

Written Testimony of Stormwater Infrastructure Matters (SWIM) Coalition On Intro 1851 for the New York City Council Committee for Environmental Protection Monday, August 17, 2020

RE: Intro No. 1851: A Local Law to amend the administrative code of the city of New York, the New York City plumbing code and the New York City building code in relation to city-wide stormwater management controls

Thank you to the City Council Committee for Environmental Protection for the opportunity to submit public testimony supporting proposed legislation under Intro 1851 in relation to city-wide stormwater management controls that would reduce the flow of stormwater and waterborne pollutants from construction sites into both the separate and combined sewer systems.

SWIM Coalition represents over 70 organizations dedicated to ensuring swimmable and fishable waters around New York City through natural, sustainable stormwater management practices—both green and grey infrastructure—in our neighborhoods. Our members are a diverse group of community based, citywide, regional, and national organizations; water recreation user groups; institutions of higher education; and businesses.

The Newtown Creek Alliance, Gowanus Canal Conservancy, Bronx River Alliance, Guardians of Flushing Bay, and Riverkeeper are SWIM Coalition members and we fully support the oral and written testimony they have delivered to the Council. We especially note the GCC testimony in regards to their recommendations for ensuring No Net Increase in CSO's for the upcoming 2021 Unified Stormwater Rule that will follow with the passage of Intro 1851. We support GCC's recommendations and urge NYC DEP to adopt them as part of the rulemaking.

It is our understanding the City Council's passage of Intro 1851 will enable DEP to enact the 2021 Unified Stormwater Rule and provide DEP with enhanced legal authority for further implementation under the City's Rulemaking process known as the City Administrative Procedure Act or CAPA. We therefore make recommendations here for specific language in Intro1851 and some important notes to inform the early stages of the DEP's development of the 2021 Unified Stormwater Rule.

Reduce Soil Disturbance Threshold

While SWIM supports the critical step of passing Intro 1851's and the expansion of the stormwater management controls to include construction sites in areas of the city that are served by both the Combined and Separate Storm Sewer Systems, we strongly recommend that the bill include language that calls on DEP to reduce the soil disturbance threshold requirement to 10,000 square feet rather than their current plan to reduce it to 20,000 ft². We recognize and acknowledge DEP's consideration that went into reducing the threshold size from one acre to the current recommendation of 20,000 ft²; however we strongly believe that a reduction to 10,000 ft² would be far more impactful in removing stormwater and CSO pollutants from NYC's overburdened waterways.

Density Based Threshold

Additionally, it would be useful for DEP to evaluate and integrate a density-based threshold into their 2021 stormwater rule. Their recent feasibility study did not consider development density. Higher density of smaller (e.g., 10,000 ft²) construction sites may have a more adverse impact on a waterbody than a few large construction sites spread apart. In some neighborhoods, these smaller sites tend to be located upland from a waterbody, making more feasible infiltration practices, which would reduce localized flooding and combined sewer overflows, while improving air quality, reducing heat island effect, and creating green space.

Variances and Site Specific Conditions

Because a primary goal of the forthcoming 2021 Unified Stormwater Rule is to increase citywide infiltration practices, which have a greater impact on reducing CSO's and stormwater pollution, we seek to ensure that variables beyond lot size will be considered in that process, including excavation depth, groundwater table, proximity to superfund sites and waterbodies with a CSO LTCP, and impaired waterbodies with pollutants of concern.

These adaptive variances would enable alternative stormwater management practices to be deployed in order to accomplish a No Net increase in CSOs. Every "covered development" project should be required to select stormwater management practices based on site conditions. Additionally, where sites are deemed infeasible for infiltration there should still be a requirement to provide stormwater capture or CSO mitigation within the watershed. GCC has provided DEP with a full set of recommendations in this regard that we fully support. See attached letter that reflects these recommendations. We encourage DEP to revisit other sites previously deemed unfeasible to verify if these alternative stormwater management practices could be deployed instead.

Equitable and Participatory Public Process

Following the enactment of Intro 1851, we urge the City to conduct a robust, collaborative, and transparent public process for the 2021 Unified Stormwater Rule, which will entail amendments to the citywide Construction Site Stormwater Runoff Control and Post Construction Site Stormwater Management permitting process as well as modifications to the NYC Stormwater Design Manual.

While it might be a tendency to think that only developers and builders are interested in participating in this discussion, there are many stakeholders from upland and waterfront communities who can provide valuable input on the rule. They are the eyes and ears on the ground, the constituents most impacted by the construction, and are vital stewards of our waterways.

We commend DEP on their public outreach for the MS4 SWMP in recent years and recommend they use that as a model for the public process on the 2021 Unified Stormwater Rule. We recognize that the public process may have to be virtual rather than in person due to the COVID-19 pandemic and are happy to help facilitate the public dialogue in any way we can in order to support DEP's efforts to engage the public during this unprecedented and challenging time.

Public Awareness, Education and Vulnerable Communities

Public awareness and education programs to ensure that New Yorkers fully understand their impact on the City's sewer systems and how the two systems manage our stormwater and wastewater, still remains a challenge. We often hear from members of the public that they had no idea the City's combined sewer system and separate storm sewer system pollute the local waterways where they fish, wade, swim, and paddle.

Greater awareness of these issues city-wide is vital, especially as effects from climate change induced storm intensity and frequency, sea level rise and sunny day flooding increase the likelihood that these contaminated waters can flood many of our low lying neighborhoods.

Waterfront communities and low-lying neighborhoods throughout the city are especially vulnerable and should be prioritized in any awareness building campaigns that the City implements in relation to the new stormwater rule and other water quality improvement programs. Citizens need to better understand the health risks of coming into contact with the polluted waters, especially after wet weather events; be informed about the stormwater mitigation solutions they can call for (and implement) in their neighborhoods, and where to obtain vital information about when it is unsafe to come into contact with them.

Waterfront and low lying neighborhoods typically include low-income communities of color, some in and around Significant Maritime Industrial Areas, which have suffered historic inequitable and negative health outcomes from polluting infrastructure and land uses - exacerbated by the cumulative impacts of CSO outfalls. We recognize that the DEP Green Infrastructure Program has focused on mitigating stormwater runoff that impacts these areas and commend them for this insight when they established the program. That said, there doesn't seem to be an awareness in some of these communities around the potential health risks of coming into contact with the waters during and immediately following wet weather events, or the solutions that are being implemented to address these concerns.

We hope that the Unified Stormwater rule which will result from the passage of Intro 1851 will provide the City with an opportunity to implement a public awareness campaign around the importance of stormwater management on constructions sites and the need for citizen watchdogs on the ground to ensure that constructions sites in their neighborhoods are complying with the new rules and are encouraged to implement green solutions that will manage stormwater as well as provide multiple benefits for the neighborhood.

Green Infrastructure

While DEP's Green Infrastructure program (and grey infrastructure program) has prioritized the low-lying and waterfront communities in their efforts to mitigate stormwater runoff and combined sewer overflow pollution in our waterways, the GI program has met many challenges that have slowed its progress toward meeting the 2030 stated goals and milestones. Expanding the GI program citywide (rather than just implementing it in the combined sewer portion of the city) would help expand the many benefits that GI can provide. DEP's highly-restrictive GI project area focus has left too many of our waterways vulnerable to continued pollution and will fall far short of the volume reductions assumed in each of the existing CSO Long Term Control Plans.

The changes proposed in Intro 1851 and the forthcoming 2021 Unified Stormwater Rule will help ensure more green infrastructure solutions on private property; as will the Sustainable Roof laws LL 92 and 94, the forthcoming revisions to the Green Roof Tax Abatement program, and the City's green infrastructure grant program. We thank the City Council Committee for Environmental Protection for ensuring that the legislation is in place to make our city greener and healthier in the years ahead, and NYC DEP for their efforts thus far on the Green Infrastructure and water quality improvement programs.

We support 1851 with the above recommendations and look forward to its passage so that the Unified Stormwater rulemaking process can begin. Thank you for the opportunity to provide this testimony, we look forward to continuing a productive dialogue on this subject in the year ahead.



Testimony of

Chrissy Remein, New York City Project Coordinator, Riverkeeper, Inc.,

before the

New York City Council Committee on Environmental Protection

on

Intro. No. 1851: City-Wide Stormwater Management Controls

Friday August 14, 2020

Good morning and thank you, Chairman Constantinides and the New York City Council Committee on Environmental Protection, for the opportunity to testify on Intro 1851, a Local Law to amend the administrative code of the city of New York, the New York city plumbing code and the New York city building code in relation to city-wide stormwater management controls.

Riverkeeper is a member-supported watchdog organization dedicated to defending the Hudson River and its tributaries and protecting the drinking water supply of nine million New York City and Hudson Valley residents. As part of our mission, we sample water quality throughout New York City, advocate for sustainable development, and watchdog the city's progress in implementing sewage and stormwater infrastructure programs.

Riverkeeper fully supports the swift passage of Intro 1851, and, as we agree with the recommendations of our colleagues in the SWIM Coalition, we respectfully focus our testimony on one crucial improvement to make the legislation more impactful: lowering the threshold for construction and post-construction stormwater management practices to 10,000 square feet of disturbance.

Under the bill, all new and redevelopment projects that disturb one or more acre(s) would have to implement construction and post-construction stormwater management practices according to the New York City Stormwater Design Manual. This is already the requirement in areas of the city served by Municipal Separate Storm Sewer Systems (MS4), which make up about 40% of the city by landmass. However, Combined Sewer System (CSS) areas, which make up the other 60% of the city, are lagging behind. The bill would eliminate the divide between

MS4 and CSS areas, thereby reducing confusion, creating a level playing field for developers, and moving the city further toward its sustainable and just future.

