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Testimony of Con Edison at the October 20, 2010 Hearing of the New York City Council Committee on Housing and Buildings

Good morning Chairman Dilan and members of the Committee. This morning, a package of bills addressing energy efficiency, solar installations and additional greening measures is before you. The company supports these initiatives. Con Edison has installed green/white roofing on its own facilities, is actively pursuing energy efficiency and is taking a lead in the 100 Days of Solar program, an initiative to streamline the process for installing solar resources in New York City, to reduce the time from initial permit application to operation of the system to 100 days from the current almost one year period.

However, we do have some concerns with Intros. 340 and 353. Intro. 353 would create a solar map, a project that is duplicative of current efforts already underway between Con Edison and the City University of New York (CUNY). We expect that you will hear more about this initiative from CUNY at today's hearing.

Intro. 340 adds sun control devices to the current Building Code. While most awnings in the City are retractable and are not open during the evenings (or can be quickly retracted during the day by the occupants), sun control devices may be fixed position. This becomes an issue if the device extends over utility infrastructure, posing a safety hazard if the company needs to access their structures. We respectfully request that Intro. 340 be modified to read that fixed position devices be prohibited over utility infrastructure (including vaults) unless they are at least 40 feet above grade/sidewalk where they would extend over such infrastructure. This distance would permit company personnel access to these structures during an emergency while ensuring their safety.

October 20<sup>th</sup> hearing on City Council Solar Legislation New York City Council, Committee on Housing and Buildings Comments from City University of New York

Thank you for the opportunity to provide comments today. My name is Tria Case, University Director for Sustainability at the City University of New York (CUNY). We serve as the lead for the New York City Solar America Cities Partnership, working with the Mayor's Office of Long-Term Planning and Sustainability and the New York City Economic Development Corporation.

CUNY has had a central role in New York City solar policy since 2005, when we were awarded funding through the U.S. Department of Energy's (DOE) "Million Solar Roofs" Initiative (MSR). With this funding we conducted the first solar market survey in New York City, which was published in 2006. This survey was followed in 2007 by a policy report identifying market barriers to solar, along with recommendations on removing them.

We were given the opportunity to start implementing these solutions when our application to DOE's "Solar America Cities" (SAC) program was approved and New York City was designated one of the first Solar America Cities in 2007. CUNY, on behalf of the partnership, received funding and technical assistance from the National Renewable Energy Laboratory (NREL). One of our primary projects was an analysis, conducted by NREL, of the PV potential and impact on Con Edison's network grid. This project Has created a strong relationship with Con Edison and they have been a supporter of our solar efforts over the last two years. Additional work during this phase included support for an online solar project tracker at Con Edison and a study with the NYC Office of Emergency Management on solar technologies for emergency situations. We will also publish an updated long-term solar energy policy for New York City in the next month.

Earlier this year, the NYC SAC partnership was granted over \$1M from DOE and NYSERDA to continue its work on NYC solar initiatives. This funding is currently being used to support several projects including:

- New York City Solar Empowerment Zones strategic areas where solar can have the most impact. The Zones are geographic boundaries, developed with Con Edison, where energy use is highly coincident with solar (e.g., daytime peaks) and there are targeted demand reduction efforts over the next ten years. Enough solar in these areas could potentially defer infrastructure upgrades in the future.
- New York City Solar Ombudsmen -- CUNY has hired two staff members to support the expansion of our work over the next two years.
- New York City Solar Map leveraging funds from DCAS to purchase LiDAR data, CUNY is building a map to provide estimates of solar potential for every rooftop in New York City. This will be the most granular and detailed solar map in the country, and it will identify current solar installations and allow Con Edison to include solar potential in its energy planning.
- Data Acquisition System installing real-time monitoring systems that will enable Con Edison to see how much power PV systems are producing at any time, and how that energy is impacting their networks.
- Streamlined Permitting working with Con Edison, DOB, NYSERDA and the FDNY to create a streamlined permitting process. CUNY has signed an MOU with DOB for one of the ombudsmen to sit at DOB twice a week to assist with this project.
- **Community Solar** researching and piloting an innovative financing mechanism that will explore ways for more New Yorkers to participate in solar generation, even if it's not on their roof.

- Outreach and Education NYC SAC will be launching an outreach campaign within the Solar Empowerment Zones to deploy as much solar as possible within these areas.
- Leveraging Statewide Funding Opportunities both the New York Power Authority (NYPA) and NYSERDA will be providing new funding for downstate solar projects. We are identifying large rooftops in the Zones in advance and conducting pre-feasibility studies to encourage as many projects as possible in these areas.
- Solar Thermal -- NYC EDC has launched a solar thermal grant pilot program, and the first installation from this project is currently underway in the Bronx.

As we move forward on all of these projects, we are glad to see the Council's attention to solar in New York City. Today, we have some concrete suggestions for how the Council could best support solar:

- Pass the revised New York City Electrical Code for 2008. This code has been approved and is only waiting for passage by City Council. This new code will remove one of the largest administrative barriers to solar, according to an installer survey we conducted this year: the requirement that every system must be independently tested by a Nationally Recognized Testing Laboratory (NRTL).
- Provide ongoing support for CUNY and the New York City Solar America City (NYC SAC)
  Partnership. The Partnership has proven its ability to strategically move the solar market
  forward and bring industry, local government, utilities, and advocates together. For instance,
  the New York City Solar Map, which achieves some of the goals set forth in this current
  legislative package, will need ongoing maintenance and updating. CUNY will need funding to
  manage the Map and ensure its effectiveness as a tool for to encourage solar deployment in
  New York City.
- The proposed bills to exempt solar from landmarks regulations, include solar as a permitted obstruction and exempt it from the 33.3% rule are consistent with feedback we have heard from the industry over the last several years and could have a large positive impact on the market. However, it is unclear that the permitted obstruction designation can be achieved through legislation as all zoning changes will have to go through ULURP.

