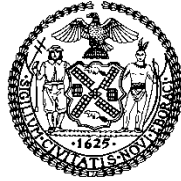


Environmental Protection Committee Staff  
Samara Swanston, Legislative Counsel  
Nadia Johnson, Senior Policy Analyst  
Ricky Chawla, Policy Analyst  
Jonathan Seltzer, Senior Finance Analyst



THE NEW YORK CITY COUNCIL  
Jeffrey Baker, Legislative Director

BRIEFING PAPER OF THE INFRASTRUCTURE DIVISION  
Terzah Nasser, Deputy Director

COMMITTEE ON ENVIRONMENTAL PROTECTION  
Hon. Costa Constantinides, Chair

**February 25, 2020**

**OVERSIGHT – ADDRESSING CHALLENGES IN MEETING OUR CARBON COMMITMENTS**

|                                    |   |
|------------------------------------|---|
| <u><b>INT. NO. 270:</b></u>        | By Council Members Richards, Brannan, Kallos, and Lander  |
| <u><b>TITLE:</b></u>               | A Local Law to amend the administrative code of the city of New York, in relation to carbon accounting                                      |
| <u><b>ADMINISTRATIVE CODE:</b></u> | Adds a new section 3-127 to subchapter 2 of chapter 1 of title 3.   |
| <u><b>INT. NO. 1720:</b></u>       | By Council Members Constantinides, Chin, Gibson, and Lander   |
| <u><b>TITLE:</b></u>               | A Local Law to amend the administrative code of the city of New York, in relation to the establishment of agency-wide climate emission plan |
| <u><b>ADMINISTRATIVE CODE:</b></u> | Amends title 25 by adding a new section 24-807  |

## **I. INTRODUCTION**

On February 25, 2020, the Committee on Environmental Protection, will hold an oversight hearing on addressing New York City’s challenges in meeting its carbon reduction commitments, and will hold a hearing on related legislation, Int. No. 270, in relation to mandating that preliminary and executive budget accounting include an accounting of carbon emissions, offsets, mitigation, and net carbon impact, and Int. No. 1720, in relation to requiring the office of long term planning to develop climate emissions plans for city agencies. The Committee expects to receive testimony from representatives from the New York City Comptroller’s Office, the Mayor’s Office of Long Term Planning and Sustainability (OLTPS), the New York City Department of Environmental Protection (DEP), environmental advocates, and other interested parties.

## **II. BACKGROUND**

According to the United States (US) Global Change Research Program’s Fourth National Climate Assessment, sea level rise, increased frequency of extreme weather events, and rising temperatures are expected to cause increasing damage to critical infrastructure, property, and economic productivity, unless significant action is taken to mitigate global carbon emissions.<sup>1</sup> The US Global Change Research Program’s Fourth National Climate Assessment also found that industries that rely on favorable climate conditions, such as agriculture, fisheries, forestry dependent industries, and seasonal and outdoor tourism, particularly those centered on coral reef-based recreation, winter recreation, and inland water-based recreation will be increasingly at risk

---

<sup>1</sup> Reidmiller et al. United States Global Change Research Program, 2018. Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II. <https://nca2018.globalchange.gov/> (last accessed February 14, 20)

as the effects of climate change worsen.<sup>2</sup>

A report on the national impacts of sea level rise published by the Union of Concerned Scientists in 2018, found that as many as 40,000 Queens and Long Island residents living in 15,000 homes, representing a collective value of 7.7 billion dollars, risk chronic inundation, defined as flooding that occurs 26 times per year or more, by 2045, with as many as 300,000 homes and commercial properties nationwide at risk of chronic inundation by 2045.<sup>3</sup> A United States Geological Survey study of historical hydrologic conditions in New York City estimates that as many as 500,000 homes across Brooklyn, Queens, and Long Island are at risk of subsurface flooding due to the shallow water table, a condition that will only be exacerbated by rising sea levels.<sup>4</sup>

