

CITY COUNCIL  
CITY OF NEW YORK

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TRANSCRIPT OF THE MINUTES

of the

COMMITTEE ON ENVIRONMENTAL PROTECTION

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November 14, 2011  
Start: 1:20 p.m.  
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HELD AT: Council Chambers  
City Hall

B E F O R E:  
JAMES F. GENNARO  
Chairperson

COUNCIL MEMBERS:  
Council Member Elizabeth S. Crowley  
Council Member G. Oliver Koppell  
Council Member Brad L. Lander  
Council Member Stephen T. Levin  
Council Member Peter F. Vallone, Jr.

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

Steve Englebright  
Assemblyman, 4th District  
New York State Assembly

Kevin McCloud  
Solar Panel Installer  
Grand Designs

Sergei Menofsky  
Senior Energy Advisor  
Deputy Mayor of Operations

John Lee  
Senior Architect  
Department of Buildings

Ariella Maron  
Deputy Commissioner for Energy Management  
Department of Citywide Administrative Services

John Mucci  
Vice President of Electrical Distribution  
Con Edison

Steve Caputo  
Energy Policy Advisor  
Mayor's Office of Long Term Planning and  
Sustainability

Alison Kling  
New York City Solar Coordinator  
City University of New York

Margaret Jolly  
Engineering Project Manager  
Ombudsman for Distributed Generation  
Con Edison

Carrie Cullen Hitt  
President, Solar Alliance  
Representative, New York Solar Energy Industries  
Association

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

Evan Dube  
Director, Government Affairs  
SunRun

Shaun Chapman  
Deputy Director for Government Affairs  
Solar City

Jonathan Lee  
Urban Solar Development  
Tioga Energy

Tim Smalls  
Partner  
R&S Capital Partners

Peter Olmsted  
Policy Advocate  
Vote Solar Initiative

Terrence O'Brien  
Deputy Director  
Plumbing Foundation

Ross Gold  
Air and Energy Program Director  
Environmental Advocates of New York

Samantha Wilt  
Energy Policy Analyst  
Natural Resources Defense Council

Michael Leone  
Representative  
New York League of Conservation Voters

Eileen Gorsa  
Associate Planner in Advocacy  
Municipal Art Society of New York

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

Jessie Feller  
Manager, New Energy Policy Program  
Regional Plan Association

Matthew Mishkin  
Solar System Installer  
New York City Resident

McGowan Southworth  
Homeowner  
New York City Resident

Dan Willis  
Solar Consultant  
Sea Bright Solar

CHAIRPERSON GENNARO: Ready to go?

Looks like everybody's still here, who were doing a lot of bookkeeping up here. Thank you for that.

Good afternoon, I'm Councilman Jim Gennaro, Chair of the Environmental Protection Committee, and today's hearing, as we all know, focuses on the impediments to solar energy in New York City, and the Solar Energy Development Jobs Act of 2011.

New York City has been consistently in violation of the Clean Air Act criteria pollutant standards since standards were put into place. 3,400 deaths, 2,800 hospital admissions and 10,000 emergency departments, department visits each year are the direct result of high ozone and particulate concentration in New York City, according to the New York City Health Department and the Department of Health and Mental Hygiene.

This represents ten percent of all the deaths nationally due to respiratory disease. That is in turn due to unsafe levels of particles and other kinds of pollutants. New York City also has enough solar energy radiation resources to move away from total dependency on fossil fuels and the burdens that it brings, but there are impediments

1  
2 to making that happen. In order to accomplish  
3 that aim, we need renewable energy planning  
4 objectives, goals and implementation strategy.  
5 The solar map produced by CUNY, and they are in  
6 the house today, suggests that 60 percent of New  
7 York City power could be generated on New York  
8 City rooftops, but that will not, but that, but  
9 that will not happen by accident. Even if 1,000  
10 solar roof panels were put in place every year, it  
11 would take 600 years to reach our current  
12 potential. Wow. To even begin to approach that  
13 number, we need to grow the solar industry and the  
14 Solar Energy Development and Job Resolution, which  
15 I have put forward, is intended to support  
16 legislation in Albany that will do just that. We  
17 do not know all the impediments, but are hoping to  
18 hear from the Administration, the bill sponsor who  
19 is here, and my good friend Steve Englebright, and  
20 the industry on how to reduce or eliminate  
21 existing impediments to solar energy installation  
22 in New York City. The Mayor has recognized the  
23 need to rely more upon alternate energy sources  
24 and has firmly committed to moving New York City  
25 in that direction in PlaNYC. I'm always happy and

1  
2 pleased to partner with the Administration, it's a  
3 really great green Administration, and it's great  
4 to work with them. And I'm part of the PlaNYC  
5 process, and they're doing really, really terrific  
6 things. So, according to PlaNYC, "Renewable  
7 energy has the potential to play a significant  
8 role in New York City's energy supply, and solar  
9 has the greatest potential to generate power  
10 within the five boroughs." We certainly agree  
11 with the Mayor's commitment and fully support that  
12 commitment. We also, of course, are not alone and  
13 everyone from the President, who recently  
14 installed solar panels on the white house, to  
15 scientists all over the earth, to environmental  
16 groups to ordinary citizens, agree that  
17 alternative energy use is an important step  
18 towards energy, energy stability, improve  
19 environmental quality for all Americans.  
20 Increasing the City's use of renewable energy is  
21 not only important for environment, but also for  
22 our bottom line. Experts from around the world  
23 expect fossil fuel prices to skyrocket as the  
24 world economy begins to grow, once again, and as,  
25 and as the economies--little typo here--as the

1  
2 economies of countries like China and India  
3 continue their rise, and expensive strategy,  
4 expensive power can cripple all sectors of our  
5 economy. We all remember the summer of 2007 when  
6 a barrel of oil hit \$140. Every resident was  
7 affected, even the price of a slice of pizza went  
8 up because of those oil prices. I did not know  
9 that the word pizza was in this statement when I  
10 scanned it briefly [laughter] but now I know and I  
11 didn't have lunch, and note to staff, "Don't put  
12 the word pizza in midday--"

13 COUNCIL MEMBER LANDER: Long as--  
14 long as there's no mention of 999, I think we'll  
15 be okay.

16 CHAIRPERSON GENNARO: Okay, okay,  
17 Brad, yes, well, we're not done yet, Brad, we  
18 don't know. [laughter] Clearly by tying  
19 ourselves to fossil fuels, we tie our economy and  
20 our pocket books to the whims of oil producing  
21 states. Oh, this gets into a whole thing, I'm not  
22 even going there. Okay. But, so, thank you all  
23 for being here, and--And then we're joined by Brad  
24 Lander, we appreciate him being there, there'll be  
25 other Members of the Committee who will be here.



1  
2 I thank everyone who came out today for this  
3 really important topic, and even though we talked  
4 about pizza, we have no pizza. And so, we'll  
5 just, this'll be a pizza free hearing. But we do  
6 have food, we do have food, but it is reserved for  
7 one and only one guest. I'm going to call up my  
8 mentor Steve Englebright, who is the author of,  
9 what's the name of the bill, okay, you got the,  
10 the full name of the, full name of the [pause,  
11 background noise] We got it here? [background  
12 comment] Okay. Let me talk a little about Steve,  
13 while ... he is not only--is it right here? The  
14 Solar Energy Development and Jobs Act of 2011,  
15 Steve is also my friend, he's my mentor, he taught  
16 me in college when I was studying geology and he  
17 was a professor there. And that was a lot of fun,  
18 being taught by Steve. And then he created the  
19 Museum of Long Island natural Sciences out at  
20 Stony Brook, and within a couple of years of that  
21 being put into place. There were more  
22 schoolchildren coming through that museum every  
23 year than the total student population of Stony  
24 Brook, when the grad plus undergrad together there  
25 are, you know, more people learning about the

1  
2 environment and the museum that Steve created in  
3 the Earth and Space Sciences Building. Then all  
4 of the students that had the benefit of going to  
5 that great university. And Steve and I are  
6 friends, we've been friends for a long time, and  
7 notwithstanding the fact that he was my teacher, I  
8 have never given him an apple, and I'm going to  
9 rectify that today. [laughter] So, I call upon  
10 the Sergeant to deliver this apple to my friend  
11 Steve Englebright. And so, it's 35 years overdue,  
12 but--

13 STEVE ENGLEBRIGHT: Thank you.

14 CHAIRPERSON GENNARO: --and I made  
15 it a green one, I thought that was fit.

16 STEVE ENGLEBRIGHT: Green apple,  
17 yeah. [laughs]

18 CHAIRPERSON GENNARO: You know, and  
19 so.

20 STEVE ENGLEBRIGHT: Thank you.

21 CHAIRPERSON GENNARO: Sure, sure.  
22 So, normally we swear in our witnesses at this  
23 panel, but we're not going to be doing that today,  
24 this is a topic we're just going to get into  
25 without the need to swear witnesses. And this is

1  
2 the first time that Steve's come before the  
3 Committee, it's really a pleasure to see him and  
4 to have him here. And all the great work that  
5 he's done with regard to the environment for the  
6 last 40 years is, is legion. And happy and proud  
7 to have him with us today. And so without further  
8 ado, I ask you, Steve, to state your name for the  
9 record and proceed with your good testimony and  
10 make an introduction of the person on the panel  
11 with you and proceed. Really, really great to see  
12 you.

13 STEVE ENGLEBRIGHT: Thank you,  
14 Chairman, Chairman Gennaro. Thank you for the  
15 apple. I feel very fortunate I'm now the only  
16 person in the room that has food. [laughter] And  
17 it's almost lunchtime. But thank you for that  
18 very generous introduction. You were my best  
19 student, and all these years of, of work that you  
20 had done on behalf of the public really makes all  
21 of us at Stony Brook very proud. So, thank you  
22 for your good work.

23 CHAIRPERSON GENNARO: Thank you.

24 STEVE ENGLEBRIGHT: Once again, my  
25 name is Steve Englebright, I am the New York State

1  
2 Assemblyman from the 4th District, and the prime  
3 sponsor of the New York Solar Industry Development  
4 and Jobs Act, Assembly Bill 5713C. I'm pleased to  
5 be here on behalf of Speaker Silver, my  
6 quarterback in energy; our Chairman Kevin Cahill,  
7 and numerous of my colleagues who are cosponsors  
8 of this legislation. I'm here to speak on behalf,  
9 in support of your Resolution No. 1098, calling  
10 upon the New York State Legislature and Governor  
11 to pass the New York Solar Industry Jobs Act. The  
12 purpose of this measure is to enable the  
13 development of a robust solar power market in New  
14 York. And to drive local job and economic  
15 opportunity while securing a leadership position  
16 in the nation's growing renewable energy industry.  
17 Across the country and around the world the race  
18 is on to build solar power markets. These will be  
19 vibrant new hubs of job creation and will bring  
20 with it renewed investment and economic  
21 opportunity. Despite tremendous in-state growth  
22 potential and a good solar resource, New York's  
23 installed photovoltaic capacity represents at the  
24 present time less than three percent of the  
25 national share. This is only about 54 megawatts

1  
2 in total. Some of the features of the New York  
3 Solar Industry Jobs Act include establishing a  
4 goal of, in its current version, 2,500 megawatts  
5 of new power generated by renewable energy by the  
6 year 2020. We believe that it will create \$20  
7 billion of new economic activity in New York. We  
8 believe that it will create 22,000 new jobs and  
9 4,000 permanent jobs in New York. It also will  
10 position New York State as a leader in the  
11 renewable industry. It will reduce expensive peak  
12 demand generated by traditional fossil fuel  
13 sources and nuclear sources. It will cost the  
14 average rate payer less than 39 cents per month.  
15 And it will reduce five million tons of carbon  
16 dioxide from the atmosphere. It provides New York  
17 State with a hedge against volatile higher fuel  
18 prices, regardless of whether new, domestic  
19 sources from traditional and nontraditional  
20 exploration methods become available. This is  
21 sometimes referred to as the SREC, a solar  
22 renewable energy credit, stands for what, SREC's  
23 is as an anagram, and one SREC is equal to 1,000  
24 kilowatts or one megawatt. It basically enables,  
25 the SREC concept enables a market to be created.

1  
2 And it provides long term market stability for the  
3 solar industry which is presently dependent on  
4 volatile short term tax incentives and utility  
5 rebates. It sort of jumps over the short term and  
6 gives long term reliance and stability for that  
7 industry. One of the people who is involved with  
8 that industry is the gentleman sitting to my left.  
9 I wanted you to see what at least a local job  
10 creator looks like. This is Kevin McCloud. He is  
11 a solar installer who's been quite active in my  
12 assembly district, has done very good work, and I  
13 just, I know that he will be installing a lot  
14 more. He and people who look a lot like him and  
15 have the skillset that he has, will be creating  
16 jobs for installation, which is one of the main  
17 benefits of this bill. But there are several  
18 benefits, and I want to go into that in a moment.  
19 But thank you for being here today, Kevin.

