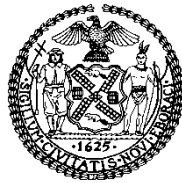


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**THE COUNCIL**

**REPORT OF THE INFRASTRUCTURE DIVISION  
ROBERT NEWMAN, LEGISLATIVE DIRECTOR**

**COMMITTEE ON HOUSING AND BUILDINGS**

**Hon. Erik Martin Dilan, Chair**

April 30, 2012

**PROPOSED INT. NO. 340-A:**

By Council Members Dilan, Brewer, Cabrera, Chin, Comrie, Fidler, Garodnick, Gonzalez, James, Koppell, Koslowitz, Lander, Mark-Viverito, Palma, Vann, Williams, Rodriguez, Van Bramer, Jackson, Dromm and Halloran

**TITLE:**

A Local Law to amend the New York city building code, in relation to increasing the allowable extension of sun control devices from building facades.

**BUILDING CODE:**

Amends Sections BC 202, 1607.11.2.4, 3101.1, 3105, 3105.1, 3105.3, 3202.2.1, 3202.2.1.2, 3202.2.1.3, and 3202.2.1.9.

## **BACKGROUND AND ANALYSIS:**

On April 30, 2012, the Committee on Housing and Buildings, chaired by Council Member Erik Martin Dilan, will conduct a hearing on Proposed Int. No. 340-A, a Local Law to amend the New York City Building Code, in relation to sun control devices. On October 20, 2010 the Committee held a hearing on an earlier version of this bill and received testimony from representatives of the Mayor's Office of Long Term Planning and Sustainability and other persons interested in this legislation.

### **Renewable Energy background**

Energy shortages are by no means new in the history of modern man<sup>1</sup> but most Americans trace their initial awareness of the issues surrounding fossil fuel consumption to the global oil shortages of the 1970s.<sup>2</sup> It was then that policymakers became aware that the limited supplies of imported fossil fuels would not indefinitely meet the rising energy demands of Americans. In 1979, when then President Jimmy Carter installed solar panels on the roof of the White House West Wing, he said "a generation from now, this solar heater can either be a museum piece, an example of a road not taken or...one of the most exciting adventures ever undertaken by the American people."<sup>3</sup> When oil prices stabilized, funding for research into alternative energy sources was significantly reduced and ultimately the solar panels did become museum pieces.<sup>4</sup>

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<sup>1</sup> Stephen F. Williams, Mandating Solar Hot Water Heating in New Residential Construction By Local Governments: An Energy Policy Perspective on Solar Hot Water Equipment Mandates, 1 UCLA J. Envtl. L. & Pol'y 135 (Spring 1981) (describing attempts by the English Parliament to address shortages and escalating prices of wood).

<sup>2</sup> Sanya Carleyolsen, Tangled in the Wires: An Assessment of the Existing U.S. Renewable Energy Legal Framework, 46 Nat. Resources J. 759, 761 (Summer 2006).

<sup>3</sup> Jimmy Carter Library & Museum News Release, March 30, 2007. In addition, President Obama recently installed solar panels on the residence portion of the White House.

<sup>4</sup> Id.

Now, almost thirty years later, when the world has, arguably, reached its peak of oil extraction,<sup>5</sup> we are once again concerned about energy shortages. Our society and our planet need energy sources that can meet our demands—sources that are sustainable, affordable and that contribute to energy independence. The sun has the potential to meet our global energy needs by a factor of 1500.<sup>6</sup> The energy from 40 minutes of solar radiation upon the earth is equivalent to global energy consumption for a year.<sup>7</sup> The sun’s energy is widely distributed and could provide energy independence for a number of countries, in addition to our own, and for isolated areas off the grid.<sup>8</sup>

Moreover, as mandated by Local Law 22 of 2008, known as the New York City Climate Protection Act, City operations must decrease its greenhouse gas emissions by 30 percent by 2017. Energy efficiency alone will not allow the City to meet these requirements; the City must increase its use of renewable energy. The Mayor’s PlaNYC 2030 (“PlaNYC”) estimates that demand will increase by 25 percent by 2030.<sup>9</sup> PlaNYC notes that “with limited land available to build new power plants, our challenge is to find a new approach to improve the City’s long-term energy outlook.”<sup>10</sup> According to PlaNYC, wholesale energy prices will increase 60 percent between 2005-2030.<sup>11</sup> Furthermore, our additional electricity needs are currently projected to be met mostly in

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<sup>5</sup> Sanya Carleyolsen, see note 2 at pg. 762.