The US Department of Agriculture estimates that the US agricultural sector's 2020 income is likely to decrease by 10.9 billion dollars relative to 2019,<sup>5</sup> and farms across the country have been beset with years of severe droughts, flooding, shifting weather patterns, and wildfires, related to the effects of climate change.<sup>6</sup> As oceans continue to absorb atmospheric CO<sub>2</sub>, water becomes increasingly acidic, a condition that has been shown to have deleterious effects on the larvae of shellfish species of great commercial importance to US fisheries, as well as microorganisms such

---

<sup>2</sup> Reidmiller et al. United States Global Change Research Program, 2018. Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II. <https://nca2018.globalchange.gov/> (last accessed February 14, 20)

<sup>3</sup> Underwater. Rising Seas, Chronic Floods, and the Implications for US Coastal Real Estate. Union of Concerned Scientists. <https://www.ucsusa.org/sites/default/files/attach/2018/06/underwater-analysis-full-report.pdf> (last accessed, 2/14/20)

<sup>4</sup> United States Geological Survey. Historical Hydrologic Monitoring and Analysis by the USGS in the Five Boroughs of New York City. Powerpoint Presentation. Slides 15-18.

<sup>5</sup> United States Department of Agriculture Economic Research Service. 2020 Farm Sector Income Forecast. <https://www.ers.usda.gov/topics/farm-economy/farm-sector-income-finances/farm-sector-income-forecast/> (last accessed 2/14/20)

<sup>6</sup> Climate Change and Agriculture. A Perfect Storm in Farm Country. Union of Concerned Scientists. <https://www.ucsusa.org/resources/climate-change-and-agriculture> (last accessed 2/14/20)

as plankton which form the basis of the marine food chain, and upon which global fisheries and the marine ecosystem depend.<sup>7</sup> A recent analysis of data from 538 plant and animal species distributed globally found that up to 30% of the examined species could go extinct by 2070 absent significant reductions in global carbon emissions.<sup>8</sup>

Analysis of the social cost of carbon attempts to quantify the economic harm of climate change's effects, from the impacts of extreme weather events on communities, businesses and infrastructure, the spread of disease, rising health care costs, and increased scarcity of resources like food and clean water.<sup>9</sup> Understanding the net carbon impact of budgetary decisions will enable the Council to evaluate the implications that each unit of appropriation in the City's budget has on the city's net greenhouse gas (GHG) output, and to provide the City with additional tools to understand how certain expenditures affect the city government's GHG output.

### **III. NEW YORK CITY'S GHG EMISSIONS REDUCTIONS COMMITMENTS**

Local Law 22 of 2008 mandates a 30% reduction of citywide emissions by 2030 relative to a 2005 baseline and a 30% reduction in city government emissions by 2017, and requires an agency of the mayor's designation to complete and post on its website an inventory and analysis of city emissions for the fiscal year ending in the previous calendar year, including the percentage change in citywide and city government emissions relative to emissions for the 2005 baseline, by

---

<sup>7</sup> Sarah R. Cooley and Scott C. Doney. Anticipating ocean acidification's economic consequences for commercial fisheries. *Environmental Research Letters*. June, 2009. <https://iopscience.iop.org/article/10.1088/1748-9326/4/2/024007/pdf> (last accessed 2/14/20)

<sup>8</sup> Cristian Roman Palacios and John J. Wiens. Recent responses to climate change reveal the drivers of species extinction and survival. *Proceedings of the National Academy of Sciences of the United States of America*. February, 2020. <https://www.pnas.org/content/early/2020/02/04/1913007117> (last accessed 2/14/20)

<sup>9</sup> Environmental Defense Fund. The true cost of carbon pollution. <https://www.edf.org/true-cost-carbon-pollution> (last accessed 2/14/20)

September 17<sup>th</sup> of each year.<sup>10</sup> The most recent emissions inventory available via the Mayor’s Office of Sustainability website is that for fiscal year 2017.<sup>11</sup>

