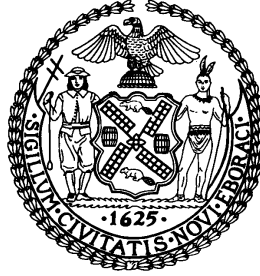


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**THE NEW YORK CITY COUNCIL**  
Andrea Vazquez, Legislative Director

**COMMITTEE REPORT OF THE INFRASTRUCTURE DIVISION**  
Brad Reid, Deputy Director, Infrastructure Division

**COMMITTEE ON ENVIRONMENTAL PROTECTION, RESILIENCY AND WATERFRONTS**  
Hon. James F. Gennaro, Chair

**April 18, 2024**

**PROPOSED INT. NO. 129-A:** By Council Members Brannan, Dinowitz, Restler, Won, Brewer, Hanif, Hudson and Gennaro (by request of the Queens Borough President)

**TITLE:** A Local Law to amend the administrative code of the city of New York, in relation to establishing a pilot program to construct solar canopies in certain parking lots

**ADMINISTRATIVE CODE:** Adds a new section 4-218

**I. INTRODUCTION**

On April 18, 2024, the New York City Council Committee on Environmental Protection, Resiliency, and Waterfronts (the “Committee”), chaired by Council Member James F. Gennaro,

will hold a hearing to vote on Proposed Int. No. 129-A, sponsored by Council Member Justin Brannan, in relation to establishing a pilot program to construct solar canopies in certain parking lots. Proposed Int. No. 129-A was first heard by the Committee on March 1, 2024.

## **II. BACKGROUND**

The New York City (“NYC” or the “City”) owns or operates parking lots throughout the city for both private and municipal vehicles. The Department of Transportation, for example, operates 38 municipal parking lots across the five boroughs, with a combined total capacity of 7,360 parking spaces.<sup>1</sup> Other agencies that operate parking lots include the Parks Department and the Department of Sanitation. These facilities may present an opportunity to increase the installation of solar photovoltaic technologies (“PV”), more commonly known as solar panels, on City-controlled property. Installing solar PV over municipal parking lots can provide shade and a measure of weather protection for customers as well as power for those seeking to charge electric vehicles (“EVs”),<sup>2</sup> while improving grid reliability through increased distributed energy generation, and potentially providing the City with additional income through the sale of excess electricity.

In February 2023, the Department of Citywide Administrative Services (“DCAS”) reported that it had installed 85 solar carports throughout NYC and would install another 71 solar carports by July 2023.<sup>3</sup> Solar carports are freestanding structures, not necessarily connected to the electric

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<sup>1</sup> “Municipal Parking Facilities,” New York City Department of Transportation, *available at*: <https://www.nyc.gov/html/dot/html/motorist/parkinglist.shtml>

<sup>2</sup> Andrew Blok, “Solar Parking Lots Are a Win-Win Energy Idea. Why Aren't They the Norm?,” CNET, February 13, 2023, *available at*: <https://www.cnet.com/home/energy-and-utilities/solar-parking-lots-are-a-win-win-energy-idea-why-arent-they-the-norm/>

<sup>3</sup> “NYC DCAS Adds 71 Solar Electric Vehicle Chargers to Power Fleet Vehicles Using Nothing but Sunlight,” NYC Department of Citywide Administrative Services, February 10, 2023, *available at*: <https://www.nyc.gov/site/dcas/news/23-005/nyc-dcas-adds-71-solar-electric-vehicle-chargers-power-fleet-vehicles-using-nothing-sunlight>

grid, that are covered with solar PV and may power EV charging stations. According to DCAS, each of the 71 new carports costs approximately \$74,000 and powers two direct current fast chargers (“DCFCs”),<sup>4</sup> which have a typical power output of 50 kilowatts (“kW”) or more and can charge an EV in 20 minutes to one hour.<sup>5</sup> Additionally, DCAS announced in October 2023 that it would install four new solar carports on New York City Housing Authority public housing parking lots across the City.<sup>6</sup>