We will be happy to provide more specific feedback as these bills are further developed. We thank you for the chance to speak today and look forward to working with you.



Committee on Housing and Buildings Councilmember Erik Dilan, Chair New York City Council Public Hearing 10/20/2010

### Testimony of The Vote Solar Initiative Regarding: No. 338, 340, 341, 342, 346, 347, 348, 349, 350, 351, 352, 353, 358 (Solar Bills)

Ladies and Gentleman of the Committee on Housing and Buildings and the New York City Council –

The Vote Solar Initiative is pleased for this opportunity to offer public testimony on this suite of introduced legislation known collectively as the solar bills.

The Vote Solar Initiative (Vote Solar) is a non-profit organization with the mission of bringing solar power into the mainstream. With offices in San Francisco, California; Lancaster, Pennsylvania and Brooklyn, New York, we work in over 15 states to implement the policies necessary to build solar markets.

Vote Solar believes these bills collectively offer several good steps toward a New York City that is more accessible for solar energy. We urge their quick adoption.

Individually no individual initiative is going to solve the challenges we face as city dedicated to deploying significant amounts of solar energy. However, in just the last year, New York City has begun to make important strides in addressing areas of critical need. Some of the recent initiatives include but are not limited to, work done to implement a geographic balancing initiative in the state's RPS program that will increase the amount of solar projects in the down state Zone J region, an increase in the amount of net metering and interconnection that takes place within the city limits, and the Sustainable Energy Center at Bronx Community College working collaboratively with city planners and ConEd to lead an initiative that will implement key solar empowerment zones in each of the five boroughs.

This suite of packages reinforces that work. As mentioned, no on initiative alone solves the critical need to streamline solar projects. But taken collectively these programs can do much to reduce the costs and barriers-to-entry for solar in what is, in our opinion, the most diverse and

The Vote Solar Initiative 155 Water Street Brooklyn, NY 11201 www.votesolar.org vibrant city in the world. The bills do this by significantly reducing the installation time and cost involved in a solar installation.

Reducing installation barriers is the most important thing a local government can do for solar. Much news has been made about the declining costs of solar PV modules. This reality has much to do with global demand. For instance, a Reuters article pointed out that in one six month period module prices declined 50%<sup>1</sup>. However, the cost of modules is just one aspect of a PV installation. In most markets installation accounts for fifty percent (50%) of the cost of a solar system, yet in a market such as New York, where there are far more bureaucratic and labor market considerations, the balance of cost can be upwards of 60 percent (60%) on the installation cost.

These bills begin to address those concerns, helping the city and its installer base achieve an economy of scale that can begin to compare to other regions. And once installed, solar PV will add considerably more value to residents of New York City than other regions. Solar PV does this by producing critical energy when New York City, a well know load pocket that uses more energy than it produces, needs it the most. The solar bills address this need in a number of ways, but not limited to eliminating unnecessary crane fees, recognizing solar equipment as a valuable asset to building structure just as we would signage, creating equity in roof top assessment, and developing a clear strategy for identifying public buildings as a resource for photovoltaic and thermal solar systems.

These are important steps for our city to take in establishing energy independence, addressing the risk of climate change which will present critical challenges to our city's infrastructure, and fostering economic vitality.

In summary, we appreciate the Council's initiative in this matter. We thank you for allowing us the opportunity to speak here today and we look forward to furthering the conversation as this process moves forward.

Respectfully,

Shaun Chapman East Coast Campaigns Director 155 Water St Brooklyn, NY 11201

<sup>1 &</sup>quot;After peaking at \$4.20 a watt in 2008, prices for solar panels have dived as much as 50 percent to about \$2.40 a watt for European and U.S. companies that make silicon-based panels and \$2.00 a watt for Chinese suppliers" - Reuters, August 21 2009

## SUNPOWER

Good morning- ladies and gentlemen of the Council.

My name is Jim Torpey. I am the Director of Market Development at SunPower Corporation and I am here this morning to support the solar bills being considered by this Committee.

SunPower is one of the world's largest manufacturer and installer of solar electric generating equipment. SunPower is a NASDQ listed company based in California with over 5,500 employees on four continents. SunPower has manufacturing plants around the world, including a plant in Silicon Valley California. We have offices in Brooklyn as well as a large presence in the metropolitan area with our Eastern U.S. headquarters located in Trenton New Jersey. SunPower has a robust dealer network throughout New York State, including a number of dealers who install systems in New York City. Since SunPower's solar panels are the most efficient available in the commercial market, they are ideally suited for New York City where roof and ground space is at a premium.

As you know, installing solar in the City involves a series of challenges. The bills you are considering will be helpful in addressing some of the institutional barriers such as a lack of permitting clarity, cost and overlapping regulation. We support the suite of bills you are considering as a step on the path of increasing solar energy production in the City. There are three additional points I would like to share with you today:

- 1. Bill 0349 requires City Agencies to undertake solar feasibility studies for city owned buildings and install solar where the payback is within 25 years. This is a bill that could significantly increase the amount of solar installed in New York City if it is expeditiously implemented. I would urge that the Solar Empowerment Zones that have been established under the auspices of the Solar America City program at CUNY be used as the first areas targeted for feasibility studies. Identifying city owned buildings, performing site and economic analysis, working with ConEd on grid interconnection, issuing competitive RFPs and installing solar systems within the Empowerment Zones will give the City some real world experience in getting solar on buildings. The lessons learned from working within the Solar Empowerment Zone can then be applied to other city owned buildings throughout the five boroughs.
- 2. In addition to working with the Solar America City team at CUNY to test out the Empowerment Zone concept, I would urge the Council to encourage the City's Albany representatives to pass legislation at the State level that will expand the RPS program to include larger systems and target downstate deployment of distributed technologies such as solar. A Bill to improve the RPS will most likely be introduced in the new legislative session in Albany. Support from the City Council and the Mayor's office will be helpful in demonstrating the desire of City residents to participate in an RPS program that has largely passed them by.
- 3. The City should also encourage the New York Department of Public Service to expeditiously implement the Downstate Solar Procurement- Geographic Balancing process. This targeted procurement in the Downstate region will ensure that a fair share of New York City residents' utility payments are invested in the City to increase the amount of clean energy and create new high paying, quality jobs in the City.

