On February 8th, we held a Candidate School session on Waste Management and Building Emissions. NYLCV's Candidate Schools aim to educate candidates for public office in New York City and their campaigns on key environmental and public health issues in the city. A recording of the session can be watched <u>here</u>. The first part of the session featured a panel focused on waste management, while the second part brought a different panel of experts in the area of building emissions.

Bridget Anderson is the Deputy Commissioner of the DSNY's Bureau of Recycling and Sustainability. She is tasked with the planning, implementation, and tracking of the DSNY's sustainability initiatives and oversaw the development of the city's curbside composting program. Anderson spoke about the city's zero waste to landfills goal, which can be achieved through reuse, recycling, composting, toxic waste reduction, and litter reduction. She sees room for improvement on the recycling front, citing that only half of the city's recyclable waste ends up in its recycling trucks. To improve the recycling rate, she suggested education efforts and making building architecture more conducive to recycling. Anderson mentioned that there has been great collaboration between the DSNY and advocates, and the largest strides have been where legislation has been passed.

Unfortunately, she also says that the financial crisis has put immense strain on advancing the zero waste goal. The effects of the crisis can be seen in the suspension of the city's composting program. Funding for the program has been cut through June 2022. The DSNY is trying to build more composting facilities close to the city to bolster the local economy. When the program resumes, the DSNY plans to place a priority on improving education and outreach in languages other than English. Anderson said that composting can also be done right in the community. The seasonal leaf collection program has also been suspended. However, the food scrap drop-off program continues, and Local Law 146, which deals with commercial organic waste, has been fully implemented.

Furthermore, the city and state have recently worked to reduce plastic waste. A ban on the possession, sale, and use of certain foam items by businesses was implemented on January 1st of 2019. The state's ban on single-use plastic bags has coincided with the city's effort to distribute reusable bags, which is funded through a five-cent fee for purchasing single use paper bags. The city is also pushing the State Senate Extended Producer Responsibility bill. The city is working to improve the commercial waste sector, through establishing commercial waste zones. These zones will lead to a safer and more efficient commercial collection system. To improve waste equity, the city has cut the permitted capacity at private waste transfer stations in four overburdened districts. Anderson mentioned the city's use of incentives and outreach to decrease the number of discards. When asked about the presence of waste energy plants in the NYC area, she responded that although there aren't any in the city itself, there are in the surrounding area.

Eric Goldstein is a Senior Attorney and NYC Environmental Director at the Natural Resources Defense Council. He played a major role in the 1980s campaign to remove lead from gasoline, and led the NRDC's efforts to transition the city's waste management policies from landfill and incineration-oriented to recycling, compost, and equity-focused. He says that New Yorkers produce an average of 24,000 tons of waste per day, about half of which is residential waste handled by DSNY. The remainder is collected from commercial and industrial businesses by private carters. About 18% of residential waste is recycled, while the rest is either incinerated or placed into landfills. Most of the 31% of waste which can be composted is sent to be incinerated, where it produces harmful methane gas, or placed into landfills. There are no longer any incinerators in the city, but winds blow toxic fumes from nearby incinerators back towards the city. Composting will save money in the long run, Goldstein added, since it costs more to ship to an incinerator or landfill than to a composting facility. Recycling and composting facilities generate more jobs per ton of waste than incinerators and landfills, further bolstering the economy.

Plastics are a major environmental issue, says Goldstein. Only about 10% of plastics are recycled nationwide. They are also dangerous to manufacture and contaminate the environment. Goldstein emphasized the need to cut down on wasteful plastics, citing proposed legislation that would make plastic straws, forks, spoons, and knives only available from restaurants upon request. Another bill would allow customers to bring reusable containers to businesses like Starbucks. Goldstein also touted a proposal to redevelop Riker's Island to house composting facilities, solar energy, energy storage, and a wastewater treatment plant. To improve recycling rates by restaurant customers, Goldstein mentioned proposed federal legislation which would set a standard for restaurant recycling signage. Goldstein also said that recycling education in multiple languages and improving recycling convenience for NYCHA residents would allow more of the city's potential recyclables to actually be recycled.

During the Q&A portion of the session, Anderson and Goldstein brought up the DOE's transition to compostable lunch trays and utensils, and that the compostable trays were manufactured for no additional cost compared to the previous trays. Goldstein also stressed the importance of enforcing the commercial waste zone system for addressing inequities and improving quality of life in environmental justice communities.

Phoebe Flaherty is an organizer at ALIGN: the Alliance for a Greater New York. She coordinates the Transform Don't Trash Coalition, which has worked on improving commercial waste management in New York City, and the Climate Works for All Coalition, which worked to pass Local Law 97. Commercial Waste Collection is currently very inefficient, with polluting diesel trucks travelling unnecessarily long distances and employees working under unsafe conditions. NYC has a three times higher crash rate than Seattle, LA, and San Francisco, which have all implemented commercial waste zone systems.

Implementing commercial waste zones will eliminate 2 million tons of greenhouse gas emissions annually and reduce the number of different commercial waste companies operating in any one neighborhood from dozens to at most three. The city will also work to ensure improved working conditions and a minimum wage for commercial waste workers. Another focus of the commercial waste zone program is to implement protections for environmental justice communities. Flaherty later emphasized that while smarter waste management policies aren't

the most obvious ways to reduce greenhouse gas emissions, they do make a considerable difference.