We appreciate the work of Department of Environmental Protection (DEP) staff to create the opportunity for Intro 1851. It will have myriad positive impacts, including retaining and/or detaining more stormwater on private property. The reduction in the volume of stormwater entering our sewers will in turn reduce combined sewer overflow (CSO) volume and frequency and preserve aging sewer infrastructure.

It will also incentive the use of green infrastructure on private property and reduce localized flooding, two crucial outcomes that will mitigate the impact of more frequent and intense precipitation due to climate change. New York City is currently way behind on its green infrastructure goals mandated by consent order with the state. By 2015, it was supposed to have greened the equivalent of 1,181 impervious acres (a 1.5% green infrastructure application rate). As of the end of 2018, it had managed only 591 acres (a 0.75% green infrastructure application rate). The city does not expect to meet that goal by 2020. The green infrastructure program is crucial to the success of every New York City sewer effort, including the Long Term Control Programs. By ensuring private development will be an asset to the green infrastructure program, Intro 1851 will be integral in making up for lost ground, literally and figuratively.

As the city is developing at a rapid pace, it is crucial that Intro 1851 is passed as soon as possible. Currently on the table are major rezonings in Inwood, Flushing, Bushwick, Gowanus, and the Baystreet Corridor in Staten Island. These may join recent rezonings in East New York, Downtown Far Rockaway, East Harlem, Jerome Avenue that are currently undergoing construction. Every building constructed before this legislation is implemented is a lost opportunity for the future of the city and there is no time to lose.

The bill could be made yet more impactful by setting the threshold for stormwater controls at 10,000 square feet. The current threshold is one acre, or 43,560 square feet. Under this existing threshold, the city DEP in 2019 reviewed only 18 construction applications for stormwater requirements under the MS4 program. A lower threshold would have a more meaningful impact on water quality while still allowing DEP staff a manageable workload.

Riverkeeper and the SWIM Coalition have previously requested that DEP set the threshold for construction and post-construction stormwater controls at 5,000 square feet, based on other cities' thresholds. While some cities have much lower thresholds, Philadelphia sets its threshold at 15,000 square feet. DEP's own consultants found that the "knee of the curve" where a low size threshold meets a manageable number of cases is found at a 15,000 square-foot threshold. New York can do better, setting its threshold at 10,000 square feet.

Intro 1851 would provide DEP authority to reduce the one-acre threshold by rulemaking; the City Council should save the agency the trouble by setting a stricter limit up front. We believe 10,000 square feet is a feasible threshold to set the initial threshold. If necessary, the Council could exclude 1- and 2-family homes from the stormwater requirement, targeting larger developments instead.

* * *

Thank you for the opportunity to provide testimony today. We are committed to working with the Environmental Protection Committee and with DEP staff to ensure Intro 1851 is implemented for the benefit of New Yorkers and their waters. If you should have any questions about this testimony, please contact me at cremein@riverkeeper.org or (914) 478-4501.



TESTIMONY OF THE REAL ESTATE BOARD OF NEW YORK TO THE COMMITTEE ON ENVIRONMENTAL PROTECTION OF THE NEW YORK CITY COUNCIL CONCERNING INT 1982

August 14, 2020

The Real Estate Board of New York (REBNY) is the City's leading real estate trade association representing commercial, residential, and institutional property owners, builders, managers, investors, brokers, salespeople, and other organizations and individuals active in New York City real estate. REBNY thanks the Committee for the opportunity to testify on legislation that would clarify the method of determining the greenhouse gas emissions level attributable to natural gas-powered fuel cells.

BILL: Intro No. 1982-2020 SUBJECT: A Local Law to amend the administrative code of the city of New York, in relation to marginal emissions SPONSORS: Council Members Constantinides and Kallos

Int 1982 would amend how New York City calculates the greenhouse gas emissions attributable to natural gaspowered fuel cells by relying on the rate published by the New York State Energy and Research Development Authority (NYSERDA) rather than having the NYC Department of Buildings (DOB) determine the rate.

REBNY agrees that calculating the emissions based on the marginal factor is the correct approach given that fuel cells help reduce electrical consumption on the grid during peak demand. In determining the correct rate, it is essential the figure be based on thoughtful and proven data. Using the factor published by NYSERDA would provide that benefit as it is based on the information produced in the Metrics, Tracking & Performance Assessment report published by the Department of Public Service (DPS).

This is not to suggest that the DOB and participants in the advisory board process who are currently required by law to make such a determination are not well-suited to do so. However, given that such a determination is not required to be made by DOB until 2023, providing more certainty in the near-term will help property owners make better decisions as they work to reduce carbon emissions.

With the need for greater certainty in mind, REBNY encourages the Council to ensure that the same approach used to quantify the greenhouse gas reduction attributable to electricity production from fuel cells is used to determine the greenhouse gas reduction attributable to electricity production from natural gas-powered cogeneration plants. The carbon impact of the electricity that is offset by the production from both fuel cells and cogeneration plants should be treated the same way, on a marginal emissions factor basis, as both cogeneration plants and fuel cells perform the same type of functions with similar environmental footprints, using comparable inputs and outputs.

While existing law already ensures that marginal rate is used for fuel cells, current law does not specify that the marginal rate should be used to determine the emissions of natural gas-powered cogeneration plants. Consequently, REBNY encourages the Council to amend Administrative Code §28-320.3.1.1 and §28-320.3.2.1 to specify that marginal rates should be used when calculating the emissions factors for cogeneration plants.

Thank you for the consideration of these points.

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CONTACT(S): Zachary Steinberg Vice President Policy & Planning Real Estate Board of New York (REBNY) (212) 616-5227 zsteinberg@rebny.com

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August 14, 2020

Hon. Costa Costantinides Chair, Committee on Environmental Protection New York City Council 250 Broadway, Suite 1778 New York, NY 10007

Re: Intro. No. 1982

Dear Mayor de Blasio and Councilman Constantinedes:

Bloom Energy Corporation ("Bloom Energy") offers the following comment in support of Intro. No. 1982.

Bloom Energy is a manufacturer of solid oxide fuel cell systems that generate electricity through an electrochemical process without combustion. These systems therefore do not produce the local forms of "criteria" air pollutants associated with combustion technologies or consume or discharge water. Bloom Energy solid oxide fuel cell systems have been proven resilient through disruptive events including hurricanes, earthquakes, utility outages, physical damage, and fire damage. As a result, Bloom Energy solid oxide fuel cell systems are used by many of the world's leading companies and institutions to secure their critical operations from the risk of utility outages.

The challenge of climate change will require that New York City implement not only a drastic reduction in climate forcing emissions, but also that it prepare for increasingly severe climate induced weather patterns. One of the ways that both of these aims may be advanced is through the deployment of distributed generation resources that are capable of reducing greenhouse gas emissions and providing a reliable source of electricity for critical customers, regardless of the

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weather. Advanced microgrids and other forms of clean on-site power generation are now capable of achieving both of these objectives simultaneously, while also reducing the use of highly polluting diesel back up generators. Many customers in New York City, including some its leading hospitals, are interested in isolating themselves against the risk of future electric grid outages while also achieving emission reductions and energy cost savings at a particularly challenging time in the City's history.

Intro. No. 1982 represents an important step forward in this effort by clarifying the application of the historic Climate Mobilization Act to fuel cell based on-site power generation and microgrids that reduce emissions by displacing less efficient and higher polluting central power plants known as "marginal generators." In its initial form Local Law 97 set forth emission reduction objectives and associated penalties but did not provide a grid emissions "yardstick" against which these types of projects would be measured – leaving critical customers and project developers in a state of uncertainty that has been hindering project deployments.

Intro. No. 1982 would provide this critical clarity by reference to the same standard that is used by the New York Energy Research and Development Authority (NYSERDA) to calculate the emission reductions achieved by NYSERDA supported efficiency measures and clean energy projects. While the calculation of emission reductions relative to marginal generators can be complex for intermittent resources, the same is not true for solid oxide fuel cells. Because fuel cells operate in a consistent "baseload" output for virtually every hour of the year the calculation of emission reductions relative to marginal generators is simple and requires only an annual average marginal grid emissions number to calculate. It therefore makes sense to create the simple standard set forth in Intro. 1982 while more complex calculations are developed for resources with less predictable operating parameters.

When tropical storm Isaias hit the New York area in early August fourteen (14) fuel cell powered microgrids operated through twenty-five (25) different outages, providing electricity for critical customers during the period when the electric grid was down. These same systems reduced GHG

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emissions during the remainder of the year, eliminated local combustion related pollutants and displaced diesel generators. The adoption of Intro. 1982 will remove an impediment that is preventing others customers from deploying carbon reducing fuel cell microgrids at a time when New York City needs to prepare for increasingly severe climate induced weather.

We appreciate the opportunity to comment on this important legislation and strongly recommend its adoption.

Very truly yours,

/S/

Charles Fox Sr. Director Bloom Energy Corporation 4353 N. First St. San Jose, CA 95134 212-920-7151 charles.fox@bloomenergy.com

Testimony in Opposition to Intro 1982-2020 Presented to the Environmental Protection Committee of The New York City Council

Bob Wyman bob@wyman.us

August 14, 2020

Spoken Testimony

I am Bob Wyman, a resident of the Upper West Side.

It is a mystery to me that the New York City Council is giving serious attention to Intro 1982, a bill that will increase gas consumption and gut both the spirit and usefulness of Local Law 97-2019.

Gas use in New York City's buildings today already produces close to 150% of the total GHG emissions that will be permitted from all sources in 2050. Thus, the primary focus of the City Council should be on reducing gas use. We cannot achieve our emission reduction goals without a dramatic reduction in gas use.