20 KEVIN MCCLOUD: Thanks, Steve.

21 STEVE ENGLEBRIGHT: The homeowners  
22 and small businesses will be able after this bill  
23 is made into law to sell their SRECs and provide  
24 between \$2,000 and \$6,000 per year in additional  
25 income. That's quite significant. And that's

1 just for a residential, a typical residential  
2 installation. This re--for all practical  
3 purposes, results in a significant investment into  
4 New York's solar economy. New York's solar  
5 economic opportunity is, I believe, significant  
6 and immediate. Solar creates more jobs per  
7 megawatt hour than any other energy source, energy  
8 resource. And these are high quality jobs across  
9 a broad range of educational requirements, salary  
10 levels and fields. The majority, about 75  
11 percent, are related to development and  
12 installation, representing local jobs that are  
13 virtually not, or non-outsourcable. Investment  
14 in solar today ensures that every dollar stays in  
15 New York, and delivers solid economic returns for  
16 thousands of new jobs for decades to come. We  
17 believe that about 22,000 new jobs will be  
18 created, I just want to give you a little bit of  
19 insight as to what that might look like. There  
20 will be installers, managers, designers, engineers  
21 and electricians; there will be manufacturing,  
22 there will be sales and marketing jobs; there will  
23 be research and development. Some of that will be  
24 at our alma mater at Stony Brook in the Department  
25

1  
2 of Engineering, and in some of our other  
3 departments. But it will be a vigorous challenge  
4 for many of our research institutions to develop  
5 better batteries, and better miniaturization, and  
6 the shrinkage of the size of the receptor panels.  
7 Those are some of the important challenges that  
8 will in turn, for places like New York City,  
9 enable a greater benefit to be derived from the  
10 use of your rooftops. There will be jobs created  
11 by distribution, and in New York City, there will  
12 be commodities marketing. Just a little south of  
13 where we sit, I believe that this will be  
14 something that will result in the trading of SRECs  
15 as commodities on Wall Street. And aggregators  
16 are SRECs brokers, in other states, and they will  
17 be here, as well. And those are also additional  
18 jobs. I see my former colleague Oliver Koppell  
19 has arrived. Hi, Ollie.

20 COUNCIL MEMBER KOPPELL: [off mic]

21 Good to see you.

22 STEVE ENGLEBRIGHT: How are you?

23 COUNCIL MEMBER KOPPELL: [off mic]

24 Very good.

25 CHAIRPERSON GENNARO: Each 17



1  
2 megawatts of new solar energy generated will power  
3 about 1,800 homes and create 150 local jobs. Some  
4 of the highlights of the bill include that it will  
5 create a renewable portfolio standard, or will  
6 help meet a renewable portfolio standard, by  
7 producing between 1.5 and 2 percent of New York  
8 State's power generated by renewable or clean  
9 power sources by the year 2025. It will provide  
10 for 15 year fixed contracts, standard offer rates  
11 will apply for homeowners or businesses with  
12 systems that are sized up to 50 kilowatts. This  
13 is sometimes called the small home and retail  
14 segment of the market. Homeowners, and this is  
15 significant, and small businesses, will be able to  
16 secure financing with this guaranteed contract.  
17 And the ability to borrow will enable additional  
18 installation to take place more rapidly, and  
19 you'll be able to borrow against the predictable,  
20 the banks will provide loans against the  
21 predictable revenue stream of the 15 year  
22 contract. So, a standard offer is for all  
23 practical purposes like locking your, your current  
24 oil pricing in for the winter at a fixed rate,  
25 regardless of whether the price goes up or down.

1  
2 This provides for--the sale, purchase and trading  
3 of--this bill will provide for the sale, purchase  
4 and trading of SRECs by brokers for systems sized  
5 51 to 250 kilowatts. Those are retail systems.  
6 So it's not just for the small, below 50 kilowatt,  
7 it's also for 51 to 250 kilowatt, as well. It  
8 supports both small and large scale solar  
9 businesses, and there is an assured compliance by  
10 very precise instructions and authorizations that  
11 are given to the Public Service Commission and  
12 NYSERDA. Compliance fines will result if there is  
13 noncompliance, and those fines would be retained  
14 by NYSERDA; that is to say they would not go into  
15 the State's general fund. And so, there would be,  
16 from such revenues, future solar demonstration  
17 projects that would have to meet defined criteria.  
18 Something I think I should mention, in its current  
19 draft form, there are a couple of very specific  
20 provisions for New York City. Under Section 3,  
21 Subdivision 2(e), basically it spells out--that's  
22 on page four, if you have the printout that is  
23 more, most usual--any area that has a minimum  
24 megawatt hookup requirement is basically a  
25 reference to New York City. So, it doesn't say

1  
2 New York City, but that is unique to New York  
3 City. And there is an incentive built in, in  
4 which one megawatt will count for 1.5 megawatt.  
5 That's a recognition of the tremendous potential  
6 that New York City's vast acreage of rooftops and  
7 building sides has. And we'd like to see that  
8 really incentivized, and that is an incentive  
9 that's built into the bill. It's so subtle  
10 because it doesn't say New York City, but now that  
11 we're here in New York City, I thought it would be  
12 useful to spell that out. Similarly, there's an  
13 assurance that penalties, this is under Section 3,  
14 Subdivision, Subsection 3(c), there's an assurance  
15 that any penalties that are collected from your  
16 electric supplier, that would be Con Edison, they  
17 would go to NYSERDA, but they would come back to  
18 New York City. And that's an important provision,  
19 as well. So, I just wanted to be clear on that.  
20 I should also point out that there is currently a  
21 study now being performed by NYSERDA that's due on  
22 the 31st day of the first month of this next year,  
23 it's a Governor's program bill that we in the  
24 legislature enacted to determine by NYSERDA, which  
25 we believe to be an independent source, what the

1  
2 real cost is going to be. You may hear some  
3 dispute, we believe that, and many of the  
4 advocates for this bill believe that the cost to  
5 the general public to a typical home would be  
6 about 39 cents a month to implement this bill.  
7 But there are some who have estimated that there  
8 would be very much greater costs. NYSERDA's study  
9 is going to level that playing field, and we're  
10 going to have that data by the end of January.  
11 When it comes to enactment of this law, I want to  
12 just mention a couple of other things that I think  
13 will happen for New York City. First, I think it  
14 will create a whole new market on Wall Street, in  
15 trading of SRECs. It certainly will stimulate  
16 that. It will, I believe, enable companies to  
17 become green by purchasing SRECs. Thirdly, I  
18 believe it will enable transition away from  
19 dependence on nuclear power and fossil fuels. You  
20 have an issue of concern north of here where there  
21 is the Indian Point Nuclear Power Plant; I believe  
22 that the Governor's position on this is correct,  
23 he's taken a very strong position against  
24 reauthorizing, relicensing that nuclear power  
25 plant. We need an alternative, we need a green

1  
2 alternative. This bill, I believe, is a path in  
3 that direction. It will clean up the air of New  
4 York City, enabling us as you Mr. Chairman pointed  
5 out, we are in noncompliance with the federal  
6 Clean Air Act. This will assist us and it will  
7 enable us to do what is required under the federal  
8 Clean Air Act, which is to make incremental  
9 progress in cleaning up our air. And importantly,  
10 within the context of the gentleman sitting to my  
11 left, and many of the others who are in the solar  
12 installation industry, it will create a lot of  
13 jobs. And in New York City, you will have a  
14 unique corner on the commodities trading portion  
15 of that job creation potential. We have fallen  
16 short of neighboring states, I just want to offer  
17 a perspective here. In terms of our market  
18 development policies, and this bill will help  
19 offset some of that. It's a modest beginning.  
20 Let me give you an example. In New Jersey, there  
21 is already policy in place as to achieve a goal of  
22 more than 5,000 megawatts of new solar capacity by  
23 the year 2026. New Jersey has already added 137.1  
24 megawatts of new photovoltaic capacity, just in  
25 the year 2010. That's more than double New York's

1  
2 entire solar capacity. So, I think we need to get  
3 busy. This bill, I think, will enable us to go in  
4 that direction. So, I'd like to say thank you for  
5 considering support for the passage of this very  
6 important bill, and I believe that the people of  
7 New York City, New York State, well both, benefit  
8 from becoming a leader in solar energy, in many,  
9 many ways. I believe that the cry for "jobs,  
10 jobs, jobs," that we're hearing today, will in the  
11 future be echoed by our grateful constituents who  
12 will say the words, "Thank you, thank you, thank  
13 you." In conclusion, let me offer a summary of  
14 reasons to produce solar electricity and pass this  
15 bill. First, solar produces perfectly clean  
16 energy. Second, solar produces electricity when  
17 the demand is greatest and will reduce brownouts.  
18 Third, solar electricity enters the grid from many  
19 points, reducing the need for long transmission  
20 lines and can be produced in and near New York  
21 City and other of our cities without pollution.  
22 Fourth, this bill will promote solar growth and  
23 attract solar industry activities to New York and  
24 New York City in particular. It will create good  
25 jobs. And this bill will produce a guaranteed

1  
2     payback and banks will have the security they need  
3     to lend money for residential solar installations.  
4     It will result then in a significant increase in  
5     installation activity. The average homeowner will  
6     be able to afford to install solar systems. And  
7     finally, farmers, schools and municipalities will  
8     be able to gain income from the sale of solar  
9     renewable energy credits or SRECs. And we will be  
10    at the end of 2035 in the position to be a  
11    national leader, and to have benefited from great  
12    savings and the solar industry should be able to  
13    stand on its own. So, thank for this opportunity,  
14    I'll be happy to answer any questions that you  
15    might have.

16                   CHAIRPERSON GENNARO: Thank you,  
17     thank you so much, Mr. Englebright. It's, it  
18     feels funny to call you that, Mr. Englebright, we  
19     were always buddies. But I'll, you called me Mr.  
20     Chairman, I'll call you Mr. Englebright. But you  
21     can call me Jim and I'll call you--anyway, we'll  
22     figure it out. [laughter] I'd just--

23                   STEVE ENGLEBRIGHT: Ollie wasn't  
24     here, Ollie, I don't know if you know this, but  
25     Jim was my student about 35 years ago.

1  
2 COUNCIL MEMBER KOPPELL: Since he  
3 called my name, Mr. Chairman, I want to welcome  
4 him to the Council and indicate how much I  
5 appreciated and enjoyed working with Steve in  
6 Albany for a number of years.

7 CHAIRPERSON GENNARO: Thank you.

8 COUNCIL MEMBER KOPPELL: I'm glad  
9 he's still at it, it's been 18 years since I was  
10 there. [laughs

11 CHAIRPERSON GENNARO: Right. And I  
12 know Steve going back to when neither he nor I had  
13 one strand of gray hair, right--

14 STEVE ENGLEBRIGHT: That's true.

15 [laughs]

16 CHAIRPERSON GENNARO: --and that  
17 was, and now there's a couple that have cropped  
18 up. We're joined by Council Member Lander,  
19 Council Member Levin, Councilman Vallone was here,  
20 he had to jump out to another hearing that he had.  
21 Of course, we've heard from Council Member Koppell  
22 and I thank you for all this work, and for coming  
23 here to tell us about how we should get behind  
24 this. And you mentioned some of the things that I  
25 was going to pose questions on. But let me talk a



1  
2 little bit about the SREC. Is this a concept that  
3 has been put forward elsewhere? Does it, you  
4 know, currently exist or are we pioneers in that  
5 field? Or we're just, you know, using a paradigm  
6 that has worked in some other part of the country?  
7 And I'm curious about that.

8 STEVE ENGLEBRIGHT: It's worked in  
9 numerous other states. I've already mentioned New  
10 Jersey. New Jersey is second in the nation  
11 presently in terms of its use of SRECs.  
12 California is number one. And numerous other  
13 states in the eastern United States. So, we are  
14 not pioneers. We're actually in the position of  
15 having to catch up at this point.

16 CHAIRPERSON GENNARO: Thank you.  
17 With regard to, staff has written a question, I  
18 want to make sure I get it right. Where'd you  
19 write it, here? Okay, here we go. With regard to  
20 the SREC, will that be interstate or will it be,  
21 you know, just within New York State? How would  
22 that, how would that work?

23 STEVE ENGLEBRIGHT: I believe it  
24 would work, our authority to write the bill is,  
25 you know, sets up a market just within New York.

1  
2 I don't doubt that there would be some interest in  
3 an interstate activity in this realm, but that's  
4 not what the bill is--

5 CHAIRPERSON GENNARO: Right.

6 STEVE ENGLEBRIGHT: --the scope to  
7 build is limited to New York State.

8 CHAIRPERSON GENNARO: Okay. And  
9 with regard to the study that I heard about and  
10 staff had briefed me on this, it's going to be put  
11 up by NYSERDA, and you made reference to it, that  
12 is, as you said, due in the end of January and I  
13 guess how's that going? You made reference to  
14 that, I just want to--we're hoping for good  
15 things.

16 STEVE ENGLEBRIGHT: I believe that  
17 the study is underway and from what I hear will be  
18 made available in an on-time basis. And it will  
19 be a timely on-time, because the end of January is  
20 the timeframe where we start the session. And so  
21 to have an objective third party providing us with  
22 a measurement of, an objective measurement of the  
23 costs, will be timely for any forward motion of  
24 this bill. Next year is a year in which myself  
25 and all of my colleagues are especially

1 sensitized, it's an election year. And I think  
2 that that bodes well for the bill, also. Because  
3 to the extent that all of we who are elected feel  
4 self-conscious about something this important,  
5 that will create jobs and reliable and safe energy  
6 future, I think that that's an additional  
7 incentive. So, to have this in the first month of  
8 next year is a very good, a very good likelihood,  
9 I would say at this point.

11 CHAIRPERSON GENNARO: Great. And  
12 we had asked NYSERDA to come to the hearing. They  
13 had indicated that they would, or that they might,  
14 and as it turned out they're not going to be  
15 present. So, we hope that that doesn't mean that  
16 there are issues; or maybe they just didn't want  
17 to be put in the stop--be put in the spotlight too  
18 soon and reveal things that should, you know, wait  
19 until the end of, end of January, like that's how  
20 I'm taking it. And so I hope that that's the  
21 case.

