generating plant or facility other than described in Section II-A-1 above are taxable.

2. Taxable Personal Property

The tax status of electric generating plant or facility personal property other than described in Section II-A-1 above depends on the form of ownership on January 1. Each of the following owners are taxable for poles, underground conduits, wires and pipes as well as the personalty described below.

If the owner of the taxable personal property is also the owner of the land on which the plant or facility is located, the assessors may assess it as part of the real estate tax or assess it separately as personal property.

a. Business Corporation or “Corporate” Company

Taxable personal property of an electric generating plant or facility owned by a business corporation, or a limited liability company (LLC) or other unincorporated entity filing as a corporation for federal tax purposes, includes all machinery used in the conduct of business, including the manufacture or production of electricity, except machinery that is:

- Stock in trade
- Directly used in laundering, dry-cleaning, refrigeration of goods, air-conditioning of premises, or
- Directly used in a selling, purchasing, accounting or administrative function.

Other personal property owned by the corporation or LLC is not taxable. [G.L. c. 59, § 5\(16\)\(2\).](#)

b. Manufacturing Corporation or “Corporate” Manufacturing Company

If the owner is a corporation, or a LLC or other unincorporated entity filing as a corporation for federal tax purposes, that has applied for and been granted classification by the Commissioner of Revenue as a manufacturing corporation as of January 1, all personal property used in the production of electricity is taxable unless it:

- Is a cogeneration facility of 30 megawatts or less capacity, or
- Was previously exempt because of a manufacturing classification in effect on or before January 1, 1996.

[G.L. c. 59, § 5\(16\)\(3\).](#)

c. Other Entities

Personal property of any electric generating plant or facility, including a cogeneration plant or facility, that is owned by any other entity, such as an individual, association, trust, partnership, limited partnership, LLC treated as a partnership for federal tax purposes or limited liability partnership, is taxable.

[G.L. c. 59, § 18.](#)

III. TAX AGREEMENTS

As an alternative to assessing property taxes, municipalities may enter into a voluntary payment in lieu of tax agreement (tax agreement) regarding the property of an electric generating plant or facility. The agreement is an alternative mean for the company owning the plant or facility to comply with its property tax obligation. It is to be based on good faith negotiations and is the equivalent of assessing taxes on the full and fair cash valuation of such property.

This section explains the requirements for entering a tax agreement and outlines the roles of municipal officers in determining the avenue the municipality will pursue. The decision to enter into a tax agreement is made by the legislative body of the municipality. That decision should depend on a projection of the revenues that may be generated from taxing the facility property at full and fair cash value and those received from a predictable, negotiated agreement.

A. Entering Tax Agreements

Host municipalities, acting by their legislative bodies, may enter into agreements with electric generation companies or wholesale electric generation companies in connection with their conventional power plants or solar or renewal energy systems or facilities. The agreement relates to the taxable property it owns, including the plant, facility, personal property or real estate that it owns. If the company does not own the land on which the plant or facility is located, the land may not be included in the tax agreement. The owner of the land will continue to be assessed real estate taxes.

1. Authority to Negotiate Agreement

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 a tax agreement on behalf of a municipality, or to negotiate and execute the agreement. The authority may also be given to some combination of officers, such as the CEO and assessors, may set parameters for any negotiated agreement or may authorize the CEO to execute the negotiated agreement.

2. Approval of Agreement

To be binding, the legislative body of the municipality must vote to approve the negotiated tax agreement, unless it has voted to authorize the CEO or other combination of officers to negotiate and 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 tax agreement is in the municipality's interest, the current or projected full and fair cash value of the plant or facilities 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 electric generating plants or facilities if a tax agreement has not been negotiated or is not in effect.

If a multi-year tax 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 plant or facility 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 tax agreements with electric generation or wholesale electric generation companies and therefore, should have information as to the potential value of the property. It may rely on information provided by the assessors or seek an independent analysis of projected values for the purpose of determining whether an agreement is in the municipality's interest.

3. Role of Chief Executive Officer

The CEO may be authorized to negotiate and execute a tax 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 tax agreements is to provide revenue stability for host municipalities over a period of time. Agreements between host municipalities and electric generation or wholesale electric generation companies must be the result of good faith negotiations and payments are to be representative of property taxes assessed on the plant or facility on a full and fair cash valuation basis. [G.L. c. 59, § 38H\(b\)](#).