The Bloomberg Administration’s PlaNYC: A Greener, Greater New York, which was announced in April of 2007, also called for a 30% reduction in citywide greenhouse gas output by 2030.<sup>12</sup> In 2014, the de Blasio administration updated these goals, calling for a 40% reduction in citywide emissions by 2030, and an 80% reduction in citywide emissions by 2050, as part of the “One City, Built to Last: Transforming New York City’s Buildings for A Low-Carbon Future” initiative.<sup>13</sup> These emissions reductions goals were codified in Local Law 97 of 2019.<sup>14</sup> In the OneNYC 2050 plan released in April 2019, these goals have been updated to a 100% renewable/clean energy system by 2040, and net zero citywide emissions by 2050.<sup>15</sup> In February of 2020, Mayor de Blasio signed an executive order committing to end the expansion of fossil fuel related infrastructure in New York City, and instructing city agencies to articulate the city’s official position in opposition to the development of infrastructure expanding the supply of fossil fuels via pipelines, new fossil fuel based electric generation capacity, and fossil fuel transfer stations.<sup>16</sup>

---

<sup>10</sup> New York City Council Legislative Research Center. Local Law 022 of 2008.

<https://legistar.council.nyc.gov/LegislationDetail.aspx?ID=448283&GUID=E252FFD9-2B6E-4D93-865C-96ABDD0D357A&Options=ID|Text|&Search=22> (last accessed 2/18/20)

<sup>11</sup> NYC Mayor’s Office of Sustainability. Inventory of New York City Greenhouse Gas Emissions. <https://nyc-ghg-inventory.cusp.nyu.edu/#inventories> (last accessed 2/18/20)

<sup>12</sup> Planyc: A Greener, Greater New York.

[http://www.nyc.gov/html/planyc/downloads/pdf/publications/full\\_report\\_2007.pdf](http://www.nyc.gov/html/planyc/downloads/pdf/publications/full_report_2007.pdf) (last accessed 2/18/20)

<sup>13</sup> NYC Office of the Mayor. One City, Built to Last: Transforming New York City’s Buildings for A Low-Carbon Future. <https://www1.nyc.gov/assets/builttolast/downloads/OneCity.pdf> (last accessed 2/18/2020)

<sup>14</sup> Local Laws of the City of New York for 2019. Local Law No. 97.

[https://www1.nyc.gov/assets/buildings/local\\_laws/l197of2019.pdf](https://www1.nyc.gov/assets/buildings/local_laws/l197of2019.pdf) (last accessed 2/19/20)

<sup>15</sup> City of New York. One NYC 2050. <http://onenyc.cityofnewyork.us/initiatives/achieve-carbon-neutrality-and-100-percent-clean-electricity/> (last accessed 2/19/20)

<sup>16</sup> The City of New York. Office of the Mayor. Executive Order No. 52, February 6, 2020.

<https://www1.nyc.gov/assets/home/downloads/pdf/executive-orders/2020/eo-52.pdf> (last accessed 2/19/20)

#### IV. MEETING EMISSIONS REDUCTIONS COMMITMENTS

In order to meet the commitment of 100% clean electricity by 2040,<sup>17</sup> the city aims to deploy increased wind generation, both offshore and upstate, commits to a significant expansion of solar energy production over the next 20 years, and seeks to increase transmission capacity bringing renewable energy generated upstate into the city.<sup>18</sup> Pursuant to a reliability requirement imposed by the New York Independent System Operator, local power plants must be capable of meeting 86% of the city's peak power demands.<sup>19</sup> Governor Cuomo's Reforming the Energy Vision initiative, first announced in 2014,<sup>20</sup> called for the statewide installation of 2,400 megawatts of offshore wind energy by 2030, 1,500 megawatts of energy storage by 2025 and 3 gigawatts of solar power energy by 2023.<sup>21</sup> In 2019, the Governor laid out more ambitious goals, calling for of 9,000 megawatts of offshore wind by 2035, increasing distributed solar deployment to 6,000 megawatts by 2025 and 3,000 megawatts of storage by 2030.<sup>22</sup> As of 2019, 56 megawatts of energy storage, 1,809 megawatts of solar generation, no offshore wind generation, and 1,895 megawatts of land based wind generation has been installed across New York State.<sup>23</sup>

---

<sup>17</sup> City of New York. One NYC 2050. <http://onenyc.cityofnewyork.us/initiatives/achieve-carbon-neutrality-and-100-percent-clean-electricity/> (last accessed 2/19/20)

<sup>18</sup> Id.