22 STEVE ENGLEBRIGHT: I think that's  
23 probably a accurate perception on your part of why  
24 they may not be here today.

25 CHAIRPERSON GENNARO: And I'm also

1  
2 grateful that you talked about the language in the  
3 bill that speaks to New York City, although not  
4 directly, but--directly but not directly--and  
5 because when I've had some conversations about the  
6 bill, sometimes you hear from folks who say, "Hey,  
7 this could be just one of these things where it'll  
8 be a statewide thing, and, but New York City won't  
9 get much of the resource it from [phonetic] and it  
10 won't really work out so well for us, it'll work  
11 out better for other parts of the state. And I  
12 thought it was important to have this hearing to  
13 let folks know that New York City's not been left  
14 out of the picture, and that it's been spoken to  
15 in a very direct way. And if, you know, one  
16 result of this hearing is that people sort of get  
17 that message, then I think it was, I think that  
18 that alone was worth having the hearing for that.

19 STEVE ENGLEBRIGHT: I would agree.

20 CHAIRPERSON GENNARO: Yeah.

21 STEVE ENGLEBRIGHT: And I  
22 appreciate the opportunity to offer that  
23 clarification--

24 CHAIRPERSON GENNARO: Sure.

25 STEVE ENGLEBRIGHT: --of

1  
2 perception. New York City is very, very  
3 important. And the, anyone who flies over the  
4 City and looks down can see why. The acreage of  
5 rooftops in New York City in aggregate is more  
6 than all of the rest of the state rooftops put  
7 together. It's just amazing. And the, I  
8 mentioned the implications for having this bill in  
9 place in terms of allowing the reliance upon  
10 nuclear generated fuel, to be something that New  
11 York City no longer has to feel so constrained by.

12 CHAIRPERSON GENNARO: Thank you.  
13 It's critical that we do things like this, and we  
14 make it fair for all parts of the state,  
15 particularly a place like New York City which is,  
16 yeah, we're the rooftop capital of the state, I  
17 think that's certainly, you know, certainly fair  
18 to say.

19 STEVE ENGLEBRIGHT: And to turn  
20 that rooftop acreage into capital--

21 CHAIRPERSON GENNARO: Hear, hear.

22 STEVE ENGLEBRIGHT: --in the  
23 literal sense. By creating jobs, many of those  
24 jobs will be right here in New York City.

25 CHAIRPERSON GENNARO: Right. And

1  
2 with regard to the banks going so far as to, you  
3 know, loan money based on the expectation of  
4 return and all that, this is also something which  
5 is taking place in other places. This is not, not  
6 a new phenomenon.

7 STEVE ENGLEBRIGHT: That is  
8 correct.

9 CHAIRPERSON GENNARO: It's part and  
10 parcel of the whole SREC concept, right?

11 STEVE ENGLEBRIGHT: You enter into  
12 a 15 year contract with a guaranteed rate of  
13 return, you can borrow against that.

14 CHAIRPERSON GENNARO: Right. And  
15 good to know that that is happening and sadly, I  
16 didn't catch the name of the person at the panel,  
17 if you'd just state your name, please.

18 KEVIN MCCLOUD: Kevin McCloud.

19 CHAIRPERSON GENNARO: Kevin, thanks  
20 for being here today, thanks for coming all the  
21 way in. Did you guys come together?

22 STEVE ENGLEBRIGHT: We drove in  
23 together.

24 KEVIN MCCLOUD: Yes, we did.

25 CHAIRPERSON GENNARO: Yeah, yeah.

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That's just, it's--

STEVE ENGLEBRIGHT: We took the subway.

CHAIRPERSON GENNARO: Yeah. Oh, okay. Okay.

KEVIN MCCLOUD: Nice experience.  
[laughter]

CHAIRPERSON GENNARO: Okay. But just, if you just take a moment to tell me about what things look like in the, I guess you do a lot of work in the Three Village area and you know, just to get the perspective of someone who is in the business, who is currently doing this, and what this bill could mean to you.

KEVIN MCCLOUD: Well, I think the key factor here is it's going to provide long term stability for my business. As it stands now, obviously we're subject to local utility rebates, LIPA, we have LIPA out there on long island. And the economy, and the economy's not that great right now. So, like everybody else, we're suffering also. But being at the mercy of the utility rebates, either they go up or go down, mostly go down, when they lower we suffer because

1  
2 obviously it cuts down on our customers' base,  
3 they can't afford to do the installation like they  
4 did before. So, having a program that's going to  
5 be in place for 15, 20, 25, 30, 35 years, is  
6 something that is definitely, is going to improve  
7 my customer base across the board. And what does  
8 that do for me? It brings more money into the  
9 business, and allows me to increase my business  
10 base, and also hire new employees. And that's  
11 very important. And last couple of years, it's  
12 been, it's been tough, it's been tough. And I  
13 could see this as a boom for our industry going  
14 forward in the next couple of years.

15 CHAIRPERSON GENNARO: Well, thank  
16 you, and regarding your business, you've been  
17 doing this for how long?

18 KEVIN MCCLLOUD: Seven years.

19 CHAIRPERSON GENNARO: Seven years.

20 KEVIN MCCLLOUD: Yeah, master  
21 electrician for about 15 years prior to that.

22 CHAIRPERSON GENNARO: Well, that  
23 plays pretty well in my district, the home of  
24 Local 3, you know, they got - -

25 KEVIN MCCLLOUD: Yeah, I've actually



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been with Local 3 for about eight years.

CHAIRPERSON GENNARO: Oh, pardon?

KEVIN MCCLOUD: I worked for Local 3 for--

CHAIRPERSON GENNARO: Oh, I see.

KEVIN MCCLOUD: --eight years.

CHAIRPERSON GENNARO: Well, that's--  
-then, you come to my, I guess almost, almost like  
an honorary constituent, because all--

KEVIN MCCLOUD: Thank you.

CHAIRPERSON GENNARO: --all things  
Local 3 are in my district. Just do you have any  
questions you want to ask him? [background  
comment] Okay. Council Member Levin has a  
question and I recognize Council Member Levin.

COUNCIL MEMBER LEVIN: Thank you  
very much, Mr. Chairman. I just have a very quick  
question for you, Assemblyman. I was wondering if  
you can maybe--

CHAIRPERSON GENNARO: Also, Steve,  
if--just I have one second. I just want to  
recognize that the, that the Bloomberg  
Administration has a bunch of folks that are going  
to testify here today, and they're very gracious

1  
2 in hanging back and letting Steve testify first,  
3 and I just want to know that I, thank you for  
4 that, and I recognize that, and we'll be getting  
5 to you in--soon. But it's just very important  
6 that we hear from Steve, and everyone who has a  
7 question for him, has that opportunity. But I  
8 just wanted to say a public thank you and I  
9 recognize that. Okay, Steve, go ahead.

10 COUNCIL MEMBER LEVIN: Thanks, Mr.  
11 Chairman. I just wanted to kind of ask you kind  
12 of a political question, which is have you, can  
13 you maybe characterize maybe some of the concerns  
14 or opposition that have been presented to you with  
15 the bill, if any? And what steps you've taken to  
16 address those in the crafting of the legislation?

17 STEVE ENGLEBRIGHT: Sure. That's a  
18 good question. Much of the opposition has not  
19 come to talk to me. I hear about it as a distant  
20 sort of noise, like a thunder in the hill. I  
21 believe that some of the opposition is likely to  
22 be from some of the conventional fuel sources of  
23 the industries that provide fuel, and from some of  
24 their current customers, the investor owned  
25 utilities. They don't like to be told what to do.

1  
2 In this bill, they're being told, the investor  
3 utilities are being told by solar up to a certain  
4 percent. And the bill outlines what that percent  
5 is on an annualized basis. It's a very small  
6 amount. It's very, very small. But I believe  
7 that there is resistance to being told that they  
8 have to meet that standard. Again, though, nobody  
9 from the industry has yet found their way to my  
10 door. The door is always open, I would welcome  
11 hearing from them, and we can have a vigorous  
12 discussion. But I don't think that they have come  
13 to my door yet in part because this is working in  
14 other states, it is working for the constituents  
15 that is their rate base and our constituents as  
16 elected officials. So, I think they may not want  
17 to have that kind of conversation with me. There  
18 have been some concerns from Labor, early on, and  
19 we have met with Labor leaders, and unlike the  
20 first group that I characterized as perhaps not  
21 being so eager to talk to me, Labor has been very  
22 forthcoming, they have come to my office, and we  
23 have, in particular, in working with Chairman  
24 Cahill, we've been very proactive in working with  
25 them. We have strong support, the Miranda

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[phonetic], from many of the Labor's leaders of the state at this point.

COUNCIL MEMBER LEVIN: Thank you, Assemblyman. Thank you, Mr. Chairman.

CHAIRPERSON GENNARO: Thank you, thank you, Council Member Levin. I. I recognize Council Member Lander.

COUNCIL MEMBER LANDER: Thanks much for being here, it's an honor to, to be with you and see that the effort to move us in a more sustainable direction has a, you know, both a good history and good future. So thank you for being here. I guess the question I want to ask is about how much you've done to try to figure out where this fits in relative to other things NYSERDA's doing to the Green Jobs/Green Homes bill that was passed. One thing that I perceive job I directed the Pratt Center for Community Development, and we had a NYSERDA contract to try to help people understand the NYSERDA programs. And I, then I think there was a contract to help the people who had the job of understanding the other peop-- anyway [laughter] there's a lot of overlap, a lot of confusion about what's available, even just

1  
2 within the NYSERDA basket, and then you added  
3 wonderfully Green Job/Green Homes. And I just  
4 wonder if you've thought to what extent--I mean, I  
5 think this is a good idea, I'm proud to be a  
6 cosponsor of the resolution, the bill makes a lot  
7 of sense, and I think helping generate demand on  
8 the solar side is, makes good sense. But I just  
9 wonder, have you thought a little bit about where  
10 this fits in relative to other incentives, how  
11 those other incentives would be available to the  
12 generators, both for small and large. And you  
13 know, if this happens, you know, what  
14 opportunities there are to link with other things  
15 and not leave, not need another technical  
16 assistance contract for people to figure out how  
17 to connect this to the existing other programs.

18 STEVE ENGLEBRIGHT: It will  
19 certainly be part of the matrix of our new  
20 relationship with the electrical suppliers in the  
21 state, and the manufacturers of the state as well.  
22 I don't, I don't doubt that the complexities of  
23 this bill will be daunting, as they are if you've  
24 tried to read the bill. It's daunting to try to,  
25 to work your way through the language of the bill.

1  
2 But in NYSERDA, we have great expertise and under  
3 this Governor, who I believe is breathing new life  
4 into NYSERDA, it had been suppressed as an entity  
5 for planning the state's energy future, under some  
6 of the previous administrations, since I've been  
7 in the legislature. But this Governor is moving  
8 NYSERDA as an entity into a much more integrated  
9 and involved role going forward. So, part of the  
10 answer to your question is that we're going to  
11 find out how NYSERDA relates to this particular  
12 measure, as they get their second wind from the  
13 support of Governor Cuomo. Which is a breath of  
14 fresh air, I might add, for the State's energy  
15 future.

16 COUNCIL MEMBER LANDER: Do they  
17 have, so I guess, and probably this is, excuse my  
18 ignorance on the bill, do they have a formal role?  
19 Do they certify the SRECs? What's the NYS--I  
20 mean, what's the specific NYSERDA role?

21 STEVE ENGLEBRIGHT: Public Service  
22 Commission is the major player, but NYSERDA, as I  
23 indicated, will receive penalty credits; they will  
24 then redistribute. So they're a granting agency  
25 for demonstration projects going forward. And

1  
2 that's consistent with their mission. And the  
3 rulemaking is consistent with the Public Service  
4 Commission's mission and role as well. They'll  
5 both be involved.

6 COUNCIL MEMBER LANDER: Okay. And  
7 have you thought at all, I mean, and if not, it's  
8 you know, about the connection to Green  
9 Homes/Green Jobs, with folks that got those  
10 resources, be able to use that to develop rooftop  
11 solar, that then--

12 STEVE ENGLEBRIGHT: I, there's no  
13 specific reference in the language of the bill to  
14 that, but again I believe that NYSERDA will be  
15 deeply involved, and that we'll see the several  
16 previous of legislation, some of which I was the  
17 prime sponsor of, the solar energy bills of the  
18 past, the wind energy bills are bills that I've  
19 sponsored. I think we will see NYSERDA sort of  
20 refereeing and putting all the pieces together so  
21 that they're mutually supportive.

22 COUNCIL MEMBER LANDER: Thank you.

23 STEVE ENGLEBRIGHT: You're welcome.

24 CHAIRPERSON GENNARO: Thank you,  
25 Council Member Lander. And the last question will

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go to Steve Levin, unless Liz has a question.

But--

COUNCIL MEMBER CROWLEY: [off mic]

No, but--

CHAIRPERSON GENNARO: Okay.

COUNCIL MEMBER CROWLEY: [off mic]

Just - -

CHAIRPERSON GENNARO: Oh, sure.

[laughter]

COUNCIL MEMBER CROWLEY: [off mic]

- - still here.

CHAIRPERSON GENNARO: Council

Member Liz Crowley has joined us, my colleague from Queens, it's always a pleasure to have her, and thank you for being here, Liz. And the last question will go to Steve Levin.