<sup>6</sup> Jessica Ebba Trancik, Photovoltaics—A Niche Market Distraction or a Global Energy Solution?, 11 Geo. Public Pol’y Rev. 69, 71 (Winter 2006).

<sup>7</sup> Ken Zweibel, James Mason and Vasilis Fthenakis, A Solar Grand Plan, Scientific American Magazine, January 2008, [www.sciam.com/article.cfm?id=a-solar-grand-plan&page=1](http://www.sciam.com/article.cfm?id=a-solar-grand-plan&page=1).

<sup>8</sup> Jessica Ebba Trancik, Photovoltaics—A Niche Market Distraction or a Global Energy Solution?, 11 Geo. Public Pol’y Rev. 69, 71 (Winter 2006); Ken Zweibel, *supra*.

<sup>9</sup> MAINTAINYC, available at [http://home2.nyc.gov/html/planyc2030/downloads/pdf/maintainyc\\_energy.pdf](http://home2.nyc.gov/html/planyc2030/downloads/pdf/maintainyc_energy.pdf); See also PLANYC, available at [http://home2.nyc.gov/html/planyc2030/downloads/pdf/full\\_report.pdf](http://home2.nyc.gov/html/planyc2030/downloads/pdf/full_report.pdf).

<sup>10</sup> PLANYC, available at [http://home2.nyc.gov/html/planyc2030/html/about/maintainyc\\_energy.shtml](http://home2.nyc.gov/html/planyc2030/html/about/maintainyc_energy.shtml)

<sup>11</sup> New York City Economic Development Corporation, “PlaNYC: A Greener, Greater New York”, Oct. 2007.

the form of more natural gas and petroleum with only a small percent increase in overall renewable energy supply.<sup>12</sup>

**Proposed Int. No. 340-A**

Sun control devices can be used to combat heat gains in buildings, reduce glare, and improve occupant comfort. If properly designed, sun control devices can decrease air conditioning loads by 30%-60%. The Building Code currently only allows sun control devices to extend ten inches from a building's façade, decreasing their effectiveness. However, when placed above windows, awnings are allowed to extend up to five feet in the street line. As the shading and visual impact of awnings and sun control devices are the same, standards controlling their use should be similar.

Section 1 of the bill provides the statement of findings and purpose. Section 2 amends Section BC 202 by adding a definition for sun control device. Sections 3, 4, 5, 6 and 7 add the phrase "sun control devices" to provisions regulating the use of awnings. Section 8 adds sun control devices to the list of elements subject to area limitations on encroachments of the street line. Section 9 deletes the phrase "sun control devices" from the provision restricting their projection to 10 inches and extends the allowed projection for balconies, including railings and supporting brackets, from 22 inches to 2 feet 6 inches beyond the street line. Section 10 allows sun control devices which are supported entirely from the building to project not more than 2 feet 6 inches beyond the street line so long as no part of such sun control device is less than 8 feet above the ground or sidewalk level. Any portion of a sun control device that is located over a sidewalk and is more than 10 inches beyond the street line and less than 40 feet above the ground or

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<sup>12</sup> PAUL CHERNICK ET AL. ENERGY PLAN FOR THE CITY OF NEW YORK 73 (2003), *available at* [http://resourceinsight.com/work/nyc\\_irp.pdf](http://resourceinsight.com/work/nyc_irp.pdf).

sidewalk must be removable or retractable to less than 10 inches beyond the street line.