1. Agreement Term

Agreements should be for a reasonable term. As a general rule, a term of no longer than the useful life of the facility would be a reasonable one.

2. Value and Tax Levy

Agreements should fix values or formulas for determining values (rather than fixing tax payments). Values should be representative of the future full and fair cash values of the plant or facility for the term of the agreement. If formulas are used to determine values, the formula must permit the determination of value before the tax rate is set for the fiscal year because agreement values must be used to calculate the municipality's levy ceiling and minimum residential factor and to set the tax rate for the fiscal year. Payments resulting from the values at the applicable tax rate for the fiscal years are treated as property taxes for Proposition 2½ and tax classification purposes. The payments are subject to the municipality's levy limit. See Section III-D below.

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 the ones used for annual property taxes. Unless otherwise provided in the tax agreement, payments should be billed and collected in the same manner as property taxes.

D. Tax Agreement Value, Payment, Tax Levy and Tax Rate

1. Value

Assessors must report the negotiated agreement "value" for the year on Form LA-4 "Assessment/Classification Report" in the assessed valuation of Class 4, Industrial, real property (Class Code 452), or Personal Property (Class Code 552), as applicable, so that it is reflected in the fair cash value levy percentage for that class of real property or of personal property. Those percentages are used to calculate the minimum residential factor under [G.L. c. 58, § 1A](#).

2. Tax Levy and Tax Rate

Assessors must report the negotiated agreement value in the total assessed valuation of Class 4, Industrial, real property, or Personal Property, as applicable, on page 1 of the tax rate recapitulation so that the negotiated tax payment is part of the tax levy. [G.L. c. 59, § 38H\(b\)](#). That payment cannot be reported on page 3 of the tax rate recap (or pro forma recap) as general fund estimated receipts.

3. Payment in Lieu of Tax

After the rate is set, assessors must determine the amount of payment due under the agreement based upon the values negotiated under the agreement and commit the amount due to the tax collector at the same time and in the same manner as annual property taxes for the fiscal year, unless otherwise provided in the agreement. The amount of the payment becomes part of the total tax levy committed to the collector for collection.

4. Other Payments

Other revenue received by the municipality from a lease of municipal property, sale of power or any other contractual arrangement that is in addition to the negotiated payment in lieu of tax under the tax agreement must be reported on page 3 of the tax rate recapitulation as general fund estimated receipts under Miscellaneous Recurring.

IV. 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 (Bureau) requires certain information and documentation about the taxation of electric generating plants and facilities. The following forms and information are required before certification may be granted and tax rates may be approved.

A. All Communities

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

B. Communities Assessing Property Taxes

1. Five Year Certification

In any certification year, assessors in a host community must submit to the Bureau an appraisal report or documentation that supports the proposed full and fair cash value of the property of each electric generating plant or facility. All three approaches to value are to be considered in arriving at a final value. See Section VI below.

2. Interim Year Valuation

Assessors adjusting the valuation of the property of electric generating plants or facilities in non-certification years must use appropriate appraisal methods and adjust valuations in other property classes to ensure equitable and consistent assessments within and between all property classes, as evidenced by conformity with accepted mass appraisal measures of assessment level and uniformity. See Section I-B of the annual IGR, *Guidelines for Annual Assessment and Allocation of Tax Levy*.

C. Communities with Tax Agreements

A host community entering into a tax agreement under [G.L. c. 59, § 38H \(b\)](#) (or a special act) must submit the following to the Bureau no later than the year scheduled for certification:

- A copy of the executed tax 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 tax agreement. This documentation must only be submitted once unless the agreement is amended as to the valuations to be used.
- A copy of any executed amendment to the agreement.

V. TAX BASE GROWTH

Municipalities hosting electric generating plants or facilities may use certain increases in the assessed or negotiated valuation of the plant or facility as allowable value for the purpose of computing the annual tax base growth adjustment in its Proposition 2½ levy limit. See the annual IGR, *Determining Annual Levy Limit Increase for Tax Base Growth*.