COUNCIL MEMBER LEVIN: Thanks, Mr.

Chairman. Just one other question. About the SRECs or the, that system where it's in place already, do you have an idea of, say, in California, for example, what percentage increase rate payers are paying as a result of that mandate, to their bill? Like is it, is there a range of say three to five percent, or one to four



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percent?

STEVE ENGLEBRIGHT: I don't have that figure. And I don't have a comparison to other states at this time. But as I indicated, we're, we're expecting that--

COUNCIL MEMBER LEVIN: NYSERDA--

STEVE ENGLEBRIGHT: --it's going to, NYSERDA's going to provide us with that perspective.

COUNCIL MEMBER LEVIN: Okay.

STEVE ENGLEBRIGHT: As well as in other states, your question's a very good one, not just California.

COUNCIL MEMBER LEVIN: Right.

STEVE ENGLEBRIGHT: But Maryland and Pennsylvania and the other states in the east that have already done this. New Jersey.

COUNCIL MEMBER LEVIN: Okay, thank you.

CHAIRPERSON GENNARO: Thank you, Council Member Levin. And I want to thank this panel so much for being here. It's really great to get to see you again, Steve, and I really appreciate all your good work and coming here to

1  
2 be with us today, and the City is, you know, proud  
3 to, you know, partner with you and the State in,  
4 you know, trying to move this forward for, for  
5 nothing other than our own, you know, benefit  
6 here. We certainly want to do what we can to make  
7 these, you know, million rooftops very productive,  
8 and your work is going to help us get to that good  
9 day. And I really appreciate your being here and  
10 thanks so much for your--

11 STEVE ENGLEBRIGHT: It's a pleasure  
12 and--

13 COUNCIL MEMBER LANDER: --  
14 friendship through the decades.

15 STEVE ENGLEBRIGHT: --on behalf of  
16 Speaker Silver and Chairman Kevin Cahill, I just  
17 wanted to extend thanks for your taking the time  
18 to look at this measure and to give it a chance to  
19 be the subject of this hearing. Thank you.

20 COUNCIL MEMBER LANDER: You bet.  
21 Thank you both. And next we'll--

22 STEVE ENGLEBRIGHT: Thank you for  
23 the apple, by the way.

24 COUNCIL MEMBER LANDER: Okay, you  
25 bet, you bet. [laughter] Oh, you know what? You

1  
2 know what? It seems kind of like unfair to only  
3 have--what's his name? What's his name again?  
4 What's his name? What's his name?

5 MALE VOICE: Kevin?

6 CHAIRPERSON GENNARO: Kevin!

7 KEVIN MCCLOUD: [off mic] Yes?

8 CHAIRPERSON GENNARO: You get one,  
9 too, Kevin. Okay, you get one, too. [laughter]  
10 You get one, too. Now, I only have like three and  
11 the last one's for me, so like, so no one else is  
12 getting one. Okay.

13 COUNCIL MEMBER LANDER: Mr.  
14 Chairman, if you have the ability to turn one  
15 apple into two apples [laughter] well you're going  
16 to be able to solve a lot of our energy problems.

17 CHAIRPERSON GENNARO: Yeah, yes.  
18 Okay, okay. Okay. Next we'll hear from the  
19 Bloomberg Administration, from DEP, Sergei--I  
20 can't quite make out the last name, but Sergei,  
21 please, please come forward. John Lee from the  
22 Department of Buildings. Yes, we're calling the  
23 whole panel, this is the whole panel, right? John  
24 Lee from the Department of Buildings. Maybe some  
25 people are here just to ask questions, just to be

1  
2 here for questions, but anyone who wants to come  
3 up to the panel, please do so. John Lee from the  
4 Department of Buildings, John, looks like Mucci  
5 [phonetic], Mucci, from Con Ed is part of the  
6 Administration panel. It looks like M-U-C-C-I.  
7 Mucci. Margaret Jolly, also from Con Ed. Alison  
8 Kling [phonetic], looks like, from CUNY. [pause,  
9 background noise] Yes, same thing. [pause,  
10 background noise] And let's call up the next  
11 panel. Next panel, oh, you don't know what's  
12 going on. Okay. Okay. Okay, thank you. Thank  
13 you all very much for being here. You know, thank  
14 you for your patience, thank you for your  
15 graciousness, in letting Mr. Englebright testify  
16 first. I know when the Administration had said  
17 that that was okay, and they're willing to defer  
18 to him, they knew there was going to be like a  
19 little bit of a time commitment in doing that.  
20 And I, you know, thank you for that. I don't do  
21 it often, but I did it today. And I do very much  
22 appreciate it. If we can just have the Sergeant  
23 close the door in the back, to kind of limit some  
24 of the noise. And thank you very much for being  
25 here. Thank you for your efforts on behalf of the

1  
2 Bloomberg Administration and PlaNYC, and, you  
3 know, all the great green things that this  
4 Administration has brought forward. Always happy  
5 and I'm pleased to work with you. And what I  
6 would ask is whoever's going to lead the panel,  
7 just state your name for the, for the record, and  
8 make an introduction of the people who are on the  
9 panel. And I just want to make sure that I have  
10 copies of all the statements, and in whatever  
11 order you wish to testify, please feel free to do  
12 so. I guess, Sergei, it's going to go to you  
13 first, right?

14 SERGEI MENOFISKY: Thank you, good  
15 afternoon, Chair, Chairman Gennaro and Members of  
16 the City Council Committee on Environmental  
17 Protection. My name is Sergei Menofsky  
18 [phonetic], I'm a Senior Energy Advisor to the  
19 Deputy Mayor of Operations. I'm joined here today  
20 by Ariella Maron, Deputy Commissioner for Energy  
21 Management at the Department of Citywide  
22 Administrative Services; there is Steve Kaputo  
23 [phonetic], Policy Advisor at the Mayor's Office  
24 on Long Term Planning and Sustainability; John  
25 Lee, Senior Architect from the Department of

1  
2 Buildings; and Alison Kling, the New York City  
3 Solar Coordinator from CUNY. And thank you for  
4 the opportunity to testify today about the role  
5 solar energy plays in the City's efforts to  
6 cultivate sources of renewable energy and reduce  
7 greenhouse gas emissions. Solar energy is a key  
8 component of our energy strategy, which is really  
9 based on three key pillars.

10 CHAIRPERSON GENNARO: What I'm  
11 going to do is just kind of jump in here for a  
12 second, Sergei. And thank you for your tolerance  
13 and patience. It seemed like I called two panels  
14 together. There was supposed to be the  
15 Administration panel and then there was the Con Ed  
16 panel. So that was a little bit of a goof on the  
17 Council's part. And so for the purpose, so,  
18 everyone can stay there. But we're going to hear  
19 from the Administration, and then I'm going to  
20 pose questions to the Administration. And then  
21 there'll be the Con Ed panel, and I'll pose  
22 questions to Con Ed. So, this is not one panel,  
23 it's two panels. So for now we're just hearing  
24 from the, just from the Bloomberg Administration,  
25 and the Con Ed, even though they're up there, is a

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separate panel.

SERGEI MENOFSKY: Okay.

CHAIRPERSON GENNARO: And of course people reading this in the future will just see it on the piece of paper, so they won't see the image of everyone, it'll just be a transcript. So, it'll all be fine from that perspective. [laughter] And so, please continue, and sorry for the interruption.

SERGEI MENOFSKY: Oh, no problem, thank you. So, solar energy's really a key component of our broader energy strategy, which is based on three pillars to improve long term reliability of energy system, to improve our environmental footprint, and reduce the costs, or the growth and costs of our energy system. Solar energy, the unique thing about solar energy is it can reduce, help reduce peak power demand, thereby improving system reliability on hot summer days, such as the historic peak load day we had just this summer on July 22nd. As well as reducing emissions from the least efficient and most bleeding [phonetic] peaker [phonetic] plants. Also in the long run, managing peak load through

1  
2 greater market penetration of renewables, like  
3 solar, along with aggressive energy efficiency and  
4 demand response measures, can help defer the need  
5 for capital investment and load constrained  
6 networks, which ultimately helps electricity rate  
7 payers and tax payers in New York City. Beginning  
8 with the New York City's designation as a Solar  
9 America city in 2007, and through the April 2011  
10 update of the City sustainability roadmap called  
11 PlaNYC, this Administration has been actively  
12 working on policies and programs geared at growing  
13 the market for solar energy. The goal, laid out  
14 in 2007, has been to reach an installed capacity  
15 of roughly 8.1 megawatts of photovoltaics by 2015.  
16 In fact, we're on our way to exceeding that total.  
17 By the end of this past summer, nearly seven  
18 megawatts have been installed through a  
19 comprehensive strategy that incentivizes  
20 investment in solar and in the private market, and  
21 also leveraging the City's footprint. We're on  
22 track to generate a cumulative 45 megawatts by  
23 2015, which is enough energy to power roughly  
24 9,000 New York City homes. So, while the solar  
25 industry, you know, has demonstrated some really



1  
2 impressive advances in technology and cost  
3 effectiveness, one key question is what's the role  
4 of the City. Solar projects still require  
5 significant policy support and are not yet  
6 competitive on a market basis. As a result, the  
7 most appropriate role for the City we see is to  
8 help unlock private innovation. We can achieve  
9 this by continuing to work with the State to  
10 enhance incentives for developers in our dense  
11 urban environment, like was mentioned earlier  
12 today. And the reason the dense urban environment  
13 matters is that's where the value of the marginal  
14 megawatt of renewables is, is higher, perhaps,  
15 than a more remote resource. We're also working  
16 to achieve this by playing a key role in enabling  
17 state of the art mapping capabilities, greater  
18 information resources from the City, and  
19 streamlining our internal permitting processes to  
20 help developers and building owners identify and  
21 finance high quality solar projects. The City's  
22 also directly involved in several key solar  
23 projects by working with the developers to build  
24 projects on the most favorable and underutilized  
25 municipal assets. These are assets like large

1  
2 rooftops at municipal buildings or waste water  
3 treatment plants, and possibly brownfield sites  
4 such as capped landfills, where solar PV can  
5 benefit from the larger scale that those sites can  
6 offer, as well as our ability as a City to either  
7 procure energy or lease land. So, I will now  
8 discuss the City's strategy in more detail as well  
9 as update the Council on what the City's done to  
10 remedy previously identified barriers to solar  
11 development. First, looking at how we're  
12 attempting to help the private sector invest in  
13 solar, as stressed in the PlaNYC update of this  
14 past April, the City's programmatic blueprints  
15 encourage private investment, revolves around  
16 financial incentives, administrative reforms,  
17 information sharing and marketing aimed at  
18 unlocking the City's solar industry and potential.  
19 I will discuss the full range of these now.  
20 First, solar property tax abatement. The solar  
21 property tax abatement was one of the early  
22 recommendations of the New York City American,  
23 Solar American Cities Partnership, in part of the  
24 original PlaNYC in 2007. It establishes a tax  
25 abatement program for solar PVs, in order to

1  
2 reduce the cost premium for installations in New  
3 York City. This includes tax abatement--well, the  
4 tax abatement was approved by the State  
5 Legislature in 2008. For the first years of the  
6 program, the incentive was up to 35 percent of an  
7 installed PV system; now it is 20 percent, spread  
8 over four years at five percent per year. After  
9 initial two years of limited take-up, the amount  
10 of successful solar tax abatements tripled in  
11 2010, to over 100, with 75 being for residential  
12 projects. This past year, abatement has totaled  
13 almost \$1 million in property tax credits, with an  
14 average credit of roughly \$10,000. Over the past  
15 three years, a total of 138 abatements have been  
16 granted. These projects will generate roughly 2.7  
17 megawatts of power and are located across the five  
18 boroughs on residential, industrial and commercial  
19 sites. Moving on to solar thermal, in 2009, the  
20 City, led by the Economic Development Corporation  
21 launched a solar thermal grant pilot program.  
22 This \$1 million grant program provided small  
23 grants to organizations to help defray the costs  
24 of installing rooftop mounted solar hot water  
25 heating systems. The programs objectives are to

1 demonstrate the value of this clean energy option,  
2 rigorously test and monitor equipment, and  
3 identify technical and financial barriers, and  
4 ultimately educate the public and potential  
5 customers. The grants are equal to roughly 30  
6 percent of installation costs, capped at \$50,000.  
7 Grants were distributed in two rounds, with the  
8 most recent application round completed earlier  
9 this year. To date, EDC has funded five projects  
10 on residential, commercial and mixed use buildings  
11 in The Bronx, Manhattan, Queens and State Island.  
12 EDC is currently monitoring data to assess the  
13 financial energy benefits of these systems. After  
14 gathering data from all pilots over a twelve month  
15 period, EDC will evaluate the performance and  
16 develop further recommendations. But it looks to  
17 be a promising program, so far. On permitting  
18 improvements, in line with the Administration's  
19 overall desire to lower the cost of doing business  
20 here, the City has taken an aggressive approach to  
21 working with industry partners in identifying  
22 burdensome, duplicative and prohibitive codes and  
23 regulations. Additionally, we have a number of  
24 steps to expedite permit processing and further  
25

1  
2 enhance interagency communication. I will fully  
3 discuss these later in the testimony. Regarding  
4 solar empowerment zones, in 2010, New York City  
5 Solar America City Partnership led to, led a group  
6 of several stakeholders consisting of CUNY, OLTPS,  
7 EDC, Department of Buildings, DCAS, Office of  
8 Emergency Management, New York State Public  
9 Service Commission, NYPA and Con Edison, to create  
10 what's called the New York City Solar Empowerment  
11 Zones. These are areas in New York City where  
12 solar can have the most benefits to our electrical  
13 grid, because they have ample rooftop capacity for  
14 solar, so that they provide additional service to  
15 localized day peaking electricity network that is  
16 in need of additional capacity. The three solar  
17 empowerment zones include downtown Brooklyn,  
18 Greenpoint Gateway and Staten Island East, and  
19 they're all eligible for special benefits such as  
20 free data monitoring of systems. We've also made  
21 a lot of efforts on the regulatory front, in  
22 Albany. The Public Service Commission and NYSERDA  
23 have designed a new, five year, \$125 million  
24 program for large scale renewable energy projects,  
25 defined as 50 kilowatts and up, in the New York

1  
2 City area, that will add more than 60 megawatts of  
3 solar PV to Con Edison's service territory, which  
4 of course includes New York City and Westchester  
5 by 2015. The City advocated forcefully for this  
6 funding, and as additional benefits to the City,  
7 NYSERDA has also created a 50 percent incentive  
8 for any project in a solar empowerment zone.