I thank you for your efforts to improve the climate for solar deployment in New York City and will be pleased to work with you in implementing these Bills and any others to be considered in the future by the Council.

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October 20, 2010

To: Committee on Housing and Buildings, New York City Council

First, I would like to commend the City Council of New York for recognizing the environmental importance of vegetated green roofs in New York City.

While currently there are no clear rules from the DOB for the installation of green roofs unless applying for the tax abatement, I believe there does need to be minimum guidelines established to protect both property owners as well as green roof professionals. However, I do have a few concerns.

First, I'm concerned that some of the proposed standards will be prescriptive requirements, as opposed to recommendations and/or best practices. For example, as there are new green roof system components being introduced in this fast-growing industry all the time, there should be a way for the DOB to approve green roofs that use these new materials so long as they achieve the same level of performance, even though they may not yet have obtained an ASTM rating.

Also, although it seems that the Council is wisely promoting the use of rooftop farms, I'm unsure if you can interpret the ASTM E 2400-06 Guide for Selection, Installation and Maintenance of Plants for Green Roof Systems to include food-producing plants. This is another example where the DOB would need to clearly allow for exceptions to the ASTM standard.

Finally, the proposed new section 27-3026 of the administration code states, "(b) The department shall, by rule, adopt existing national standards for vegetative green roof systems..." Currently, there is no "national standard for vegetative green roof systems." In 2009, the city of Toronto was the first in North America to establish a municipal standard of minimum requirements for the design and construction of green roof standards and/or incentives, and ideally, I hope that the city and the DOB will work with the NYC green roof industry professionals to develop and implement such rules and guidelines.

Most importantly, how the proposed code is implemented is key, as we've seen how the restrictive process of obtaining the tax abatement has kept many from actually applying for it. The council states that it is in the best interests of the city of New York for the DOB to develop criteria to ensure that green roofs may be used in widespread fashion, but if you want them to be widespread, they have to be obtainable, and the process of filing with the DOB must not be cost or time prohibitive (i.e., for the tax abatement, an entirely separate Alt2 permit must be filed for the green roof, even if one is already open for a property).

Thank you for hearing my concerns. I would love to be involved and am available to discuss further.

Amy Trachtman, GRP Partner, Goode Green



### Testimony of Russell Unger Executive Director, Urban Green Council Chair, NYC Green Codes Task Force

### Before the New York City Council Committee on Housing & Building

October 20, 2010

Good morning Chairperson Dilan and members of the Committee, my name is Russell Unger and I am the Executive Director of Urban Green Council, the U.S. Green Building Council of New York, and Chair of the NYC Green Codes Task Force.

Let me begin by thanking the City Council for its extraordinary leadership this year in greening the construction codes. The Council has already enacted 9 laws on green codes in 2010, one of which has changed the very purpose of the construction codes so that protecting the environment is now one of the codes' four stated purposes.

Since almost all of the bills under consideration today address alternative and distributed energy, I will be begin by explaining the Task Force's perspective on these technologies. The transition to a low-carbon economy and better air quality will equire a mix of energy sources including alternative energy and distributed energy. In the short term, we are focused on removing code impediments; many

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Alexander Hamilton U.S. Custom House One Bowling Green Suite 419 New York, NY 10004 Phone (212) 514-9380 Fax (212) 514-9381 urbangreencouncil.org restrictions in the city's code were enacted before these technologies existed, and thus did not contemplate their use.

The Task Force report, however, did not recommend incentives or mandates for solar or other alternative energy systems. We applaud any private owner wishing to install solar thermal or solar PV; they are taking a leadership role and hope others will do the same. However, we question whether singling out alternative energy systems is the most efficient means to achieve carbon reduction or air quality improvement goals. Because of their extremely long payback, building-integrated alternative energy systems require significant incentives to be attractive to owners. In comparison, many energy efficiency investments, as simple as insulating roofs, have a short payback. Incentives for such investments, which may be just out of reach of small building owners, would lead to a substantially greater return on the public investment.

With those introductory statements, I will summarize our views of the bills under consideration today:

• We strongly support introductions 340, 341, 342, and 347, which would implement recommendations from the Task Force. These are all no-cost code change that will facilitate alternative energy and other green building practices.

- One suggestion we have regarding Introduction 347 on cool roof coatings is that the Council consider prohibiting the sale of non-complying roof ceatings

   this will make enforcement far easier.
- Concerning Introduction 358, section two of that bill duplicates a provision in Introduction 341 on limits to alternative energy systems on rooftops. Section 3 of the bill would add a new provision to the building code stating that alternative and distributed energy equipment shall be treated as "permitted obstructions." "Permitted obstructions" is a term from the Zoning Resolution, and we believe this change could only be made by the City Planning Commission.

We also note that to fully implement the Task Force recommendation corresponding to Introduction 340 would require action by City Planning. Introductions 342, 346, 348, and 350 would all require the Department of Buildings to develop standards for the use of various alternative energy and green building practices. As a general matter, we support all efforts to clarify standards. We also note that the Buildings Sustainability Board (BSB), an outside group of industry advisors, was created this year to help the department to develop standards for new technologies. It may be that working with this board will lead to faster development of the standards identified in these four bills. In particular, the

BSB has recommended standards that are considerably less permissive than those presented in Introduction 350. That bill would automatically permit windmills with diameters up to 16 meters (about 50 feet), while the BSB would limit automatic permits to machines with diameters of 3 meters (9 feet 10 inches). I am not expert in these matters, but a 50-foot rotor seems like a very large moving device to place on top of a building in dense neighborhoods, and I would recommend paying close attention to the BSB recommendation.