Local Law 97 established limits on emissions, and penalties for buildings that do not reduce their GHG emissions. But, passage of this bill will make a mockery, a joke, of both those requirements and the penalities. If passed, this bill will credit any building which installs a gas powered fuel cell with hundreds of pounds of emissions reductions for every MWh of electricity generated. Thus, we should anticipate that many dirty buildings will choose to avoid penalties by simply installing gas powered generators instead of actually improving their efficiency or selecting non-emitting energy sources. Intro 1982 will create a windfall bounty for the fuel cell industry but it will be very bad for New York and for the climate.

An always-on, non-dispatchable gas powered generator is not a "marginal" producer. If anything, it should be considered part of baseload production. One might provide some credit if fuel cells were much more efficient than gas powered baseload generators, but even Bloom Energy, a major manufacturer of fuel cells, acknowledges that its fuel cells normally operate at only about 50% efficiency. Thus, they are less efficient than a modern combined cycle gas plant and much less efficient than either cogen or CHP systems.

And, if New York City adopts the CO2 equivalence rules required by the CLCPA, we will actually find that fuel cells produce more greenhouse emissions than generators powered by Ultra-low sulfur diesel! If reducing emissions is our goal, we should actually prefer the installation of oil powered generators rather than gas powered systems.

Whatever Intro 1982 says, we don't have official, vetted marginal emissions data or forecasts for Zone J. But, the best data we do have shows shows that in Zone J, marginal emissions are highest from 10:00am in the morning until about 9:00pm in the evening. Also, marginal emissions are highest in February, July and August.

Of course, daytime and July and August are precisely the periods during which solar power is at peak

production. And, at night and during the winter is when wind energy production peaks. Thus, if we really want to reduce marginal emissions, we should be encouraging zero emissions production from solar and wind during peak periods, not more highly emitting gas powered production. Instead of rewarding a technology that even Bloom Energy says will produce 789 lbs of emissions per MWH, why not encourage zero emission technologies during periods of peak marginal emissions?

Encouraging gas powered generators will not only result in higher emissions than if we encouraged solar, wind or even oil powered generators, it will also make it harder for us to avoid accumulating stranded assets in our gas network.

I could go on. But, at this point, let me repeat that we have no regularly maintained source of marginal emissions factors for either New York State as a whole or for Zone J. Thus, even if Intro 1982 were a good idea, the data needed to implement it is simply not available.

Fuel cells used in New York City, where we enjoy some of the cleanest electricity in the country, won't reduce emissions. The reality is that Intro 1982 modifies a provision that was buried deep in Local Law 147-2019 as a way to neutralize the effect of Local Law 97. That loophole should be struck, or repealed, not modified. This is bad law, based on bad or non-existant science. It will benefit no one other than equipment manufacturers. It is not the right thing to do.

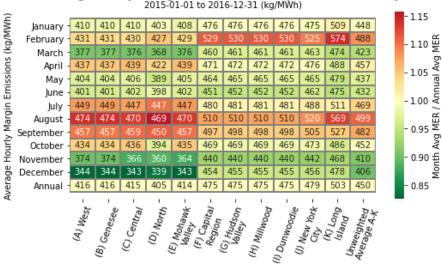
Thank you for the opportunity to speak to you today.

Notes on Marginal Emissions (Not presented during hearing.)

There is no regularly maintained source of marginal emissions for either New York State as a whole or for Zone J. There appears to be no publicly available data providing forecasts of marginal emissions for either the State or Zone J. Thus, the data required to implement Intro 1982 does not currently exist.

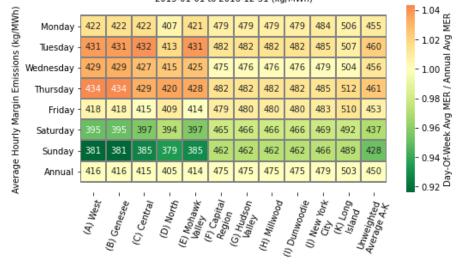
In 2018, as part of the IPPTF Carbon Pricing workgroup process, NYISO did publish hourly marginal emissions data for each of the NYCA Zones (including Zone J) for the years 2015 to 2016. However, that data was clearly labelled 'For Discussion Only' and, while useful for improving understanding of the issues, it should not be relied upon in either legislation or rulemaking.

A visualization of the 'For Discussion Only' data is provided in the next three charts which summarize emissions by month, day-of-week and hour-of-day across 2015 and 2016.



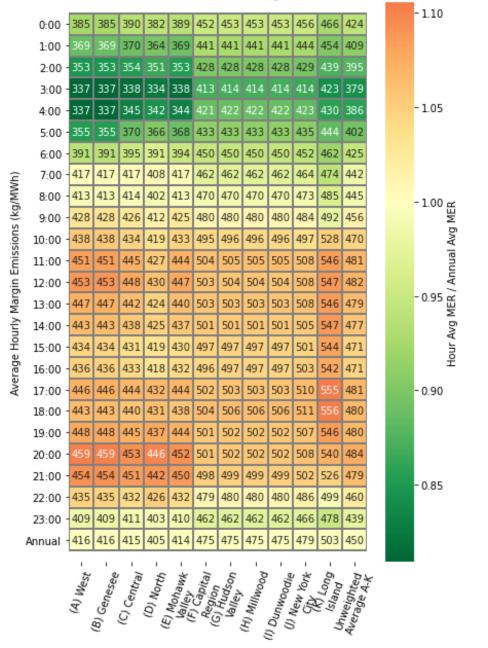
Avg Hourly Marginal Emissions By NYISO Zone By Month 2015-01-01 to 2016-12-31 (kg/MWh)

Avg Hourly Marginal Emissions By NYISO Zone By Day-Of-Week 2015-01-01 to 2016-12-31 (kg/MWh)



Avg Hourly Marginal Emissions By NYISO Zone By Hour

2015-01-01 to 2016-12-31 (kg/MWh)





Testimony of the Bronx River Alliance Before the New York City Council Committee for Environmental Protection Friday, August 14, 2020

RE: Intro No. 1851: A Local Law to amend the administrative code of the city of New York, the New York City plumbing code and the New York City building code in relation to city-wide stormwater management controls

Thank you for this opportunity to submit public testimony supporting proposed legislation under Intro 1851 as it relates to city-wide stormwater management controls that would reduce the flow of stormwater and waterborne pollutants from construction sites into both the combined and separate sewer systems (MS4).

The Bronx River Alliance serves as a coordinated voice for the river and works in harmonious partnership with more than 100 organizations and agencies to protect, restore, and improve the Bronx River as an ecological, recreational, educational, and economic resource for the communities through which the river flows. Each year through our diverse programming, we engage over 1500 paddlers, 2000 students and educators, and thousands of volunteers who come in contact with the river, some for the first time. We are deeply concerned about the impact of combined sewer overflows (CSOs) and polluted storm water on the river's health and on the impact to human health for everyone who uses it as an educational and recreational resource.

As members of the Steering Committee for the SWIM Coalition, our comments today reflect the collective work of our organizations, ultimately striving to ensuring fishable and swimmable waters around New York City through natural, sustainable stormwater management practices both green and grey infrastructure—in our neighborhoods. We also elevate the testimony from the Newtown Creek Alliance and Gowanus Canal Conservancy, particularly the No Net Increase in CSOs for the upcoming 2021 Unified Stormwater Rule, and urge NYC DEP to adopt them as part of the rulemaking.

Reduce Soil Disturbance Threshold

As the population in NYC grows and expands into the outer boroughs, construction has increased in the Bronx, causing an increase in stormwater runoff that is unaccounted for by the Bronx River Long Term Control Plan (LTCP). We support that Intro 1851 will expand stormwater management controls to include construction sites in areas of the city that are served by both the Combined Sewer System and the MS4, and strongly recommend that the bill include language that calls on DEP to reduce the soil disturbance threshold requirement to 10,000 ft² rather than their current plan to reduce it to 20,000 ft². We recognize and acknowledge DEP's consideration that went into reducing the threshold size from one acre to the current recommendation of 20,000 ft²; however we strongly feel that a reduction to 10,000 ft² would be far more impactful in removing stormwater and CSO pollutants from NYC's overburdened waterways, particularly the Bronx River.

Additionally, it would be useful for DEP to evaluate and integrate a density-based threshold into their 2021 stormwater rule, which their recent feasibility study did not consider. Higher-density sites would potentially benefit more from an increase in infiltration practices, which reduce localized flooding and combined sewer overflows, while improving air quality, reducing heat island effect, and creating green space.

Equitable and Participatory Public Process

With the enactment of Intro 1851, we urge the City to conduct a robust, collaborative, and transparent public process for the 2021 Unified Stormwater Rule, which will entail amendments to the citywide Construction Site Stormwater Runoff Control and Post Construction Site Stormwater Management permitting process as well as modifications to the NYC Stormwater Design Manual. Because a primary goal of the forthcoming 2021 Unified Stormwater Rule is to increase citywide infiltration practices, which have a greater impact on reducing CSO's and stormwater pollution, we seek to ensure that variables beyond lot size will be considered in that process, including excavation depth, groundwater table, proximity to waterbodies with a CSO LTCP, and impaired waterbodies with pollutants of concern.

It is not only developers who are interested in participating and have a stake in this discussion. We have a vibrant and active constituent base who are tireless advocates for the Bronx River who can provide valuable input on the rule. They are the lifeblood of our community, those most impacted by construction, and are vital stewards of our river.

We commend DEP on their public outreach for the MS4 SWMP in recent years and recommend they use that as a model for the public process on the 2021 Unified Stormwater Rule. We recognize that the public process may have to be virtual rather than in person due to the COVID-19 pandemic and will work together with the SWIM Coalition to support DEP's efforts to engage the public during this unprecedented and challenging time.

