

CITY COUNCIL
CITY OF NEW YORK

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TRANSCRIPT OF THE MINUTES

Of the

COMMITTEE ON ENVIRONMENTAL PROTECTION

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B E F O R E:

COSTA G. CONSTANTINIDES
Chairperson

COUNCIL MEMBERS:

Stephen T. Levin
Rory I. Lancman
Donovan J. Richards
Eric A. Ulrich

A P P E A R A N C E S (CONTINUED)

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Co-Chair
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[gavel]

CHAIRPERSON CONSTANTINIDES: Good

afternoon and welcome. I am Council Member Costa Constantinides, Chairman of the Environmental Protection Committee. Today we are holding a hearing in Int. 0478, a Local Law in relation to requiring photovoltaic systems for city-owned buildings. We are joined by my colleague and friend from Queens, Council Member Eric Ulrich.

This bill has 37 sponsors, so I'm proud to begin this hearing.. [applause, laughter] I definitely appreciate the applause, but in this chamber, the way we applaud, we kinda do this, we do the jazz hands, so [laugh] if you wanna applaud in that way throughout the hearing, I encourage you to do so and please no throwing vegetables. [laughter] But the great news is that we have 37 sponsors; a super majority of the New York City Council supports this bill. It shows the New York City Council's strong commitment to a sustainable and renewable future.

Energy use is probably one of the most important problems facing humanity today. Predominance in the use of natural gas, oil and coal

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as an energy source by human society is relatively recent. We have been relying on natural gas and oil for only a couple of hundred years, really a short period in the scheme of human history. Fossil fuel emergency use is primarily responsible for poor urban air quality and greenhouse gas emissions causing climate change. We have done a very good job at exploiting fossil fuels to meet our energy needs, but we have so far done a poor job at harnessing the power of the sun to meet our energy needs. Our relationship with other renewable energy sources, like wind, goes back thousands of years; moreover, alternative energy sources are likely to last as long as the sun shines on the earth, as long as the winds blow upon the earth, as long as power generated from moving water is available and as long as the earth maintains a stable temperature. The sun has potential to meet our global energy needs by a factor of 1500; the energy from 45 minutes of solar radiation on the earth is equivalent to global energy consumption for a year. The sun's energy is widely distributed and could provide energy independence for a number of countries in addition to our own and for islet areas off the grid, solar energy is considered

1
2 by many to be very desirable among renewable energy
3 sources because it almost pollution free and reduced
4 greenhouse gas emissions. As many of you may know,
5 New York City set an ambitious goal for addressing
6 climate change; in 2014 New York City passed Local
7 Law 66, which requires the City to reduce greenhouse
8 gas emissions citywide by 80% by 2050. To accomplish
9 this aim while growing, New York City must increase
10 its use of renewable energy. New York City has
11 enough solar radiation resources to move away from
12 total dependency on fossil fuel and the burdens that
13 it brings. In order to accomplish that aim, we need
14 renewable planning, objectives, goals and
15 implementation strategy; the CUNY solar roof map
16 suggests that 60% of New York City electricity could
17 be generated on New York City rooftops, but that will
18 not occur by accident. Even if 1,000 solar roof
19 installations took place every year, it would take
20 600 years to reach our current potential and we
21 simply do not have that much time. By investing in
22 renewable energies like solar now, the City will have
23 more control over its energy needs; we will also send
24 less of our money to there states, enabling the City

2 to spend more on actual goods and services to help
3 our city grow.

4 Today we'll hear from the administration,
5 who has been a great partner when it comes to climate
6 change and reducing our city's emissions, so thank
7 you; NYSERDA, advocates and the solar industry
8 business leaders about Int. 0478 and the
9 opportunities for solar advances in New York City.

10 We have also been joined by two of my
11 colleagues, both from Queens, so Queens is very well
12 represented today, Council Member Donovan Richards
13 and Council Member Rory Lancman; thank you both for
14 being here.

15 And with that I'm looking forward to
16 hearing the administration's testimony. Samara,
17 would you please swear in the witnesses?

18 COMMITTEE COUNSEL: Can you please raise
19 your right hand? Do you swear or affirm to tell the
20 truth, the whole truth and nothing but the truth
21 today?

22 JOHN LEE: Yes. Good afternoon Chair
23 Constantinides and members of the Committee on
24 Environmental Protection. My name is John Lee and I
25 am the Deputy Director for Green Buildings and Energy

2 Efficiency in the New York City Mayor's Office of
3 Sustainability. I am accompanied today by Ellen
4 Zielinski, Director of the Clean Energy and
5 Innovative Technologies Program at the Department of
6 Citywide Administrative Services, also known as DCAS.

7 Thank you for the opportunity to testify
8 today regarding Int. 0478, which will require the
9 installation of solar photovoltaic systems on city-
10 owned rooftops where cost-effective.

11 In OneNYC: The Plan for a Strong and Just
12 City, released in April of 2015, the Mayor articulate
13 a vision for reducing citywide greenhouse gas
14 emissions 80% by 2050, over a 2005 baseline. Central
15 to this vision is the expansion of renewable and
16 distributed energy resources, including solar energy,
17 which the Mayor has emphasized by setting a target to
18 have 250 megawatts of solar capacity installed on
19 private buildings citywide by 2025. City residents
20 and businesses have responded to this call and have
21 more than doubled the amount of solar capacity
22 installed in the city since the beginning of this
23 administration.

24 In addition to the 80 by 50 citywide
25 goals, City government has tasked itself with paving

1 the way forward by reducing greenhouse gas emissions
2 from municipal government operations by 35% by 2025.

3 A central component of the Mayor's plan to attain the
4 City government emissions target is the installation
5 of 100 megawatts of solar energy on city-owned
6 properties. I am pleased to report that in the last
7 year alone the City completed installing nearly 4
8 megawatts of solar capacity on its buildings,
9 bringing the total for city properties to nearly
10 5 megawatts.
11

12 Our colleagues at DCAS have worked
13 diligently to identify the most promising city-owned
14 properties for solar installations by performing site
15 assessments at the very largest buildings, defined as
16 those with rooftops that are 30,000 sq. ft. or
17 larger. This amount of unobstructed roof space can
18 hold enough solar panels to generate 300 kilowatts of
19 electricity, enough to provide approximately 15-25%
20 of a school's annual energy needs, for example.

21 As a result of their efforts, the City
22 has installed solar photovoltaic at 34 public sites,
23 including 1.2 megawatt project at the Port Richmond
24 Wastewater Treatment Plant in Staten Island, 17
25 public schools and atop City Hall. Eighteen

2 additional solar projects are nearing completion,
3 which will roughly double the current installed
4 capacity of solar energy on city-owned rooftops.

5 DCAS also recently released a request for
6 proposals for additional installations to generate 15
7 megawatts of solar power across 88 public sites
8 across the five boroughs, including Bellevue
9 Hospital, Hostas Community College, the Bronx Hall of
10 Justice, the Queens Museum, Abe Stark Ice Rink and 66
11 public schools, among others. DCAS is also advancing
12 an innovative resilient solar program to install
13 solar PV systems that incorporate battery storage for
14 emergency backup power at emergency shelters,
15 firehouses and other critical facilities. To
16 maximize the use of city-owned assets, DCAS is also
17 assessing the prospects for ground-mounted solar, as
18 well as solar canopy installations at parking lots
19 and parking garages. This progress illustrates the
20 City's commitment to the 100 megawatt goal.

21 In the private sector, solar
22 installations have more than doubled since the end of
23 2013, from less than 15 megawatts to more than 57
24 megawatts today across nearly 4,000 installations.
25 Currently more than 18 megawatts of private solar

2 installations are scheduled to be installed, which
3 sets the City on track to meet the Mayor's 250
4 megawatt citywide goal.

5 The Mayor's Office of Sustainability and
6 our colleagues at DCAS fully support the installation
7 of solar PV where feasible and appropriate in New
8 York City. We applaud the sponsors of Int. 0478 for
9 seeking to accelerate the City's adoption of clean
10 and renewable solar energy to reduce greenhouse gas
11 emissions from government operations and improve the
12 city's air quality.

13 I would like to highlight several
14 opportunities to improve the text of this bill to
15 more effectively advance the City's 80 by 50 and 100
16 megawatt goals. Int. 0478 would require DCAS to
17 report on the total number of city-owned buildings at
18 each community district, the number of city-owned
19 buildings in each district for which a solar
20 installation would be cost-effective, and the
21 anticipated energy cost savings associated with all
22 cost-effective installations for each district, among
23 other information.

24 For the purposes of this bill, cost-
25 effective is defined to mean that the energy and

1 maintenance cost savings from the installation of a
2 solar PV system will at least offset the upfront
3 capital costs of the installation, which would
4 include the cost of any required roof upgrades within
5 25 years. The bill would further require DCAS, in
6 cooperation with other Mayoral agencies, to install
7 solar PV systems on every non-landmarked city-owned
8 building where such an installation would be cost-
9 effective.
10

11 As a threshold matter, it should be
12 emphasized that solar PV is just one of a number of
13 sustainable roofing practices that City agencies can
14 adopt to reduce their energy usage, improve air
15 quality and advance other environmental goals. For
16 example, solar thermal systems are similar to solar
17 PV systems in that they harvest the sun's energy, but
18 they use this energy to heat water for a building's
19 heating and hot water needs rather than generating
20 electricity. A building with significant heating
21 needs that would otherwise use expensive and carbon
22 intensive fuel oil for heating may benefit more from
23 a solar thermal system than a solar PV system.
24 Alternatively, various forms of roof treatments offer
25 local environmental benefits that should not be

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overlooked; to provide a few examples -- highly reflective roof surfaces can reduce the local air temperatures, helping to mitigate the urban heat island effect; blue roofs, designed to contain storm water and allow it to pond before gradually draining help to prevent combined sewer overflow events, and green roofs, also known as garden roofs or vegetative roofs, offer both heat island mitigation and storm water retention benefits in addition to improved air quality.

Agencies should therefore have latitude to implement other roof improvements, especially where they may be better suited to a given location, layout and use of a building or facility than a solar PV system. For example, in an area that is subject to frequent combined sewer overflow events, it may be more important for the overall sustainability of a community to consider the installation of a green or blue roof. Int. 0478 should therefore provide a process with criteria to exempt buildings for which the installation of a solar PV would conflict with alternate sustainability projects or an agency-integrated energy plan.

1 Where solar PV systems are the preferred
2
3 alternative, however, we support policies that enable
4 their appropriate deployment. Assessing each and
5 every city-owned would divert important resources
6 from focusing on the development of projects that
7 buildings with roofs that are the most appropriately
8 suited for solar PV. The City owns over 4,000
9 buildings throughout the five boroughs, many of which
10 are small municipal facilities, such as DEP, pump
11 houses, parks comfort stations, kiosks and so forth.
12 Installing solar panels on these small facilities
13 where structurally feasible, would yield only
14 incremental contributions to our 100 megawatt goal
15 and is unlikely to be cost-effective, as the energy
16 production from small systems is often insufficient
17 to offset high-fixed installation costs.

18 To better reflect DCAS' approach of
19 assessing the very largest city-owned properties
20 where solar could deliver the best utilization of
21 public dollars, the scope of reporting should be
22 limited to city-owned buildings greater than 10,000
23 gross sq. ft. which are already subject to annual
24 energy and water use benchmarking under Local Law 84
25 of 2009.