<sup>19</sup> PlanNYC "New York City's Pathways to Deep Carbon Reductions," at 54 [https://s-media.nyc.gov/agencies/planyc2030/pdf/nyc\\_pathways.pdf](https://s-media.nyc.gov/agencies/planyc2030/pdf/nyc_pathways.pdf) (last accessed 2/19/20)

<sup>20</sup> Katherine Tweed. New York Launches Major Regulatory Reform for Utilities. Green Tech media. April 28, 2014. <https://www.greentechmedia.com/articles/read/new-york-launches-major-regulatory-reform-for-utilities#gs.OE7qt7U> (last accessed 2/19/20)

<sup>21</sup> Rebecca C. Lewis. Can New York hit its environmental goals? City and State NY. July 1, 2019. <https://www.cityandstateny.com/articles/policy/energy-environment/can-new-york-hit-its-environmental-goals.html> (last accessed 2/19/20)

<sup>22</sup> New York State. Reforming the Energy Vision. <https://rev.ny.gov/> (last accessed 2/19/20)

<sup>23</sup> <sup>23</sup> Rebecca C. Lewis. Can New York hit its environmental goals? City and State NY. July 1, 2019. <https://www.cityandstateny.com/articles/policy/energy-environment/can-new-york-hit-its-environmental-goals.html> (last accessed 2/19/20)

According to the New York City's fiscal year 2017 greenhouse gas inventory, the city fell 1% short of meeting its goal of 30% reductions in government emissions by 2017.<sup>24</sup> The city defines government greenhouse gas inventory as GHG emissions from operations, facilities, or sources owned by the City, or emissions over which the City has full authority to introduce and implement operations, health and safety, and environmental policies. GHG emissions from City-leased and owned real estate, vehicles, and other equipment.<sup>25</sup> According to the 2017 GHG inventory, citywide emissions, defined as all direct and indirect GHG emissions from stationary energy (energy used by buildings and other stationary sources), fugitive emissions from natural gas distribution within city limits, on-road transportation, railways, marine navigation, and aviation within city limits, wastewater treatment within city limits, and solid waste generated within the city minus those captured as part of the government greenhouse gas inventory, are down 17% relative to 2005 levels.<sup>26</sup>

There appear to be discrepancies contained within the data provided in the 2017 GHG inventory. A review of the data of city government emissions shows a 100% reduction in the quantity of No. 6 fuel oil burned, and a corresponding 100% reduction in GHG emissions from No. 6 fuel oil, despite also showing that 3,557,501 liters of No. 6 fuel oil were burned in fiscal year 2017.<sup>27</sup> Additionally, the Mayor's Office of Sustainability failed to post the 2018 greenhouse gas inventory by the September 17, 2019 deadline.<sup>28</sup> As of February 19, 2020 only emissions data

---

<sup>24</sup> NYC Mayor's Office of Sustainability. Inventory of New York City Greenhouse Gas Emissions. <https://nyc-ghg-inventory.cusp.nyu.edu/#inventories> (last accessed 2/19/20)

<sup>25</sup> NYC Mayor's Office of Sustainability. Inventory of New York City Greenhouse Gas Emissions. <https://nyc-ghg-inventory.cusp.nyu.edu/#inventories> (last accessed 2/19/20)

<sup>26</sup> Id.

<sup>27</sup> Id.