Public awareness and education programs are needed now more than ever to ensure that New Yorkers fully understand their impact on the City's sewer systems. While we acknowledge improvement in this area, there are numerous opportunities for greater impact in our communities. Members of the public often have no idea how frequently and at what concentrations the City's combined sewer system and separate stormwater system pollute the Bronx River where community members fish and paddle. Even the <u>New York Times promoted</u> swimming in the Bronx River despite water quality levels making it dangerous to do so.

Waterfront communities and low-lying areas throughout the city and in the Bronx are vulnerable as the polluted waterways in their neighborhoods remain a health hazard and threaten to flood their streets and homes during storms and as sea levels rise. In the Bronx, these neighborhoods are predominantly low-income communities of color, which have suffered historic inequitable and negative health outcomes from polluting infrastructure and land uses; the South Bronx—the poorest congressional district in the country—sits at the confluence of the Long Island Sound, Harlem River, and the Bronx River, all of which flood and are exacerbated by the cumulative impacts of CSO outfalls. Greater awareness of these issues city-wide is vital, especially as effects from climate change, induced flooding, sunny day flooding, and storm frequency and intensity grow increasingly detrimental to our communities and waterways.

Green Infrastructure

DEP's Green Infrastructure program has met many challenges that have slowed its progress toward meeting the 2030 stated goals and milestones, which is highly problematic for residents of the Bronx and the river itself. DEP's highly-restrictive GI project area selection has left too many of our waterways vulnerable to continued pollution and will fall far short of the volumes assumed in each of the existing CSO Long Term Control Plans, meaning unless changes are made there will be massive investment in grey infrastructure that does little to mitigate overflow events and water pollution. For the Bronx River, the LTCP assumes 14% of impervious areas, or approximately 326 acres, will be managed by green infrastructure. According to the 2019 green infrastructure report, the current acreage in construction or constructed is only 59 acres (~2%) because the typical bioswale was infeasible due to issues like high bedrock and high groundwater table, but independent experts have confirmed that green infrastructure solutions exist for this area.

As the city moves to develop the Unified Stormwater Rule we fully support the recommendations made by Gowanus Canal Conservancy regarding the inclusion of adaptive variances as part of the permitting process to account for unique challenges such as high groundwater table, limitations from bedrock clearance, superfund designated areas, and waterbodies with CSO Long Term Control Plans. These adaptive variances would enable alternative stormwater management practices to be deployed in order to accomplish a No Net increase in CSOs. Every "covered development" project should be required to select stormwater management practices based on site conditions. Additionally, where sites are deemed infeasible for infiltration there should still be a requirement to provide stormwater capture or CSO mitigation within the watershed. GCC has provided DEP with a full set of recommendations. We urge DEP to revisit other sites previously deemed unfeasible to verify if these alternative stormwater management practices could be deployed instead, especially for sites that would greatly improve water quality.

We support 1851 with the above recommendations and look forward to its passage so that the Unified Stormwater rulemaking process can begin. Thank you for the opportunity to provide this testimony and for allowing us to do so virtually.



Testimony of Gowanus Canal Conservancy (GCC) Before the New York City Council Committee on Environmental Protection Friday August 14, 2020

RE: Intro. No. 1851 - A Local Law to amend the administrative code of the city of New York, the New York city plumbing code and the New York city building code in relation to city-wide stormwater management controls

Thank you for providing the opportunity to give public testimony regarding proposed legislation under Intr. 1851, which amends the City administrative code for citywide stormwater controls.

Gowanus Canal Conservancy (GCC) advocates and cares for ecologically sustainable parks and public spaces in the Gowanus lowlands while empowering a community of stewards. We envision a Gowanus Canal and surrounding urban environment that is clean, resilient, diverse and alive. Today, we urge City Council to prioritize improved water quality in our City's waterways through more stringent stormwater controls on new development sites by passing Intr. 1851.

The proposed legislation would extend existing requirements under the City's MS4 program to all new development sites contributing to the Combined Sewer System (CSS). It is a positive step toward achieving improved water quality goals throughout the region, providing the Department of Environmental Protection (DEP) with enhanced legal authority to implement the proposed 2021 Unified Stormwater Rule. We see tremendous potential for the Unified Stormwater Rule to mitigate the impacts of additional combined sewage overflow (CSO) likely to occur as a result of future development in the Gowanus neighborhood. We commend the City's initiative on this effort thus far and do not seek to thwart this critical step in the process, but we offer the following recommendations to ensure that both Intr. 1851 and future legislation enacted through the CAPA process effectively mitigate CSO impacts citywide:

1. Consider further reduction of the soil disturbance threshold:

Under existing MS4 requirements, the soil disturbance threshold is defined as "greater than or equal to one-acre." We understand that DEP is considering reducing this threshold to 20,000 square feet, which will undoubtedly provide substantial water quality improvements but it has the potential for limited results. In Gowanus, a threshold of 20,000 square feet would still mainly apply to larger, low-lying waterfront sites where infiltration is likely to be infeasible without addressing denser new development on smaller upland lots. As DEP moves forward with the CAPA process, we recommend DEP either consider further reduction to 10,000 square feet or alternatively evaluate impacts based on a density-based threshold. A soil disturbance

threshold of 10,000 square feet would impose additional requirements on smaller upland sites slated for redevelopment. It is these sites in Gowanus where higher density is projected and infiltration opportunities are more likely to be more feasible. Because a primary goal of the 2021 Unified Stormwater Rule is to increase citywide infiltration practices, which have a greater benefit on CSO reductions and sewer operations, a further reduction of the soil disturbance threshold should be considered.

2. Engage local stakeholders throughout the CAPA Rulemaking Process:

Following the enactment of Intro 1851, we urge the City to provide robust collaboration and engagement opportunities for local communities as part of the CAPA Rulemaking process, which we understand will entail amendments to the citywide *Construction Site Stormwater Runoff Control and Post Construction Site Stormwater Management* permitting process including modifications to the NYC Stormwater Design Manual.

This collaboration and local knowledge is crucial to implementing site appropriate green infrastructure across the city. In Gowanus, we have observed numerous challenges with meeting citywide targets for stormwater control, specifically those associated with infiltration-based green infrastructure projects under the 2010 Green Infrastructure Plan. By 2030, DEP is required to control the equivalent of stormwater generated by one inch of precipitation on 10 percent of impervious surfaces citywide in combined sewer areas. In Gowanus this translates to roughly 166.4 acres converted to green infrastructure to manage 41 million gallons of stormwater throughout the watershed. To date only 13 acres managing 16.6 million gallons of stormwater have been built.¹ The high water table in Gowanus has been a critical barrier to building green infrastructure per the existing NYC Stormwater Design Manual - a modified and expanded manual should include green infrastructure techniques that perform on constrained sites.

As the City moves to implement the Unified Stormwater Rule, we strongly urge the inclusion of adaptive variances as part of the permitting process to account for unique conditions including:

- 1.) Low-lying areas with a high groundwater table
- 2.) Limitations with regard to bedrock clearance
- 3.) Superfund designated areas
- 4.) Combined Sewer Overflow LTCP waterbodies

Adaptive variations to ensure success under the Unified Stormwater Rule could be achieved through broad stakeholder engagement during the CAPA process in order to incorporate modifications as part of the required "No Net Increase Analyses" and/or through DEP approval of alternative stormwater management practices (SMPs) in areas with limiting conditions as listed above.

¹ 2019 NYC Green Infrastructure Annual Report

Written Testimony Submitted by Elissa T. Iberti Greenpoint, Brooklyn Community Member and Homeowner Date: 8/13/20

To the members of the NYC Council Committee on Environmental Protection, I would like to submit written testimony in support of Council Member Stephen T. Levin's sponsorship and Introduction of an Air Quality and Construction Accountability Package: Bill Numbers Int 0142 - 2018 and Int 0143-2018 respectively.

I would also like to take this opportunity to thank the Committee Chair, Costa G. Constantinides, as well as all of the members of the Committee for their time and consideration.

I write in support of the Introduction of both Local Laws, Int 0142-2018 and Int 0143-2018 aimed at improving the air quality for all New Yorkers as well as establishing contractor accountability. The pandemic health crisis that we are living through also mandates that we look to this legislation to protect ALL NYC residents from airborne particles that can compromise their lungs and result in a further health crisis. The need for construction oversight of airborne particulate matter like dust and debris that swirl in the air of most neighborhoods cannot be stressed enough. We all need and deserve clean and healthy air to breathe.

Int 0142-2018 and Int 0143-2018 provide a solution to a problem that focuses on amending the administrative code of the city of New York so that certain types of construction dust does not become airborne and supports this amendment with a monitoring program to achieve success. The Air Quality and Construction Accountability Package is a long overdue protection for the residents of NYC. With a focus on public health, this pro-active approach, allows the New York City Council to structure the prevention of harmful particulate matter from getting into the air, not only for the community but also for the workers. The list of known environmental airborne irritants is diverse and the time to acknowledge these pollutants by their scientific classifications is long overdue. This also means that by using science we also need to develop an appropriate method for emergency ambient air quality testing and monitoring for each class of airborne contaminant. The code of the city of New York should be amended to foster safety in construction, with an appropriate fine schedule that provides contractors and developers with warnings but does not support leniency. The cost of ignorance and leniency in the name of development is paid in other ways, namely by the health of our residents. These two local laws will also help neighborhoods where construction and development is thriving where no controls on the number of developments being constructed per neighborhood is tracked. These local laws support cumulative air quality monitoring and could link issues that are rarely collated, but viewed in isolation, as they relate to each construction site. This information would be very helpful in densely developing neighborhoods and nearby communities.

A comprehensive program can grow from the support and implementation of these two local laws. If this is presented as a mutual protection for not only the public and the contractor/developer, there can be success. If there is a strong infrastructure for reporting and inspection this will also add to the success. There needs to be some creative thinking to achieve this amendment to the city code, so if not now, when?