9 Moving onto the solar map, in June 2011, the City  
10 under CUNY's leadership launched the New York City  
11 solar map, a light image detecting and ranging  
12 LIDAR based map which offers all New York, New  
13 Yorkers the most granular view on the potential  
14 for solar, generating solar energy on the  
15 rooftops. The City used planes, airplanes, to  
16 collect 15 billion data points and to create a 3D  
17 surface model of the City that is accurate to  
18 within ten centimeters. The map aggregates in  
19 real time data on the nearly one million  
20 properties in the City, and calculates costs and  
21 payback periods. This unique tool was funded by  
22 the U.S. Department of Energy and the City. The  
23 map has had 125,000 hits to date. Additionally to  
24 help further stimulate interest in solar thermal  
25 in New York, CUNY has begun an effort to create a

1 solar thermal calculator for inclusion on this  
2 solar map. Development of the calculator is part  
3 of CUNY's broader efforts to design a roadmap and  
4 frame an implementation framework for cultivating  
5 a solar thermal market. So, installers have  
6 recognized the map as an outreach and marketing  
7 tool, and underlying data on the map provides  
8 usefulness not only to the industry, but also for  
9 Con Ed as a utility, can use the map as a planning  
10 tool in its reliability and resource plans. The  
11 City also recently submitted an application to  
12 host the 2013 Solar Decathlon at Flushing Meadows,  
13 Corona Park. The Decathlon, which is normally  
14 held in the National Mall in Washington, D.C., is  
15 a biannual event where universities compete to  
16 build solar powered, energy efficient homes. This  
17 will be the first time the event is held outside  
18 of Washington, and New York City's among a number  
19 of other municipal candidates. The City believes  
20 that this showcase will further, this will  
21 showcase our solar market growth through exposure  
22 and attention to the renewables in the solar  
23 industry in New York City. Next, I'm going to  
24 turn to how the City's leveraging its own assets  
25

1  
2 for solar development. As I indicated earlier,  
3 their comprehensive strategy for solar also rests  
4 on the City using its own assets. Earlier, this  
5 year, the City announced an innovative  
6 public/private partnership to install solar panels  
7 on up to 250 acres of capped municipal landfills.  
8 This project could produce up to 50 megawatts of  
9 solar power, enough, enough to power roughly  
10 10,000 homes. And well beyond our targets for  
11 solar overall. The City wouldn't operate or pay  
12 for the panels necessarily; instead, the idea is  
13 to have a private developer to lease the land and  
14 build their own plant. So, the Department of  
15 Environmental Protection is working with the  
16 Department of Sanitation, Parks and EDC, in  
17 evaluating feasibility, and determining the best  
18 strategy of developing solar energy and possibly  
19 also up to eight megawatts of wind. So to be  
20 clear, this is not part of our efforts to reduce  
21 our municipal government footprint, but it's a  
22 major effort to use brownfield sites in the City  
23 to promote greater sustainability. We've done a  
24 tremendous amount of analysis showing, in this  
25 case, a favorable peak load coincidence of this



1  
2 and many other solar projects with actually, you  
3 know, peaker plants in the City. Which means that  
4 a megawatt hour generated by a project like this,  
5 would actually displace an equivalent in megawatt  
6 hours from the most polluting plants, particularly  
7 important on hot summer days. Turning to City  
8 buildings, we're pursuing a variety of strategies  
9 to invest in solar which includes leveraging  
10 existing grants, partnering with the private  
11 sector, and targeting projects identified through  
12 our comprehensive audit and retrofit process.  
13 Moving first to the ARRA solar projects, in mid-  
14 October of this year, the City started  
15 construction on eight solar projects on City  
16 assets, using America Renewable and Recovery Act's  
17 funds. ARRA funds were allocated by the U.S.  
18 Department of Energy to support clean energy and  
19 energy efficiency projects, as well as climate  
20 action programs. DCAS, and we have Ariella here,  
21 DCAS is administering the ARRA funds, and  
22 estimates the retrofits will generate  
23 approximately 340,000 kilowatt hours of energy.  
24 The panels will be placed in places like the New  
25 York Police Department precincts and Sanitation,

1  
2 Fire and Transportation garages. And moving onto  
3 a recent RFP that was issued by DCAS and again,  
4 Ariella can answer more details in the Q&A, in  
5 December 2011, the City expects to award a  
6 contract for the City's renewable energy power  
7 purchase agreement under which the City will buy  
8 the output of more than three megawatts of  
9 electricity over a 20 year period. A solar  
10 developer would install, own and operate the PV  
11 systems. This is another example of the City  
12 engaging in a public/private partnership  
13 initiative. The City's comprehensive audit and  
14 retrofit process is a vehicle for identifying cost  
15 effective opportunities for solar installation  
16 projects, that's the most effective way to use  
17 scarce City capital. To date the City has  
18 completed 78 energy audits, with another 58  
19 underway. We plan to launch between 100 to 200  
20 energy audits a year in the next ten years, is  
21 part of the compliance with Local Law 87. Moving  
22 onto solar thermal, the City's funding six new  
23 solar thermal installations on City buildings.  
24 One is an installation in a recreation center in  
25 The Bronx. It was identified through the City's

1  
2 audit and retrofit program, and when combined with  
3 other energy conservation measures in the  
4 building, resulted in a comprehensive retrofit  
5 with an under 15 year payback period. The other  
6 five buildings were identified through a  
7 partnership with the Fire Department. Early  
8 estimates show that these small installations will  
9 not be cost effective, but the City is moving  
10 forward on these pilots to gain a better  
11 understanding of the true costs and to find  
12 opportunities to bring these costs down, if  
13 possible. If the pilot is successful, the City  
14 hopes to install solar thermal on additional  
15 firehouses. So, let's move on to the improvements  
16 we're trying to make to reduce impediments to  
17 solar within the City. Although the City's dual  
18 commitment to incentivize private investment and  
19 leverage City municipal assets has set into place  
20 a wide range of programs, with the potential for  
21 large gains in solar energy development, it is  
22 clear that additional work remains. Of particular  
23 interest to this Committee and the primary focus  
24 of this hearing, are barriers to investment that  
25 were identified in the May 2010 installer survey

1  
2 conducted by CUNY. That survey highlighted  
3 prohibitive business costs and administrative  
4 barriers facing installers and owners, including  
5 cumbersome paperwork, costs of \$5,000 to \$6,000  
6 per installation, and a processing time of in some  
7 cases more than a year. In response, I would like  
8 to update the Council on a number of changes the  
9 City has taken since the report's release.

10 Regarding communication with the public and  
11 industry, the Solar America City Initiative is in  
12 itself the nexus for all administrative changes.  
13 It is an interagency partnership led by  
14 sustainable CUNY and includes EDC and the Mayor's  
15 Office of Long Term Planning and Sustainability.  
16 The partnership has been working collectively with  
17 the Department of Buildings, Department of  
18 Environmental Protection, DCAS, Con Ed, NYPA and  
19 NYSERDA. Second, to provide installers and owners  
20 with a single point of contact and an internal  
21 advocate, the City has appointed two solar  
22 ombudsmen to support streamlining of solar  
23 permitting. The solar ombudsman has been  
24 stationed part time at DOB, and outreach and  
25 education to the solar industry through the

1  
2 installer roundtable. In addition, the DOB  
3 Commissioner has held several forums with industry  
4 and agencies to make new market entrants familiar  
5 with permitting requirements and identifying  
6 resources. Regarding business cost reduction, to  
7 help reduce entry costs, we appreciate what the  
8 City Council did this year in passing the new  
9 national electrical code, which removed costly  
10 requirements for third party inspections for solar  
11 installations. DOB has agreed to track, to fast  
12 track all electrical inspections for solar. On  
13 the permitting front, the City has taken a number  
14 of actions that we will, that we expect will  
15 dramatically cut processing time, create uniform  
16 standards across the City, and enable installers  
17 and owners the ability to know where their  
18 application stands at all times. Regarding  
19 process improvements, first the City is piloting  
20 an online tracking system for solar permits with  
21 funding from DOB, Con Ed, NYSERDA, and EDC, to  
22 start at the end of this year. The solution will  
23 allow agencies and applicants the ability to track  
24 the progress of each installation, of each  
25 installation application through the whole

1  
2 permitting process, creating transparency, real  
3 time identification of bottlenecks, and better  
4 management. The goal is to reduce permitting  
5 interconnection and approval time down to 100  
6 days. When Con Ed implemented a similar online  
7 system for its own solar installation process, the  
8 internal time needed to review applications was  
9 cut one-half, and Margaret can tell us more about  
10 that, of course, in the next panel. Most  
11 recently, the City will now accept applications  
12 for solar projects through the new New York City  
13 development hub, allowing faster turnaround and  
14 easier review for installers. The hub is DOB's  
15 new state-of-the-art plan review center, where all  
16 forms and plans are required to be submitted  
17 electronically. The hub has a dedicated  
18 sustainability unit, which only handles job  
19 applications for abatements. An installation team  
20 can then virtually collaborate with the plan  
21 examiners to discuss any comments the plan  
22 examiners may have and make adjustments in real  
23 time. The hub will also allow examiners to  
24 virtually coordinate with other agencies and  
25 address document and approval issues in real time.

1  
2 The City recently applied for additional funding  
3 from the U.S. DOE's SunShot Initiative. The goal  
4 of this program is to further reduce soft costs  
5 for solar projects. The City applied for almost  
6 \$1 million in funding for phase one of SunShot.  
7 And lastly, on regulatory improvements, the City  
8 amended its rules to include solar panels as  
9 allowable rooftop mechanical structures. The  
10 Landmark Preservation Commission is now authorized  
11 to fast track approval of nonvisible and minimally  
12 visible PVs, further reducing processing time.  
13 The City is also working on a proposal that would  
14 allow solar panels to be installed above a maximum  
15 building height, within parameters that limit  
16 visibility from the street. DCP is currently  
17 conducting preliminary outreach to borough boards  
18 and expects to begin the public review process to  
19 modify the zoning resolution shortly. So these  
20 are, these are the initial actions we've taken  
21 that seek to address industry and community  
22 concerns and make New York City a thriving market  
23 for solar development and investment. We think  
24 it's a very exciting time in the industry. Thank  
25 you for the opportunity to testify and we'd be,

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we'd be very happy to take any questions.

CHAIRPERSON GENNARO: Well, thank you very much for your comprehensive testimony. I was pleased to meet with folks with the Administration. I was--the meeting with Carter Strickland and Cass Holloway the other day, and they told me about the big summit that was going to happen that same day, when all the agencies came together, in order to make preparations for this hearing. And I thank them for all that work, and this robust showing of people from all these agencies. I'm going to, I have my own set of questions, but I'm very grateful to Council Members who come here and spend the time, and I'm going to go to them first, 'cause I want to, you know, I, they have great questions which they wish to pose. I'm going to defer to them first, the first one to ask questions of this, wants to ask questions of this panel, Council Member Crowley, so I recognize Council Member Crowley for questions.

COUNCIL MEMBER CROWLEY: Thank you, Chairman Gennaro. Good afternoon. I appreciate your testimony, very interesting. Actually, this



1  
2 Wednesday my district, I'm going to have a green  
3 fair, like town hall, where representatives from  
4 HPD and NYSERDA are going to come and speak to  
5 community residents about greening their homes.  
6 So hopefully, they'll be interested in solar  
7 panels. I was curious to know, as you mentioned,  
8 about the leasing out of government land, such as  
9 landfills or other buildings. Do you have an idea  
10 of how much money could be generated by the City  
11 doing this?

12 SERGEI MENOFISKY: So, the purpose  
13 of going in that direction is, if you think of a  
14 renewable investment, it's not necessarily a  
15 profit making exercise. It really depends on what  
16 kind of incentives are brought to bear. So the  
17 City's looking at a combination of, you know,  
18 procuring energy, and that's what the DCAS  
19 initiative is. On the landfills, we're, we're  
20 looking to, you know, offer land, and we're still  
21 working on the details before we issue an RFP, but  
22 the idea would be, in that case, for the City not  
23 to be the sole off-taker of energy and take that  
24 type of risk, but to, you know, lease land so that  
25 a private developer can figure out how to finance

1  
2 it, and find their own off-taker. So, it's  
3 therefore a public policy benefit to reduce peaker  
4 emissions, not to, not as a direct revenue  
5 generator for the City, necessarily.