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2 Next, while cost-effectiveness is an
3 important factor in determining the viability of
4 solar PV systems purchased with capital, these
5 outright purchases only represent a fraction of the
6 City's solar installation strategy. DCAS aims to
7 satisfy 80% of its 100 megawatt commitment through
8 power purchase agreements, or PPAs, which require no
9 upfront capital outlay from the City. Under a PPA, a
10 third-party solar provider owns the installation and
11 sells the system's energy production back to the
12 City, typically under a 20-year agreement. PPAs are
13 especially attractive for the City, because private
14 installers are eligible to take advantage of a 30%
15 federal investment tax credit that's unavailable for
16 municipal governments, making PPA terms more
17 advantageous in many instances.

18 Importantly, however, DCAS cannot know
19 how PPA terms compare to its comparatively affordable
20 utility service from the New York Power Authority
21 without first issuing a solicitation for PPA
22 proposals. The City should be allowed to exercise
23 its discretion [sic] as to the financial arrangements
24 governing its solar installations, whether purchased
25 outright or through a more innovative model.

2 With these factors in mind, Int. 0478
3 should be modified to set out objective criteria for
4 eligible or solar ready sites. The Mayor's Office of
5 DCAS suggests criteria for solar ready buildings as
6 those that have a roof that's under 10 years old,
7 have a roof in a state of good repair and
8 structurally sound, are able to host a minimum of a
9 50 kilowatt solar PV system, taking into account
10 required building and fire codes, which is equal of
11 approximately 5,000 sq. ft. of unobstructed code-
12 compliant roof area, and have no current or
13 foreseeable issues that would negatively impact a
14 solar PV system, such as significant shading or
15 planned building expansions.

16 Solar installations on buildings that
17 meet these solar readiness criteria are more likely
18 to be cost-effective, whether purchased outright or
19 financed through a PPA. We recommend that Int. 0478
20 be modified to require that DCAS report on the number
21 of city-owned buildings in each district that are
22 solar ready rather than the number of city-owned
23 buildings for which solar is cost-effective. This
24 change would remove the need for DCAS to issue a
25 solicitation for a PPA just to comply with the

1 reporting requirements. The bill could then require
2 DCAS and agencies to install solar PV systems for
3 buildings that are solar ready. The criteria that
4 determine solar readiness are dynamic and shaped by
5 the realities of a complex building stock and a
6 rapidly evolving solar market. We applaud the
7 Council for acknowledging the impact that dynamic
8 market conditions and changing technologies have on
9 the economics of solar installation. The City has
10 gained important insights into these dynamics from
11 the 34 solar installations completed to date. Many
12 unforeseen factors have impacted planned solar
13 projects, such as complex roof conditions that limit
14 the available space for solar panels, deficiencies in
15 building electrical systems and a lack of
16 compatibility with proposed solar technologies. We
17 propose that this bill retain this flexibility as it
18 relates to defining the solar readiness criteria as
19 part of the reporting process.
20

21 Importantly however, DCAS would first
22 need to collect data on the roof characteristics of
23 City buildings, including age and condition in order
24 to determine solar readiness. Requiring this
25 information as part of the benchmarking process for

2 City buildings above 10,000 gross sq. ft., as
3 proposed earlier, would allow DCAS to systematically
4 compile valuable data to amass an inventory of roof
5 characteristics, for example, of shading obstructions
6 and structure, while conserving staff resources by
7 limiting the assessments to building that are highly
8 likely to be solar ready.

9 On behalf of the Mayor's Office I offer
10 my support for the expansion of solar energy on City
11 rooftops. The Office of Sustainability and DCAS
12 would welcome the opportunity to work with members of
13 the Committee on Environmental Protection to refine
14 Int. 0478 to ensure that it furthers the good work
15 that DCAS is conducting in pursuit of our 100
16 megawatt goal.

17 In particular, we want to ensure that
18 this bill includes criteria informed by the City's
19 considerable marketplace experience that will empower
20 DCAS to develop solar projects that deliver the
21 greatest benefit to the city.

22 Thank you again for the opportunity to
23 testify this afternoon.

24 CHAIRPERSON CONSTANTINIDES: John, thank
25 you for your testimony. So I have a few questions;

2 then I'll turn it over... I don't know if my colleagues
3 have questions as well, but you know, the local solar
4 industry -- I'll sort of start with the private and
5 then we'll go into the public, sort of the way you
6 did yours. But the local solar industry has said
7 that DOB's application and inspection process for
8 solar projects are somewhat uncertain at times and
9 inefficient and redundant; can you sort of describe
10 how DOB's application and inspection process, issues
11 with it might be improved?

12 JOHN LEE: First I want to give some
13 credit to the Department of Buildings; over the past
14 couple years they have made an incredible degree of
15 progress in streamlining the permit application, and
16 most recently they have made available online
17 applications for solar PV installed on smaller
18 buildings, and this is just one illustration of the
19 many steps that the Department is ready to take in
20 the months coming as we see more and more PV
21 installations coming forth and as the Department of
22 Buildings is overhauling as part of their vision to
23 improve their IT infrastructure as it provides [sic]
24 to permit applications writ [sic] large; not just

2 solar PV and the expectation is solar PV will become
3 much more streamlined as part of this larger effort.

4 Now I cannot understate the importance
5 and the functions that the Department of Buildings
6 and the Fire Department serve here, particularly with
7 solar PV in relation to overall public safety and
8 fire safety; these are still electricity generating
9 systems that are not entirely risk-free; we have been
10 able to mitigate through our very restrictive
11 standards for performance with these systems that do
12 mitigate against the fire risks, but the risks are
13 still real and so I don't think we'll ever get away
14 from having some level of City oversight over these
15 systems; at the same time though, absolutely, there
16 is room for improvement and this is what the
17 departments continue to pursue.

18 CHAIRPERSON CONSTANTINIDES: I mean I
19 don't disagree with; I think that DOB has made some
20 big changes and as has this administration since
21 they've come in; you know, we've prioritized
22 renewable energy sources in a real way and I think
23 getting to that point where -- every system has
24 risks; when you install a boiler, there's a certain
25 amount of risk that is associated with that boiler;

2 when you install a solar panel, there's some sort of
3 risk associated with that. But being able to get a
4 new building or the permit to make them equal, so
5 anyone who is wanting to put solar on their houses, I
6 think we're both in agreement that making it easy for
7 people to do these installations and ensuring that
8 the easier it is to do the conventional installation
9 that it becomes as easy to go with our renewable
10 sources like solar PV; that's our shared goal. So
11 that's where I'd like to see us to get and I know
12 that's something that you guys share as well.

13 JOHN LEE: Yeah, we clearly agree with
14 you.

15 ELLEN ZIELINSKI: Can I pull in here?
16 [sic]

17 JOHN LEE: Yes, please.

18 ELLEN ZIELINSKI: Hello there. So
19 representing the City of New York, the Department of
20 Buildings is a sister agency of ours, so as our solar
21 program has advanced and grown and evolved, so has
22 our relationship with the Department of Buildings;
23 they have assigned point people, we've had strategy
24 sessions; we've presented our vision and how we wanna
25 see this industry grow and they have been good

2 partners of ours, so there is no doubt that there are
3 many steps along the way and a process that has to be
4 followed; they have been working closely as a sister
5 agency for our projects.

6 CHAIRPERSON CONSTANTINIDES: Right. And
7 again, I know they have made some big strides; I'm
8 looking forward to getting to that day where it's
9 just as easy to do solar PV or geothermal as it is to
10 do -- yeah, to do it in a traditional building,
11 'cause when someone on my block wants to go green,
12 one of the big impediments is always, well how
13 complicated is it; is it hard, just that lack of
14 understanding; it's really easy to hire someone to
15 come in and put in a brand new boiler, you know they
16 know how to do that. When we streamline things, make
17 it easy for people to go green, I think they will go
18 green.

19 Now speaking to the bill and some of the
20 things we're doing today, relating to the overall --
21 what types of City buildings -- you had talked a
22 little bit about this in your testimony, but what
23 type of city-owned buildings are easiest and most
24 cost-effective to do PV?

25 [background comment]

2 ELLEN ZIELINSKI: Sure. So for us and
3 our experience thus far, schools have been an
4 excellent candidate; this is in part because they
5 have a more aggressive capital program to keep their
6 rooftops in good shape and also, they don't have as
7 many different types of rooftop equipment that would
8 impede solar. So in general, they have a lot of free
9 open roofs that are being maintained and those are
10 kind of critical factors in installing solar. So the
11 Department of Education has been our closest and one
12 of our best partners and where we see the most
13 opportunity moving forward and also, they have a very
14 large building stock; out of the City's 4,000
15 buildings they have about 13-1400 different
16 buildings, so that is excellent potential.

17 CHAIRPERSON CONSTANTINIDES: And what's
18 the criteria for evaluating currently; how do we sort
19 of look at -- 'cause I mean we all have schools in
20 our districts; I can...

21 ELLEN ZIELINSKI: Right.

22 CHAIRPERSON CONSTANTINIDES: I have 15 or
23 so buildings in my district; how do we look at those
24 on a case by case basis to see if they're solar
25 ready?

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ELLEN ZIELINSKI: So the first place that we start is; how old is your roof? If you have a roof that's 15 or 20 years old, it's not gonna be a candidate for solar because of the lifespan of these systems. Of course, once you install solar, you do not wanna remove that system in order to make repairs to your rooftop, so that age is really a critical factor. So we start with roofs that are large; in order to meet the 100 megawatt goal, we have really strategized on roofs that are 30 sq. ft. and larger to get started; the square footage of the rooftop. So we did a survey; we looked at all those large roofs and then we started sorting according to age; are you, you know, 7-10 years or newer? Once we have that, you know, group and that batch, then we look at factors such as shading; are there large buildings that are gonna shade the roof; are there trees or other rooftop equipment, because that limits the available usage for solar and where you can install. So once we meet those factors, then we generally consider a roof solar ready. At that state we move forward and we say okay, this is a good candidate; down the road we found issues such as ConEd's grid or other electrical issues that might limit the size of

2 solar or pose issues down the line, but in general,
3 your age, your available square footage and no major
4 obstructions are the basic criteria that we're
5 looking for.

6 CHAIRPERSON CONSTANTINIDES: How are we
7 doing this currently; how many schools are we doing
8 or?

9 ELLEN ZIELINSKI: So right now we have an
10 initiative to roll out 24 schools; that's sort of our
11 batch of critical projects; we have 18 sites that are
12 currently completed, including some projects that
13 were done before, so this is sort of our first group
14 of schools and we hope to have those wrapped up by
15 this spring. In addition to that, we have a contract
16 right now for a power purchase agreement for 88
17 sites; we are currently in the process of reviewing
18 that request for proposals and this is a contract
19 that we hope to award also this spring and that
20 includes 66 schools.

21 CHAIRPERSON CONSTANTINIDES: At 66
22 schools. Okay. And... [crosstalk]

23 ELLEN ZIELINSKI: That also includes a
24 few hospitals...

2 CHAIRPERSON CONSTANTINIDES: And refresh
3 my memory from your testimony, with those 66
4 locations; how many... how much of a PV wattage will
5 that be; what's the jump?

6 ELLEN ZIELINSKI: Our estimated total for
7 the full 88 sites is 15 megawatts.

8 CHAIRPERSON CONSTANTINIDES: Fifteen
9 megawatts. Okay.

10 ELLEN ZIELINSKI: That's our estimate and
11 we'll see what happens.

12 CHAIRPERSON CONSTANTINIDES: Uhm-hm. And
13 as far as these power purchase agreements; are we
14 instituting any labor standards to ensure that the
15 men and women that are installing these solar panels
16 are being paid a fair wage and protections and all
17 that...? [crosstalk]

18 ELLEN ZIELINSKI: Yes, they have to... they
19 have to adhere to the City's prevailing wage
20 standards and we actually provided that as part of
21 the RFP process.