Respectfully Submitted.

On January 1st, 2019, Local Law 152 (passed in 2016 following a gas line explosion in East Harlem that killed eight and destroyed two apartment buildings and another in the East Village that killed two and damaged three buildings) went into effect. It requires that city buildings be inspected for gas leaks once every five years (1-2 family dwellings are exempt).

In April of 2019, happily, the City Council passed the Climate Mobilization Act. This package of legislation made a number of key changes to and commitments in local law to confront the climate emergency. 2.5 months after passage of the Climate Mobilization Act, the NYC Council declared a "climate emergency." The resolution (which surely must mean what it says), called for "an immediate mobilization to restore a safe climate."

The City Council must make sure that these converging events – the City's critically important responses to the climate emergency and the gas line inspection (and repair) requirements – do not operate with conflicting purposes and do not result in costly missed opportunities.

As a climate and environment professional, I came to be aware of this issue when the gas line to my own building was switched off in mid-July of 2019. (I remain without cooking gas in my apartment as my building continues its work restoring gas service.) Apparently, dozens of other buildings in New York City have already had their gas shut off because of the enforcement initiative targeting leaky and dangerous gas pipes. Many more buildings face gas shutoffs in the years to come.

The building and its management has been under a huge amount of pressure to restore critical energy services to our 630 units as quickly as possible. Under such pressure, buildings will understandably default to restoring gas service.

But this is a major capital investment that, it seems, will cost buildings millions of dollars and lock them in to restoring greenhouse gas emitting energy for cooking and heating just as the capacity to deliver natural gas into NYC becomes constrained by appropriate limitations on new pipelines.

Rather than defaulting to re-gasifying (and locking in a climate polluting future at substantial capital expense) following a Local Law 152 event, the City, through the Office of Energy and Emissions Performance (OEEP), should provide technical assistance, policy supports and incentives, and PACE financing to help buildings and their owners/management/Boards transition to cleaner and safer alternatives. And technical assistance must be provided to buildings to ensure that whatever they do following a Local Law 152 event, they do it safely and with a better understanding of the hazards of natural gas than most buildings will have.

As such, I wholeheartedly support Int. No. 1946-2020, while encouraging the Council to develop it further and include all of these elements. At the moment, it serves as a useful placeholder, but is too vague and limited in its scope.

Support resources to buildings should follow immediately behind a gas shutoff event: a City-backed climate improvement SWAT team that takes the challenge and complexity of exploring climate-friendly alternatives off of over-burdened and relatively unsophisticated (in these matters) building owners/management/Boards. Information must be provided directly to tenants and shareholders alongside building owners, managers, and Boards.

The legislation should require the City, through OEEP, to mail every resident in a building affected by a gas shut off with a comprehensive description of options that the building manager can consider within seven days of gas service being shut off. Representatives of OEEP should also be made available to meet with building residents, owners and managers to explain technology and financing options for the building.

Additionally, the Council should mandate that the Office of Energy and Emissions Performance within the DOB perform a feasibility study of electrification of different classes of buildings to help describe pathways to safe, cleaner energy for buildings whenever gas leak issues are uncovered under Local Law 152. This mandate would mirror Local Law 2019/099's requirement for a feasibility study for replacing natural gas generators in the City with renewable energy and battery storage every four years

Local Law 97 should also be amended to avoid penalizing buildings that transition from gas to electricity. At present, §28-320.3.1.1 (*Greenhouse gas coefficient of energy consumption for calendar years 2024 through 2029*) "charges" electricity 0.000288962 tCO2e per kilowatt hour and natural gas 0.00005311 tCO2e per kBtu. According to the EPA, a kWh of electricity should be multiplied by 3.412 to convert to the equivalent energy in kBtus. Using this scalar, the effective charge for electricity is at 0.000985938 tCO2e per kBtu, more than 18 times higher than for natural gas. This difference may actually capture the difference in today's power generation blend on NYC's grid, however, since Local Law 97 passed in April, New York State passed the Climate Leadership and Community Protection Act, which mandates that 100% of the State's electricity come from clean energy by 2040. Given the long-term nature of capital investments in building energy projects, Local Law 97 should provide an incentive rather than a penalty for buildings facing a gas shut down event to transition to electricity (an energy source that can be decarbonized in contrast to natural gas which cannot be).

Thank you very much for addressing this important and emergent issue. I reiterate my support for Int. No. 1946-2020 and encourage you to build on it to advance a more comprehensive and effective response to these convergent concerns.



American Council of Engineering Companies of New York

Intro 1982 Testimony Submitted to the City Council Committee on Environmental Protection August 14, 2020

The American Council of Engineering Companies of New York (ACEC New York) thanks the Committee for this opportunity to submit testimony in opposition to Intro. 1982, in relation to marginal emissions, which would amend Local Law 97 of 2019.

ACEC New York represents close to 300 consulting engineering and affiliate firms throughout New York State, with a concentrated presence in New York City. Our members plan and design the structural, mechanical, electrical, plumbing, civil, environmental, fire protection and technology systems for the City's buildings and infrastructure.

Our Metro Energy Code Committee identified the following concerns with Intro. 1982:

- The proposed methodology for carving out carbon emissions related to fuel cells is fundamentally redundant, as fuel cells are simply a distributed energy resource, which is already well-accommodated in Local Law 97. There is no need to create specific treatment for fuel cells, as provisions to do so were already included in Local Law 147 of 2019 (the clean up bill for Local Law 97). Overlapping provisions do not advance public policy and could create confusion.
- While fundamentally a fuel cell converts hydrogen and air into electricity and water (hence no carbon) the key is the source of the hydrogen. All hydrogen for these products comes from natural gas—and when you extract the hydrogen from natural gas you release CO2, no different than if you combusted natural gas in a conventional cogeneration system.
- Providing specific treatment for fuel cells is contrary to facts related to comprehensive industry-wide reduction in carbon emissions and is explicitly providing a false market signal for the fuel cell sector, when in fact, fuel cells provide no environmental benefit in terms of carbon emissions as compared to any other contemporary form of cogeneration technology.
- Intro 1982 further exacerbates this issue by proposing the use of NYSERDA emissions factors that are not appropriate in this application as they are retroactive average emissions factors, by definition.
- Furthermore, Intro 1982 undermines the role of the Local Law 97 Advisory Board and the DOB Commissioner in administering aspects of the law. As such, it is a bad precedent which will compromise this critical rule-making process for balancing various factors and issues that will evolve over time regarding carbon emissions and the grid in New York City.

In closing, Local Law 147 of 2019 already provided an inappropriate accommodation for fuel cells of a similar nature as this bill. Passing Intro 1982 would further exacerbate this issue. We recommend the bill be withdrawn.

For further information please contact: Hannah O'Grady Senior Vice President, ACEC New York hannah@acecny.org

Bill Murray NYC Director of Government Relations, ACEC New York bill@acecny.org

8/14/2020

Laura Hofmann

Committee on Environmental Protection

Regarding Intro 142, 143

Thank you for giving me the opportunity to submit testimony regarding the important issues of construction dust and ambient air quality. I'm a 62 year old lifelong resident of Greenpoint Brooklyn and member of too many environmental groups to list here. My lungs and body have been continually assaulted by polluters for as long as I can remember. My entire family, which is quite large, has suffered an array of health issues, brain disease, lung disease, birth defects, and autoimmune disease from the many environmental issues this community endures.

Last year I had a partial nephrectomy to remove a cancerous kidney mass. This is in addition to thyroid issues, asthma, fibromyalgia, Undifferentiated Connective Tissue Disorder, allergies and more that I have to live with. During the course of medical testing, I learned that I also had multipole lung nodules at the bases of both lungs. It was feared that the lung nodules were Metastases from the kidney mass. Fortunately, all of those nodules disappeared months later after the kidney mass was removed and it was found that all the cancer was removed. The disappearance of the lung nodules surprised the doctors. When my pulmonary doctor asked me if I had been exposed to any environmental factors I just started to cry.

The tears were relief that the nodules weren't metastases from the kidney cancer but also anger that I had gone through so much additional fear because of the community's environment. You see, environmental health issues aren't a one-time deal but something that happens to Greenpoint residents and their families over and over and over again. Because in Greenpoint every day there was and still is an environmental exposure. And those exposures don't last for one generation, some environmental illnesses are past down to our children, and grandchildren, like mine. All of my children have environmentally linked diseases such as autoimmune disease or asthma.

Everywhere I go in the community, there is either an environmentally burdensome facility, waster related traffic or construction going on. Whether it's a walk to the park, to the store or to work, I pass construction sites daily that allow dust, and Styrofoam to escape into the air. Since the entire Greenpoint community is either a brownfield or superfund site and even though many noxious waterfront uses were rezoned away there is still a great deal of contamination. And each time the soil is unearthed and new construction happens, the community breathes in dust particles and we are exposed again to the toxins that got us sick in the first place. What once was emitted from smokestacks or leaked into our soil is now being kicked up into the air via construction dust for the community to breathe again.

We can't physically tolerate breathing in the Styrofoam pellets or dust from new types of building materials. It is simply unfair to expose vulnerable populations as Covid19 pandemic has taught us. In the same way that health agencies and NYC residents know that "we are all in this together"; it's with that attitude that we need to be protected from environmental health threats such as construction dust. That is why strengthening the laws to prevent new exposures are so important. So I welcome efforts to strengthen laws that will stop the assault on our lungs via construction dust.

And I welcome air monitoring always. The need to develop a program for monitoring air quality during and after major commercial and industrial fires was made very clear during both the Greenpoint Terminal Market fire, the Citistorage fire, and the fire across the street from the Newtown Creek Waterpollution Control Plant which caused a great deal of harm and exposure for weeks to Greenpoint residents. There was no program already in place to monitor the air and to determine what we were being exposed to.