The installation of solar carports complements the expected growth of EV ownership. In December 2022, the New York State Department of Environmental Conservation (“DEC”) adopted rules that require all new light-duty cars sold in the state to be zero emission by 2035,<sup>7</sup> which will likely accelerate EV adoption statewide. Installation of solar carports may also ensure that the City’s EV fleet has sufficient access to charging infrastructure. Currently, 4,646 out of 28,520 vehicles in the City’s fleet are electric.<sup>8</sup> However, that number is likely to increase as the City implements Local Law 140 of 2023 (“LL140”). The law requires that all light- and medium-duty vehicles procured by the City after July 2025 be zero emission vehicles, such that all light- and medium-duty vehicles in the City’s fleet are zero emission vehicles by July 2035.<sup>9</sup> LL140 also requires that all heavy-duty vehicles procured after July 2028 be zero emission vehicles such that

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<sup>4</sup> *Id.*

<sup>5</sup> “Charger Types and Speeds,” U.S. Department of Transportation, *available at*: <https://www.transportation.gov/rural/ev/toolkit/ev-basics/charging-speeds>

<sup>6</sup> “Mayor Adams Signs Bill Paving Way for Electrification Of All City Government Vehicles,” NYC Department of Citywide Administrative Services, *available at*: <https://www.nyc.gov/site/dcas/news/23-014/mayor-adams-signs-bill-paving-way-electrification-all-city-government-vehicles>

<sup>7</sup> “DEC Announces Adoption of Advanced Clean Cars II Rules for New Passenger Cars and Light-Duty Truck Sales,” NYS Department of Environmental Conservation, December 29, 2022, *available at*: <https://dec.ny.gov/news/press-releases/2022/12/dec-announces-adoption-of-advanced-clean-cars-ii-rule-for-new-passenger-cars-and-light-duty-truck-sales>

<sup>8</sup> Vehicle Fleets and Maintenance, NYC Department of Citywide Administrative Services, *available at*: <https://www.nyc.gov/assets/dcas/downloads/pdf/fleet/mmr-vehicle-fleets-and-maintenance-fy2023.pdf>

<sup>9</sup> Local Law 140 of 2023, NYC Council, *available at*: <https://legistar.council.nyc.gov/LegislationDetail.aspx?ID=5570518&GUID=7D043D66-332E-4243-9083-D9CA6A202E4D&Options=ID|Text|Other|&Search=0279-A>

all heavy-duty vehicles in the City's fleet are zero emission vehicles by July 2038.<sup>10</sup> These procurement requirements are subject to certain exceptions, such as cost, availability, and lack of charging infrastructure.<sup>11</sup>

### **III. LEGISLATION**

#### **Proposed Int. No. 129-A**

This bill would mandate that DCAS, or another agency designated by the mayor, create a pilot program to install solar canopies at no less than one City-controlled parking lot where such a canopy would be cost effective in each borough. To the extent practicable, such canopies would need to be installed within two years. In addition, for each City-controlled parking lot at which a solar canopy is installed, DCAS or such other agency would be required to install at least five EV chargers with a minimum charging capacity of six kilowatts. After the conclusion of the pilot program, this bill would require a report on, among other things, the total number and locations of City-controlled parking lots where solar canopies were installed as part of the pilot program and where they would be cost effective, and recommendations as to whether and how the pilot program may be expanded and made permanent.

This local law would take effect immediately.

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<sup>10</sup> *Id.*

<sup>11</sup> *Id.*

Proposed Int. No. 129-A

By Council Members Brannan, Dinowitz, Restler, Won, Brewer, Hanif, Hudson and Gennaro (by request of the Queens Borough President)

A Local Law to amend the administrative code of the city of New York, in relation to establishing a pilot program to construct solar canopies in certain parking lots

Be it enacted by the Council as follows:

1 Section 1. Chapter 2 of title 4 of the administrative code of the city of New York is amended  
2 by adding a new section 4-218 to read as follows:

3 § 4-218 Solar energy generation on city-controlled parking lots. a. As used in this section,  
4 the following terms have the following meanings:

5 City-controlled parking lot. The term “city-controlled parking lot” means an open parking  
6 lot, as such term is defined in the New York city building code, that the city operates on property  
7 that is owned by the city or leased by the city pursuant to an agreement that would allow the city  
8 to install a solar canopy on such lot in accordance with this section, provided, however, that city-  
9 controlled parking lot does not mean a parking lot that is leased to or operated by a person or entity  
10 other than the city.