6 COUNCIL MEMBER CROWLEY: But have  
7 other municipalities done this?

8 SERGEI MENOFSKY: There's, there've  
9 been a couple of examples of some major brownfield  
10 sites being used. And they all have different  
11 incentive structures, every state's very  
12 different. But there have been, there's been a  
13 couple of examples of capped landfills being used  
14 for solar, there's other examples of other  
15 brownfield sites. And the advantage there is  
16 economies of scale, and you know, allowing a  
17 developer to, you know, manage a large scale  
18 project, to bring the unit costs down.

19 COUNCIL MEMBER CROWLEY: Do you  
20 know how much, how many acreage of land that we  
21 have in the City that could possibly be leased  
22 out.

23 SERGEI MENOFSKY: Yeah. We're  
24 looking primarily at capped landfills, when we  
25 talk about that. And so we're--

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2

COUNCIL MEMBER CROWLEY: How many acres do we have of landfills?

3

4

SERGEI MENOFSKY: Yeah. Well, we have, I believe, thousands of acres, but the part that we're talking about concerning potential renewables development is a small fraction of that. And we're working closely with the Department of Sanitation and Parks and ultimately DEC.

10

11

COUNCIL MEMBER CROWLEY: Do you know a borough? Is it in Staten Island or Brooklyn?

13

14

SERGEI MENOFSKY: Yeah, so, so for example, Fresh Kills--

15

16

COUNCIL MEMBER CROWLEY: Okay.

17

SERGEI MENOFSKY: --and, you know, there's a number--We, we've been spending the balance of the year actually doing, what's it-- engineering pre-feasibility with some consultants, to actually look at each landfill to see which ones look promising, and then working with Parks and Sanitation to see which areas are even remotely feasible. And so I think Fresh Kills is a candidate, you've got, down the road,

25

1  
2 Brookfield, Edgemere, we looked at Penn and  
3 Fountain, which are part of the National Park  
4 Service. I don't know if I mentioned Edgemere.  
5 So the, so I think we, we looked at almost every  
6 capped landfill for its potential.

7 COUNCIL MEMBER CROWLEY: Right.

8 But if you do lease this to a private developer,  
9 do you believe that it could bring in revenue? I  
10 would imagine it has to bring in some revenue.

11 SERGEI MENOFSKY: Yeah. Well, I  
12 mean we, we haven't--it depends how you structure  
13 it. Right? We haven't determined exactly what  
14 kind of, what the--I mean, this is all, you know,  
15 in the RFP process, that, that's not released yet.  
16 So, I mean, what I can say is we're essentially  
17 evaluating all the options right now, and the idea  
18 is we want to do a combination of things. In some  
19 cases, we want to procure energy from a developer;  
20 in other cases, we want to perhaps offer land and  
21 a leasing arrangement, and that, you know, so, you  
22 know, the actual terms of it, this is all going to  
23 get in the weeds in the RFP, we're, you know,  
24 that's what we're evaluating right now.

25 COUNCIL MEMBER CROWLEY: Do you

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have a timeline when you foresee yours--

SERGEI MENOFSKY: Yeah, so we'd like to, we'd like to have something ready to go in the next several months.

COUNCIL MEMBER CROWLEY: Okay. Now, when one wants to put a solar panel on their roof, let's say I hire a private developer to come in, private company to install solar panels, I have to pay the company a permitting fee, right, as part of the process?

SERGEI MENOFSKY: So, I'm going to turn to Department of Buildings, on this one.

COUNCIL MEMBER CROWLEY: My question is how much does that cost? A permit for installation. Like how is that equated into the overall cost of installing these panels? And is there a way possibly to somehow encourage people to install these panels by decreasing that cost, or--?

CHAIRPERSON GENNARO: And what I'd like to do is just ask you and anyone who may take the microphone before they answer a question, just to state your name before you answer the question for the record.

1  
2 JOHN LEE: Sure. My name is John  
3 Lee, I'm with the New York City Department of  
4 Buildings. As to the question about the  
5 permitting, the permit itself does not cost very  
6 much. It's usually a percentage of the cost of  
7 the project, and when it comes to solar panel  
8 installations, it could be to over a few hundred  
9 dollars. The majority of the cost comes in the  
10 hiring of professionals, particularly architects  
11 and engineers, as well as licensed electricians,  
12 to sign off on the permits and to do the  
13 construction document submission. Ultimately,  
14 while we do encourage the proliferation of this  
15 kind of renewable energy technology, we're also  
16 still primarily engaged in the safety of the  
17 property and the public.

18 COUNCIL MEMBER CROWLEY: So, on an  
19 average project, if a homeowner would want to  
20 install, you know, panels on a row house that's  
21 about 20 feet wide, a few hundred dollars, if the  
22 project's a few thousand dollars?

23 JOHN LEE: Well, for the permit  
24 itself. The hiring professionals will go into the  
25 order of thousands of dollars for professional

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services.

COUNCIL MEMBER CROWLEY: Right, right, right, but the permit--

JOHN LEE: The permit is just a couple of hundred dollars, right.

COUNCIL MEMBER CROWLEY: Okay.

And, and then lastly, my question has to do with the tax abatement. How does that work? Let's say I pay \$4,000 a year in taxes on my property, and my investment in the solar panel was \$8,000. How is that going to work out? How much of that money, of that \$8,000 will I get back?

JOHN LEE: So, assuming that the \$8,000 qualifies as the, the term is "qualified expenditures," so that actually were direct capital investments into the solar PV itself, assuming that was \$8,000, you have a rebate of, at currently 20 percent of the installation, or in the course of the next five years. So, 20 percent of \$8,000, like \$1,500 thereabouts, and then that's spread out over the course of the next four years at five percent in return. So, at the end of the day, your tax, your taxes are reduced by that increment on your \$8,000 example.

1  
2 COUNCIL MEMBER CROWLEY: On your  
3 personal property tax, right?

4 JOHN LEE: Yes.

5 COUNCIL MEMBER CROWLEY: And then  
6 what other incentives are there?

7 JOHN LEE: That are administered by  
8 the City, there's only one item I'm aware of;  
9 however, there are numerous incentive programs  
10 that comes through NYSERDA and also through the  
11 Economic Development Corporation.

12 COUNCIL MEMBER CROWLEY: And do you  
13 know what it's running right now for a property  
14 that's approximately a roof that's 20 feet wide by  
15 100? Or by 50?

16 JOHN LEE: You mean whether it's -

17 -

18 COUNCIL MEMBER CROWLEY: And like  
19 an average brownstone.

20 JOHN LEE: The cost of the  
21 installation?

22 COUNCIL MEMBER CROWLEY: Yeah, of a  
23 system.

24 JOHN LEE: For average brownstone  
25 it could be anywhere from \$20,000 to \$50,000, just



1  
2 rough estimate. This is assuming that you  
3 actually have the real estate to put it up on your  
4 personal property.

5 COUNCIL MEMBER CROWLEY: And it's  
6 considered a property investment, so there's no  
7 taxes on the installation.

8 JOHN LEE: That I do not know.  
9 That's a question for a tax attorney.

10 COUNCIL MEMBER CROWLEY: Thank you.

11 JOHN LEE: Mm-hmm.

12 CHAIRPERSON GENNARO: Thank you,  
13 Council Member Crowley. I recognize Council  
14 Member Levin.

15 COUNCIL MEMBER LEVIN: Thank you,  
16 Mr. Chairman. And thank you very much for your  
17 testimony. A few questions. And I do appreciate  
18 going through all the programs that the City has  
19 and the history of the City's efforts. But one  
20 thing that wasn't in the testimony was what the  
21 Administration's opinion is of this particular  
22 bill. Can you tell us what the Administration's  
23 opinion is of the bill? Do you support it? Do  
24 you not support it? Are you undecided? Why--what  
25 are the reasons for any of those?

1  
2 SERGEI MENOFSKY: I don't think we  
3 have a, an official position right now. You know,  
4 we've been asked to comment on the earlier  
5 incarnation of it, in the last session. And I  
6 think there's--and I think there's two things that  
7 we, I think, care about, to support, and I'd like  
8 to see the language right now. One is that, that  
9 there are some price capping measures, both for  
10 Con Ed and NYPA. I believe there was some  
11 language that it had some kind of a price collar.  
12 So we wanted to see how that fleshes out, so we  
13 can actually calculate the impact on rate payers.  
14 And the other one is that we have advocated really  
15 strongly for money that's spent by New York City  
16 rate payers to be, you know, actually spent back  
17 here. And the original language did not have, did  
18 not have that, but I see that they've, they have a  
19 multi--you could do it different ways. You could  
20 either have a multiplier of some type of  
21 definition. So, you know, I think, you know, if  
22 those, if those two issues are addressed, and I  
23 believe some versions of the bill in the last  
24 session had it, others didn't, it sounds like  
25 they're there now. And again, I'm, you know, I'd

1  
2 have to see it. But those are really the two, the  
3 two issues we'd like to see addressed.

4 COUNCIL MEMBER LEVIN: Okay, thank  
5 you. Wanted to ask about solar projects on, on  
6 City owned buildings. You mentioned in your  
7 testimony, the ARRA funds, the ARRA solar  
8 projects, you mentioned panels would be placed on  
9 NYC, NYPD precincts and sanitation, fire and  
10 transportation garages. Why are we not looking at  
11 other City buildings, schools, CUNY facilities?  
12 Why not City Hall? The President is putting up  
13 solar panels on the West Wing, or the living  
14 quarters in the White House. Why don't we do it  
15 at Gracie Mansion?

16 ARIELLA MARON: So we are actually  
17 looking at solar in every single City building for  
18 which we pay the energy bills. By we, I mean  
19 DCAS, we cover almost all City agencies.

20 CHAIRPERSON GENNARO: Ariella, if  
21 you just, just state your name for the record.

22 ARIELLA MARON: Sure. I'm Ariella  
23 Maron, I'm Deputy Commissioner for Energy  
24 Management at DCAS. So, the eight ARRA projects,  
25 those are specifically on the precincts in those

1  
2 garages. 'Cause when we looked at where the best  
3 opportunities were for solar in terms of having  
4 projects that were big enough for it to be cost  
5 effective, that projects that met the special  
6 requirements of the ARRA money, this came through  
7 the State Energy Program, so it had to meet a  
8 certain multiplier of costs--it couldn't be too  
9 high, it couldn't be too little. The buildings  
10 couldn't be too high, they had to have the flat  
11 enough roof, they had to not be in the shadows of  
12 other buildings. So, by taking a look, we knew  
13 that these were buildings that were shoe-ins for  
14 great fits. But we look at all the City  
15 buildings, through our comprehensive audit and  
16 retrofit process. For all the buildings that are  
17 50,000 square feet or larger, we're actually going  
18 through, following Local Law 87 and doing energy  
19 audits. Looking for PV and solar thermal is part  
20 of the process, and we've started by identifying  
21 some additional potentials for solar installation  
22 through that process. But for ARRA, we had a very  
23 specific amount of money, a very specific  
24 timeline, and very specific criteria, so we worked  
25 with our partner agencies to find the best

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projects for those in particular.

COUNCIL MEMBER LEVIN: So how many, how many buildings--I know eight were, were moved forward--how many qualified?

ARIELLA MARON: So, those were, we actually tried to maximize, those were the eight projects that had roofs in good enough condition, still had the warranties, when we looked at the City buildings, those were, we maximized how much money we could use, and that's why we used the eight. But we have, through our Solar RFP, we plan on putting installations on five additional buildings, and through our audit and retrofit process, we have to-date identified potential for four other installations. And as the process goes on, and as Sergei mentioned, we're launching over 100 energy audits a year. We continue to look at more opportunities for solar.

COUNCIL MEMBER LEVIN: Okay, 'cause I would think that, you know, we have hundreds upon hundreds of schools in the City of New York. Hundreds--

ARIELLA MARON: We have some--

COUNCIL MEMBER LEVIN: --in the,

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you know, triple digits.

ARIELLA MARON: Sure.

COUNCIL MEMBER LEVIN: So, I mean I would just imagine that there are--and a lot of them have very flat roofs, a lot of them are in low, low zoned areas that don't have other buildings blocking them. I would imagine, just as a layperson, that there would be a lot of schools would meet those criteria.

ARIELLA MARON: Sure, and we've actually been looking specifically at schools with CUNY and the New York Power Authority, through a program that NYPA's putting forward. And we did evaluate some schools as part of the ARRA funding group, but they didn't meet the, the payback criteria, specifically that ARRA had. But we did look at them. And through our audit and retrofit project, process, the majority of buildings that the City owns over 50,000 square feet are the schools. So we are starting to identify other projects.

COUNCIL MEMBER LEVIN: And then, is the City considering using straight City tax levy dollars for capital investment in this? Much

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like, 'cause the ARRA, I mean the ARRA money has, comes with ARRA strings attached.

ARIELLA MARON: Mm-hmm, that's--I'm sorry.

COUNCIL MEMBER LEVIN: Are we, sorry, I mean, are we looking at using just straight City tax levy as a, as a capital investment?

ARIELLA MARON: Sure, so, through our audit and retrofit process, that is City capital dollars. That's money coming out of the GO [phonetic] bonds. Through the Solar RFP, we're actually entering in a power purchase agreement, so we're buying electricity, and that's City tax levy dollars. That's the expense money. So we are using City dollars.