22 CHAIRPERSON CONSTANTINIDES: 'Kay. I'm
23 probably gonna come back, but I'll turn it over
24 quickly to my colleague who has questions. Donovan,
25 do you... [crosstalk]

2 COUNCIL MEMBER RICHARDS: Sure, just a
3 question and I wanna thank the Chairman for his
4 leadership and Samara and Bill for their work on this
5 important piece of legislation.

6 Had a question on... so going back to what
7 the Chairman was speaking of, sort of streamlining
8 and also the difficulty of individuals who are
9 working in particular with the Department of
10 Buildings to try to get their solar moving forward
11 and we've... I've certainly heard complaints and I held
12 a solar town hall a few months ago in my district
13 where we heard complaints from local residents who
14 perhaps went to the Department of Buildings, you
15 know, to put in their permit and did not hear back in
16 particular, and then we also hear a lot of complaints
17 about the lack of information and cohesion amongst
18 the agencies when it comes to solar energy. So the
19 question I had was; I know that we've introduced a
20 few bills around this one; is the City thinking of
21 creating perhaps within the Department of Buildings
22 an office of solar energy, which would make it easier
23 to streamline a lot of the permit applications and
24 particular issues residents have and perhaps creating
25 a solar ombudsperson as well may be something that,

2 you know, DOB and others should be thinking of, so I
3 just wanted to gauge and hear a little bit of your
4 thoughts on that.

5 JOHN LEE: Sure. With respect to a
6 dedicated solar unit, I am not aware that that is
7 within the department's objectives at the time; I'm
8 referring to the Department of Buildings. That being
9 said though, several years ago the Department of
10 Buildings integrated a solar specific review unit
11 within the... what they're calling the, excuse me, I'm
12 blanking on the name, but the Hub over on Centre
13 Street, I believe, which is a dedicated unit looking
14 at fast-tracking certain types, or giving a special
15 review processes to certain types of permits and
16 solar at the time, particularly as it related to the
17 available tax abatement program, was built for the
18 explicit purposes; simultaneous to that effort,
19 through out City University of New York
20 sustainability program, the department does have
21 dedicated solar ombudsmen currently that are serving
22 this sort of function... [interpose]

23 COUNCIL MEMBER RICHARDS: You said you do
24 have a solar ombudsperson?

25 JOHN LEE: Yes.

2 COUNCIL MEMBER RICHARDS: Okay.

3 JOHN LEE: So I think if you're hearing
4 from your constituents that there is still a lack of
5 information available and these services do not
6 exist, I think there may be a failure on our part in
7 terms of being able to market this to make sure that
8 the public knows that this is accessible to them..

9 [interpose]

10 COUNCIL MEMBER RICHARDS: And who is the
11 solar ombudsperson; do we know?

12 JOHN LEE: I will have to come back to
13 you with the person's name.. [crosstalk]

14 COUNCIL MEMBER RICHARDS: Okay.

15 JOHN LEE: and the contact information..

16 [crosstalk]

17 COUNCIL MEMBER RICHARDS: Alrighty.

18 JOHN LEE: it'll definitely make a..

19 [interpose]

20 COUNCIL MEMBER RICHARDS: I wanna make
21 sure it's not an imaginary figure.

22 JOHN LEE: Okay.

23 COUNCIL MEMBER RICHARDS: Uhm just a
24 joke. Also wanted to know, so you said there's a

2 unit dedicated to... a review unit you said..

3 [interpose]

4 JOHN LEE: Well there... there are plan
5 examiners dedicated to this, yeah.

6 COUNCIL MEMBER RICHARDS: Can you just
7 speak a little bit clearer into your... [crosstalk]

8 JOHN LEE: Yes, there are plan examiners
9 dedicated to... [interpose]

10 COUNCIL MEMBER RICHARDS: There are plans
11 to have a unit?

12 JOHN LEE: Plan examiners in the
13 development hub at the Department of Buildings, as
14 far as I know.

15 COUNCIL MEMBER RICHARDS: Okay. And How
16 many people are in this unit?

17 JOHN LEE: I will have to come back to
18 you on the specific number of heads there.

19 COUNCIL MEMBER RICHARDS: Okay, so I
20 would hope that, you know when you guys come to
21 hearings that we would have this particular
22 information available.

23 Wanted to know; is there anything that
24 you're thinking of along the lines of permit fees
25 associated with installing solar, so are you looking

2 at any ways of waiving perhaps permit fees or any
3 incentives around installations of solar as well?
4 You know, as people look to ramp up and I'm certainly
5 starting to see a lot of homes in my district with
6 solar on it, it's an exciting time; the world is
7 transitioning to a renewable future and obviously
8 what happened in Paris and with the world it's
9 speaking of is a renewable future and New York City
10 has to move in a speedier fashion to ensure that we
11 can get to this future and this goal of reducing
12 carbon emissions 80 by 50 soon and solar obviously
13 will play a big role in this and I don't feel as if
14 -- just my opinion -- that we are taking this serious
15 enough; you know, we're gonna have to ramp up
16 operations as people look to install more solar and
17 more people are actually engaged and understand now
18 what that means and interested in it. So what are we
19 doing to ensure that incentives are put in place and
20 that perhaps we're streamlining, once again, the
21 permit process to make it faster for homeowners?

22 JOHN LEE: So in answer to the first
23 notion around reduced or waiving permit fees, we're
24 currently not contemplating any amendments to the fee
25 schedule; that being said, the primary focus on

1 helping to reduce costs is around this question of
2 streamlining the processes. As I stated earlier, the
3 department has already deployed a method by which
4 smaller buildings can do online permitting for solar
5 PV installations; the applicant and the design
6 professional on record does not have to show up at
7 the Department of Buildings to complete their online
8 submission [sic] and that alone should reduce
9 significant costs, the soft costs associated with
10 pursuing permits that time is money [sic] and the
11 expectation is that this will be an expansion of
12 that... eventually we'll see an expansion of that
13 program; the rollout started with this particular
14 class of buildings because through their experience
15 of the Department of Buildings to date, they have
16 been able to on one hand become more used to the
17 kinds of applications that they're seeing and the
18 projects that come before them, but also that they
19 have been able to standardize some of their approval
20 processes through this, and that's something that I
21 think will lend itself towards overall streamlining that
22 as we see the marketplace for this escalate and more
23 projects come to the Department of Buildings, that
24 the sort of standardization and most common practices
25

2 will be come much more visible and will be reworked
3 into, again, more streamline permit processes.

4 In terms of the incentives, you know,
5 again, through our City University of New York
6 sustainable CUNY, who is doing much of the outreach
7 program, these other programs, such as Community
8 Solar, to help socialize solar, they're also at the
9 center of providing services such as a solar
10 ombudsman and also with the City's Economic
11 Development Corporation the incentives that we have
12 in place currently are primarily programmatic and
13 they're in terms of assistance. In terms of the
14 actual cash incentives, that is something that we
15 continue to work with the state to make available
16 through either the tax abatement programs that we've
17 already seen or through NYSERDA.

18 COUNCIL MEMBER RICHARDS: Okay, 'cause
19 I've heard all of this before and you know, I wanna
20 go back to CUNY and no offense to CUNY and I applaud
21 the work that they're doing, but this work has to be..
22 CUNY cannot lead on this discussion; the Department
23 of Buildings needs to be taking more of a hands-on
24 approach to solar. For my residents, they don't know
25 about CUNY doing solar; they don't know about a solar

2 ombudsperson through CUNY, they have no idea of
3 what's going on, and I'm not making this up; I mean
4 we had nearly a 100 people at my town hall and they
5 could not find information, you know, and we need to
6 do better as we move, you know, forward and the City
7 should be taking more of a lead on this. I'm gonna
8 wrap up; I just have one more question; I wanna thank
9 the Chairman for being so patient with me.

10 So you spoke of buildings that the City
11 obviously is going to target because the construction
12 is ready, I mean schools are ready, we know that
13 they're low-lying fruit now; we have a lot of roofs
14 all over the city that can certainly utilize solar;
15 what are we doing to ensure that new construction in
16 particular; with all the building going on we're
17 gonna have private developers building affordable
18 housing all over the world, in New York City; what
19 are we doing to ensure that we mandate these
20 developers to do what France did; mandate green roofs
21 and solar panels on their roofs? Why can't New York
22 City get there?

23 JOHN LEE: For the reasons that we said
24 earlier within testimony, that we are certainly in
25 support of the ideas of pursuing every sustainable

2 building option that we can find at any particular
3 site; we don't have necessarily the luxury of open
4 sites all the time, especially in New York City, we
5 extract every value that we can of every square inch
6 of land that we have left and green roofs and solar
7 PV in and of themselves may not necessarily be the
8 optimum solution for a given site. So while we
9 certainly are very supportive of mandating on city-
10 owned properties... [interpose]

11 COUNCIL MEMBER RICHARDS: Say that again;
12 mandating city...

13 JOHN LEE: While we would be very much in
14 support of mandating our city-owned properties,
15 measures that would get the best value out of
16 sustainable practices and pursuing our greenhouse gas
17 emission reduction, I would just caution that we
18 think more broadly beyond just solar PV and green
19 roofs that we should consider all options that are
20 available.

21 COUNCIL MEMBER RICHARDS: Well
22 definitely, and I applaud the Chairman for his work
23 on this and certainly making sure that the City leads
24 and certainly does what we are supposed to be doing
25 when we set goals, but I will say that the City needs

2 to also look at the private industry as well; we
3 can't just say public, but the biggest emitters we
4 know are the private building owners, right and I
5 just wanna keep reiterating that we should not move
6 away from that conversation and it will be a
7 revolving conversation; god willing we'll have some
8 movement before I'm termed out on this issue, but
9 it's a conversation that will not go away and that
10 is; we need to ensure that not just buildings that
11 are 10,000 sq. ft., but also under 10,000 sq. ft.
12 also adhering to the law as well, to Local Law 84 and
13 I think we should be doing more benchmarking as well
14 and not every 10 years; every 5 years if we are truly
15 trying to move in an aggressive fashion. So thank
16 you Mr. Chairman for your leadership on these bills
17 and look forward to continuing to work with the
18 administration to make our city as renewable as
19 possible. Thank you.

20 CHAIRPERSON CONSTANTINIDES: Thank you,
21 Council Member Richards for your strong advocacy on
22 all issues environmental, so thank you, sir.

23 But last; I think this sort of piggybacks
24 on what Council Member Richards is speaking to, but
25 you know, what is the formal -- he talked about the

2 ombudsman and how we can make this more available,
3 but like how often do we speak with the industry, you
4 know, with the ombudsman, like is there a formal
5 stakeholder process, like how do we connect with, you
6 know, best practices that maybe the industry can
7 share with us so we have an... how is that open
8 dialogue with the industry happening and how can we
9 better connect maybe some of the good things that are
10 happening throughout the country with New York City
11 that we can always continue to be that strong leader
12 that we already are?