After a thirty-minute Q&A session, the second part of the candidate school, focusing on reducing building emissions, commenced. Buildings are the number one source of greenhouse gas emissions in the city. The second panel began with a discussion about Local Law 97 of 2019 by Adam Roberts, the Director of Policy of the American Institute of Architects New York. Local Law 97, also known as the Climate Mobilization Act, encourages retrofitting existing buildings to improve energy efficiency. Retrofits can include new windows, new doors, and a new facade, all to improve heating and cooling efficiency. The heating and cooling systems can also be upgraded to include temperature controls and timers, as well as replacing gas and oil based systems with electricity based ones.

Roberts also mentioned that there are many certifications and ratings for sustainable design. He talked about Passive House, which focuses on insulation, Leadership in Energy and Environmental Design (LEED), which is run by the US Green Building Council and involves a wide array of environmental concerns, and Energy Star, a government-backed symbol for energy efficiency. Buildings can be LEED Certified, Silver, Gold, or Platinum, depending on how environmentally friendly they are. Before Local Law 97, there were a series of laws passed regarding building emissions, including a benchmarking law for large buildings in 2009, a law requiring Energy Audits and Retro-Commissioning (improving efficiency of existing systems), and a 2018 law requiring large buildings to publicly post their energy star grades. Local Law 97s goals were to reduce carbon emissions, comply with the Paris Climate Accord, create green jobs, and to reduce inequality in living and working conditions.

Local Law 97 requires that buildings above 25,000 feet stay under carbon emissions limits, with fines issued for exceeding them. There will be annual reporting by architects and engineers. Alternative methods of compliance will be allowed for certain types of buildings, but all exemptions and variances must be approved through application. The law will also see the creation of an Office of Building Energy and Emissions Performance (OBEEP) as well as an Advisory Board to monitor enforcement and further define provisions. The law does not cover specific design mandates, buildings over 25,000 square feet, carbon emitted to create materials and products, buildings with rent-stabilized units (which was mostly resolved by Local Law 116 of 2020), and requirements for building inspections and report auditing. Future councilmembers can enforce the law through ensuring adequate funding for the OBEEP, preventing the easing of requirements, expanding the number of buildings covered by the law, and managing the OBEEP and Advisory Board. When asked about what can be done to prevent corruption in the Department of Buildings, Roberts said that those found to be fudging numbers can have their licenses revoked. He also stressed the importance of limiting self-certification, because of the Department of Buildings' limited ability to verify such certifications.

Chris Halfnight is the Associate Director of Policy at Urban Green Council, where he leads efforts to advance energy efficiency and building decarbonization in the city and state. He helped shape Local Law 97. Urban Green is a nonprofit focused on transforming buildings for a

sustainable future in NYC and around the world. They achieve this through convening a wide range of stakeholders, researching building technology, advocating for policy change, and educating architects and engineers and trades professionals on green building practices. Halfnight said that emissions from large buildings have decreased 23% from 2010 to 2019, which he said was a major improvement. 60% of the improvements come from the buildings themselves, while the rest come from the power plants. Over 40% of New York City's total carbon emissions come from burning fossil fuels for heat and hot water in buildings. To rectify this problem, we must replace the oil- and gas-based systems currently in place with extremely efficient heat pump technologies which run on clean electricity. Halfnight explained that the purpose of the publicly displayed Energy Star ratings is to encourage property owners to become more sustainable and allow tenants greater access to their building's energy efficiency information.

With regards to Local Law 97, Halfnight stressed the need to ensure resources for implementation and refine the carbon per square foot metric to avoid penalizing density. He also mentioned the need to incentivize electrification, and ramp up education, outreach, and support efforts to aid compliance. Carbon trading, a system through which a building which is under the carbon cap can sell carbon credits to a building over the cap, is another policy supported by Halfnight. Carbon trading will send investment to buildings that need it, provide building owners with flexibility, and have buildings use funds to improve the energy efficiency of other buildings rather than to pay fines.

Donna De Costanzo is the Eastern Regional Director for the Climate and Clean Energy Program at the NRDC, where she advocates for the adoption of policies and initiatives which combat pollution, increase energy efficiency, and support renewable energy deployment and clean transportation. De Costanzo said that New York City's laws like Local Law 97 provide a model for other cities, and that cities play a critical role in fighting climate change. The Climate Leadership and Community Protection Act (CLCPA) is the most aggressive state climate law in the country, and will require an 85% reduction in GHG emissions by 2050 as well as a carbon-free electricity system by 2040. Local Law 97 will play a major role in helping the city meet these state goals.

Con Edison and other utilities have developed incentive and rebate programs to help people make their homes and buildings more energy efficient. NYSERDA is tasked with making clean energy technologies, including those in buildings, more affordable. De Costanzo said that the combination of and collaboration between utility, city, and state programs will be essential to helping us meet our energy goals. The city also has an initiative to help with compliance called the Retrofit Accelerator, which walks building owners through the energy efficiency upgrade process. Energy efficiency will help tackle climate change, create jobs, increase resilience, and reduce utility bills. NYC is the leading area in the country when it comes to clean energy jobs, including many building decarbonization jobs. In response to a question about geothermal energy, De Costanzo said that all energy options are being considered, including geothermal. She later stressed the importance of the city engagement at the state level. Marline De La O is a Senior Research and Policy Analyst for Climate Initiatives at ALIGN, a coalition of labor and community-based organizations that work at the intersection of economic, environmental, and equity issues. She believes that Local Law 97 can help the city address many of the issues it is facing today. Higher rates of COVID-19 in historically marginalized communities have been linked to bad air quality, demonstrating the link between equity and environmental issues. Local Law 97 has the potential to create 23,600 direct jobs and 17,000 indirect jobs. These jobs include HVAC and heat pump technicians, insulators, sheet metal workers, roofers, and electricians. To ensure that these jobs are well-paid, labor standards must be upheld. This can also uplift low income communities if training programs are provided for the disadvantaged.