COUNCIL MEMBER LEVIN: Okay. And then, sorry, two more questions. Mentioned in the third paragraph of testimony, that the goal laid out in 2007 was to reach an installed capacity of 8.1 megawatts of photovoltaics by 2015. And that to date there are, seven have been installed, so I guess in the past four years, we've reached seven, but that we're on track to generate the 45

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2 megawatts by, by 2015. I--can you explain to me,  
3 I just don't get how in four years, we've reached--  
4 --so we're halfway to 2015 from, from 2007. We've  
5 got seven, we've reached seven, how are we going  
6 to get to 45, or is there something else there?

7 SERGEI MENOFSKY: It's largely,  
8 it's largely 'cause of the downstate carve out--  
9 The geographic balancing, that we've--the program  
10 that we mentioned, 60 megawatts, potentially  
11 buildable within Con Ed service territory, some of  
12 that's going to go to New York City, some of it to  
13 Westchester. So that's one part of it. And also  
14 NYPA's solar program. Those are kind of the big,  
15 the big chunks of it that are new.

16 COUNCIL MEMBER LEVIN: So those  
17 account for 60 megawatts by 2015, is that right?  
18 [crosstalk] How much is--

19 SERGEI MENOFSKY: Sorry, go ahead,  
20 I'm sorry.

21 COUNCIL MEMBER LEVIN: Well, just,  
22 so, sorry, so, explain, sorry, how much of that  
23 would then, would that contribute?

24 SERGEI MENOFSKY: So, I think we'll  
25 see what the results are of the, the latest



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2 NYSERDA submissions and so forth, but the idea was  
3 to have 60 megawatts by 2015 through Con Ed's  
4 market. Is that correct? Con Ed's service  
5 territory. Let's say roughly half goes to New  
6 York City, so that's 30.

7 COUNCIL MEMBER LEVIN: Got it.

8 SERGEI MENOFSKY: And then you, you  
9 know, and then you have, you know, depending on  
10 how NYPA's 50 or 100 meg--whatever it's called,  
11 now their large solar program kicks in, and then  
12 also municipal investments. So, our estimate,  
13 it's on the, we try to be conservative here, we  
14 could've put some astronomical number. We think  
15 45 is something that's actually reachable.

16 COUNCIL MEMBER LEVIN: Adding them  
17 all together.

18 SERGEI MENOFSKY: Yeah, adding, the  
19 low end of adding all those pieces together.

20 COUNCIL MEMBER LEVIN: Got it.

21 SERGEI MENOFSKY: But it's, it's a  
22 pretty wide range at the, you know, at the high  
23 end, but we think that's actually a number that's  
24 defensible, the 45 megawatts.

25 COUNCIL MEMBER LEVIN: Okay, and

1  
2 then just my final question, Mr. Chairman. The,  
3 you mentioned the solar property tax abatement.  
4 For the first year, the incentive was up to 35  
5 percent. That was decreased to 20 percent, spread  
6 over four years, or five percent a year. Why was  
7 it decreased?

8 JOHN LEE: That was the way that  
9 the executive law was structured. This was, came  
10 to us from Albany. And so, then it just went, was  
11 designed to depreciate over the years.

12 ARIELLA MARON: and the idea was  
13 to, part of an incentive for early adopters It  
14 was to get people to jump on quickly, those first  
15 few years, while the logistics are being worked  
16 out, and then give an incentive for early action.

17 COUNCIL MEMBER LEVIN: But you're,  
18 but it's, is it, what, the, the rate of  
19 individuals applying for it as that has been  
20 increasing since then? Is it, what's--?

21 JOHN LEE: Yes, it has. To be  
22 quite frank, the timing of the bill could've,  
23 could have been worse, it came at the worst  
24 economic times and there are fewer property owners  
25 willing to put that kind of capital investment in

1  
2 2008. But the rate at which we've seen applicants  
3 come in to try to take advantage of this program  
4 has been increasing dramatically.

5 COUNCIL MEMBER LEVIN: Okay. And  
6 that's handled then by the Department of Finance?

7 JOHN LEE: It's jointly between the  
8 Department of Finance and Department of Buildings.  
9 Department of Finance is they administer taxes,  
10 they look to the Department of Buildings to review  
11 the construction documents to deem whether or not  
12 a project is actually eligible for the abatement.

13 COUNCIL MEMBER LEVIN: Okay, now, I  
14 know that the Department of Finance has gotten--I  
15 mean, there's been other programs during which  
16 Finance has, building owners have not been getting  
17 their abatements on specific programs. Has there  
18 been any issue or complaint that individuals that  
19 have signed up for this program have not received  
20 their abatement from DoF?

21 JOHN LEE: Well, I think it would  
22 be a mischaracterization that there have been no  
23 complaints, because people love to complain, But  
24 as far as I understand--

25 COUNCIL MEMBER LEVIN: I mean,

1  
2 there's been whole--I mean, in other programs,  
3 there's been kind of wholesale problems. So I'm  
4 just wondering is it--

5 JOHN LEE: As far as I understand,  
6 that the, for those that have followed the process  
7 correctly, that the abatements have been  
8 administered correctly?

9 COUNCIL MEMBER LEVIN: Okay. Thank  
10 you very much. Thank you, Mr. Chair.

11 CHAIRPERSON GENNARO: Thank you.  
12 Thank you, Council Member Levin. I recognize Brad  
13 Lander.

14 COUNCIL MEMBER LANDER: Thanks very  
15 much, Mr. Chairman, and to the members of the  
16 Administration who are here. First I want to ask  
17 about inspections, as you alluded to in your  
18 testimony, we passed the a bill recently that  
19 eliminated the need for third party inspectors as  
20 part of the electrical code. Any evidence,  
21 anecdotal or data driven otherwise, on what impact  
22 that's having? What the cost reduction is? What  
23 the time reduction is? I mean, I know it was  
24 pretty recent, but I wonder whether we have any  
25 sense so far?

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2 JOHN LEE: We don't have any hard  
3 data since the, you know, the electric code was  
4 passed, and because it has been fairly recent.  
5 Part of the motivation to do away with third party  
6 inspections was the evidence that we saw that it  
7 did add a significant cost to the, to inspections,  
8 not only in terms of the amount of cash that's  
9 outweighed by the property owners, but also in  
10 terms of time in getting nationally recognized  
11 testing laboratories to schedule to send their own  
12 inspectors out, to then create reports to be sent  
13 into the Department. So, we can, you know,  
14 surmise that doing away with this component will  
15 expedite the permit sign off process. We have yet  
16 to see a full year of this implementation so we  
17 can actually make a critical assessment.

18 COUNCIL MEMBER LANDER: So, what  
19 inspections are still required onsite now, I mean,  
20 between DOB, FDNY, and Con Ed? And, you know, on  
21 solar PV installations?

22 JOHN LEE: Well, I will defer to  
23 the representative of Con Ed to speak to that, Con  
24 Edison, but in terms of the Department of  
25 Buildings, there's two primary sites. There's a

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2 construction inspection and there's an electrical  
3 inspection. Within the construction inspection  
4 they encompass the Fire Department concerns that  
5 are expressed in the Fire Code, in terms of Fire  
6 Department access to the roofs. But the  
7 construction inspection primarily deals with  
8 structural integrity, make sure that the solar PV  
9 panel isn't going to fly off the roof in high wind  
10 conditions or come crashing down--

11 COUNCIL MEMBER LANDER: That seems  
12 smart

13 JOHN LEE: --to the street below.  
14 And the electrical connection is, electrical  
15 inspection is looking at the connections and that  
16 the actual listed approved devices have been  
17 installed. And if you want to speak to the Con Ed  
18 side?

19 JOHN MUCCI: I'm John Mucci from  
20 Con Ed, I'm a Vice President of Electrical  
21 Distribution in Manhattan. We mainly redo the  
22 inspection when--

23 CHAIRPERSON GENNARO: You know what  
24 I think we're going to do. I really want to keep  
25 the panels totally separate. I just--

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JOHN MUCCI: Okay.

CHAIRPERSON GENNARO: --I just want to, I think I'm just going to do it that way. Okay, so, we'll just - - and so.

COUNCIL MEMBER LANDER: Okay, so, but that's, those two inspections are what have to get done, and we obviously need both, to know both those things, so there's no way to streamline that, it doesn't sound like. We need to have the construction inspection and the electrical inspection to take place.

JOHN LEE: Yes, they're by necessity. We are entertaining the possibility of combining inspections and also streamline the process there, but that is speaking to a much larger issue of our inspections regime at the Department of Buildings.

COUNCIL MEMBER LANDER: Although, I guess I will note, it was interesting to read in your testimony some things, the online tracking, you know, maybe these are obviously we've sort of said in a couple of cases, "Let's do something special to help speed these along, because we, we think it's a good idea." On the other hand, maybe

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2 that can be a best practice that we adopt the  
3 Buildings Department, and everything could be  
4 reviewed in this way. So, so it's good to hear  
5 that there's a broader effort underway to think  
6 about streamlining inspections and we'll wait till  
7 you guys are ready to come talk to us about it.  
8 But I guess if it would reduce costs and time in  
9 general, it would reduce them for solar  
10 installations, as well. You, Mr. Menofsky, you  
11 talked about a lot of different programs here, so  
12 I hate to ask you about even one you didn't talk  
13 more about. But there wasn't reference in here to  
14 the new EEC and, you know, how they will be  
15 looking at, you know, what they'll finance on the  
16 big commercial buildings, so is there, is that  
17 also an area where we're thinking that--

18 SERGEI MENOFSKY: You mean the  
19 Energy Efficiency Corporation?

20 COUNCIL MEMBER LANDER: The Energy  
21 Efficiency Corporation, excuse me. So is there a  
22 plan there to, you know, to have interested  
23 commercial building owners look at solar  
24 installations as part of their audits and  
25 retrofits? And if so, will they be allowed to use



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the loan loss reserve ARRA money toward, to that end?

SERGEI MENOFSKY: Can I hand this one over to a fellow board member?

ARIELLA MARON: Sure, sure.

SERGEI MENOFSKY: Ariella.

ARIELLA MARON: So, right now, for NYSE [phonetic] projects, there is an energy audit done. So, similar to the City's energy audit, an audit looks at all the cost effective opportunities to reduce energy. So, that includes energy efficiency and clean energy. So, it is possible that if a project was found to be, to be a possible energy project within audit and retrofit, and was found to be cost effective, then it is something that is allowable using the ARRA dollars under NYSEC [phonetic].

COUNCIL MEMBER LANDER: And have any of those audits that we're--I mean, I guess maybe this is a topic for another hearing, we should figure out why, you know, how many of those audits have been conducted and what they're starting to show and what information we're getting. But I guess it sounds like on the City

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2 buildings, at least we've got some data back. You  
3 found some buildings to move forward on. On the  
4 commercial bill, the private commercial buildings,  
5 do we have those audits back?

6 ARIELLA MARON: So NYSEC is still  
7 brand new, so we'll have hopefully more  
8 information to share as the, the organization  
9 continues to grow.

10 COUNCIL MEMBER LANDER: Okay. I  
11 mean, and toward that end, there was an  
12 interesting article maybe over the weekend or late  
13 last week, in the Times on the data collection.  
14 That wasn't on the EEC buildings, it was on the  
15 affordable housing portfolio, funded by Deutsche  
16 Bank and Living Cities, but I know Gary Hattem is,  
17 is on the board of the, of NYSEC, as well. And I  
18 just wonder whether we're trying to figure out,  
19 you know, it seems to me the more we can get, you  
20 know, a larger database of information on what the  
21 costs really are, and what the savings really are,  
22 over time will be able to ramp this up at a level  
23 that won't require hopefully the same amount of  
24 subsidies. So, can you speak a little more to  
25 sort of how you're, how we're doing data

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2 collection, you know, both on the cost of  
3 investment side and on the payback side, and how  
4 that fits in with some of the other efforts to do  
5 the same.

6 SERGEI MENOFSKY: You're talking  
7 about munic--on the municipal government  
8 buildings, or - -

9 COUNCIL MEMBER LANDER: Well, I  
10 guess I'm asking on both, I mean, obviously we  
11 don't have it yet on the private buildings, it  
12 doesn't sound like, although the infrastructure to  
13 capture it and measure it, obviously is important  
14 up front, too. So I guess on both sides.

15 SERGEI MENOFSKY: I probably need  
16 Laurie Kerr, actually, for this one. Is she here?

17 STEVEN CAPUTO: Steve Caputo,  
18 Mayor's Office of Long Term Planning and  
19 Sustainability. I guess you would go to Local Law  
20 87 and the other laws of the Greener, Greater  
21 Building package. The first deadline for  
22 benchmarking just occurred. Originally it was for  
23 me, it got pushed back, but by August I'd say  
24 about between 8,000 and 10,000 buildings  
25 benchmarked. I don't know where the final number

1 ended up. But it was about 1.5 billion square  
2 feet of building space got benchmarked. That's an  
3 incredible amount of information we now have.  
4 It's the first year of the program, so that data  
5 isn't public yet, but next year the benchmarking  
6 scores will actually be online, so what we, the  
7 intention of the bill and the Greener, Greater  
8 Buildings package, and what's starting to happen  
9 is that all that data kind of catalyzes the market  
10 space. So private developers can go in and look  
11 at buildings and say, "Your benchmarking score is  
12 really low. We'll go propose some energy  
13 efficiency." So, the first piece of the data  
14 system is in place, and then over the next ten  
15 years buildings will have to be audited and do  
16 retro-commissioning. So, we're hoping to create a  
17 kind of market transformation.