A. Communities Assessing Property Taxes

If a community is assessing annual property taxes based on the full and fair cash valuation of a particular generating plant or facility, the following assessed valuation increases are allowable:

- In the first year assessed, the assessed value of a new plant or facility installed (real or personal).
- In subsequent years, the assessed value of any additional new real property built or personal property items installed since the previous fiscal year and assessed for the first time.

Future market value increases to the plant or facility documented during five year certification or interim valuation adjustment programs do not qualify as allowable value for growth purposes.

B. Communities with Tax Agreements

If a community is receiving payments in lieu of tax under a tax agreement, the following negotiated full and fair cash valuation increases are allowable:

- In the first year of the agreement, the negotiated value of the new plant or facility installed (real or personal) used to determine the first year payment.

- In subsequent years, the negotiated value of any additional new real property built or personal property items installed since the previous year that is included in the subsequent year's negotiated valuation under the agreement.

Municipalities should consider new growth when structuring the negotiated valuations. Agreements that provide for a lower valuation in the first year of the agreement and higher valuations in later years may provide the company with greater flexibility in financing the installation. However, they also limit new growth to less than the amount that would have been added to the municipality's levy limit if the company was assessed a regular property tax.

Increases in the negotiated full and fair cash valuation that are intended to reflect future increase in the market value of the plant do not qualify as allowable value for growth purposes.

VI. VALUATION

A. Data Collection

As of the January 1 assessment date, the assessors should collect the following data and information for each electric generating plant or facility.

1. Physical Plant

Information about the physical plant or facility may be obtained from the Form of List submitted by the owner. The list should include all property including property donated or given to the owner (Contribution in Aid of Construction), Construction Work in Progress (CWIP) and other unallocated plant. Descriptions and plans should be requested and obtained if the information on the list is insufficient to develop a detailed physical inventory of major plant or facility components.

2. Plant Investment

Information about the dollars invested in the physical plant or facility may be obtained by requesting the original and net book costs of the plant or facility by year invested. This should include all direct and indirect costs associated with the plant or facility. For power plants existing before electric utility restructuring in 1997, the historical original cost, accumulated depreciation and net book cost will be found in the utility company FERC and DPU records. The new book cost of existing power plants acquired in a deregulated market, as well as the original cost of new power plants, may be obtained by requesting a return under [G.L. c. 59, §§ 38D](#) and [38F](#).

3. Plant Income and Expenses

Information about historic, current and future projected plant or facility income and expenses should also be obtained by requesting a return under [G.L. c. 59, §§ 38D](#) and [38F](#). This information includes, but is not limited to:

- Annual net generation exclusive of plant or facility use;
- Annual availability including planned and unplanned outages (separately stated);
- Annual fuel, operating and maintenance costs;
- Annual administrative and general costs;
- Annual taxes;
- Annual net additions to plant or facility in service;
- Annual working capital reserves;
- Dedicated transmission expenses associated with the plant or facility;
- Avoided cost rates;
- Fuel purchase and handling contracts; and
- Contracts or solicitations for purchase of capacity from the plant or facility.

In addition, information should be requested about the existence of any factors that will impair the operation or cost competitiveness of the plant or facility and any planned capital improvements.

B. Valuation Approaches

Generating plants or facilities are valued using the same accepted appraisal methods: cost, market and income, used to value other commercial and industrial properties subject to market forces.

Land at generating plant or facility sites should be treated as industrial land and valued in the same manner as other industrial land, i.e., by applying the appropriate appraisal methodology and land schedule.

1. Cost Approach

a. Original Cost

The original cost of the plant or facility may be used where it is relatively new and depreciation has not exceeded the appreciation of costs in the geographical area.

b. Reproduction Cost New Less Depreciation

The cost to reproduce the plant or facility may be determined from various engineering cost estimating disciplines based on plans and specifications obtained from the facilities. Alternatively, the original costs of the plant or facility may be trended to the present with generally accepted manuals or indexes such as the Handy-Whitman Index of Public Utility Construction Costs.

All forms of depreciation must be considered and allowances made not only for physical depreciation, but also technological and market changes that impact the plant or facility.

c. Replacement Cost New Less Depreciation

Replacement costs developed for an existing plant or facility should consider its intended use of duty cycle, fuel availability, transmission capacity and environmental limitations. The cost analysis will also require the engineering judgment of how new technology affects the existing property. The analysis should recognize that new technology or construction techniques may be more or less expensive than the existing facilities due to the impact of various factors.