Finally, for the reasons discussed at the beginning of my comments, we cannot endorse Introductions 349 and 351 as currently presented, which would mandate the installation of solar PV and solar thermal systems on city-owned buildings. The cost for these systems would undoubtedly come from funding otherwise allocated towards energy efficiency improvements. We believe that energy decisions for buildings should be driven by rate of return, which will provide the greatest reduction in energy use and improvement to air quality. If the payback periods were shortened substantially (perhaps to ten years), the proposal would be stronger.

Thank you for your consideration and the Council's leadership on green codes. I am available to answer any questions you may have.

#### NATURAL RESOURCES DEFENSE COUNCIL



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## October 20, 2010 NYC Council, Committee on Housing and Buildings Prop. Int. Nos. 338, 340, 341, 342, 346, 347, 348, 349, 350, 351, 352, 353, 358 and Preconsidered Resolution No. Statement of Christine Chang

Good morning, Chairman Dilan and Members of the Committee. My name is Christine Chang, and I am an attorney at the Natural Resources Defense Council (NRDC), a national nonprofit environmental organization based in New York City. Thank you for the opportunity to testify on the legislation before the Committee today. NRDC applauds the City Council for its leadership and for continuing to move forward in its efforts to address climate change.

The greenhouse gas emissions that stem from aggregate energy use in New York City buildings represent nearly 80% of the City's total carbon footprint. The City has already taken a tremendous step forward to address these emissions and move toward achieving its PlaNYC goal to reduce citywide emissions 30% by 2030 with the passage of the landmark *Greener, Greater Buildings* legislation last December. In addition, in July 2008, Mayor Bloomberg and Speaker Quinn asked the Urban Green Council to convene the NYC Green Codes Task Force to identify impediments to and opportunities for green practices in the laws and regulations affecting buildings in New York. NRDC is one of the participating groups in the Task Force, which released its final report with 111 recommendations, the genesis of some of the bills under consideration today. The City has an opportunity to build upon these important achievements and to move closer to reaching its "30 by '30" emissions target by scaling up the use of renewable energy sources such as solar, solar thermal and wind power and by taking additional steps to reduce the "urban heat island" effect.

Despite high electricity prices and abundant resources, in 2009, New York State had only 34 megawatts (MW) of cumulative installed solar generating capacity, and New York City had about 2.5 MW of such capacity. New York City has also not taken advantage of its solar thermal potential; a 2008 study funded by NYSERDA cited the City as one of the "most favorable" locations in New York State for this cost-effective technology. As stated in the legislative findings and intent, the City needs sustainable, renewable, and affordable energy sources that contribute to energy independence. The City should take advantage of its plentiful solar and wind energy resources by removing barriers to and encouraging the installation of renewable, distributed generation. Currently, it takes about one year to get a solar power project approved in New York City, but it takes only about three months to get approval in Los Angeles. We support

any efforts by the Council to reduce that time period and to streamline the process. Promoting the increased deployment of distributed solar and wind in New York City would not only reduce greenhouse gas emissions and improve air quality but would also result in the creation of a significant number of jobs and increased economic development, greater reliability of the electric grid, reduced long-term costs of electricity generation for consumers, and increased energy independence.

We also support efforts to spur the installation of more vegetated roofs (a.k.a. "green roofs") in the city. On a citywide scale, green roofs can substantially reduce energy use and greenhouse gas emissions and, at the same time, can help to address urban environmental problems posed by poor air quality, the urban heat island effect, water pollution caused by stormwater runoff, and loss of wildlife habitat. Research shows that green roofs can reduce the amount of energy used for indoor climate control on the top floor immediately below the roof by approximately 10-60% and by 5-15% on the second floor below the roof. Furthermore, the Mayor's Green Infrastructure Plan, released last month, highlighted the role that vegetated area such as green roofs can play in solving the City's huge sewer overflow problem. NRDC and the Storm Water Infrastructure Matters (S.W.I.M.) Coalition, of which NRDC is a leading member, encourage the City to maximize the use of green infrastructure approaches to reduce sewer overflows. In addition, in a city that has little available land for urban agriculture, green roofs provide an important space for increasing residents' access to healthy food.

We thank you for your leadership on these issues and look forward to reviewing these bills in greater detail and providing any specific comments and recommendations we may have as you move forward. We strongly support the Council in facilitating and promoting the deployment of renewable energy sources and sustainable building practices and are excited to continue working with you on these and other efforts.



Laurie Kerr, RA Senior Policy Advisor, Office of Long Term Planning and Sustainability New York City

At the New York City Council Committee on Housing and Buildings Respecting Proposed Intros. 338, 340, 341, 342, 346,347, 348, 349, 350, 351, 352, 353, and 358

#### Oct 20, 2010

Good morning, Chair Dilan and members of the committee. I am Laurie Kerr, Senior Policy Advisor in the Mayor's Office of Long Term Planning and Sustainability and a registered architect in the State of New York. Thank you for the opportunity to testify today on the thirteen introductory bills that would impact how roofs can be used in New York City, how solar panels are attached to the sides of buildings, and the allowable depth of solar shades.

In PlaNYC, the City set forth an initiative to "strengthen energy and building codes to support energy efficiency strategies and other environmental goals". Because New York City's buildings have a major impact on the city's environment, this broad initiative will help the City achieve many of PlaNYC's ten goals, including the enhanced reliability of our water and energy systems and a 30% reduction in citywide greenhouse gas emissions by 2030 – a goal that was codified in Local Law

22 of 2008. Encouraging the greater utilization of the city's rooftops for energy production and storm water management is an important aspect of this initiative.