Section 11 provides that this local law shall take effect on July 1, 2012.

**Amendments to Int. No. 340**

- A new bill section 3 was added, which adds sun control devices to Section 1607.11.2.4 of the Building Code. Such section of the Building Code regulates the use of awnings.
- Former bill sections 3, 4, and 5 were renumbered as new bill sections 4, 5, and 7, respectively.
- A new bill section 8 was added, which adds sun control devices to the list of encroachments of the street line which are subject to area limitations.
- Former bill section 6 was renumbered as new bill section 9 and was amended to extend the allowed projection for balconies, including railings and supporting brackets, from 22 inches to 2 feet 6 inches beyond the street line.
- A new bill section 10 was added, which allows sun control devices supported entirely from the building to project not more than 2 feet 6 inches beyond the street line so long as no part of such sun control device is less than 8 feet above the ground or sidewalk level.
- Former bill section 8, the enactment clause, was renumbered as bill section 11 and amended to provide for an effective date of July 1, 2012.



Proposed Int. No. 340-A

By Council Members Dilan, Brewer, Cabrera, Chin, Comrie, Fidler, Garodnick, Gonzalez, James, Koppell, Koslowitz, Lander, Mark-Viverito, Palma, Vann, Williams, Rodriguez, Van Bramer, Jackson, Dromm and Halloran

A LOCAL LAW

To amend the New York city building code, in relation to sun control devices.

Be it enacted by the Council as follows:

Section 1. Statement of findings and purpose. Sun control devices help combat heat gain and prevent glare, decreasing the energy needed to cool a building. Presently, the New York city building code permits these shading devices to project a maximum of 10 inches beyond the street line of a building, thus limiting their effectiveness. This bill would increase the maximum allowable projection of a sun control device beyond the street line of a building to 2 feet 6 inches, in alignment with proposed revisions to the zoning resolution of the city of New York, in order to expand the effectiveness of such sun control device.

§ 2. Section BC 202 of the New York city building code, as amended by local law number 47 for the year 2010, is amended by adding a new definition to be placed in alphabetical order to read as follows:

**SUN CONTROL DEVICE.** An architectural projection that provides protection against solar radiation entering a building through glazed areas and is supported by the building to which it is attached. Sun control device includes, but is not limited to, a fixed, retractable or rotating sun control device. A fixed sun control device has no moving parts and is typically composed of horizontal overhangs or vertical fins. A retractable sun control device extends or retracts, and in the

extended position casts a shadow on designated portions of the building. A rotating sun control device may be of fixed or adjustable length and pivots at its base. Sun control device shall not include awnings and canopies.

§ 3. Section BC 1607.11.2.4 of the New York city building code, as added by local law number 33 for the year 2007, is amended to read as follows:

**1607.11.2.4 Awnings [and], canopies, and sun control devices.** Awnings [and], canopies, and sun control devices shall be designed for a uniform live load of 5 psf (0.240 kN/m<sup>2</sup>) as well as for snow loads and wind loads as specified in Sections 1608 and 1609.

§ 4. Section BC 3101.1 of the New York city building code, as added by local law number 33 for the year 2007, is amended to read as follows:

**3101.1 Scope.** The provisions of this chapter shall govern special building construction including membrane structures, temporary structures, pedestrian walkways and tunnels, awnings [and], canopies, sun control devices, marquees, signs, telecommunications towers and antennas, swimming pools and enclosures, sidewalk cafés, and fences.

§ 5. The title of section BC 3105 of the New York city building code, as added by local law number 33 for the year 2007, is amended to read as follows:

#### **SECTION BC 3105**

#### **AWNINGS [AND], CANOPIES AND SUN CONTROL DEVICES**

§ 6. Section BC 3105.1 of the New York city building code, as added by local law number 33 for the year 2007, is amended to read as follows:



**3105.1 General.** Awnings [and], canopies, and sun control devices shall comply with the requirements of this section, the requirements of Chapter 32 for projections over public ways, and other applicable sections of this code.