13 JOHN LEE: The quick answer to that; I
14 mean the... informally, the engagement with the
15 industry is driven primarily by sustainable CUNY and
16 EDC, is an ongoing thing and certainly our phone
17 lines are open and we regularly field inquiries and
18 proposals from the solar industry, even within our
19 own office, and more formally, I suppose the..
20 sustainable CUNY holds the annual solar summit in
21 which we convene the experts within the industry and
22 also some of the more innovative members to bring
23 forth not only what is the future of the industry but
24 then also trying to solve intractable problems that

2 we face, today many of which have been already
3 illustrated here in this testimony. [sic]

4 CHAIRPERSON CONSTANTINIDES: Alright,
5 well I look forward to working with the
6 administration on seeing how we can bring CUNY closer
7 to us or us kind of taking that role ourselves, but I
8 definitely look forward to kinda taking a look at
9 some of the ideas that have been put forth today by
10 the administration and coming up with a stronger 0478
11 that's gonna really make solar happen in a larger way
12 for our city-owned buildings. So thank you all for
13 your good testimony.

14 JOHN LEE: Thank you, Councilman.

15 CHAIRPERSON CONSTANTINIDES: Alright, so
16 our next panel is Chris Neidl, Ronnie Mandler and
17 Merrill Kramer; if you could all please step forward.
18 Samara; do you wanna...

19 COMMITTEE COUNSEL: Can you please raise
20 your right hand? Do you swear or affirm to tell the
21 truth, the whole truth and nothing but the truth
22 today?

23 CHAIRPERSON CONSTANTINIDES: Mr. Neidl.
24 [background comments] Sounds good to me.

2 MERRILL KRAMER: 'Kay. Thank you, Mr.
3 Chairman, members of the Council. I appreciate the
4 opportunity to appear before this committee and
5 testify on the City Council's proposal to amend the
6 code to require solar PV systems on municipal
7 buildings.

8 My name is Merrill Kramer; I am an
9 attorney and the head of the sustainable energy
10 practice at the law firm of Sullivan & Worcester. In
11 addition to our other offices, we have long been
12 proud members of the New York business community.

13 Prior to entering private practice, I
14 served as the principal attorney at the Federal
15 Energy Regulatory Commission's Cogeneration and Small
16 Power Production Task Force. In this capacity I was
17 charged with writing and interpreting rules and
18 regulations to encourage the development of renewable
19 energy resources and decrease this nation's reliance
20 on fossil fuels. I've drawn on my experience at the
21 FERC on the task force in preparing my remarks for
22 this committee.

23 I have also been working with solar power
24 for approximately 30 years and recently have started
25 to work with a coalition of New York City solar

2 industry professionals who are responsible for
3 installing over 60% of the solar PV rooftop systems
4 in the city. I've also drawn upon their almost
5 universal comments and concerns in identifying the
6 three largest obstacles facing solar deployment in
7 New York City and in making recommendations to this
8 committee.

9 Initially I wish to applaud the Chairman,
10 this committee and the City Council for being at the
11 nation's forefront in bringing solar energy to
12 municipal buildings. The committee and Council have
13 set a national example of government leadership and
14 stewardship of our air, water and health. We also
15 applaud the De Blasio administration for its
16 commitment to solar energy for New York City and to
17 reduce greenhouse gas emissions by 80% by 2050. The
18 Mayor's One City Built to Last initiative is
19 proactive and farsighted; it will result in lower
20 energy costs, cleaner air, improved health and
21 greater energy security for New York City and its
22 surrounding environments.

23 The three biggest challenges we see to
24 meeting the goals of the City's solar initiative and
25 making this bill a success are: 1. the delays and

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bottlenecks applicants face at the Department of Buildings for obtaining an initial solar permit;

2. the cost and time it takes to obtain even minor variances from the New York City Fire Department,
3. the need to establish a one-stop shop decision-making administrative body that can identify problems and execute fast track programs and processes that can expedite the permitting process and resolve disputes. I will explain each one of these and offer or recommendations for resolving each of these issues.

The single largest problem in bringing solar power to the City is the Department of Buildings' process of manually reviewing solar permit applications where the applicant is seeking to obtain property tax abatement for its solar installations. To promote installation of solar PV, New York State in 2008 made available to city residents and businesses a property tax abatement currently equal to 20% of the cost of installation. The property tax abatement expires at the end of this year; rooftops that are not installed and energized prior to the end of 2016 will lose this important incentive.

1 Prior to the 2012 extension of the
2 property tax abatement law; I don't know the exact
3 date, but at sometime prior to that, virtually all
4 Type II relatively minor solar permits in the city
5 were issued using a full professional certification
6 or self-certification process. The full pro cert
7 process is self-regulating and done through an
8 E-filing; permits under full pro cert typically are
9 obtained within 24 hours. Sometime following the
10 extension of the property tax abatement, the
11 Department of Buildings started to require solar
12 applicants seeking property tax abatement to use a
13 more cumbersome professional certification of
14 objections process instead of the self-certification
15 process. Under the certification of objections
16 procedure, a Hub examiner at the Department of
17 Buildings manually reviews both the solar permit and
18 the property tax abatement application, or a PTA4.
19 As the number of solar applications increased over
20 the last couple of years, the manual examination
21 process increased the time for obtaining permit
22 approvals to four to six months. The inordinate
23 increase in time appears to be the result of the
24 combined effects of this time-consuming manual review
25

2 of applications, the increase in solar applications,
3 combined with a heavy turnover of examiners at Hub
4 and an apparent inconsistency between the Department
5 of Buildings understanding or application of some
6 aspects of the New York Fire Department Code and the
7 Fire Department's interpretation. The combination of
8 these three things has created an almost
9 insurmountable bottleneck of solar permits at Hub,
10 triggering large numbers of solar contract
11 cancellations and terminations.

12 While the Department of Buildings'
13 initial decision to use the manual review process may
14 have been well-intended, as a lawyer I've reviewed
15 the City Building Code and I can find no basis for
16 prohibiting applicants from using the full pro cert
17 self-cert process, which is permitted under the code,
18 but that is exactly what has occurred.

19 Section 105-02 of the New York City
20 Department of Buildings' own rules arguably mandates
21 the use of the full pro cert process for applicants
22 seeking property tax abatement. Department of
23 Buildings' directive 14 also expressly authorizes use
24 of the self-certification process for Type II
25 installations.

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I have provided the applicant parts of the City Code in my testimony that's been submitted to this committee for the record.

The Department of Buildings' use of the manual review process, as I mentioned, has resulted in a huge backlog of solar applications which in turn has increased solar costs to property owners. As Council Member Richards mentioned earlier, when you're dealing with smaller structures, when you take these fixed costs and spread it over the cost of the installation, it becomes almost prohibitive to install solar on those kinds of homes.

Based on my informal polling of solar professionals, these delays that are associated with having to go through the certification of objections process results in cancellation or termination of over 50% of all of the installation contracts that solar professionals have gone out to homeowners and businesses and gotten signed; that's if they have to go through this manual process.

Major solar companies have abandoned the City and they've moved their personnel to New Jersey, Upstate and other jurisdictions where permits typically are received in a couple of weeks at most.

1 These cancellations and withdrawals from the City
2 have resulted in industry layoffs here, loss of
3 substantial tax and fee revenues to the City and some
4 questions regarding the administration's ability to
5 achieve its stated solar and carbon reduction goals.
6 The expected rush to file solar applications in order
7 to obtain the property tax abatement prior to its
8 expiration at the end of this year can only
9 exacerbate the problem.

11 As Mr. Lee mentioned, on January 1 the
12 Department of Buildings reinstated use of the pro
13 cert self-service process for certain kinds of
14 applications and we commend them for that and that is
15 a start. The January 1 program, however, applies
16 only to perhaps 20% of eligible solar rooftops in the
17 city. For example, a rooftop having a 10-degree
18 pitch or having dwellings of more than two families
19 must continue to use the longer manual certification
20 of objections process.

21 I want to underscore that under the New
22 York City Code and applicable Department of Buildings
23 directives, particularly directive 14, all Type II
24 alteration applications are entitled to use the
25 building's full professional certification process.

2 However, the Department of Buildings currently
3 prohibits use of directive 14 self-certification
4 process for solar applicants that file for the
5 property tax abatement other than the reinstatement
6 for certain solar rooftops that went into effect on
7 January 1. Thus, the single largest problem facing
8 solar deployment in New York City can go away
9 practically overnight if the Department of Buildings
10 were to allow use of the full professional
11 certification process for all solar PV rooftop
12 applications.

13 The second major issue arises from the
14 cost and delays resulting from the current antiquated
15 system used by the Fire Department for granting
16 variances. Not infrequently, solar installers must
17 obtain a minor variance from the Fire Department.
18 For example, the Fire Code requires buildings under
19 100 feet tall with a roof slope 20 degrees and under
20 to provide a 6-foot-wide and 9-foot-tall clear path
21 going from front to back and side to side. Three-
22 foot-wide access must be provided around scuttles,
23 skylights, fire escapes and ladders. A 6-foot-wide
24 clear radius also is required around roof doors, and
25 there are other requirements around vents and

2 skylights as well. For a modest home, by the time
3 these paths are clear, there is little room left on
4 the roof to meaningfully put in solar. I have the
5 utmost respect for firefighters, they put their lives
6 on the line every day for us, they are true heroes;
7 the events of 9/11 provides us with a constant
8 reminder of this fact; at the same time, New York
9 City has one of the strictest fire codes in the
10 county; the International Model Fire Code, for
11 example, only requires a 4-foot-wide clear path.
12 We've engaged the Fire Department in discussions to
13 find ways to accommodate solar roof arrays and
14 advance the administration's solar initiatives.

15 In certain circumstances the Fire
16 Department currently will allow home and building
17 owners to reduce the 6-foot clear path requirement;
18 the Fire Department also frequently grants a variance
19 where say a small conduit or a pipe might protrude
20 from the roof and technically violate the clear path
21 requirement.

22 Unfortunately, the Fire Department has no
23 process in place for handling minor variances or
24 categorical variances that are relatively non-
25 controversial. The Fire Department does not even

1
2 have an electronic process for E-filing requests or a
3 centralized office or process for filing for
4 variances. An applicant must physically type out and
5 run off multiple copies of his or her request for
6 variance, travel to the correct local Fire Department
7 office and manually file the application at that
8 location. The local office then manually distributes
9 copies of the application to the appropriate internal
10 offices for review, a distribution process alone that
11 can take more than a month. Each variant request can
12 cost \$500 and upwards plus the cost of revising
13 architectural and engineering designs in the process.
14 Variances can only be filed by professionals and if
15 the Fire Department requests additional information,
16 the whole process can start all over again.

17 The third and perhaps most important
18 problem universally raised by solar applicants,
19 installers, developers, engineers, architects and
20 contractors is that there is no framework within the
21 administration within which to identify, discuss,
22 manage, improve and implement processes and programs
23 for streamlining procedures and resolving disputes.

24 To resolve these three issues we
25 respectfully recommend to this committee the

1 following proposals to be considered as part of this
2 bill or by separate means.

3
4 No. 1: Reinstate use of full
5 professional certification for all solar rooftop
6 installations. As I mentioned, directive 14 and the
7 City Code are very clear; the Hub's full pro cert
8 process should be available to all Type II solar
9 permit applications that are seeking property tax
10 abatement. No new law is required.

11 It is, in my opinion and from a legal
12 standpoint, nonsensical and even arbitrary to treat
13 two identical applicants with two identical solar
14 rooftop layouts differently because one of the
15 homeowners is seeking property tax abatement and the
16 other one is not. Solar installers are foregoing
17 even applying for the tax abatement because they
18 cannot afford the additional time and expense
19 associated with a longer application process. Solar
20 installers are also foregoing and skipping over 80%
21 of the homeowners and businesses that can't fit
22 within the January 1 order and use of the pro cert
23 process.