New York City's estimated 1.6 billion square feet of rooftop area is one of the city's few underutilized spatial assets, and it is one that can help the city achieve a number of PlaNYC's goals. Through the installation of cool roofs, blue roofs, and green roofs, for example, this area can help detain storm water and help cool the city and reduce our peak loads, energy costs, and air pollution. Much of this area could also be used to site renewable or distributed energy generation equipment, such as photo-voltaic or solar thermal panels or micro-turbines. Additionally, it could be used for active or passive recreation through the installation of athletic equipment or roof gardens, or in the production of some of the city's food in rooftop vegetable gardens or greenhouses. In addition to these "green" uses, rooftop space is also needed for very pragmatic functions, such as locating mechanical equipment, cell towers, and water towers.

This large variety of potential uses, which could be overlapping or conflicting, means that the City needs to be deliberate and thorough in the way that it amends its codes relating to roofs. As roofs become more fully utilized, health and safety must not be compromised and adequate access to roofs by the Fire Department needs to be maintained. Multiple agencies have overlapping jurisdiction over the use of roofs, so the relationship between their requirements needs to be understood and as changes are made, the various codes need to be reconciled. Finally, a single code or zoning provision can impact multiple uses; for example, items as disparate as green roofs, recreational surfacing, and solar panels will all need to be considered

when establishing appropriate zoning allowances for rooftop systems. When such provisions are changed it will be important to do so once and comprehensively in order to avoid the confusion that would result in the industry from multiple revisions.

For these reasons, this summer the Office of Long Term Planning and Sustainability convened the Interagency Green Team, which was created through Local Law 5 of 2010, to comprehensively study how the codes should be amended to further the beneficial uses of rooftops. This process is very much underway and involves six agencies.

With that said, we are happy to provide our initial comments on the bills being considered today, but we are also looking forward to hearing the testimony of today's other witnesses as we continue to evaluate the entire universe of impediments to safe, sustainable rooftop development.

Intros. 338 and 341 would increase the allowable roof area that can be used for greenhouses and solar panels, respectively, by removing limitations set in the building code. These two measures remove impediments that are the result of outmoded language in the code. Removing such unintended impediments is something the Office of Long Term Planning and Sustainability supports in general, with the caveat that the exact legal language of these bills needs further refinement. Intro. 358 addresses the same issue as Intro. 338 in its first provision, but goes beyond the purview of the Building Code and into the Zoning Resolution in its second provision. Therefore we believe Intro. 338 is a better option than Intro. 358.

In principle, the Office of Long Term Planning and Sustainability supports Intros. 340 and 347, which would increase the allowable depth of sun control devices and clarify the requirements for cool roofs. That said, these proposals require further study and refinement. With respect to Intro. 340, the visual impact of continuous five-foot deep sun control devices overhanging the sidewalk needs to be analyzed, as do the safety issues presented by icicles, and zoning concerns presented by the potential protrusion of such devices beyond required setbacks. Similarly, the exact requirements for cool roofs put forward in Intro. 347 may need further clarification. For example, the bill currently places no emissivity requirement, the measure of how well a roof can emit the heat that it has absorbed and an important factor in the effectiveness of cool roofs, nor does it address reroofing.

Two of the proposals, Intros. 342 and 346, would require the Department of Buildings to develop rules for the anchorage of solar panels to roofs and exterior walls. While we agree that the City should clarify requirements as necessary to facilitate the installation of solar panels, the development of rules may not be sufficiently flexible to prescribe techniques of anchorage in a rapidly changing field with a wide range of product types and design solutions. Local Law 5 created an Innovation Review Board in order to provide technical guidance for the safe use of emerging green technologies, and we believe this is the appropriate mechanism to develop any necessary standards. Additionally, Intro. 348 establishes standards for vegetated roof systems. We look forward to hearing testimony today that may address why existing standards are insufficient. In the meantime, we would caution

against the adoption of standards that may be needlessly more restrictive than the status quo.

Intro. 350 would require that wind turbines that have been certified by an assortment of industry associations, state commissions, and councils be approved for use in New York City without further review by the City's Innovation Review Board. Many of these entities are new and do not have a proven track record of evaluating new technologies and have not worked in or taken into account some of the unique characteristics of New York City. In addition, their standards cover product acceptance only, without addressing the installation, inspection, or maintenance standards that are crucial to assure safety. As a result, the Office of Long Term Planning and Sustainability opposes this legislation as potentially damaging to life and safety and as a subversion of the careful technical review of windmill standards that has been undertaken by the Department of Building's Building Sustainability Board. The Department is now in the final stages of developing and publishing a Building Bulletin which will establish a protocol for the product acceptance, installation, testing, inspection, approval, and maintenance of wind turbine product assemblies.

Two proposals, Intros. 349 and 351, would require the City to undertake extensive studies and to install photovoltaic and solar thermal panels wherever they would achieve a payback of 25 years or better on public buildings. The Office of Long Term Planning and Sustainability opposes these bills as running counter to the City's overall strategy of achieving a 30% reduction of carbon emissions in ten years by using the most cost-effective strategies available. Using the city's limited funds to

install systems with a 25-year payback would drain funds from strategies such as retro-commissioning or upgrading lighting, which can typically achieve paybacks within one to five years, and thus would make it impossible for the city to achieve its mandated carbon reductions. That said, the city is aggressively moving forward with the installation of photovoltaic and solar thermal panels in situations where they are cost effective. Pursuant to Local Law 87, the city is undertaking energy audits and retrofits on all large buildings, and during the audit process solar electric and solar thermal are evaluated as strategies within a bundle of potential upgrades. Nineteen solar thermal projects and nine photovoltaic systems are now in design, funded by federal stimulus grants. Additional initiatives include a solar RFP for 3.5 megawatts to be released by the Department of Citywide Administrative Services in early 2011, which will include a sanitation facility, several schools and a wastewater treatment facility, and a Solar Thermal Pilot Program managed by the NYC Economic Development Corporation, which provided cash grants for twelve projects throughout all five boroughs.