Exception: Canopies projecting over public rights-of-way governed by Title 19 of the Administrative Code and rules of the New York City Department of Transportation.

§ 7. Section BC 3105.3 of the New York city building code, as added by local law number 33 for the year 2007, is amended to read as follows:

**3105.3 Design and construction.** Awnings [and], canopies, and sun control devices shall be designed and constructed to withstand wind or other lateral loads and live loads as required by Chapter 16 with due allowance for shape, open construction and similar features that relieve the pressures or loads. Structural members shall be protected to prevent deterioration. Awnings shall have frames of noncombustible material, covered with flame-resistant fabric in accordance with NFPA 701, plastic in accordance with Section 2605, sheet metal, or other equivalent material, and shall be either fixed, retractable, folding or collapsible. Sun control devices shall be constructed of noncombustible materials.

§ 8. Section BC 3202.2.1 of the New York city building code, as added by local law number 33 for the year 2007, is amended to read as follows:

**3202.2.1 Encroachments subject to the area limitations.** Encroachments that are subject to area limitations are those elements listed in Sections 3202.2.1.1 through [3202.2.1.8] 3202.2.1.9, generally of an architectural character, that form an integral part of the building façade. The aggregate area of all such elements

constructed to extend beyond the street line shall not exceed 10 square feet (0.93 m<sup>2</sup>) within any 100 square feet ([9.1]9.3 m<sup>2</sup>) of wall area, except that a veneer may be applied to the entire façade of a building erected before December 6, 1968, if such veneer does not project more than 4 inches (102 mm) beyond the street line. The area of any such projection shall be measured at that vertical plane, parallel to the wall, in which the area of the projection is greatest. This plane of measurement may be at the street line, the line of maximum projection or any point in between.

§ 9. Sections BC 3202.2.1.2 and BC 3202.2.1.3 of the New York city building code, as added by local law number 33 for the year 2007, are amended to read as follows:

**3202.2.1.2 Architectural details.** Details such as cornices, eaves, bases, sills, headers, band course, opening frames, [sun control devices,] rustications, applied ornament or sculpture, grilles, windows when fully open, air conditioning units, and other similar elements may be constructed:

1. To project not more than 4 inches (102 mm) beyond the street line when less than 10 feet (3048 mm) above the around or sidewalk level.
2. To project not more than 10 inches (254 mm) beyond the street line when more than 10 feet (3048 mm) above the around or sidewalk level.

Exception: Architectural details that are more than 10 feet (3048 mm) above the sidewalk and that project more than 10 inches (254 mm) may be permitted subject to the approval of the Commissioner of the Department of Transportation.

**3202.2.1.3 Balconies.** Balconies, including railings and supporting brackets, no parts of which are less than 10 feet (3048mm) above the ground or sidewalk level, may be constructed to project not more than [22 inches] 2 feet 6 inches ([559] 762 mm) beyond the street line. When permitted by the provisions of this code, fire escapes that are part of a required exit may be constructed to project not more than 4 feet 6 inches (1372 mm) beyond the street line provided no part, including any movable ladder or stair, is lower than 10 feet (3048 mm) above the ground or sidewalk level when not in use.

§ 10. Section BC 3202 of the New York city building code, as added by local law number 33 for the year 2007, is amended by adding a new section BC 3202.2.1.9 to read as follows:

**3202.2.1.9 Sun control devices.** Sun control devices constructed in accordance with Section 3105 and supported entirely from the building may project beyond the street line not more than 2 feet 6 inches (762 mm), provided that no part of the sun control device is less than 8 feet (2438 mm) above the ground or sidewalk level. Any portion of a sun control device that is located over a sidewalk vault and is more than 10 inches (254 mm) beyond the street line and less than 40 feet above the ground or sidewalk shall be removable or retractable to less than 10 inches (254 mm) beyond the street line.

§ 11. This local law shall take effect on July 1, 2012.

4/20/2012