If not then, I'm glad that now City Council is looking at ways to prevent harm to our lungs and to create a proper air monitoring program.



Direct testimony by Margot Spindeleman, No North Brooklyn Pipeline Coalition margotspin@gmail.com

Friday, August 14, 2020 10:00 AM via virtual hearing

RE: Support Intro. No. 1946: A Local Law to amend the administrative code of the city of New York, in relation to assistance for replacing gas infrastructure

Re: Support Intro No. 142: A Local Law to amend the administrative code of the city of New York, in relation to preventing certain types of dust from construction from becoming airborne

Re: Support Intro No. 143: A Local Law to amend the administrative code of the city of New York, in relation to the creation of an emergency ambient air quality monitoring program

My name is Margot Spindelman, a Greenpoint homeowner, ratepayer and member of the No North Brooklyn Pipeline Coalition. The No North Brooklyn Pipeline Coalition comprises nearly 20 community groups from Brownsville, Bed Stuy, Bushwick, Williamsburg, and Greenpoint as well as several elected officials who have publicly condemned the pipeline construction and LNG proposals. It is one of the fastest growing coalitions I have seen to date.

I am grateful to the City Council for fighting with us and we are in full support of Intro 1946.

When our community first found out about the pipeline construction, we were shocked that no outreach had been done here, looking for our consent to build this fracked gas pipeline. We reached out to our local elected officials, and they also mentioned that National Grid did not fully explain the breadth of the project. National Grid claimed that the project was just a system upgrade to ensure reliability. However it wasn't until we became active that we saw the pipeline had a larger goal— to lead to a liquefied fracked gas facility in Greenpoint. Greenpoint residents are no strangers to fossil-fuel destruction. Greenpoint is the site of the largest terrestrial oil spill in North America, where it is estimated that between 17 and 30 million gallons of oil have accumulated underneath us. We are continuing to recover from this extractive poisonous spill on The Newtown Creek, which was declared a Superfund site. We were shocked that they were proposing to expand more fossil fuels on an already compromised community that has a long history of environmental injustice.

Many members in the No North Brooklyn Pipeline Coalition have been asking questions about why we wouldn't move to renewable sources for heating and cooling our buildings and cooking our food considering we all worked so hard to have the landmark CLCPA climate legislation passed in New York City and New York State. Our investigations and research led us to see one of the barriers to moving our economy to a renewable and regenerative economy is that the companies that are building the fracked gas pipelines and more fossil fuels are incentivized to put their shareholders first rather than what New Yorkers want to see for their energy future. It is only by getting contracts to buildi new infrastructure that they are able to reward their shareholders. And I say "they," when it is really "we" who are paying out those rewards. It is in their financial interest to not give customers information about alternatives to gas. But it is essential to our best interests.

That is why we are 100% supporting intro 1946, thank you for this work.

Just yesterday, I ran into my neighbor, Luis, on the sidewalk in front of his house. He was waiting for the fire department to come check his gas boiler, as they do, every other year. He told me he needs to convert his oil boiler to gas. I started to talk to him about the CLCPA, the climate goals and promises, and how if he buys a boiler, he might end up paying for something that was no longer viable in ten years, meaning he would be investing in a stranded asset! He said to me "That's 20 thousand dollars!" Then we started to talk about heat pumps. My conversation with Luis, yesterday, is exactly the kind of conversation that this law would provide. Homeowners in Brooklyn wouldn't have to rely on running into a neighbor accidentally, to plan for the future, for both their own households, and the planet.

The time is now to act with great urgency. These conversations should never have to happen going forward, in new construction. Given the impending emissions regulations mandated in Local Law 97, along with the mandates specified by the CLCPA, we need to act now to legislate all new development in New York City be constructed using only renewable energy. I hope that is the next legislation that the No North Brooklyn Pipeline Coalition will be here to support.

Lastly, **we support both Intro 142, and Intro 143**. North Brooklyn has one of the highest asthma rates in the city and currently is being subjected to massive amounts of dust from a plethora of huge construction projects, and we appreciate any amount of oversight and specificity imposed upon these construction sites to limit their impact, respecting our health and safety. The need for Intro 143 is unquestioned, given the density of our population and the risks we face from a fire breaking out in any one of the many potentially contaminated sites in Greenpoint.

Respectfully submitted,

Margot Spindelman



Direct testimony by Kim Fraczek, Director, Sane Energy Project kim@saneenergy.org 646-387-3180

Friday, August 14, 2020 10:00 AM via virtual hearing

RE: Support Intro. No. 1946: A Local Law to amend the administrative code of the city of New York, in relation to assistance for replacing gas infrastructure

Re: Support Intro No. 142: A Local Law to amend the administrative code of the city of New York, in relation to preventing certain types of dust from construction from becoming airborne

Re: Support Intro No. 143: A Local Law to amend the administrative code of the city of New York, in relation to the creation of an emergency ambient air quality monitoring program

My name is Kim Fraczek, director of Sane Energy Project that represents over 12,000 New Yorkers working for the past decade toward halting fossil fuels and moving our economy to 100% community owned and led renewables and holistic efficiency.

It is such a pleasure to work with such a forward thinking City Council, and I thank you for your valiant efforts to address climate change as the crisis *that it is* in our beloved waterfront city.

Sane Energy Project supports Intro 1946

Since the inception of our organization that fought the unjust Spectra fracked gas pipeline in the West Village ten years ago with NYC Council support, Sane Energy did everything we could to engage with New York City and New York State to push for renewable and sustainable alternatives to fracked gas coming into our city. The push to cash in on the fracking boom happening in neighboring Pennsylvania, where many of Sane Energy Project's members grew up happened fast and fierce under Michael Bloomberg's leadership, who we perceived as most interested in squashing any alternatives to gas so that Wall Street, Bloomberg's playground, could flourish from the extraction, poison, and corporate bullying of our friends and family in Pennsylvania.

We knew that we faced serious barriers to having access to renewable alternative ways of regulating temperatures in our homes and cooking our food as we advocated for biodiesel inside the NYC Clean Heat Program to prevent expensive boiler conversions where costs would inevitably be passed onto renters in an already growing economically inaccessible city. We saw biofuel from the cities spent cooking oil as a holistic approach to preventing waste and supplying fuel. Unfortunately fracked gas won, and we have been seeing major expansions ever since then. Most currently, two blocks from my home in North Brooklyn with a new National Grid transmission pipeline that is unnecessary, costly, dirty, and dangerous that we urge you to stand with us against to halt.

Today, Sane Energy Project is involved with several campaigns to halt the use of fracked gas in our city, and we have identified even more barriers as time goes on. The education and information about alternatives is not readily available *on purpose*. That is why we are 100% supporting intro 1946, thank you for this work. Other barriers we have identified in our advocacy work, and especially as Parties in the corporate utility rate cases is that the corporate utility model has a #1 interest in making profit for shareholders not supporting our community needs, public health and safety, and climate action. Additional barriers we want to put on the Council radar:

The public utility law that we must change includes mandates such as:

- "100-foot subsidy" The 100-foot subsidy provides ratepayer-subsidized gas infrastructure free to building owners and is a strong incentive for the expansion of gas infrastructure investments in New York State. Ultimately, this law will need to be either changed or eliminated to end this fossil fuel subsidy. We urge the Council to help craft and support needed legislative changes, including attention to how utilities can shift their obligation for customer hookups to cover renewable thermal rather than gas.
- Guaranteed gas hookup for new developments instead of building sustainably
- PSC, who regulates gas utilities, silo'ing of Proceedings does not allow us to holistically address climate, health, safety
- Companies offering to "study" rather than take action kicking can down the road
- Companies lobbying with fear tactics and misinformation (supply issues/false scenarios of cold elders)
- Companies financial incentives trump public health and safety

We would love to see a fracked gas free New York City, and pass legislation that makes it illegal for any new development to install gas. Thank you for your movement toward this common goal, and we look forward to continuing working with you to ensure the Mayor's call for halting all fossil fuel infrastructure in the State of the City address takes place on the ground and not just in media friendly announcements, as we see National Grid's North Brooklyn (MRI) fracked gas pipeline and LNG expansion proposal continues despite this announcement.

Briefly, we would also like to express support for

Sane Energy Project supports Intros 142 and 143

My neighborhood is currently experiencing major dust and air debris from the construction of the North Brooklyn Pipeline. Local Businesses have all been harmed financially from the street closures, but then have to endure the massive localized air pollution because the company and its contractors Hallen are not taking care to construct without creating a huge mess, and making our streets in Bushwick look like a warzone. I am footnoting an article here from Bklynr¹ titled *'It's Killing Us,' Small Businesses Take a Hit as New Pipeline Construction Continues.* So we support any City initiative that would prevent dust from construction from becoming airborne.

Additionally, pertaining to the North Brooklyn pipeline, we support any development of a program for monitoring air quality during and after major commercial and industrial fires. We know pipelines explode. As a matter of fact,

¹ <u>https://bklyner.com/mri-national-grid-pipeline/</u>

in January 14th at the Community Board 1 meeting in North Brooklyn that we had to force National Grid to come to to do the outreach they said they did, but did not do, Keith Rooney of National Grid stated to our entire community that "it cannot rupture, it will leak, it cannot rupture", and in fact, just two weeks later on January 28, one of their pipelines ruptured and send two utility workers to the hospital with severe burns when a leaky National Grid gas line exploded into flames in Brooklyn. I am putting the NY Daily News article titled "*Two workers seriously hurt when leaky gas line explodes beneath Brooklyn street*" in the footnote as well.²

Respectfully submitted,

Kim Fraczek Director, Sane Energy Project

Atrick

646-387-3180 kim@saneenergyproject.org

2

https://www.nydailynews.com/new-york/nyc-crime/ny-workers-injured-brooklyn-fire-gas-line-20200128-h2f ajyk6mja4rpp3qdur2cismi-story.html



Testimony of Stormwater Infrastructure Matters (SWIM) Coalition Before the New York City Council Committee for Environmental Protection Friday, August 14, 2020

RE: Intro No. 1851: A Local Law to amend the administrative code of the city of New York, the New York City plumbing code and the New York City building code in relation to city-wide stormwater management controls

Thank you for the opportunity to submit public testimony supporting proposed legislation under Intro 1851 in relation to city-wide stormwater management controls that would reduce the flow of stormwater and waterborne pollutants from construction sites into both the separate and combined sewer systems.