Intro. 352 would wave the permitting fees for street cranes involved in solar installations. We oppose this proposal because the fees are required to pay the inspection and administrative costs of ensuring that the cranes are safe, which is in the interest of all New Yorkers. If this bill were successful in encouraging more building owners to install solar panels, then the Department of Buildings would be forced to manage increased permit activity without a corresponding increase in the funds used for processing those permits and ensuring that safety protocols are met.

Lastly, Intro 353 would require the City to develop a solar map, which would be accessible on line. This requirement is unnecessary since, for the past nine months, the Mayor's Office of Long Term Planning and Sustainability in partnership with CUNY, the NYC EDC, and Con Ed has been developing an online solar map utilizing the detailed LIDAR data that was generated this past summer. This map, which will be online this spring, will be the most precise and advanced solar map developed by any city, and the data will be tied into the utility database to enable users to more quickly ascertain the cost benefits of projects. In addition, this same partnership has created Solar Empowerment Zones, which are similar in scope to the "Smart Solar" program outlined in the bill, and three Solar Ombudsmen have been hired to facilitate these efforts.

Thank you for the opportunity to testify on this important legislation. I am happy to answer any questions that you may have at this time.



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SSBX SUSTAINABLE POSTH DROM

October 20<sup>th</sup>, 2010

Chairperson Erik Martin Dilan Committee on Housing and Buildings New York City Council 250 Broadway Committee Room, 14<sup>th</sup> Flr.

### <u>Testimony Submitted on Behalf of Sustainable South Bronx</u> In Response to the Suite of Introduced Legislation Regarding Vegetated Roofs and other Building And Administrative Code Amendments

Sustainable South Bronx (SSBx) works with the South Bronx and other under-served urban communities as they transform themselves into great sustainable places to live. We do this by providing a collaborative model that addresses environmental, economic and social concerns through policy change, green job training, environmental education, and community greening programs.

We commend the Council for proclaiming the potential for natural systems alternatives to mitigate some of the most serious environmental issues facing our communities: urban heat island effect, air pollution, greenhouse gas emissions and combined sewer overflows. Language in each of the 13 bills under consideration today emphasizes our need as a City to reduce our environmental impact in order to maintain a sustainable urban environment. The proposed amendments not only raise the immediate need for reductions in the energy consumption of our built environment, they also emphasize the potential for such strategies to create and sustain high paying jobs for New Yorkers.

We fully support legislative actions which are crafted to promote widespread adoption and implementation of alternative natural systems, such as green roofs, solar panel installations, wind, solar thermal and sun control systems. In order to truly achieve widespread adoption, we ask that the Council ensure the drafting and implementation of these actions is done in collaboration with community and industry representatives.

SSBx, draws from experiences in environmental advocacy, job training and green roof installation to both recognize the need for and express caution over the development of criteria for the installation of alternative natural systems, as proposed in Int. No. 348 regarding vegetated green roofs.



## SSBX

We recognize the need for the Department of Buildings (DOB) to be a repository for such design and installation guidelines in order to streamline the permitting process. However, we must express our caution over the potential lack of expertise, enthusiasm and resources within the DOB to craft and administer such guidelines effectively. As such, we recommend the Council give meaningful consideration to the incorporation of existing industry and community expertise into the proposed criteria through an open and iterative process.

To illustrate the need for such a process, we would like to reference our involvement in the amendment of the New York State Real Property Tax Law to include a one year tax abatement equal to \$4.50 per square foot for green roof installations. As members of Stormwater Infrastructure Matters (S.W.I.M.), a coalition dedicated to ensuring swimmable and fishable waters around New York City through natural, sustainable stormwater management, we advocated strongly for the adoption of the tax abatement. However, as the criteria for eligibility were crafted we witnessed the diminishment of the original intent, widespread adoption and implementation of green roofs. Currently we do not see the widespread adoption that we were hoping for and feel the overly strict criteria is one impediment. We ask that the Council recognize the need to foster the adoption of new alternative technologies, such as green roofs, and seriously consider the ability of strict criteria to impede widespread implementation.

Thank you for the opportunity to testify,

Jaime Stein Environmental Policy Analyst Sustainable South Bronx Jstein@ssbx.org



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President Marcia H. Bystryn Testimony of Ricardo Gotla Legislative Director New York League of Conservation Voters

Committee on Housing and Buildings New York City Council October 20, 2010

# Re: Int. 338, 339, 340, 341, 342, 343, 346, 347, 348, 349, 350, 351, 352, 353, 358

Good morning Chairman Dilan and members of the Committee on Housing and Buildings. Thank you for providing me the opportunity to present our position on this important package of legislation.

I am Ricardo Gotla, Legislative Director of the New York League of Conservation Voters (NYLCV), an environmental advocacy and political organization. We work to advance sustainable development and a clean-energy future in New York. I am here today to express our support for the package of bills aimed at increasing New York City's use of renewable energy and achieving greater building energy efficiency.

This legislative package will go a long way in addressing significant sustainability challenges that New York City will be forced to address sooner rather than later. You are familiar with the demographic projections: New York City is expected to increase in population by one million inhabitants by 2030. This is an alarming fact when one considers the reality that today our infrastructure is already overwhelmed at our current population level of 8.5 million residents.

New York City's energy infrastructure, in particular, is of great concern to NYLCV. During many summer days energy demand is greater than energy supply. When this occurs, New York City relies on "peaker" plants to meet high levels of energy consumption. Many of these peaker plants compromise the city's air quality and produce significant levels of greenhouse gas emissions, contributing to climate change. Further, located in the outer boroughs, these peaker plants disproportionally impact the quality of life, air and health of New York City's lowest-income communities. Put simply, the status quo is simply unsustainable for the both long and short term. A shift is required by our leaders to move New York City toward a clean-energy future and this legislative package is a step in that direction. These bills, which promote renewable and alternative energy sources, including solar and wind power, will go a long way to reduce our reliance on energy produced from peaker plants and dirty burning fossil fuels in general. Further, they will greatly aid New York City in accomplishing the long-term sustainability goals outlined in PlaNYC, a plan that we strongly support.