24 The City Council should add a provision
25 to the current bill to make use of the full

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professional certification authorization for all property owners clear.

No. 2: Require E-filing and other automated procedures to be implemented at the Fire Department. These procedures should incorporate a process for expeditiously handling minor and routine categorical variances; this is not a complicated process.

Regarding expediting routine and categorical variances, there are a number of models from which this committee can draw. For example, at the Federal Energy Regulatory Commission, we implemented a dual procedure under which a routine project could self-certify; the process was self-implementing; the self-certification was publicly posted and made final if there were no objections filed within 30 days. The process could be adopted for categorical variances or minor variances, with the Fire Department having 30 days to raise any objections. In other words, you would be assumed innocent until proven guilty instead of the other way around.

The FERC also adopted a procedure, as another example, where routine orders are issued

2 through delegated authority rather than having to go
3 through formal commission approval. A delegated
4 authority process could be established at the Fire
5 Department, an appropriate official could be
6 authorized to issue approvals for safe harbor,
7 categorical and minor variances. Under such a
8 procedure the office would be required to issue such
9 variances within say 15 days; failure to act within
10 15 days would be deemed acceptance of the request;
11 the public then would have a 30-day opportunity to
12 challenge the issuance. The process ideally could be
13 implemented through an online E-filing procedure.

14 Another available model is the process
15 that was incorporated into the old Public Service Law
16 Article 8 Rules that were used for citing new
17 electric-generating plants. The law established a
18 one-stop shop independent citing board for
19 construction of new power plants. The citing board's
20 authority overrode all other local laws and
21 ordinances and had sole jurisdiction to issue
22 certificates of public convenience and necessity.

23 Recommendation No. 3: Establish a solar
24 task force. As Council Member Richards has raised,
25 we recommend creation of an ad hoc task force

1 composed of empowered representatives of the
2 administration, together with representatives of the
3 solar industry and consumer business and
4 environmental interests. The task force would be
5 charged with establishing a framework for identifying
6 and improving processes and programs to expedite
7 solar installations and lower the cost of such
8 installations, establishing procedures and processes
9 for resolving disputes and heightening awareness in
10 the community of the value of installing solar.
11

12 To ensure that the task force has teeth,
13 the administrative officials designated for the task
14 force should have sufficient seniority and authority
15 to make binding decisions. We recommend that
16 deadlines be imposed for establishing the task force
17 and for taking actions. In short, the Council should
18 ensure that the task force has authority to
19 effectively tackle obstacles and further the goals of
20 the administration.

21 In conclusion, we are encouraged by the
22 Council's leadership and its environmental
23 stewardship; the steps I've outlined today to
24 eliminate key obstacles to the use of solar power in
25 the city will have the effect of allowing more and

2 more New York City residences and businesses to
3 convert to solar power, reducing the costs and
4 burdens on the City, increasing employment, improving
5 the air and making the Mayor's solar initiative a
6 success.

7 I thank the Chairman and the committee
8 for your time and attention today; I look forward to
9 working with you on these important issues and I
10 would be pleased to answer any questions of the
11 committee.

12 CHAIRPERSON CONSTANTINIDES: Alright. Is
13 there anyone else on the panel that will be giving
14 testimony?

15 [background comment]

16 CHRIS NEIDL: Yeah, we're...

17 CHAIRPERSON CONSTANTINIDES: Okay, so
18 please... and I'll ask many questions afterwards, so
19 just... we'll do that.

20 CHRIS NEIDL: Sure; sounds good.

21 [interpose]

22 CHAIRPERSON CONSTANTINIDES: Before you
23 get started, I wanna recognize my colleague from
24 Brooklyn, Council Member Steve Levin is in
25 attendance. Thank you.

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CHRIS NEIDL: Thank you, Mr. Chairman and members of the committee for the opportunity to appear and provide testimony on proposed Local Law No. 0478.

My name is Chris Neidl; I am the Director of Here Comes Solar, which is an initiative of the nonprofit organization Solar One. In that capacity I assist homeowners and providers of affordable housing throughout the five boroughs in exploring and assessing their properties for solar potential and then helping them actually advance solar projects, so I work very closely both with solar installers, but also I work very closely with homeowners and would-be adopters of solar.

So in the global effort to curb the causes and prepare for the effects of climate change in the 21st century, New York has distinguished itself as a leader among American cities by making an ambitious commitment to dramatically reducing carbon emissions over the next few decades. Increasingly, the local adoption of clean distributed solar technology will be a necessary component of this commitment's realization, given solar's high potential for urban deployment among clean energy

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sources and the rapid decline of solar equipment and installation costs that has occurred in recent years and is projected to continue well into the coming decade.

Solar also has a critical long-term role to play in supporting grid resiliency and reliability objectives and could prove to be a significant generator of local jobs if the industry is able to grow and diversity in the future.

I believe that the objectives that are proposed in Int. 0478 would positively and powerfully support the achievement of the City's clean energy carbon reduction resiliency goals, both directly by leveraging the City's resources and property to facilitate an increase in local solar capacity and directly by catalyzing the growth, maturation and competitiveness of a local solar industry by creating new and significant public sector demand for solar equipment designed installation. Therefore as an advocate for New York City residents and businesses who aspire to invest in and derive benefit from solar energy and is a believer in the transformative impact that solar can and should have on decarbonizing and

1 democratizing our energy system, I fully support the
2 Council's effort to make Int. 0478 local law.

3 However, while expressing my support, I
4 would also like to look forward beyond the scope of
5 the legislation that we are discussing today, which
6 is focused on facilitating the deployment of solar on
7 City properties, but I'd like stress that the City
8 Council can and must do much more to address the many
9 administrative barriers that currently stand in the
10 way of more widespread investment in rooftop solar by
11 tens of thousands of eligible private homes and
12 businesses throughout the five boroughs. Because
13 while certainly it is true that City property
14 collectively offers opportunities for deployment that
15 are far from trivial, ultimately it will be the
16 adoption of solar by private, not public decision
17 makers that will make a far more quantitatively
18 meaningful role in fulfilling the City's laudable
19 climate and energy objectives. Yet today there is a
20 persistent and profound disconnect between those
21 objectives and the manner in which solar projects and
22 deployments are administered, processed and
23 interpreted by City agencies and departments; most
24 notably, the New York City Department of Buildings.
25

1
2 Specifically, Department of Buildings'
3 application and inspection process for construction
4 and electrical permits for solar projects are
5 characterized by an unacceptable level of
6 uncertainty, inefficiency and redundancy. This state
7 of affairs directly contributes to higher project
8 costs for adopters and a higher level of effort for
9 industry providers, resulting in suppressed demand
10 and investment by consumers while also causing many
11 leading solar companies that are active in other
12 parts of the region to essentially opt out of
13 participating in large segments of the New York City
14 market; nowhere are the effects of this more
15 adversely felt than with the City's one- to four-
16 family unit private homes, especially flat roof
17 homes. This is a segment that absent these barriers
18 should in fact be one of the most robust for solar
19 adoption, given the strong incentives that are
20 created by high retail residential electricity rates
21 here in New York City.

22 Therefore in the interest of meeting the
23 City's long-term climate and energy goals,
24 comprehensive and commonsense process reforms
25 informed by national best practices and an

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appropriate consideration of local place-based factors must be implemented in the near term.

With my testimony I include nine separate recommendations that have been formulated with direct input from diverse local solar industry actors and which aim to provide a specific reasonable and highly achievable basis for such necessary reforms. If implemented, the recommendations would substantially reduce the significant added costs, time and importantly, uncertainties that characterize the current solar development process in New York City, and importantly, they would do so without compromising public safety and property value or other core objectives of the New York City Department of Buildings. Once in place, such reforms would increase solar industry participation in the five boroughs, resulting in greater competition, lower prices, improved service and increased innovation; in total, all of which, more than anything else, will cause solar adoption to take off and ultimately fulfill a meaningful role in the achievement of the City's core climate and energy goals.

I am submitting the recommendations with my testimony; I won't go over those all today, but as

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they are reviewed, it's important to bear in mind that these recommendations are in responses to problems in that the solar installation community often doesn't have to deal with one problem or two problems for projects, but all of them and the totality of these barriers, which may seem small in isolation, that in a death by a million cuts type of way, force solar installers out of the market.

I would like to call attention, since it's been referenced already today, to one recommendation, which in fact, if it was adopted, may likely actually imply the realization of the other ones, and that is the establishment of a special office of solar energy, which hopefully would function not just as a strategic and oversight organization, but actually would be the institution in which we could take the various permitting and process-related functions related to solar and concentrate them in a one-stop shop.

So that is a bill that we are very happy to see introduced and one that we will certainly come back to testify at when a hearing is scheduled.

Thank you.

2 RONNIE MANDLER: Good afternoon. My name
3 is Ronnie Mandler; I believe I am the only solar
4 installer over here and I believe as such we are the
5 one who are actually making it happen physically in
6 New York City. We thank the Chairman and
7 Mr. Richards, 'cause I believe the questions you
8 asked before are actually the right questions to be
9 asked and unfortunately, I saw that you didn't get
10 the right answers.

11 So I want to give you kind of a testimony
12 of things that are actually going on a day to day
13 what we face when we design, going for a permit and
14 have to install solar systems in the five boroughs of
15 New York City.

16 Best Energy Power is the lead solar
17 installer in the five boroughs of New York City, BEP
18 holds the biggest marketure [sic] of commercial solar
19 installation in the five boroughs and as such, the
20 most exposed to the burden of getting solar projects
21 moved along in the New York City terrain.

22 I'm sure the Council members know that in
23 New York City we have less solar per individual than
24 the rest of New York State, while New York City is
25 the most populated place per square mile compared to

2 the rest of the state. So let's see why do we have
3 those problems.

4 The biggest problem is the FDNY rule not
5 allowing solar on the roof and the biggest burden is
6 implementing these rules into solar system design
7 while lowering the goal of efficiency. As you well
8 know, efficiency in solar is watt per square foot, so
9 the main problem is design max power in a restrained
10 area of the roof. We all agree that FDNY firefighter
11 safety is very important, but same as soldiers in
12 developing modify their tactic to the new development
13 on any terrain, so does the firefighter have to
14 adjust their method to fight a fire when there is
15 solar on the roof.

16 The main issue is the 6-foot clear path
17 by the FDNY on a flat roof where nothing should be in
18 that clear path and same goes on an A-shaped roof
19 where we need 3-foot clear path on the ridge on both
20 sides, and of course, nothing allowed to interfere in
21 that clear path. Just think on the flat townhouse
22 roof with a skylight or a hedge where you need 6-foot
23 clear path front to back with a 6-foot clear path
24 connecting side to side with 3-foot clearance around
25 skylight or hedge. Basically we wipe out 60-70% of

2 available roof space; furthermore, if you have a vent
3 stack or a chimney, you're left with almost no space.

4 I'm sure there are ways to adjust the
5 work and to work out the solution while keeping
6 firefighters' safety intact.

7 This brings me to the next problem with
8 the FDNY. Let's assume we need to go for a variance
9 with the FDNY to be able to fit solar on a roof; the
10 only way to file is with a hard copy; nothing
11 electronic. Any FDNY examiner has a desktop
12 computer; how come we cannot file electronically; we
13 are in 2016?