SWIM Coalition represents over 70 organizations dedicated to ensuring swimmable and fishable waters around New York City through natural, sustainable stormwater management practices—both green and grey infrastructure—in our neighborhoods. Our members are a diverse group of community based, citywide, regional, and national organizations; water recreation user groups; institutions of higher education; and businesses.

The Newtown Creek Alliance and Gowanus Canal Conservancy are both SWIM Coalition members and we fully support the testimony they are delivering to the Council. We especially note the GCC testimony in regards to their recommendations for ensuring No Net Increase in CSO's for the upcoming 2021 Unified Stormwater Rule that will follow with the passage of the Intro 1851. We support GCC's recommendations and urge NYC DEP to adopt them as part of the rulemaking.

Reduce Soil Disturbance Threshold

While SWIM supports Intro 1851's expansion of the stormwater management controls to include construction sites in areas of the city that are served by both the Combined Sewer System, we strongly recommend that the bill include language that calls on DEP to reduce the soil disturbance threshold requirement to 10,000 square feet rather than their current plan to reduce it to 20,000 ft². We recognize and acknowledge DEP's consideration that went into reducing the threshold size from one acre to the current recommendation of 20,000 ft²; however we strongly feel that a reduction to 10,000 ft² would be far more impactful in removing stormwater and CSO pollutants from NYC's overburdened waterways.

Additionally, it would be useful for DEP to evaluate and integrate a density-based threshold into their 2021 stormwater rule. Their recent feasibility study did not consider density. Higher density sites would potentially benefit more from an increase in infiltration practices, which reduce localized flooding and combined sewer overflows, while improving air quality, reducing heat island effect, and creating green space.

Equitable and Participatory Public Process

Following the enactment of Intro 1851, we urge the City to conduct a robust, collaborative, and transparent public process for the 2021 Unified Stormwater Rule, which will entail amendments to the citywide Construction Site Stormwater Runoff Control and Post Construction Site Stormwater Management permitting process as well as modifications to the NYC Stormwater Design Manual. Because a primary goal of the forthcoming 2021 Unified Stormwater Rule is to increase citywide infiltration practices, which have a greater impact on reducing CSO's and stormwater pollution, we seek to ensure that variables beyond lot size will be considered in that process, including excavation depth, groundwater table, proximity to superfund sites and waterbodies with a CSO LTCP, and impaired waterbodies with pollutants of concern.

While it might be a tendency to think that only developers are interested in participating in this discussion, there are many stakeholders from upland and waterfront communities who can provide valuable input on the rule. They are the eyes and ears on the ground, the constituents most impacted by the construction, and are vital stewards of our waterways.

We commend DEP on their public outreach for the MS4 SWMP in recent years and recommend they use that as a model for the public process on the 2021 Unified Stormwater Rule. We recognize that the public process may have to be virtual rather than in person due to the COVID-19 pandemic and are happy to help facilitate the public dialogue in any way we can in order to support DEP's efforts to engage the public during this unprecedented and challenging time.

Public awareness and education programs to ensure that New Yorkers fully understand their impact on the City's sewer systems, while somewhat improved in recent years, still remain a challenge. We often hear from members of the public that they had no idea the City's combined sewer system and separate stormwater system pollute the local waterways where they fish, wade, swim, and paddle. Waterfront communities and low-lying areas throughout the city are more and more vulnerable as the polluted waterways in their neighborhoods remain a health hazard and threaten to flood their streets and homes during storms and as sea levels rise. These neighborhoods include low-income communities of color, some in and around Significant Maritime Industrial Areas, which have suffered historic inequitable and negative health outcomes from polluting infrastructure and land uses - exacerbated by the cumulative impacts of CSO outfalls. These low-lying communities often suffer the brunt of the actions in the upland communities. Greater awareness of these issues city-wide is vital, especially as effects from climate change induced flooding, sunny day flooding, and storm frequency and intensity grow increasingly detrimental to our communities and waterways.

Green Infrastructure

While DEP's Green Infrastructure program (and grey infrastructure program) has prioritized the low-lying and waterfront communities in their efforts to mitigate stormwater runoff upland, the GI program has met many challenges that have slowed its progress toward meeting the 2030 stated goals and milestones. DEP's highly-restrictive GI project area selection has left too many of our waterways vulnerable to continued pollution and will fall far short of the volumes assumed in each of the existing CSO Long Term Control Plans, meaning unless changes are made there will be massive investment in grey infrastructure that does little to mitigate overflow events and water pollution.

As the city moves to develop the Unified Stormwater Rule we fully support the recommendations made by Gowanus Canal Conservancy regarding the inclusion of adaptive variances as part of the permitting process to account for unique challenges such as high groundwater table, limitations from bedrock clearance, superfund designated areas, and waterbodies with CSO Long Term Control Plans. These adaptive variances would enable alternative stormwater management practices to be deployed in order to accomplish a No Net increase in CSOs. Every "covered development" project should be required to select stormwater management practices based on site conditions. Additionally, where sites are deemed infeasible for infiltration there should still be a requirement to provide stormwater capture or CSO mitigation within the watershed. GCC has provided DEP with a full set of recommendations in this regard that we fully support. See attached letter that reflects these recommendations. We encourage DEP to revisit other sites previously deemed unfeasible to verify if these alternative stormwater management practices could be deployed instead.

We support 1851 with the above recommendations and look forward to its passage so that the Unified Stormwater rulemaking process can begin. Thank you for the opportunity to provide this testimony, we look forward to continuing a productive dialogue on this subject in the year ahead.



August 17, 2020

Hon. Bill de Blasio Mayor of New York City City Hall New York, NY 10007

Hon. Costa Costantinides Councilman New York City Council 250 Broadway, Suite 1778 New York, NY 10007

Re: New York City Council Int. 1982

Dear Mayor de Blasio and Councilmember Constantinedes:

TechNet is the national, bipartisan network of over 84 technology companies that promotes the growth of the innovation economy by advocating a targeted policy agenda at the federal and 50 state level. TechNet's diverse membership includes dynamic American businesses ranging from startups to the most iconic companies on the planet and represents more than three million employees in the fields of information technology, e-commerce, clean energy, gig and sharing economy, venture capital, and finance. TechNet is committed to advancing the public policies and private sector initiatives that make the U.S. the most innovative country in the world.

Electricity is the lifeblood of the technology economy, not just electricity that is economical and clean, but electricity that is *successfully delivered without interruption*. We are concerned that uncertainty surrounding the implementation of NYC Local Law 97 is preventing our member companies from taking steps to reduce global GHG emissions and mitigate the risk of service interruptions in an era when the number and severity of electric grid outages in New York City are increasing.

This uncertainty is hindering the ability of our member companies to utilize the most reliable and advanced non-combustion fuel cell power generation systems and is instead leading to a continued reliance on diesel back-ups generators that *increase* the local forms of air pollution that most directly impact New York City neighborhoods.



We appreciate your leadership on the challenge of climate change and are fully supportive of your efforts to increase the efficiency of New York City buildings, which are the source of nearly forty percent of the City's greenhouse gas emissions. It remains important, however, to get the details right in order to avoid un-intended consequences. As it stands the lack of a measurement methodology is creating very significant confusion and hesitation in the marketplace.

Intro. 1982 will avoid this result by providing a simple and accurate standard by which to calculate the emissions associated with non-combustion fuel cell distributed energy resources. We enthusiastically support Intro. 1982 and look forward to working with City Council and the Mayor's Office to continue the implementation of Local Law 97.

Sincerely,

/s/

Samantha Kersul Executive Director TechNet skersul@technet.org

cc: Nicholas Roloson, Chief of Staff Nicholas Widzowski, Esq. Legislative Director & Counsel Mark Chambers, Director of Mayor's Office of Sustainability Jainey Bavishi, Director of Mayor's Office of Recovery & Resiliency Suzanne Desroches, Mayor's Office of Sustainability John Lee, Deputy Director Green Buildings and Energy Efficiency

Intro No. 142 - NY City Council Environmental Protection Committee Testimony By: Kim Smith

Good morning everyone. I'd like to thank the Committee on Environmental Protection and the sponsors of Intro No. 142: Councilman Levin, Councilman Constantinides, Councilwoman Ayala and Councilman Lander.

Thank you Councilman Bill Perkins for assisting us, from day one, with organizing our local elected officials. Thank you Peggy Shepherd, Cecil Corbin-Mark, Charles Calloway and Sonal Jessel of WE ACT for your unwavering support and guidance in navigating through past environmental challenges associated with the current construction project adjacent to the Ennis Francis Houses in Central Harlem.

My name is Kim Smith, Chairwoman of the Ennis Francis Houses Extermination & Construction Committee (ECC). The Committee was formed in October of 2016 in anticipation of a very large construction project. The construction site is directly in front of our housing complex, which is comprised of two buildings with a total of 220 units.