In addition to solar-energy generation, wind power and vegetated rooftops can also be of great assistance to New York in reducing greenhouse gas emissions and addressing other sustainability challenges. By passing legislation that streamlines the approval process for small-scale wind turbines – which are well suited for New York's geography – residents and businesses will have yet another way to increase energy efficiency, reduce costs and create green jobs.

Vegetative green roofs present a unique opportunity for New York City. In addition to reducing CO2 levels, green roofs have the ability to serve as our very own urban farms. Rooftop gardening will provide access to fresh, local produce for city residents, including many neighborhoods where fresh fruits and vegetables are scarce.

Taken together, these bills represent a historic opportunity to move New York toward a clean-energy future.

I thank you Chairman Dilan and members of this committee for your time and for taking this important step toward a greener, more sustainable New York. I offer NYLCV's support in any way possible to work toward making this crucial legislation a reality.

Cook+Fox Architects LLP 641 Avenue of the Americas New York NY 10011 212 477-0287 cookplusfox.com

20 October 2010

Council Member Eric Dilan Committee on Housing and Buildings The City Council of New York New York, New York 10007

Dear Chairman Dilan,

Good morning. I am Bob Fox, of Cook+Fox Architects. Thank you for the opportunity to testify regarding the thirteen bills before the committee today. We support the passage of these bills, with the exception of Introduction 353, and offer several suggestions for improvements.

As a whole, this package of bills is an admirable step toward a clean energy future for New York City. Introductions numbers 341, 342, 346, 350, 352, and 358 are particularly important, as they remove key barriers to the installation of renewable energy systems. Solar thermal systems offer relatively quick payback to building owners, solar photovoltaic systems are becoming cheaper and more efficient each year, and building-integrated wind energy systems are an exciting prospect for generating onsite renewable energy. However, private building owners who wish to install the systems still face both financial and administrative challenges. These bills recognize those challenges and eliminate the headaches and costs associated with obtaining waivers and permits for systems that really should not require special review. Intro. No. 350 requires that wind assemblies that are certified for installation by certain outside agencies be accepted for installation by the Department of Buildings without further review of the system. We applaud this removal of additional review of the systems, but caution that any systems approved for installation in New York City should have been tested for safety in icy conditions. In most cases, the potential for vibration to compromise a building's structure is the main danger associated with building-integrated wind systems, particularly in older buildings. The installation of any wind systems on buildings should be certified by a licensed structural engineer.

Introduction 348 requires the adoption of national standards for vegetated green roofs, and Introduction 338 defines a greenhouse as a rooftop structure. We applaud measures that streamline and ease the process of adding much-needed green space and food-growing space in the city.

Introduction 340 regulates sun-control devices in the same manner as awnings, easing the installation of these simple and efficient energy-saving devices. Introduction number 347 implements another simple and cost-effective strategy, requiring that at least 75% of buildings' roof areas conform to recognized solar reflectance standards.

Introductions 349 and 351 require the City to install cost-effective solar photovoltaic and solar thermal systems. The City has taken a strong position on leading by example in carbon reductions and energy efficiency, and we admire the continuation of this trend. However, these bills define "cost-effective" systems as having a twenty-five year payback period or better. This is too long a payback

period for the investments in solar systems to be considered cost-effective. Many solar panels have useful lives of only 20 years, making a 25-year payback period unrealistic. Additionally, money spent on a system with a very long payback period would probably be more usefully diverted to energy efficiency improvements or other uses. We recommend a maximum 10-12 year payback period for solar systems on city buildings. Introduction 351 would create a pilot program awarding solar hot water systems by lottery to private homeowners. We agree that it is beneficial for the city to promote the use of solar hot water through grants, but these should be targeted at low-income housing in order to have the greatest impact.

Introduction number 353 requires the creation of a solar map showing existing solar energy systems and the potential of roofs to support new systems. While we appreciate the intent of this bill, we do not consider a solar map to be a wise use of taxpayer money. Any owner considering installing a solar energy system can determine very quickly and very cheaply how suitable a particular roof is for solar photovoltaic or solar thermal systems. The location of current systems will be time-consuming to document and prone to becoming outdated given the relatively short lifespans of solar panels.

Again, thank you for the opportunity to testify today.

Sincerely,

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Bob Fox, AIA, LEED AP



October 21 2010

Erik Martin Dilan, Chairperson New York City Council Committee on Housing & Buildings 250 Broadway Suite 1763 New York, NY 10007

Dear Chairperson Dilan,

www.chpcny.org

Citizens Housing and Planning Council (CHPC) is a non-profit research organization dedicated to improving housing and neighborhood conditions through the co-operative efforts of the public and private sector since 1937.

CHPC has reviewed the legislative items before the City Council this week pertaining to green building construction, and we would like to offer our full support for the bills that remove regulatory obstacles to incorporating green technologies into New York City buildings. It is vital that our codes support and encourage technological innovation that can contribute towards the goals laid out in Mayor Bloomberg's PlaNYC. We applaud the City Council for responding to innovation in alternative energy systems by ensuring that regulations in New York City's Building Code do not stand in the way of this technological progress.

In particular, we believe that increasing the allowances for sun control devices on building facades (INT-0340), waiving street crane permit applications for solar energy systems installation (INT-0352), amending the Building Code so that rooftop structures are not included in the height of the building or considered an additional story (INT-0338 & INT-0341) and allowing alternative or distributed energy equipment to be treated as permitted obstructions (INT-0358) are critical and laudable pieces of legislation. Furthermore, the mandates for the Department of Buildings to develop criteria regarding the anchorage of alternative energy systems to roofs and exterior walls (INT-0342, INT-0346), criteria regarding the installation of vegetated roof systems (INT-0347), and allowing wind turbine assemblies certified by NYSERDA and other standards to be accepted without approval of the Innovation Review Board (INT-0350) are all important reforms necessary to allow the development of alternative energy systems to meet the greenhouse gas reduction goals of the city.