11 Cost-effective. The term “cost-effective” means, with respect to the installation of a solar  
12 canopy on a city-controlled parking lot, that the cumulative savings with respect to such solar  
13 canopy will, within 25 years of such installation, be equal to or exceed the expected net cost of  
14 such solar canopy over the same period. The calculation of cost-effectiveness shall include:

15 1. The expected net present value to the city of the energy that would be produced by such  
16 canopy, if such canopy remained active, over such 25 year period after such canopy is installed,  
17 or, where a city-controlled parking lot is not owned by the city, over the lesser of such 25 year

1 period or the length of time remaining before the lease for such lot expires or is due to be renewed;  
2 and

3 2. The value of emissions reductions attributable to such canopy over the applicable time  
4 period described in paragraph 1 of this term, which shall be calculated using a social cost of carbon  
5 value, as provided in a rule promulgated pursuant to paragraph 4 of subdivision d of section 3-125,  
6 or if no such rule exists, the greater of a social cost of carbon value, if any, determined by the  
7 United States environmental protection agency for the applicable year or \$142 per metric ton of  
8 carbon dioxide equivalent, provided, however, that a site- or project-specific social cost of carbon  
9 value may be developed and used in lieu of the social cost of carbon value provided herein if such  
10 site- or project-specific social cost of carbon value is higher than the social cost of carbon value  
11 provided by this paragraph.

12 Department. The term “department” means the department of citywide administrative  
13 services.

14 Net cost. The term “net cost” means the gross cost to the city of the acquisition, installation,  
15 and maintenance of a solar canopy on a city-controlled parking lot minus an amount equal to the  
16 sum of all federal, state, and other non-city governmental assistance utilized by the city to offset  
17 such gross cost.

18 Solar canopy. The term “solar canopy” means a structure covering 1 or more parking  
19 spaces that is designed and constructed to capture solar radiation for the purpose of producing  
20 usable energy.

21 b. Identification of locations. The department shall, with the cooperation of all other  
22 relevant agencies, review all city-controlled parking lots and identify city-controlled parking lots  
23 where the installation of solar canopies would be cost-effective.

1           c. Pilot program. 1. The department, or another agency designated by the mayor, with the  
2 cooperation of all other relevant agencies, shall establish a pilot program to install and maintain  
3 solar canopies on city-controlled parking lots. Such pilot program shall include the installation of  
4 a solar canopy on at least 1 city-controlled parking lot in each borough where there is a city-  
5 controlled parking lot identified by the department pursuant to subdivision b of this section. To the  
6 extent practicable, such solar canopies shall be installed no later than 2 years after the effective  
7 date of the local law that added this section. In the event that the department or such agency  
8 designated by the mayor determines that it will be unable to install such solar canopies by such  
9 deadline, the department or such agency shall immediately notify the mayor and the speaker of the  
10 council and provide an explanation for the delay, along with the anticipated date on which such  
11 installations will be complete. Such pilot program shall continue for 1 year following such  
12 installation.

13           2. For each city-controlled parking lot at which a solar canopy is installed under this  
14 subdivision, the department shall install no fewer than 5 electric vehicle chargers, each of which  
15 shall have a minimum charging capacity of 6 kilowatts. Such electric vehicle chargers shall be  
16 installed no later than the date on which such solar canopies are installed.

17           3. Nothing in this subdivision shall be interpreted so as to limit any obligation of the  
18 department or any other agency to install electric vehicle charging stations or related equipment  
19 pursuant to any other provision of law.

20           d. Report. No later than 6 months after the pilot program ends, the department or other  
21 agency designated by the mayor shall, with the cooperation of all other relevant agencies, submit  
22 to the mayor and the speaker of the council a report that includes the following:

1            1. The number of city-controlled parking lots at the start of the pilot program, and the  
2 locations of such parking lots;

3            2. The number and location of city-controlled parking lots the department identified as  
4 cost-effective for the installation of solar canopies pursuant to subdivision b of this section;

5            3. The number and location of city-controlled parking lots where solar canopies were  
6 installed as part of the pilot program established by subdivision c of this section; and

7            4. Any recommendations as to whether and how such pilot program may be expanded and  
8 made permanent.

9            § 2. This local law takes effect immediately.

Session 13  
CCM  
LS # 31  
4/3/2024 8:34 PM

Session 12  
BM  
LS # 31  
4/28/22 12:00pm