<sup>28</sup> Id.

from fiscal year 2017 is available on the Mayor's Office of Sustainability Greenhouse Gas Inventory website.<sup>29</sup>

The 2017 GHG Inventory shows a 138% increase in fugitive methane emissions compared to 2005, with .49 million metric tons of carbon dioxide equivalent emitted, but does not provide context for how this figure was determined.<sup>30</sup> Methane traps heat far more effectively than CO<sub>2</sub>, with a global warming potential value (gwp) calculated to be 20-30 times higher than CO<sub>2</sub> over a hundred year period.<sup>31</sup> By some calculations, methane's gwp is 80 times higher than that of CO<sub>2</sub>.<sup>32</sup> This discrepancy can be explained by differences in how long these two gases typically remain in the atmosphere.<sup>33</sup> Once released, carbon dioxide persists approximately 10 times longer than methane, meaning that over a 10 year period, methane can be up to 100 times more effective at trapping heat, but as it is removed at a faster rate, its potency at the end of a 100 year timeframe is significantly reduced, though still more potent than CO<sub>2</sub> (methane 20-30 times CO<sub>2</sub>).<sup>34</sup> A study published by the Journal of Science in 2018 found that the domestic oil and natural gas industry leaks an estimated 13 million metric tons of methane a year from various points along the supply pipeline, 2.3% of the total annual extracted supply.<sup>35</sup> The volume of gas lost to leakage would be

---

<sup>29</sup> Id.

<sup>30</sup> Id.

<sup>31</sup> Greenhouse Gas Protocol "Global Warming Potential Values"  
[https://www.ghgprotocol.org/sites/default/files/ghgp/Global-Warming-Potential-Values%20%28Feb%2016%202016%29\\_1.pdf](https://www.ghgprotocol.org/sites/default/files/ghgp/Global-Warming-Potential-Values%20%28Feb%2016%202016%29_1.pdf) (last accessed 2/19/20)

<sup>32</sup> Ken Silverstein "Methane Releases Escalating, Endangering Climate and the Ultimate Health of Oil and Gas Producers" Forbes Magazine. June 21, 2018 <https://www.forbes.com/sites/kensilverstein/2018/06/21/methane-releases-escalating-endangering-climate-and-the-ultimate-health-of-oil-and-gas-producers/#2a29bb0e7b1d> (last accessed 2/19/20)

<sup>33</sup> Bryce F. Payne Jr, Robert Ackley. A Proposed Rapid Method For Measuring Area Methane Emissions: An Exploratory Application in Manhattan, New York, USA. European Scientific Journal. November 2015

<sup>34</sup> Bryce F. Payne Jr, Robert Ackley. A Proposed Rapid Method For Measuring Area Methane Emissions: An Exploratory Application in Manhattan, New York, USA. European Scientific Journal. November 2015.

<sup>35</sup> Ramon A. Alvarez et al. Assessment of methane emissions from the U.S. oil and gas supply chain. Science. 13 Jul 2018:



enough to power 10 million homes for an entire year, or approximately 2 billion dollars' worth.<sup>36</sup> According to a study, 4% leakage is the point at which any emissions reduction gained from switching to natural gas from coal would be negated.<sup>37</sup> Studies suggest that nearly 8 billion cubic feet (8 million dekatherms, or roughly 164 thousand metric tons<sup>38</sup>) of methane, 8% of Manhattan's total annual supply, is lost from the island's natural gas infrastructure every year.<sup>39</sup>

A recent partnership between Cornell University and Google, using methane sensors attached to the camera cars Google uses to produce Street View maps, sought to explore methane emissions from the ammonia fertilizer industry.<sup>40</sup> The data collected suggests that this single industry is responsible for approximately 28 gigagrams of methane emissions annually, while the industry self-reports annual methane emissions of only 0.2 gigagrams per year.<sup>41</sup> Additionally, the Environmental Protection Agency (EPA) states that all industrial processes in the United States combined produce only 8 gigagrams of methane emissions annually, suggesting that both government and industry estimates are vastly undercounting the amount of this potent greenhouse

---

<sup>36</sup> Environmental Defense Fund. New Study Finds U.S. Oil and Gas Methane Emissions are 60% Higher Than EPA Reports. <https://www.edf.org/media/new-study-finds-us-oil-and-gas-methane-emissions-are-60-percent-higher-epa-reports-0> (Last accessed 2/19/20)

<sup>37</sup> DeVynne Farquharson, et al. Beyond Global Warming Potential: A Comparative Application of Climate Impact Metrics for the Life Cycle Assessment of Coal and Natural Gas Based Electricity. *Journal of Industrial Ecology*. August, 2016.