All forms of depreciation must be considered and appropriate allowances made for physical depreciation and technological and market changes.

2. Market Approach

A comparable sales approach may use. Generating plant or facility sales should be analyzed on a price per unit of capacity or generation basis. Historical, annual plant generation and capacity factors are indicators of the cost competitiveness of the plant or facility and should be analyzed to determine its ranking within the marketplace. When comparing sales to the subject plant or facility, any non-cash considerations that impact value should be identified and appropriate adjustments made. Additional adjustments may be required to take into consideration the variability of generating sources and fuel types.

3. Income Approach

Indicators of value may be developed either by direct capitalization (*i.e.*, using a single year's income) or yield capitalization (*i.e.*, using income over a period of time including reversion proceeds).

The gross income developed for the plant or facility from the current wholesale market should consider the price of capacity, installed capacity, operable capability, 10 minute spinning reserve, 10-minute non-spinning reserve, 30-minute reserve and automatic generation control. For hydro-electric plants,

Especially those dependent on run-of-the river, multiple years of income/actual production should be reviewed to equalize the value of the station, and not value it based on higher or lower water levels due to annual fluctuations in rainfall. Prices for each may vary, depending on the type of generating unit and time of day and year. When analyzing expenses, consideration should be given to the historic cost of operating the plant or facility and future fuel prices.

Business income should be isolated from the gross income to determine the income attributable to the property. Property related expenses to be considered include, but are not limited to, site staff operations, site management, current and future fuel type, routine annual maintenance, operational costs such as chemicals, insurance, various regulatory and license fees, allowance for property taxes (as an expense or in the capitalization rate) and capital reserves and replacements for adequate project life.

GLOSSARY

See [G.L. c. 164, § 1](#) for definitions of the following terms:

Cogeneration facility

Distribution

Distribution Company

Distribution facility

Electric Company

Electric service

FERC

Generation

Generation Company

Generation facility

Transmission

Transmission Company

Transmission facility

Transmission service,

Other Definitions

Automatic Generation Control, (AGC), is a system for adjusting the power output of multiple generators at different power plants in response to changes in the load.

Availability, a measure of time a generating unit, transmission line or other facility is capable of providing service, whether or not it actually is in service. Typically, this measure is expressed as a percent available for the period under consideration.

Avoided cost, the cost the utility would incur had it supplied the power itself or obtained from other sources. Avoided cost rates have been used as the power purchase price utilities offer independent suppliers.

Department of Public Utilities (DPU), state regulatory agency responsible for the structure and control of energy provided in the Commonwealth; monitoring service quality; regulating safety in the transportation and gas pipeline areas; and for the siting of energy facilities. The mission of the Department is to ensure that utility consumers are provided with the most reliable service at the lowest possible cost; to protect the public safety from transportation and gas pipeline related accidents; to oversee the energy facilities siting process; and to ensure that ratepayers' rights are protected.

Independent Power Producer (IPP), any entity that owns or operates an electric generating facility that is not included in an electric utility's rate base.

Investor Owned Utility (IOU), a company that provides utility services and is owned by stockholders or investors.

Net Book Value (Net Book), a method of property valuation based on the rates of return on investment regulated by a governmental agency and the original cost of the property when put into service less depreciation.

Non-spinning reserve, the operating reserve not connected to the system, but capable of serving demand within a specific time, or interruptible demand that can be removed from the system in a specified time. Interruptible demand may be included in non-spinning reserve if it can be removed from service within 10 minutes.

Non-Utility Generator (NUG), an electric generation facility owned and operated by an entity not defined as a utility.

Rate Base, the value of property upon which a utility is permitted to earn a specified rate of return as determined by a regulatory agency.

Restructuring, the reconfiguration of the electric industry from wholly owned electric generation, transmission and distribution systems to a system where electric generating facilities are independently owned. (Restructuring includes re-regulation and is not to be confused with deregulation, which implies the elimination of regulation.)

Spinning reserve, unloaded generation, which is synchronized and ready to serve additional demand.

Utility, a regulated entity providing essential services usually associated with a natural monopoly, the power of eminent domain, the obligation to serve and significant government regulation, including a distribution company, transmission company and electric company, but not a generation company.