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However, we feel that some of the other bills being considered require a few extra details at this time. Although one piece of legislation (INT-0358) puts forward that alternative energy systems will now be permitted obstructions, the Zoning Resolution of New York City also defines and regulates permitted obstructions. Without reforming the Zoning Resolution in tandem with the Building Code our laws will only become more conflicted and confusing. Another piece of legislation allows greenhouses as rooftop structures (INT-0338) without defining what the parameters of a greenhouse are. And we would ask that there is further scrutiny regarding the effectiveness of cool roof coatings in New York City's climate before this extended requirement is mandated and may add to the cost of construction, especially for affordable housing developments.

Finally, we cannot support the bills put forward this week that mandate solar photovoltaic panels and solar hot water collectors on city-owned municipal buildings (INT-0349 & INT-0351) following feasibility studies. These pieces of legislation have defined cost-effective as the ability to repay over a 25 year period. This is far too long a period of repayment for an expensive citywide mandate; in the private sector, projects are typically analyzed within the scope of a 5-year payback.

CHPC is grateful for the opportunity to provide our commentary on these bills before the Council this week. If we can help the City Council in any way to develop further pieces of legislation then please do not hesitate to contact us.

Sincerely,

Jerilyn Perine Executive Director jperine@chpcny.org

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Address: <u>47</u> Judia St. Apt 32 I represent: <u>Mook/vn</u> Glange 22C Address: <u>37-18 Northern Blvd</u> THE COUNCIL THE CITY OF NEW YORK <u>Appearance Card</u> I intend to appear and speak on Int. No. <u>54</u> Res. No. in favor of in opposition Date: <u>1920</u> 10 Name: <u>(PLEASE PRINT)</u> Name: <u>154</u> GIOND GIN HOU 10013 MM I represent: <u>Alexandre</u>	-	
Address: <u>37-18 Northern</u> Blvd THE COUNCIL THE CITY OF NEW YORK <i>Appearance Card</i> I intend to appear and speak on Int. No. <u>HP</u> Res. No. in favor in opposition <i>Date</i> : <u>192410</u> Name: <u>(PLEASE PRINT)</u> Name: <u>(PLEASE PRINT)</u> Name: <u>154 GIOND GIN TOUR 10013 MM</u> I represent: <u>ARCMMAK</u>		Address: 47 Judia St. Apt 31
THE COUNCIL         THE CITY OF NEW YORK         Appearance Card		
THE CITY OF NEW YORK         Appearance Card		Address: 37-18 Northein Blud
Appearance Card         I intend to appear and speak on Int. No. <u>HP</u> Res. No.         I in favor         I represent:         I represent:         I represent:         I represent:         I represent:		
Appearance Card         I intend to appear and speak on Int. No. <u>HP</u> Res. No.         I in favor         In favor         In favor         In favor         I represent:         I represent:	1	THE CITY OF NEW YORK
in favor in opposition Date: 10/20/10 (PLEASE PRINT) Name: (MISTING VELOW Address: 154 GIOND 6M FOUR 10013 MM I represent: GIECOSMIAK		
Date: 102010 (PLEASE PRINT) Name: CHISTING VELLOM Address: 154 GIOND 6th Front 10013 MM I represent: GIECOSMIATE		
Name: CAVISTINA VELLAM Address: 154 GIOND 610 HOUR 10013 MM I represent: GIECASMIATE		
Address: 154 GIOND 6th FOUR 10013 MM I represent: 918CASULATE		
I represent: <u>Alecosulate</u>		LCH ALDAD LINE & LADY?
Address: 154 GLORID St 6th HIC 10013 MM		
		Address: 154 GLORID & 6th Hr 10013 MM
Please complete this card and return to the Sergeant-at-Arms		

	THE COUNCIL THE CITY OF NEW YORK
	Appearance Card
	I intend to appear and speak on Int. No. ALL Res. No.
	🗹 in favor 🔲 in opposition
	Date: 10/20/10
	Name: ERICA SUARINO
	Address:
	I represent: BOR FOX
<b>E</b> 4	Address: 641 AVENUE OF THE AMERICAS
	THE COUNCIL
	THE CITY OF NEW YORK
	Appearance Card
	I intend to appear and speak on Int. No Res. No in favor in opposition
	Date: 0c1.20, 2010
	Name: RICARDO (PLEASE PRINT)
	Address: 30 BROAD ST. 30th FL, NYILY 10004
	I represent: MEWYORK LEAGUE OF CONSERVATION
,	Address: VCTERS
	THE COUNCIL
	THE CITY OF NEW YORK
	Appearance Card
	I intend to appear and speak on Int. No. 22 Res. No.
	in favor in opposition
	Name: BENSAMIN LINSCEY
	Address: ZTT 121'ST BROCKLIN, NY
	I represent: PRIFITFARM SYSTEMS, 110
	Address: <u>SZZ BROADINAY, LOOLO NY.</u>

THE COUNCIL THE CITY OF NEW YORK Appearance Card I intend to appear and speak on Int. No. \_ \_ Res. No. 📑 in favor in opposition Date: 10/20/2016 (PLEASE PRINT) ત્લા Λ¢ 21 Name: 419 0 Address: 0 I represent: Address: THE COUNCIL THE CITY OF NEW YORK Appearance Card I intend to appear and speak on Int. No. Res. No. 🔲 in favor in opposition \* . 0 Date: (PLEASE PRINT) €1. Name:<sup>3</sup> Address: I represent: Address: THE COUNCIL THE CITY Y OF NEW YORK Appearance Card I intend to appear and speak in Int. No. 177 Res. No. in<sup>\*</sup>opposition ih favol <sup>r</sup> Date: (PLE ASE PRINT) Name: Address: 1162 I represent: Address: Please complete this card and return to the Sergeant-at-Arms