<sup>38</sup> Don Hofstrand. Natural Gas and Coal Measurements and Conversions. Iowa State University <https://www.extension.iastate.edu/agdm/wholefarm/html/c6-89.html>(last accessed 5/23/, 2019)

<sup>39</sup> Bryce F. Payne Jr, Robert Ackley. A Proposed Rapid Method For Measuring Area Methane Emissions: An Exploratory Application in Manhattan, New York, USA. *European Scientific Journal*. November 2015. <https://pdfs.semanticscholar.org/b20d/2a0f1f222f3cfd911440aa6e3a786ba424e6.pdf> (last accessed 2/19/20)

<sup>40</sup> Xiaochi Zhou et al.. Estimation of methane emissions from the U.S. ammonia fertilizer industry using a mobile sensing approach. *Elem Sci Anth*, 2019; 7 (1): 19 DOI: 10.1525/elementa.358 (last accessed 2/19/20)

<sup>41</sup> Id

gas that is being emitted into the atmosphere every year.<sup>42</sup> Another recent study found that global historical methane emissions have been underestimated by 25 to 40%.<sup>43</sup>

Despite city and state emissions reduction goals, new fossil fuel infrastructure is still being planned for and installed in New York City, financed by increased costs for ratepayers.<sup>44</sup> National Grid plans to install approximately 14,000 feet of new underground gas mains in Williamsburg and Greenpoint, aiming to recoup the \$185 million cost through rate hikes.<sup>45</sup> As part of its 2020 rate case with the Public Services Commission, Con Edison has requested a 14.6% increase in natural gas rates,<sup>46</sup> funds from which will be used to expand natural gas pipelines across Brooklyn and Queens,<sup>47</sup> and upgrading a liquefied natural gas plant.<sup>48</sup>

The Committee hopes to hear from the general public and diverse stakeholders, with various perspectives, on measures needed to transform appropriate sectors to sufficiently reduce carbon emissions to meet our sustainability targets.

---

<sup>42</sup> Xiaochi Zhou et al.. Estimation of methane emissions from the U.S. ammonia fertilizer industry using a mobile sensing approach. *Elem Sci Anth*, 2019; 7 (1): 19 DOI: 10.1525/elementa.358 (last accessed 2/19/20)

<sup>43</sup> Preindustrial CH<sub>4</sub> indicates greater anthropogenic fossil CH<sub>4</sub> emissions. *Nature*. February 2020. [https://www.nature.com/articles/s41586-020-1991-8.epdf?referrer\\_access\\_token=nvS3EM652ipjCILBWPMLNRgN0jAjWel9jnR3ZoTv0NsP7YL6bUMs5U2mb93hxTh3dwZVOOig02DPQ\\_6gyAu8X6vy3XCMxBsG-mDOj44Si-zbpgfNCWYe5lvVY8nt1QrTUqGLRMjowgDR-F-czL1yG8v-XorpLfUB4WABah93hsCVGtyp5sg1Dr9oGBR447rdj-HWW3UDyY9sjlhkX4oA1pkOPTBvPP0qRpi\\_8pbKIZERi2WSi2CCWfBTq1Nyyd3MxuCBvohA3y6q-oKK6hv6Bcp2z1tHuf1RPQ3roub6DXwxbeTED5\\_ZpT8dCJRkzON&tracking\\_referrer=www.cnn.com](https://www.nature.com/articles/s41586-020-1991-8.epdf?referrer_access_token=nvS3EM652ipjCILBWPMLNRgN0jAjWel9jnR3ZoTv0NsP7YL6bUMs5U2mb93hxTh3dwZVOOig02DPQ_6gyAu8X6vy3XCMxBsG-mDOj44Si-zbpgfNCWYe5lvVY8nt1QrTUqGLRMjowgDR-F-czL1yG8v-XorpLfUB4WABah93hsCVGtyp5sg1Dr9oGBR447rdj-HWW3UDyY9sjlhkX4oA1pkOPTBvPP0qRpi_8pbKIZERi2WSi2CCWfBTq1Nyyd3MxuCBvohA3y6q-oKK6hv6Bcp2z1tHuf1RPQ3roub6DXwxbeTED5_ZpT8dCJRkzON&tracking_referrer=www.cnn.com) (last accessed 2/19/20)