Many of the residents suffer with asthma, bronchitis and other respiratory illnesses. Grave concerns about the potential health and safety issues of construction related airborne contaminates of asbestos, mold & dust, as well as concerns about rat infestation were a few environmental issues that we attempted to minimize by organizing early and meeting regularly with the Developer, our local elected officials, community-based organizations and stakeholders.

In April of 2019, as the Developer began demo of the interior of 10 lowrise buildings, that were built in 1983, the construction workers began tossing mold contaminated sheetrock, tile flooring and trash out of the windows. Dust literally covered residents' windows, windowsills and furniture. You can all imagine, just how concerned and outraged we were. We had no idea what was in the dust. We wondered, "Is this asbestos or some cancer causing dust particles?" As soon as residents captured the above mentioned atrocities via cell phone video... we contacted WE ACT immediately for their assistance. Fast forward, one year later, on April 6, 2020, in the midst of the COVID-19 shutdown, where all non-essential construction was prohibited, the Developer demolished nine (9) of the low-rise buildings, illegally. The 35+ year old buildings were not wet, the buildings were simply demolished. Dust clouds filled the community. We immediately contacted WE ACT and Manhattan Borough President Gale Brewer. Madam Brewer contacted the Department of Buildings and the construction site was shutdown via multiple Stop Work Orders. Additionally, we contacted NY 1 News that came out and covered the illegal construction during COVID incident.

Dust related environmental injustices that occurred directly in front of our occupied buildings and brownstones underscore the importance of Intro No. 142. It is crucial that Intro No. 142 has a detailed dust mitigation plan with language that is easy for lay-people of the community to understand. Additionally, I truly believe that there should be a very strong enforcement portion to the bill. Because, although the residents and the Harlem community at large worked tirelessly after the April 2019 incident of the window... One year later, the Developer had no fear of retribution of illegally demolishing nine (9) buildings in the midst of the Coronavirus shutdown, in the Harlem community, where residents historically suffer disproportionately with respiratory illnesses.

Thank you so much for allowing me to share a brief overview of the common environmental injustices that are often associated with gentrification and construction in poor urban communities.

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Urban Green Council Testimony in Opposition to Intro 1982 August 14, 2020

Urban Green Council submits this testimony in opposition to Intro. 1982. The proposed amendments to Local Law 147 of 2019 under this bill would inappropriately set favorable carbon coefficients for fuel cells and usurp the authority of the Advisory Board to determine final recommendations for the implementation of Local Law 97 of 2019.

Combined, Local Law 97 2019 and Local Law 147 of 2019 are the most ambitious pieces of climate legislation ever created to drive carbon emission reductions from buildings. Fuel cells perpetuate the use of natural gas in addition to methane, a powerful greenhouse gas, from its extraction. As NYC and New York State are driving towards ambitious and deep carbon reductions, now is not the time to favor fossil fuel burning technologies.

Fuel cells are inherently a form of cogeneration technology, which is already well accommodated under Local Law 97, and the amendments proposed in this bill are inaccurate in their portrayal of carbon emissions resulting from the use of fuel cells. In reality, fuel cells are no more environmentally beneficial than any other form of cogeneration. To equate an emissions factor for the use of natural-gas powered fuel cells with that of the electricity grid, as is proposed in Intro. 1982, would not only be incorrect, it would steer NYC away from our shared city-wide goals to reduce greenhouse gas emissions from buildings.

Critically, Intro. 1982 undermines the role Local Law 97 set out for the Advisory Board and the DOB Commissioner to administer aspects of the law. Undertaking such a change when the Advisory Board and their Working Groups have only just begun to meet would set a bad precedent and send mixed messages to building owners who are looking for clarity in how to comply with this monumental law.

Instead of piecemeal amendments that are outside of the clearly determined rulemaking process for Local Law 97, the Council should allow this suggested amendment to Local Law 147 to be deliberated through the established Advisory Board process. And instead of supporting technologies that continue to burn fossil fuels, the Council should support only amendments that favor a greener grid powering NYC's buildings, enhance the electrification of buildings to use that low-carbon grid, and increase the adoption of distributed energy resources like solar and on-site storage to reduce building emissions.

In summary, we oppose the amendments proposed by Intro. 1982, and urge for it to be withdrawn.



TESTIMONY BEFORE THE NEW YORK CITY COUNCIL

COMMITTEE ON ENVIRONMENTAL PROTECTION

AUGUST 19, 2020

Good morning, Chair Constantinides and members of the Committee. My name is Stas Zakrzewski, Principal at ZH Architects, NYC. I am an Architect, Advisory Board member for the LL97's / Climate Mobilization Act.

I am also a board member of New York Passive House and am active in designing and advocating for energy efficiency in our buildings and infrastructure.

LL97 is a groundbreaking law that is putting New York City at the forefront of efforts to combat climate change. Leading cities around the world are looking to this law to see how they can implement similar measures to curb emissions.

The Climate Mobilization Act's Advisory Board is composed of people of many diverse backgrounds. We are architects, engineers, tenant advocates, environmental justice representatives, owners and other experts. We have been appointed by City Council or the Mayor's Office and one of our roles is to identify the appropriate emissions factors against which distributed energy sources, from solar to storage to heat pumps will be credited. The advisory board has started this important review process.

My understanding is that Intro 1982 specifies the source for the factors that would be used to calculate the marginal greenhouse gas emissions from *Natural Gas Fuel cells*. I strongly disagree with this proposed legislation as:

- 1) It gives preferential treatment to Fossil Fuel based technology,
- 2) Marginal Emissions vary on an hourly, daily and seasonal basis and the proposed Factor is not variable. This is a serious flaw.
- 3) It undermines the hard work of our Advisory Board which was specifically created with a diverse group of people representing many varied points of view. Proposed Intro 1982 circumnavigates the democratic review process that was set up set up to assess all types of technology and to provide recommendations.



LL97 is a once in a lifetime proposal that moves NYC significantly down path carbon neutrality by 2050. For these reasons, we urge the Council to let the process established by LL97 play out, and give the Advisory Board and the Department of Buildings the time needed to establish the emissions factors for all technologies being considered. We look forward to further discussions with Council on Intro 1982 and the LL97 process.

Regards

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Stas Zakrzewski, RA, CPHC Principal ZH Architects LL97 Advisory Board Member Co-chair of Multifamily Building technology & Pathways Working Group From: Fiona Cousins [Fiona.Cousins@arup.com] Sent: Tuesday, August 18, 2020 1:07 PM Subject: Intro 1982 - testimony/comment

I understand that Intro 1982 will be coming for vote tomorrow and wanted to put forward my comments, in opposition to the proposed law:

There is a lot of work to do to write the rules around LL97/LL147 to evaluate the ways in which carbon should be counted. It is going to be important that the rules are clear and consistent.

This bill will create an exception or cut out that I am afraid will lead to a proliferation of special exceptions, making it even harder to have clear and consistent rules, and encouraging people to seek loopholes or practice gamesmanship in meeting the requirements of the act. It is not clear that this particular exception has any merit, or that there is a good reason for special treatment of this.

I have been proud, as a New Yorker and as a professional in building energy efficiency, of the work that the council has done to provide leadership in this area of operational carbon emissions and I do not believe that we will serve this leadership position well by adding complexity, like this represents, to the rules.

With best wishes

Fiona Cousins PE FCIBSE LEED Fellow Arup Fellow | Arup Group Board

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More about me: <u>http://video.arup.com/?v=1_rl5j7q0s</u> Saving Civilization: <u>https://www.youtube.com/watch?v=z2qEeBV14a8</u> Proptech: <u>https://www.youtube.com/watch?v=MZpoSpxzpCc</u> <u>Resilience</u> <u>Two Degrees: Climate Change and the Built Environment</u> August 18, 2020

Hon. Costa Constantinides Chair, Committee on Environmental Protection New York City Council 250 Broadway, Suite 1778 New York, NY 10007

Re: Intro. No. 1982

Dear Council Member Constantinides:

The National Fuel Cell Research Center ("NFCRC") offers the following comments in support of Intro. No. 1982.

The NFCRC facilitates and accelerates the development and deployment of fuel cell technology and fuel cell systems; promotes strategic alliances to address the market challenges associated with the installation and integration of fuel cell systems; and educates and develops resources for the various stakeholders in the fuel cell community. A primary mission of the NFCRC is to enable the improvement of air quality and reduction of greenhouse gas emissions through increased use of distributed generation and clean energy sources.

The NFCRC was established at the University of California, Irvine by the U.S. Department of Energy ("DOE") and the CEC with the goal of both developing and transitioning to a form of power generation that is both energy efficient and environmentally sensitive. The DOE has recognized the significance of the NFCRC efforts in bringing government agencies, business and academia together to develop effective public-private alliances -- in the case of the NFCRC, in order to develop advanced clean sources of power generation, transportation and fuels. When New York City adopted Local Law 97 the legislation included emissions reduction targets and financial penalties for customers but did not include an electric grid emissions standard against which clean energy resources would be measured. As a result, customers are left to wonder how projects that they know will reduce greenhouse gas emissions will be measured for purposes of Local Law 97. This uncertainty has chilled the market for clean and reliable distributed generation, resulting in higher emissions, greater reliance on diesel backup generators and reduced preparation for outages during future storm events or other forms of grid instability.

Intro. 1982 should mirror the simple standard utilized by the State of New York to assess its own programs. This standard is particularly sensible with respect to fuel cells, since they tend to operate in a "baseload" format as opposed to the inconsistent and unpredictable operations of intermittent resources. While the calculations associated with intermittent resources can be quite complex, an annual average hourly marginal emissions figure can be used to accurately calculate the emissions impacts of a consistent baseload distributed generator. We therefore strongly support the adoption of Intro. 1982.

Thank you for the opportunity to comment on this important legislation.

Respectfully submitted,

/s/ Jack Brouwer

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