14 Please understand that the only way to
15 file it is go physically to downtown Brooklyn, hand
16 it over; otherwise we need to send it via FedEx; it
17 will take a week from the mailroom to the rooftop
18 examiner if we send it via FedEx. When you hear
19 that, it sounds like we are in a Third World country,
20 but to remind you, this is New York City 2016.

21 And now I want to move to the next
22 problem with the FDNY and that would be the question;
23 who is the final authority to call what is going on
24 the roof? To my understanding, the DOB Hub was
25 created as a one-stop shop to allow and monitor

2 what's going on the roof. I wanna give you an
3 example from real life.

4 In 2011 we submitted a design to the DOB
5 Hub; the comment that we received from the Hub was
6 that we don't comply with the FDNY rules and we have
7 to submit to the FDNY for a variance; we did so and
8 submitted the variance with the FDNY; the FDNY told
9 us how to adjust and change the design in the plan.
10 We implemented the FDNY guidance into a design and
11 made changes according to the FDNY request. With
12 that we went back to the Hub, showed them the
13 adjustment; the Hub, after examining the plan in view
14 of the FDNY request, approved the new adjusted plan
15 and we received the permit; accordingly, we build up
16 the system. The DOB came after we finished to the
17 location to inspect and sign off. Three years later
18 we received a violation by the FDNY inspector; it was
19 an ECB violation, so now we have to go to court. The
20 violation; that we did not go back to the FDNY and
21 show them what we actually did of what they told us
22 to do. This is not a joke; we had to pay a fine of
23 \$2500 because we did not go back to the FDNY and tell
24 them, yes, we built it the way it was approved to
25 build it.

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If FDNY doubts what we did, they could simply ask or send an inspector to the site to inspect; instead, they send an inspector to site who did not even go on the roof, they just sent an inspector to write the violation and that is why, because the DOB issued the permit instead of sending us back to the FDNY.

Altogether we have similar 15 cases; we lost all in court, paying thousands and thousands of dollars due to the FDNY fight with the DOB of who has the final right to approve solar system on the roof.

Another example is a roof without conforming to the FDNY rule; in other words, a preexisting condition that solar would not make any change. The DOB approved the solar roof plan where the bulkhead door on the roof was too close to the parapet; this is a preexisting condition not conforming to the FDNY rules. Solar did not make any change and any difference to that condition and yet the FDNY wrote a violation to the building because the preexisting condition. You cannot change the parapet on the roof and of course you cannot change the bulkhead, as it is on the top of a staircase. So what is the violation all about? FDNY giving the

2 approval on a preexisting condition although adding
3 solar does not change anything.

4 The whole idea of the FDNY is calling the
5 shots by finding variance; in other words, control
6 over DOB. Once we get the variance we are clear, but
7 the catch is that we have to submit to the ECD within
8 30 days; the FDNY is very slow to respond, so now we
9 miss the 30-day deadline and we have to go to court.
10 The judge in the court says that the delay of the
11 FDNY for more than 30 days is not a defense and here
12 goes another \$2500 fine, although we got the variance
13 approved.

14 It sounds like a comedy, but
15 unfortunately this is real life. One more thing to
16 add; that the cost of the variance to the FDNY is
17 \$470 to the FDNY fee and since only a professional
18 can prepare, this will cost another \$600. A major
19 problem in this fiasco is that the FDNY reports to
20 the NYC Mayor and the Mayor's Office does not want to
21 deal with that.

22 I hope you all understand the disgusting
23 issue we have to load to the customer and this is
24 another reason why it's more expensive to do solar in
25 New York City than any other place in New York State.

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We have to find an entity that will make sense to the FDNY rule and regulation and tell the FDNY to adjust to the new era; solar must go on roofs and more solar the better for us and the next generation we all live for.

The other issue I want to address is the DOB Hub. If anyone ever sees the amount of information the DOB requires for a solar permit, do you know how much unrelated information one has to submit to a solar plan to get a permit; what is the connection between the parking space next to the building to solar on the roof?

I hope the Council members understand that we are talking on thousands and thousands of dollars we have to pay to an engineer to be able to submit a plan for permits.

The solution to address this issue, an independent solar liaison, currently we have CUNY who put themselves as the ombudsmen between installers and the DOB. CUNY is doing a fine job as a solar advocacy, but CUNY has a lot of conflict with solar installers and what CUNY's opinion is does not match necessarily the industry. Unfortunately the DOB commissioner does not want to hear about that; rather

2 than having direct communication of the DOB with a
3 presentation of the installer, the DOB speaks with
4 CUNY and CUNY tells the installers certain things
5 they cannot address, as they have to keep good
6 relationship with the DOB. I believe everybody in
7 this room, especially the council member, wants to
8 achieve a mutual goal of doing more solar in New York
9 City; let's try all to work together to find the
10 right way to do it. Thank you for your attention.

11 CHAIRPERSON CONSTANTINIDES: Thank you
12 all for your testimony. So just to get a consensus,
13 we have an agreement that 0478 is a good thing;
14 correct?

15 RONNIE MANDLER: Absolutely.

16 CHAIRPERSON CONSTANTINIDES: Alright, but
17 I also sort of hear a consensus that the current
18 system of engaging stakeholders can be streamlined
19 and be better used; that as described with CUNY
20 involved is adding maybe an additional layer of
21 complication; things get lost in translation and that
22 the best thing for us is to have a direct dialogue
23 with City agencies to really be able to hear their
24 concerns; have a more productive back and forth; is

2 that an accurate depiction of what all of you
3 believe?

4 RONNIE MANDLER: Absolutely.

5 CHRIS NEIDL: Well I would just add; I
6 think that CUNY does play a very valuable role
7 actually; I interact with them on a regular basis in
8 terms of providing technical resources and
9 assistance... [crosstalk]

10 CHAIRPERSON CONSTANTINIDES: Uhm-hm.

11 CHRIS NEIDL: so I wouldn't wanna
12 overstate some of the consensus... [crosstalk]

13 CHAIRPERSON CONSTANTINIDES: I'm a CUNY
14 guy; I graduated Queens College; I love them.

15 CHRIS NEIDL: Okay.

16 RONNIE MANDLER: What Mr. Richards says
17 before, he asked a question; is there any
18 communication directly with the installers to the
19 DOB, FDNY and the answer is no.

20 CHAIRPERSON CONSTANTINIDES: So you
21 communicate with CUNY and then CUNY communicates with
22 DOB; is that...

23 RONNIE MANDLER: Correct and we try to do
24 that; then they send us, oh go to CUNY, so we try..
25 [crosstalk]

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CHAIRPERSON CONSTANTINIDES: Okay.

CHRIS NEIDL: That... That's a problem and one thing I'll say is; we've studied some best practices around the country in other mutual markets and California, at the state level and its major metropolitan jurisdictions, the story there was one of early and constant collaboration between industry and the fire departments and the various departments of buildings to formulate policies that make sense, so that should be similarly the case here.

MERRILL KRAMER: Yeah, there are several very good models for collaboration and dialogue that exist in other cities and other states; I think the tricky thing here is, 'cause there's so many different stakeholders and departments involved, is how to have the kind of dialogue where people don't start getting defensive and protecting their own particular situation, but we can have an open discussion with a common goal of trying to resolve these issues and move solar forward.

CHAIRPERSON CONSTANTINIDES: And I think there's a shared goal here; I mean, you know, as I've stated before when the administration was testifying, that there's a certain inherent risk to every

2 technology that we use, whether that's natural gas,
3 whether that's a traditional fuel-burning boiler,
4 solar, but it should be as easy to install a
5 traditional fossil fuel system as it is to... you know,
6 it's pretty easy to do that right now; there's a
7 process people understand, they know where they to
8 go; it may sometimes have some hiccups, but people
9 know how to get there; with solar, with other
10 renewable technologies, I think it's a shared goal
11 with this administration and this Council to make it
12 easier; that people feel that they can install solar
13 on their homes or install geothermal or do wind power
14 and we wanna make it as easy as possible so that
15 there isn't that source of frustration; there isn't
16 that, well, you know, why did I even bother to go
17 green to begin with.

18 CHRIS NEIDL: And if I could just add to
19 that, that you know we know that solar spreads
20 through referrals, it's a very social thing and
21 there's such a thing in New York as a negative
22 referral where people have gone through the process
23 of getting solar and it was such a negative
24 experience, such a time-consuming and uncertain
25 experience that they just simply wouldn't recommend

2 it, and that's a major problem that we seen here in
3 the city.

4 CHAIRPERSON CONSTANTINIDES: No, I
5 wholeheartedly agree; if we make it easy, people will
6 be able to get that positive referral; if it's
7 negative; that's a real impediment to where we're
8 looking to go in the future. If your neighbor or
9 your friend tells you, I tried to do that and it was
10 a real difficult process and I gave up; we're gonna
11 be setting ourselves back, so I'm looking forward to
12 continuing a strong dialogue with you. Thank you
13 very much for your testimony.

14 [background comments]

15 CHAIRPERSON CONSTANTINIDES: Alright, our
16 next panel, if you can please step forward, Josh
17 Kellermann from ALIGN; Lisa Di... can't read the
18 handwriting... DiCiapi [sic] [background comment]
19 DiCapri [sic], sorry, I'm sorry, Lisa; with a name
20 like Constantinides, I always try to do it right, and
21 Alexander Gleason from the Central Labor Council.

22 And after this panel, we will have two of
23 my favorite activists; we'll have Catherine Skopic
24 and Ling Siu, so please don't leave the room.
25 Samara, if you can swear in the witnesses, please.

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COMMITTEE COUNSEL: Can you please raise your right hand? Do you swear or affirm to tell the truth, the whole truth and nothing but the truth today?

[collective affirmation]

CHAIRPERSON CONSTANTINIDES: You can begin your testimony, please. We'll start with Lisa.

LISA DICAPRIO: I'll start. My name is Lisa DiCaprio; I am a Professor of Social Sciences at NYU where I teach courses on sustainability. I am also a member of several environmental organizations. Thank you for the opportunity to speak today in support of Int. 0478 2014, which will require the installation of photovoltaic systems on all New York City-owned buildings, including public schools.

As peak solar corresponds with peak demand for electricity, solar power contributes to climate change mitigation and adaptation. By displacing fossil fuels solar installations on New York City-owned buildings will facilitate meeting the goal of reducing greenhouse gas emissions by 80% by 2050 and the actualization of New York City's on-site renewable energy potential.

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With regard to climate change adaptation, distributive solar power will also reduce the load on New York City's electricity grid during heat waves, which are projected to increase as a result of climate change.

Moreover, Con Edison now allows solar power to be installed with the option to disconnect from the grid in advance of an extreme weather event that could cause power shortages. In these situations, public schools and libraries can become community centers where at least a minimal amount of electricity is available, especially if the solar installations include battery storage. Installing solar panels on public school buildings, as feasible, is important for these four reasons: 1. there are 1200 school buildings in New York City, several hundred of which have flat roofs that are especially suitable for solar power installations; 2. peak generation of electricity on these installations will occur during summer months when school is not in session and the surplus electricity will reduce peak load on the New York City grid; 3. solar installations in schools, which can include real time monitors illustrating the amount of electricity

1 generated during different times of the day, will
2 contribute to climate change literacy and the
3 transformation of schools into living laboratories of
4 sustainability, and 4. public schools with solar
5 power can also provide a focal point for community
6 educational programs about renewable energy and
7 inspire teachers, administrative staff and parents to
8 consider solar power or green power purchasing
9 options for their own apartments and homes.