<sup>44</sup> Justin Mikulka. Defying Climate Goals, New York Approves Rate Hike to Pay for New Natural Gas Infrastructure. *DeSmog Blog*. January 25, 2020. <https://www.desmogblog.com/2020/01/25/climate-goals-new-york-approves-rate-hike-natural-gas> (last accessed 2/19/20)

<sup>45</sup> Scott Enman. Residents protest National Grid's North Brooklyn gas pipeline. *Brooklyn Daily Eagle*. January 21, 2020. <https://brooklyneagle.com/articles/2020/01/21/residents-protest-national-grids-north-brooklyn-gas-pipeline/> (last accessed 2/19/20)

<sup>46</sup> Con Ed Files Rate case for 2020- Seeks 8.6% and 14.5% Increases for Electric and Gas. *Energywatch*. <https://energywatch-inc.com/con-ed-files-rate-case-for-2020-seeks-8-6-and-14-5-increases-for-electric-and-gas/> (last accessed 2/19/20)

<sup>47</sup> *Id* at 43

<sup>48</sup> *Id* at 44

**V. LEGISLATION**

Int. No. 270 would mandate that preliminary budget accounting and executive budget accounting include an accounting of the carbon emissions, offsets, mitigation and net carbon impact generated by each unit of appropriation in the preliminary budget, by each agency, and by the entire city government, including changes from the previous year's adopted budget to the carbon emissions, offsets, mitigation and net carbon impact, including an explanation of the cause of recorded differences. This local law would take effect immediately.

Int. No. 1720 would require that the office of long-term planning and sustainability, or agency or office of the mayor's designation, develop a climate emission plan projection for each city agency and each affiliated governmental organization in order to assure that each city agency and affiliated governmental organization remains below the upper level of greenhouse gas emissions required to achieve the city's climate reduction goals. This local law would take effect immediately.



Int. No. 270

By Council Members Richards, Brannan, Kallos and Lander

A Local Law to amend the administrative code of the city of New York, in relation to carbon accounting

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 3-127 to read as follows:

§ 3-127 Carbon accounting. a. Definitions. As used in this chapter:

Carbon dioxide equivalent (CO<sub>2</sub>e). The terms “carbon dioxide equivalent” and “CO<sub>2</sub>e” mean the quantity of carbon dioxide gas expressed in metric tons that would have the same GWP when measured over a timescale of 100 years as a given quantity of a greenhouse gas.

Carbon emissions. The term “carbon emissions” means greenhouse gas emissions from any source, as expressed in CO<sub>2</sub>e.

Carbon offsets. The term “carbon offset” means a project or process owned or operated by the city that captures and sequesters or chemically decomposes a greenhouse gas from the atmosphere, as expressed in CO<sub>2</sub>e.

Carbon mitigation. The term “carbon mitigation” means a project or process owned or operated by an entity other than the city the expenses of which are paid in whole or in part from the city treasury that captures and sequesters or chemically decomposes a greenhouse gas prior to

its release into the atmosphere, or results in a reduction of greenhouse gas emissions from any source by the replacement or retrofit of mechanical or electrical equipment or by conversion to an alternative source of energy. Carbon mitigation shall be measured as the reduction of the pre-mitigation release of greenhouse gas into the atmosphere, as expressed in CO<sub>2</sub>e, for the entire useful life of any mechanical or electrical equipment used to achieve such mitigation, as appropriate, prorated by the percentage of funds used to finance such mitigation that were paid from the city treasury.

