



Legislation Text

File #: Int 0609-2015, Version: A

Int. No. 609-A

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A Local Law to amend the administrative code of the city of New York, in relation to geothermal systems

Be it enacted by the Council as follows:

Section 1. Subchapter 2 of chapter 1 of title 3 of the administrative code of the city of New York is amended by adding a new section 3-125 to read as follows:

§ 3-125 Geothermal systems. a. As used in this section:

Criteria air pollutant. The term “criteria air pollutant” means a pollutant for which the United States environmental protection agency has set national ambient air quality standards pursuant to part 50 of title 40 of the code of federal regulations.

Geothermal system. The term “geothermal system” means a geothermal system as defined in section one of local law number 32 for the year 2013.

Peak demand reduction. The term “peak demand reduction” means a reduced demand for electricity that occurs between 2 p.m. and 6 p.m., Monday through Friday from June 1 through September 30.

b. No later than February 1, 2017, an office or agency designated by the mayor shall, in consultation with the department of buildings, the department of design and construction and other relevant agencies, develop and make publicly available online a screening tool that can be used to determine whether installation of a geothermal system may be cost-effective for a property.

c. Such screening tool shall be used in the planning process for the new construction of a city-owned

building and the retrofitting of an existing city-owned building's heating and cooling system where the planning process commences on or after February 1, 2017.

d. 1. Where the use of such screening tool required pursuant to subdivision c of this section indicates that installation of a geothermal system may be cost-effective, an engineering and multi-criteria analysis of the use of a geothermal system, including, where appropriate, an analysis of the option of utilizing a photovoltaic system coupled with a geothermal system, shall be conducted. As part of such engineering and multi-criteria analysis, at a minimum, the following criteria shall be used to evaluate geothermal systems and compare such systems with other heating/cooling alternatives:

(a) Comparison of greenhouse gas emissions as a result of fuel and electricity consumption;

(b) Comparison of impacts on criteria air pollutant concentrations;

(c) Comparison of annual electricity consumption and impacts on peak demand reduction;

(d) Where applicable, comparison of a potential revenue stream generated from the peak demand reduction using a dollar metric;

(e) Comparison of fuel and power costs; and

(f) Comparison of the net present value of all alternatives considered, where such net present value shall:

(1) Be based on a 20-year life expectancy for each proposed option, unless a particular technology has a different life expectancy as documented by the manufacturer; and

(2) Include capital costs, operations and maintenance, fuel costs, available federal, state and other non-city governmental funding assistance, and the social cost of carbon value as provided in paragraph 3 or pursuant to paragraph 4; provided that a site- or project-specific social cost of carbon value may be developed and used in lieu of the social cost of carbon value provided in paragraph 3 or pursuant to paragraph 4 if such site- or project-specific social cost of carbon value is higher than the social cost of carbon value provided in paragraph 3 or pursuant to paragraph 4.

2. If the geothermal system has the lowest net present value of all alternatives considered it shall be selected for implementation.

3. The social cost of carbon value shall be as follows:

<u>Year</u>	<u>Dollar value per metric ton of carbon dioxide equivalent</u>
<u>2017</u>	<u>128</u>
<u>2018</u>	<u>132</u>
<u>2019</u>	<u>136</u>
<u>2020</u>	<u>140</u>
<u>2021</u>	<u>142</u>

4. An office or agency designated by the mayor may by rule increase the social cost of carbon values provided in paragraph 3, and may promulgate rules establishing the social cost of carbon values for years after 2021, provided that any social cost of carbon value established by rule for years after 2021 may not be less than the social cost of carbon value for the year 2021 as provided in paragraph 3 and that any such rule shall disclose the social cost of carbon value, if any, determined by the United States environmental protection agency, for the year for which such rule establishes a social cost of carbon value.

e. By no later than six months after the end of each fiscal year, an office or agency designated by the mayor shall submit to the speaker of the council and make publicly available online a report containing the following information for each project described in subdivision c of this section that is completed during such fiscal year:

1. A brief description of such project;

2. The street address of such project and the community district and council district in which such project is located;

3. Whether installation of a geothermal system for such project was determined to be cost-effective based on the use of the screening tool described in subdivision b of this section;

4. Whether installation of a geothermal system was selected for the project based on the detailed

engineering and multi-criteria analysis pursuant to subdivision d of this section; and

5. Whether a geothermal system was installed for such project and, if not, the type of system installed.

f. No later than 18 months after the effective date of the local law that added this subdivision, an office or agency designated by the mayor shall, in consultation with the relevant agencies, develop and submit to the mayor and the speaker of the council recommendations relating to:

1. Standards for the installation and maintenance of geothermal systems, including standards relating to assessing subsurface conditions and the design, commissioning, distribution and performance monitoring of such systems;

2. Required qualifications for persons who will design or install such systems;

3. Maintaining a publicly available registry of such persons;

4. Informing property owners and installers of geothermal systems regarding the potential benefits of coupling a photovoltaic system installation with a geothermal system for buildings within the city; and

5. The technical and regulatory feasibility of implementing a geothermal system for waterfront properties within the city by suspending closed loop coils or other heat exchange devices in the marine surface waters around the city.

§ 2. This local law takes effect immediately.

LS # 1562 SS
10/20/15 10:58PM