11 Concerning landmarked city-owned
12 buildings, there are now solar panels on the rooftop
13 of City Hall and thin-film solar panels can be
14 installed that are not visible from the street, as
15 required for such buildings.

16 With regard to Section 1(d), the
17 definition of cost-effective, I recommend factoring
18 in the social cost of carbon, as required Int. 0609-
19 A, concerning geothermal for city-owned buildings.
20 The bill, which was introduced by Council Member
21 Costa Constantinides, was heard by the committee last
22 year and signed into law by Mayor de Blasio on
23 January 5th. Thank you for this bill.

24 Finally, in addition to mandating solar
25 power on New York City-owned buildings, I recommend

2 exploring the possibility of legislation to require
3 solar power installations, as appropriate, on all new
4 buildings in New York City; this was a point
5 mentioned previously by Council Member Donovan
6 Richards.

7 Solar power can assume various forms in
8 new construction, such as solar rooftop arrays,
9 integrating photovoltaics in the building envelope
10 and even imbedding solar cells in window glass.
11 Precedence for this requirement include two cities in
12 California that have mandated solar on all new
13 buildings and a law passed in France in March 2015
14 that requires installation of green roofs or solar
15 power on all rooftops of new buildings in commercial
16 zones. Thank you.

17 CHAIRPERSON CONSTANTINIDES: Thank you,
18 Lisa. As someone who has funded a school in my
19 building to look at solar panels, at one of our local
20 schools and I think we need to do more of that and
21 create.. that school will not only be going green
22 itself, but provide an entire generation of students
23 that are learning about solar panels and how it
24 interacts with our environment and the energy and
25 greenhouse emission savings; it's a real opportunity,

2 so I am wholeheartedly in agreement with you and
3 we're gonna be looking at the social cost of carbon
4 as well, so we... [interpose]

5 LISA DICAPRIO: Thank...

6 CHAIRPERSON CONSTANTINIDES: appreciate
7 your testimony.

8 LISA DICAPRIO: And thank you also for
9 your resolution about climate literacy in New York
10 City public schools.

11 CHAIRPERSON CONSTANTINIDES: I'm a big...
12 you know, if we don't train our kids to be the
13 leaders in the 21st century and really give them a
14 strong foundation when it comes to climate change,
15 how can they possibly take on these challenges? They
16 shouldn't have to play catch-up in the same way that
17 I have and I'm a proud product of the public schools,
18 but we didn't teach climate change; it's taught
19 during a very small section of the science
20 curriculum; we must do better. When New York State
21 follows this Council's lead and institutes K-12
22 climate change education, as we've called for in this
23 resolution, I think it'll have a real impact on our
24 kids and teach them how climate change interacts in
25 the world and the last thing I'll say of that is; I

2 was inspired to do that resolution by a young woman
3 who lost her home during Superstorm Sandy; you know,
4 she came to school every day two hours and she
5 brought this idea to us and said, you know, Council
6 Member, I travel two-and-a-half hours to school every
7 day just to get to school and I'm involved in my
8 school to make sure that this never happens to anyone
9 else. So to her, you know we owe it to young women
10 like Annie to make this a reality that all our kids
11 have that strong foundation, so I'm with you.

12 LISA DICAPRIO: Thank you.

13 CHAIRPERSON CONSTANTINIDES: So Alex.

14 ALEX GLEASON: Thank you, Council Member.

15 Good afternoon, my name is Alex Gleason and I am the
16 Policy Associate at the New York City Central Labor
17 Council of the AFL-CIO.

18 Representing 1.3 million workers across
19 300 affiliated unions, the Central Labor Council
20 strongly supports taking action to fight climate
21 change and create a more resilient city. We applaud
22 the Council and the administration for taking action
23 to implement alternative sources of energy across
24 city-owned buildings and for aggressively targeting
25 city emissions. Ensuring our buildings are operating

2 as efficiently as possible while also reducing our
3 carbon footprint makes both economic and good sense.
4 Public schools alone comprise 27% of city
5 government's energy budget, about \$220 million per
6 year. Solar is one of many options, along with wind,
7 geothermal and to a lesser degree, combined heat and
8 power systems. Any way to supplement rather than
9 supplant the budgets of our public schools with green
10 energy updates should be taken into consideration and
11 used as an opportunity to create learning experiences
12 for the city's students.

13 The Central Labor Council is a member of
14 a broader coalition comprise of environmentalists,
15 community activists and organized labor working to
16 create both a more resilient city and well-paying
17 climate jobs. Our coalition, Climate Works for All,
18 believes the threat of climate change is an
19 opportunity to protect our communities and also lift
20 the wage floor. Through quality job standards,
21 community pathways towards apprenticeship and smart
22 investment, we have a plan to uplift our collective
23 future and build a true 21st century green economy.

24 The Central Labor Council implores the
25 City Council to thoroughly review any third-party

2 power purchasing agreements (PPAs) to ensure the City
3 is really receiving the best deal; we encourage the
4 City to realize savings and invest those funds back
5 into the schools. The last request for proposals
6 issued for solar installation on public schools also
7 lacked certain labor standards and did not include
8 any local hire standards. I should add here also
9 that blanket provisions for DCAS projects are covered
10 by a PLA, but it's unclear if power purchasing
11 agreements are subject to this PLA and this is
12 something we've been trying to get to the bottom of
13 with ALIGN and haven't been able to get an answer on.

14 We encourage the Council and
15 administration to use the installation of alternative
16 energy as a force for both work and community
17 development. Thank you for your time and
18 consideration.

19 CHAIRPERSON CONSTANTINIDES: Josh.

20 [background comments]

21 JOSH KELLERMANN: Thank you, Chair
22 Constantinides and other members of the Committee on
23 Environmental Protection for introducing and
24 sponsoring this important bill.

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My name is Josh Kellermann; I work at ALIGN, the Alliance for a Greater New York. ALIGN is a community labor coalition dedicated to creating good jobs, vibrant communities and an accountable democracy for all New Yorkers.

ALIGN co-coordinates the Climate Works for All Coalition with the New York City Central Labor Council and the New York City Environmental Justice Alliance. Climate Works for All works to reduce emissions and create good jobs for New Yorkers.

In late 2014, Climate Works for All released a self-titled report that Alex just held up, with a 10-point platform to reduce emissions, protect our communities and create good jobs; installing solar on schools was one of our key recommendations and something we have fought to make possible since that time. The proposed bill covers all municipal buildings and we are excited about this expansion of the proposal. There are many opportunities that stem from solar on schools; DCAS can begin to save some of the \$240 million per year it spends just on electricity for Department of Education buildings; this is money down the drain that should be

2 recaptured and used for educational endeavors. The
3 solar installations on schools can be tied with
4 educational and vocational trainings for students;
5 targeted local hire programs can bring local
6 community residents into the workforce; schools and
7 other municipal buildings can also become more
8 resilient to the impacts of climate change, providing
9 a refuge for community members during future severe
10 weather events.

11 While there are many benefits to this
12 legislation, I would like to recommend a few changes
13 to avoid missed opportunities and ensure that
14 community and labor is not left out of this process.

15 No. 1, expand the assessment and
16 implementation to all forms of renewable energy, not
17 just solar; this includes geothermal, wind, solar, of
18 course, and energy efficiency improvements. Solar
19 will not be the right answer for many schools; when
20 conducting a solar assessment, why not look at the
21 geothermal and wind opportunities at the same time?
22 This is amore efficient and cost-effective use of
23 public funds and will yield the best results for our
24 municipal building stock. Installing solar systems
25 on an energy inefficient school is like putting

1
2 lipstick on a pig; we must address inefficiencies at
3 the same time as we address renewables.

4 There is already a geothermal bill that,
5 you know, you've worked on, Chairman that will
6 determine whether geothermal is cost-effective for
7 City buildings; let's tie these bills together.

8 There is already energy benchmarking at municipal
9 buildings and there will be increased energy
10 efficiency measures stemming from the Mayor's OneNYC
11 Plan; let's tie these together.

12 These assessments should not be done in
13 isolation from each other; they should be part of a
14 single assessment, a single cost-effectiveness
15 analysis and a single comprehensive retrofit and
16 renewable package. I understand that this bill is
17 largely done; I'm not necessarily advocating that we
18 rewrite it, but I think that there is significant
19 opportunity after this bill is passed to tie these
20 things together with follow-up legislation, so I
21 think there's many ways to get at this and we should
22 figure out how to do that.

23 CHAIRPERSON CONSTANTINIDES: I agree with
24 you; we... it sounds... the administration testified very
25 similarly, that we wanna make sure we leave space...

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JOSH KELLERMANN: Yeah.

CHAIRPERSON CONSTANTINIDES: to ensure...
and I think we have a shared agreement here that...
leave space and if we're putting solar on the wrong
building, if it makes a lot of sense to do green
roofs or some other sort of technology, we should do
so...

JOSH KELLERMANN: Indeed.

CHAIRPERSON CONSTANTINIDES: I think all
three of us are in agreement on that.

JOSH KELLERMANN: Great. A couple other
points; second one is to include clear standards that
benefit climate-vulnerable communities and workers.
The current proposal does not include any
requirements around local hiring of disadvantaged
community members; we should be building on the
successes of the Build It Back program, which created
a jobs pipeline into career track jobs for Sandy-
impacted communities. The building and construction
trades unions of New York City are working with
community groups and the City to make these programs
work and they should be improved on and expanded
through future programs.

1 It is unclear whether the most recent RFP
2
3 for solar installations on municipal buildings
4 includes a project labor agreement, as Alex
5 mentioned; it should be made clear that public
6 expenditures on renewable energy installations will
7 not be used to undermine worker standards in New York
8 City. There is no prioritization of climate-
9 vulnerable communities in the assessment and
10 selection for solar installations. These communities
11 are the most vulnerable to climate change and deserve
12 to be provided the first opportunity to have
13 renewable energy on their schools and other municipal
14 buildings. These create important emergency refuge
15 and also demonstrate a commitment to building back
16 better after Hurricane Sandy.

17 My last suggestion is to ensure that
18 power purchase agreements are actually cost-
19 effective, that they lift up communities and workers
20 and they give New York City the most bang for its
21 buck. Most if not all of the current and planned
22 solar installations on public buildings are done
23 through PPAs; do PPAs truly give New York City the
24 biggest bang for its buck? We submitted a FOIL
25 request to DCAS in October for the numbers

2 demonstrating both the short- and long-term financial
3 benefits of PPAs as compared to direct public funding
4 and to date have not received an answer. PPAs may
5 make financial sense, but they can also serve to
6 privatize traditional public services that indeed
7 provide better service at a better price and ensure
8 good job creation for New York City residents. We
9 should not blindly assume that PPAs are the best path
10 forward, even if there are available tax incentives
11 at the outset.

12 We appreciate all the work that has been
13 put in to expanding New York City's solar
14 installations, we support this bill and encourage the
15 Council to work with us to find ways to make it and
16 future renewable energy legislation more
17 comprehensive, cost-effective and worker and
18 community friendly. Thank you.