Global warming potential (GWP). The terms “global warming potential” and “GWP” mean the total infrared radiation energy that a greenhouse gas absorbs over a period of time compared to carbon dioxide. The GWP value for any particular greenhouse gas shall be equal to the value for such gas as listed in column “GWP 100-year” of table 8.A.1, *Radiative efficiencies (REs), lifetimes/adjustment times, AGWP and GWP values for 20 and 100 years, and AGTP and GTP values for 20, 50 and 100 years*, of *Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* as published on September 30, 2013.

Greenhouse gas. The term “greenhouse gas” means a gas that absorbs infrared radiation in the atmosphere, and specifically any gas listed in table 8.A.1, *Radiative efficiencies (REs), lifetimes/adjustment times, AGWP and GWP values for 20 and 100 years, and AGTP and GTP values for 20, 50 and 100 years*, of *Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* as published on September 30, 2013.

Net carbon impact. The term “net carbon impact” means an amount equal to the carbon emissions less the carbon offsets and carbon mitigation that would be generated by a unit of appropriation, by an agency, or by the entire city government, respectively.

b. Preliminary budget accounting. Not later than the day the mayor submits the preliminary budget to the council pursuant to section 236 of the charter, the mayor shall submit to the council an accounting of the carbon emissions, carbon offsets, carbon mitigation and net carbon impact that would be generated by each unit of appropriation in the preliminary budget, by each agency, and by the entire city government. The second and subsequent annual reports submitted pursuant to this subdivision shall also include, where appropriate, the changes from the adopted budget for previous year to the carbon emissions, carbon offsets, carbon mitigation and net carbon impact that would be generated by each unit of appropriation in the preliminary budget, by each agency, and by the entire city government with an explanation of the cause of such changes.

c. Executive budget accounting. Not later the day the mayor submits the executive budget to the council pursuant to section 249 of the charter, the mayor shall submit to the council an accounting of the carbon emissions, carbon offsets, carbon mitigation and net carbon impact that would be generated by each unit of appropriation in the executive budget, by each agency, and by the entire city government. The second and subsequent annual reports submitted pursuant to this subdivision shall also include, where appropriate, the changes from the adopted budget for previous year to the carbon emissions, carbon offsets, carbon mitigation and net carbon impact that would be generated by each unit of appropriation in the executive budget, by each agency, and by the entire city government, with an explanation of the cause of such changes.

d. Methodology. The director of the office of long-term planning and sustainability shall establish the methodology by which carbon emissions, carbon offsets and carbon mitigation shall

be calculated. A description of the methodology shall be included with each report submitted pursuant to subdivisions b or c of this section.

§ 2. This local law takes effect immediately.

SS/JJD  
LS 3631/Int. 1074-2016  
LS 196  
1/5/2018



Int. No. 1720

By Council Members Constantinides, Chin, Gibson and Lander

A Local Law to amend the administrative code of the city of New York, in relation to the establishment of agency-wide climate emission plan

Be it enacted by the Council as follows:

Section 1. Chapter 24 8 of title 24 of the New York city administrative code is amended by adding a new section 24-807 to read as follows:

§ 24-807 Climate emission reduction plan. a. Definitions. For the purposes of this section, the following terms have the following meanings:

Climate emission plan. The term “climate emission plan” means the plan for the level of greenhouse gas emissions reduction necessary to meet previously identified climate reduction goals.

Affiliated governmental organization. The term “affiliated organization” means a not-for-profit organization that is associated with or manages city-owned properties, including manufacturing and distribution hubs and other infrastructure that receives its operating budget from the city.

b. No later than January 15, 2020, and no later than every January 15 thereafter, the office of long-term planning and sustainability, or such other agency or office as the mayor shall

designate, shall develop for each mayoral agency and for each affiliated governmental organization a climate emission plan projection, annually and concurrent with the fiscal budgeting process.

c. At the end of each fiscal year, there should be an annual review of mayoral agency performance of emission reductions. Upon each annual review, any mayoral agency or affiliated governmental organization unable to reduce its greenhouse gas emissions sufficiently to comply with previously identified climate emission plan projection shall be evaluated to identify and target areas where additional reductions may be possible.

§ 2. This local law shall take effect immediately.

SS LS #11253  
08-27-19 5:05 pm