19 CHAIRPERSON CONSTANTINIDES: Thank you
20 all for your testimony and I have a few questions...

21 JOSH KELLERMANN: Sure.

22 CHAIRPERSON CONSTANTINIDES: if you stick
23 around. One; I think that the sustainment, we are
24 actually, as part of 2(c), we are gonna be hearing a
25 bill relating to environmental justice on the 28th,

2 which does take that provision into account, so you
3 can definitely come here and reiterate that point on
4 the 28th as we hear our bills relating to
5 environmental justice, so looking forward to working
6 with you guys on that. When it comes to the PPAs, we
7 can definitely help get clarity; I know the
8 administration went on the record and stated they are
9 prevailing wage, but lets sit down together and just
10 make that.. get some clarity there so we can all sort
11 of find the right ground for the workers in the city,
12 so I think that we all have that at heart, so you
13 know, based on the administration this past week
14 committing to our workforce being at \$15 an hour, I
15 know that they have made that strong commitment, so
16 lets work together and make sure that we have clarity
17 there relating to these PPAs and that these workers
18 are not gonna be left out. So lets sit down and do
19 that together and looking forward to working with you
20 all. As this bill moves forward; as many of the
21 other bills, we're gonna keep this committee moving
22 very quickly over the next few months, so lets
23 continue to convene and talk this through. Thank you
24 for your testimony.

2 LISA DICAPRIO: Okay, thank you. Can I
3 just make one point?

4 CHAIRPERSON CONSTANTINIDES: Absolutely.

5 LISA DICAPRIO: Well since the new solar
6 factory has been established in Buffalo, I would also
7 consider looking at purchasing from our locally
8 produced solar panel industry as part of this bill or
9 in addition to it.

10 CHAIRPERSON CONSTANTINIDES: I think it's
11 something we can look at; I think any time we can
12 create local good green jobs and build an industry in
13 New York City, I think that's something that we
14 always should be striving to accomplish, so we will
15 strongly look at that.

16 LISA DICAPRIO: Okay. Thank you.

17 CHAIRPERSON CONSTANTINIDES: Thank you
18 all. Oh there we go, last but certainly not least,
19 we have Catherine Skopic and Ling Siu, so if you can
20 come forward and Samara, if you can swear them in so
21 we can hear their good testimony.

22 [background comments]

23 COMMUNITY COUNSEL: Can you please raise
24 your right hand? Do you swear or affirm to tell the
25

2 truth, the whole truth and nothing but the truth
3 today?

4 CATHERINE SKOPIC: I do.

5 CHAIRPERSON CONSTANTINIDES: Okay.
6 Alright, so Catherine.

7 CATHERINE SKOPIC: Congratulations
8 members of the New York City Council and thank you
9 for writing and sponsoring this legislation requiring
10 photovoltaic systems on city-owned buildings.

11 My name is Catherine Skopic and I am the
12 Legislative Committee Chair for Shut Down Indian
13 Point Now! and the Co-Chair of the Legislative and
14 Executive Action Committee for the People's Climate
15 Movement - New York.

16 December 12th, 2015 marked a turning
17 point in the global climate crisis at COP 21 in
18 Paris; we didn't achieve everything we need to reduce
19 green house gases as quickly as necessary, but 195
20 countries signed the agreement; something new, a
21 beginning has been made.

22 Here in New York City we have a
23 rejuvenated effort to reduce our own greenhouse gases
24 to do our part locally and globally. Placing solar
25 systems on city-owned buildings will go a long way to

1 accomplish this and is in harmony with OneNYC; the
2 CUNY solar map will help greatly.

3 This legislation mandating a report to
4 the Speaker and Mayor for each community district
5 with the number of city-owned buildings within the
6 district that are appropriate for solar, where solar
7 is already installed, the cost-effectiveness and
8 factors affecting solar system cost-effectiveness is
9 significant in that identification of solar
10 appropriate buildings is the necessary first step to
11 accomplishing goals set out by OneNYC and reducing
12 our carbon and methane emissions.

13 As we are in the greatest challenge our
14 planet has ever faced in regard to climate, I suggest
15 in addition to this legislation that would also
16 require a measurement and reporting of the reduction
17 in greenhouse gas and methane these solar systems
18 provide.

19 In talking with solar installers, I
20 discovered that there is a need for more solar
21 inspectors to meet the required regulations at each
22 step and this is borne out by testimony that we just
23 heard, and I've spoken to several solar installers
24 and they have sometimes to wait a long time till
25

2 somebody comes and signs off on a specific step and
3 this is really slowing things down.

4 So I suggest that monies be made
5 available to train more solar inspectors so that the
6 solar installations on city-owned buildings can move
7 forward at a faster pace. These workers can be
8 locally trained and hired with an eye toward
9 environmental justice, as was just attested to. More
10 solar installers will probably be needed as well.

11 And after I wrote this, I also thought
12 about timeframe; I may have missed it, but I didn't
13 see in the legislation any reference to how
14 frequently these reports will be needed and this
15 might be something that we want to consider adding to
16 the legislation.

17 Thank you again for the significant role
18 you have played with this legislation, contributing
19 to the needed reduction of greenhouse gases and
20 methane, getting us closer to where we need to be if
21 our planet is to continue supporting life.

22 CHAIRPERSON CONSTANTINIDES: Thank you.
23 Ling Siu. Make sure it's on.

24 LING SIU: Chairman Constantinides, my
25 name is Ling Siu; I'm a co-founder of United for

1 Action, a grassroots group in New York City
2 advocating for renewable energy. Thank you very much
3 for holding a hearing on Int. 0478; we welcome and
4 support this bill.
5

6 I just want to answer Catherine's
7 question. I think, if I read it correctly in the
8 bill, the reporting, there is a timeframe; I think
9 that the first one is July 1st, 2016 and then every
10 five years thereafter; that's how I read it; alright?
11 But what I wanted to say is, however, we note that
12 while this bill requires the citywide administrative
13 services to install solar photovoltaic systems on
14 city-owned buildings, including public schools, it
15 does not set out a specific timetable for the
16 completion of the installations. We recommend that
17 this bill be amended to add specific timetables for
18 the completion of the installations on city-owned
19 buildings by each community district on those that
20 are qualified and cost-effective until the
21 installations are done on all city-owned buildings.
22 Without a specific timetable for installations, this
23 bill may not help us reach the City's stated goal of
24 reducing greenhouse gas emissions 80 by 50. And I
25 also think that a map of all completed solar

2 installations on a citywide basis should be made
3 available to the public on the City website.

4 2015 was the hottest year in our planet's
5 recorded history, smashing even the 2014's record
6 heat. We believe the City's 80 by 50 goal is not
7 enough to help a very possible climate disaster and
8 we ask New York City to adopt a goal of powering the
9 city by 100% renewable energy by 2030 and we can do
10 this by energy conservation, efficiency and bold
11 investments in solar and wind power and other
12 renewable energy sources. Int. 0478 is an excellent
13 good starting point; in addition, we urge the City to
14 select offshore wind in its forthcoming RFP to help
15 get the process started for building the offshore
16 wind farm off the coast of Jones Beach. Investing in
17 solar and wind would financially benefit the City
18 because renewables are getting cheaper while power
19 farmed fossil fuels is becoming more expensive. Wind
20 power is now comparable in price to fossil fuel and
21 solar is well on its way and this is despite the
22 bargain prices of oil and gas right now.

23 It is critical that the City does not
24 achieve its goal of reducing greenhouse gas emission
25 80 by 50 by continued reliance on nuclear power

2 and/or continued expansion of natural gas or any form
3 of fossil fuel infrastructure. Nuclear power is not
4 clean, nor carbon-free with this radioactive and
5 toxic waste. We need to close down the aging and
6 dangerous Indian Point Nuclear Power Plant, which is
7 only 25 miles north of New York City and we ask the
8 City Council to please schedule a hearing and pass
9 Resolution 0694 calling for closing of Indian Point
10 and we also ask Mayor de Blasio to announce that
11 Indian Point needs to be shut down immediately.

12 We need to take urgent actions to avoid
13 the most devastating effect of climate change and New
14 York City must lead in this effort. Thank you very
15 much.

16 CATHERINE SKOPIC: If I may add a point.
17 Thank you, Ling; I agree with all of that. In
18 preparation for this I Googled New York City's solar
19 inspection fact sheet, which was just posted this
20 year; it's a new fact sheet and if you look through
21 that and all the requirements, there is some
22 redundancy and some complicated information, as was
23 also borne out by previous people who were
24 testifying, and the idea that you all, as well as
25 Donovan commented on about getting mandates for

2 private buildings is something that I think we could
3 perhaps look into for making suggestions in a new
4 piece of legislation and thirdly, that we work
5 together with all of the stakeholders in a positive
6 environment so that we can come up with a one-stop
7 shopping, because that seems to be a huge takeaway
8 from this event. Thank you again for providing this
9 opportunity.

10 CHAIRPERSON CONSTANTINIDES: Thank you
11 both for your good testimony, as always. You know
12 these are all issues that we are gonna be looking at
13 and how we bring the private sector in is something
14 that we are strongly concerned as a Council, so
15 working on that and you know, this past holiday
16 season is a strong indicator that we have to do more
17 and do it more quickly; 75 degrees on Christmas, it
18 was like eating cake for breakfast, you know; it
19 felt... people enjoyed the warm weather, but everyone
20 knew it was wrong, so...

21 LING SIU: No, absolutely, absolutely; I
22 mean...

23 CHAIRPERSON CONSTANTINIDES: so we will
24 continue to work on these issues and work on them

2 together and I thank you for your commitment to the
3 people of the City of New York.

4 CATHERINE SKOPIC: Thank you, Council
5 Member [sic], Samara and Bill, thank you very much.
6 Thank you.

7 LING SIU: Just wanted to thank you for
8 your leadership because I think... we said many times,
9 this City Council is just amazing and of course there
10 is always more to do; I mean we need to do more
11 because I think people now realize, as you said,
12 Christmastime 70 degrees; something's got to be wrong
13 and people do feel now and we are experiencing
14 climate change right now, it's not 50 years, 100
15 years from now, but it is right now and what we do
16 now is, we may still, as I said, only stop the most
17 devastating effects, but it is gonna happen.

18 CHAIRPERSON CONSTANTINIDES: It's not
19 going away, yeah...

20 LING SIU: No.

21 CHAIRPERSON CONSTANTINIDES: regardless
22 of what some people in the world may be talking about
23 on stages far away from here, climate change is a
24 real thing; fossil fuels have played a major role and
25 our city's moving away from fossil fuels and towards

2 renewables such as solar and wind and geothermal;
3 some in this committee and the Mayor's Office
4 themselves have committed to, so we will continue to
5 work on those issues. Thank you both.

6 LING SIU: Thank you very much.

7 CATHERINE SKOPIC: Thank you.

8 CHAIRPERSON CONSTANTINIDES: Thank you.

9 I wanna make sure I thank again the Mayor's Office of
10 Sustainability and members of the administration that
11 testified today; to all of you who did testify, thank
12 you. I wanna make sure I thank our committee
13 attorney, who if we were allowed to applaud, I would
14 most certainly applaud Samara Swanston, so; our
15 Policy Analyst, Bill Murray for all of your hard
16 work, and my own staff; Nick Widzowski, and a new
17 member of our team who's volunteering his time, John
18 Benjamin, and of course... where is uh... Jonathan
19 Seltzer; I always forget his name, but I'm putting on
20 the record I'm thanking him today. So with that I
21 wish you all a great weekend and thank you all for
22 your commitment and this committee will continue to
23 be moving very quickly on issues relating
24 environmental climate change, so thank you all.

25 [gavel]

C E R T I F I C A T E

World Wide Dictation certifies that the foregoing transcript is a true and accurate record of the proceedings. We further certify that there is no relation to any of the parties to this action by blood or marriage, and that there is interest in the outcome of this matter.



Date January 28, 2016