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19 COUNCIL MEMBER LANDER: So, and I  
20 mean obviously, you know, we didn't require  
21 retrofits, but are we capturing any of the data--  
22 so I mean it's good to, you know, get the  
23 benchmark data, but are we capturing data for  
24 those owners who do decide to move forward to  
25 retrofit, I mean, both on what it costs them to do

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2 so and on what they see as savings. I guess if we  
3 reaudit their building in ten years, we'll know  
4 something, but that's a while to wait and we won't  
5 catalyze the market--

6 STEVEN CAPUTO: Mm-hmm.

7 COUNCIL MEMBER LANDER: --that  
8 well.

9 STEVEN CAPUTO: I think we'll,  
10 we'll start to capture data in the annual  
11 benchmarking scores, and I think we're still  
12 working out the level of information that gets  
13 submitted to the City in terms of the audits and  
14 retro-commissioning, so that's kind of to be seen.

15 COUNCIL MEMBER LANDER: Okay, but I  
16 mean, I guess there's that, that doesn't make it  
17 sound like it's a priority.

18 STEVEN CAPUTO: I think it's  
19 certainly priority, and we're partnering with a  
20 lot of different industry organizations and  
21 universities to really get at this data. NYU and  
22 UPenn are working with us to look at the  
23 benchmarking data. We think that's a great  
24 analytic tool. We are putting out a report in the  
25 next month, I'd say, to, to analyze that. So, it

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is a priority.

COUNCIL MEMBER LANDER: I mean, I think look at the benchmark data is obviously is treasure trove of information, but if we don't also get some information, whether mandated or not, at least as much as we can on what it costs people to implement the solutions they do implement, and then track their specific energy savings over time, while the benchmarking information is good it won't make it nearly so easy for future owners to evaluate, you know, what the costs and returns are, and for lenders, I mean, you know, again, this really goes to the question of, you know, what capital lenders will advance against this. So--

STEVEN CAPUTO: Like I said, the benchmarking's the first piece. With between NYSEC, with NYSERDA's help, we're trying to create a pool of information, we'll certainly be looking at the cost and benefits of audits and retro-commissioning and other efficiency measures. So it, it's very high priority data. We think data is the key to, to this entire initiative.

COUNCIL MEMBER LANDER: Thank you.

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2 And then, my last question is about, I guess it  
3 sounded like you're saying on the, on the solar  
4 that's on municipal buildings, that we're going to  
5 do that through, through an ESCO or through a  
6 private installer? I know we've had this  
7 conversation about the schools and how that  
8 relates to the goal of getting the schools  
9 retrofitted, and I know that's a topic for another  
10 day that is coming soon, I think I saw on my  
11 calendar, but--

12 ARIELLA MARON: Friday.

13 COUNCIL MEMBER LANDER: Oh, it's  
14 Friday, wow, it's even sooner than I thought. So,  
15 I will grill you then about, about the school  
16 timetable, but just talk me through how the City's  
17 thinking about what to do with ESCOs and what to  
18 do itself, and kind of, the manner you've got the  
19 RFP out to try to figure out the solar issue  
20 specifically, but--

21 ARIELLA MARON: Right. So,  
22 specifically on solar, there's a variety of  
23 mechanisms that have to do with the fact that  
24 we're leveraging three ways of getting solar in  
25 our buildings. There's the grants, which is ARRA,

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2 and implement those. We've been working with the  
3 New York Power Authority using our long term  
4 encore agreement with them. There's the  
5 public/private partnerships, and that's the solar  
6 RFP. And to answer something from your colleague,  
7 a few of the solar RFP buildings are actually  
8 schools. And then third is through our audits and  
9 retrofits. The audits and retrofits that we  
10 currently have underway, which we're--those we're  
11 doing through a variety of contracting mechanisms  
12 right now, again leveraging our long term contract  
13 with NYPA, which has put out bids for different  
14 implementation contractors for us, so ESCOs; as  
15 well as with our sister agencies, leveraging  
16 existing contracts with ESCOs to do that, as well,  
17 still using City money. So the audit and retrofit  
18 process, it depends whether it's going through the  
19 SCA contract or whether it's going through us,  
20 it's still the ASHRAE level to energy audit, it's  
21 still going to identify all the cost effective  
22 energy conservation measures that can go forward,  
23 keeping in mind the urgency and prioritization on  
24 lighting first, of course.

25 COUNCIL MEMBER LANDER: So, that, I



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2 mean, that's interesting, it sounds--is it fair to  
3 say then that the decision about sort of the  
4 contracting provision or the financing provision  
5 to use is in some ways more dictated by the source  
6 of funds and the contracting authority, or the  
7 entity that owns the building's really then by  
8 anything else.

9                   ARIELLA MARON: For the solar  
10 installation, has to do with which contracting  
11 vehicle we're using and the source of funding.

12                   COUNCIL MEMBER LANDER: Okay.

13                   ARIELLA MARON: We just, we just  
14 try to figure out what's the fastest and most cost  
15 effective way to go forward.

16                   COUNCIL MEMBER LANDER: Okay.

17 Great, thank you. All right, now, though, I'm out  
18 of questions, and, and we're without a Chair. So,  
19 should I keep asking, make up some more questions  
20 to ask, or should we [laughter] or should we thank  
21 the City and call the Con Ed panel? [background  
22 comment] All right, so I'm going to make up some  
23 more questions in case Jim has some more questions  
24 that he wants to ask, when, when he gets back.

25 [pause, background noise]

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2 FEMALE VOICE: Oh, there's that  
3 question. I would ask this question. Well, I  
4 trust you.

5 COUNCIL MEMBER LANDER: [laughs]  
6 All right.

7 FEMALE VOICE: I trust you. Yeah,  
8 he's back.

9 COUNCIL MEMBER LANDER: All right,  
10 very good, we have been rejoined by our, by our  
11 Chairman. Oh, sorry. I don't know if you have  
12 any questions for the, for the City, but I reached  
13 the end of mine, and so hand it back.

14 FEMALE VOICE: Thank you.

15 COUNCIL MEMBER LANDER: Thank you  
16 very much for your--

17 CHAIRPERSON GENNARO: Thank you,  
18 Council--Thank you, Council Member Lander, thanks  
19 for your good questions and all the other  
20 questions from members of the Committee. Which  
21 makes my job easy, 'cause all the good questions  
22 have already been asked. But I'm going to take a  
23 little bit of a, you know, try to take a view from  
24 sort of like the 30,000 foot level, and it's  
25 always great to work for the Bloomberg

1 Administration, and a very, very green  
2 Administration. For example, when talking about  
3 this study that came out from CUNY, about the  
4 impediments to solar, because we're dealing with  
5 the Bloomberg Administration, the first thing they  
6 do is they figure out how we can, you know, speak  
7 to some of these issues, and that's how it goes,  
8 and that's a great thing. But I just want to  
9 think in terms of what things might be sensible to  
10 codify into local law so that, so that the next  
11 Administration who may not be as green as this one  
12 feels, you know, very compelled to doing all the  
13 good things that the Bloomberg Administration  
14 does, because they want to do them. And so when  
15 we saw this study from CUNY, you know, we  
16 certainly were having this hearing talking about  
17 some of the impediments and it, and it's good to  
18 get this good information. But when this came out  
19 myself and my staff talked about some possible  
20 local laws that we might do to kind of set the  
21 tone for the next Administration. And we're  
22 still, you know, thinking about that, and it's  
23 something that I talked about with Carter  
24 Strickland the other day. And so we have some  
25

1  
2 bill drafting that's going on and, but we're, you  
3 know, very, very pleased to hear the steps that  
4 are being taken. And but, I--I think we should  
5 have future discussions on, you know, what steps  
6 could be taken and, and 'cause I'm sure that the  
7 Bloomberg Administration wants to see its good  
8 work continue into the next Administration also,  
9 and make sure that those folks are as conscious  
10 and proactive on these issues as, you know, you  
11 guys are. And so, that's the conversation we  
12 should have, because we're, we kind of want to do  
13 something, and I did mention it to Carter, and I  
14 don't think it's a bad thing, I think it's, you  
15 know, we're talking legacy now, we want to see  
16 this stuff live on. So that's, don't want to get  
17 into a big discussion about it now. I'm happy  
18 with, with the steps that were talked about today,  
19 happy with the fact that all these agencies came  
20 together to prepare for this hearing. And it's  
21 good to know that good things are happening. But  
22 that's a, you know, future discussion that we will  
23 have. And with regard to the landfill concept,  
24 the RFP as you said, you know, might be coming out  
25 in the next couple of months, is that right?

1  
2 SERGEI MENOFSKY: Yeah, we'd like  
3 to have something ready--

4 CHAIRPERSON GENNARO: Right.

5 SERGEI MENOFSKY: --in the next  
6 couple months.

7 CHAIRPERSON GENNARO: And this is  
8 something, I also had a conversation with Carter  
9 about this, about this I think is a very important  
10 initiative, and I think the Bloomberg  
11 Administration should give itself much credit that  
12 it wants to do this, but this is something that  
13 would carry over into the next Administration.  
14 And we want to make sure that the next  
15 Administration doesn't let this go by the wayside.  
16 So, we're thinking about what we, you know, here  
17 at the counsel, were, you know, thinking about  
18 leaving a little something on the books for the  
19 people that come after us to--you know, that  
20 they'll have to live up to. And so, that's how I  
21 tend to view things. It's good to have a partner  
22 and get good things done. It's, you know, good to  
23 leave post-it notes for the next guys, too. To  
24 make sure that, you know, by the way, you have to  
25 do this. And so we want to have more

1  
2 conversations about, about that. And so the  
3 questions I wanted to ask have already been asked,  
4 but let me take a little stroll through your  
5 testimony, which I made notes as you were making  
6 it. [pause, background noise] With regard to the  
7 Flushing Meadows/Corona Park for the Solar  
8 Decathlon, would that be--I'm getting like a  
9 little parochial here, because I represent half  
10 the park, the southern half, the lakes. And so,  
11 you know, north of the LIE, where you have the  
12 Unisphere and, and the tennis center and the  
13 museum and the swim center. I've got like the  
14 sort of, you know, natural part of the part, with  
15 the Meadow Lake and Willow Lake, and so it would  
16 be great if we could do stuff on the south side of  
17 the park, as well. but that looks like a great  
18 thing. So. [pause, background noise] And with  
19 regard to your testimony where you talk about  
20 process improvements, the third item there was the  
21 City recently applied for additional funding from  
22 the U.S. Department of Energy's SunShot program.  
23 And the City made application for about a million  
24 in funding for Phase One of that. Was that  
25 something that happened recently.

1  
2 SERGEI MENOFSKY: Yeah, Steve, do  
3 you want to speak to SunShot? Oh, I'm sorry,  
4 Alison's here, if you want to--

5 ALISON KLING: That's okay.  
6 [laughs] Hi, I'm Alison Kling, the New York City  
7 Solar Coordinator at CUNY. SunShot is a very  
8 broad U.S. Department of Energy program covering  
9 all aspects of solar. They've targeted, really  
10 the part that we're interested in is targeting  
11 these balance of system costs, like administrative  
12 permitting, that--

13 CHAIRPERSON GENNARO: Right.

14 ALISON KLING: --we've been doing  
15 already. So that's something that went in in  
16 September, so a few months ago. So--

17 CHAIRPERSON GENNARO: Okay.

18 ALISON KLING: --we should hear  
19 fairly soon.

20 CHAIRPERSON GENNARO: Well, the  
21 reason why I bring it up is that if it would be  
22 helpful for me as the Chairman of this Committee,  
23 to send a letter of support for this application,  
24 then you could talk to Bill Murray here--

25 ALISON KLING: Okay.

1  
2 CHAIRPERSON GENNARO: --and I'd be  
3 happy to do that. You know, just to try to be  
4 supportive of what you're trying to do.

5 ALISON KLING: Great, thank you.

6 CHAIRPERSON GENNARO: I mean, it's,  
7 you know, it's 44 cents, it's no big deal, I'll  
8 just send a letter.

9 ALISON KLING: Well, you can email  
10 it, it's--

11 CHAIRPERSON GENNARO: Email it.

12 ALISON KLING: Yeah.

13 CHAIRPERSON GENNARO: Even better.  
14 So happy to be of help on that. And ... Now I  
15 have to say it feels good about all the questions  
16 that have been answered. They don't, they don't  
17 have any more work for me to do with this panel.  
18 I want to thank you folks for getting together and  
19 all the preparation it took to bring this hearing  
20 together, and, and just in terms of takeaway,  
21 you're going to talk to Bill about that letter,  
22 and we're going to have some -follow up  
23 conversations about post-it notes that we leave  
24 for people to come. I mean, I think this is  
25 something that, you know, we could probably agree



1  
2 upon. I mean, I don't want to put, you know, too  
3 much of an imprimatur on what you're trying to do  
4 with the landfills, but--

5 SERGEI MENOFSKY: No, we'd be happy  
6 to talk to you about it.

7 CHAIRPERSON GENNARO: Yeah, but  
8 we're certainly, we'd, you know, like to see that  
9 happen. We would like to see every City  
10 Administration be as green as the Bloomberg  
11 Administration. I don't know if that's reality.  
12 And so, sometimes people need it like in black and  
13 white and if we can help them then we should think  
14 about doing that. And with that said, I'm very  
15 grateful to the Bloomberg, for the Bloomberg  
16 Administration for the, as always, doing a great  
17 job, particularly with regard to environmental  
18 stuff. And thank you for your testimony today,  
19 and we'll be following up as appropriate.

20 SERGEI MENOFSKY: Thank you.

21 CHAIRPERSON GENNARO: Okay, thank  
22 you. And so the next panel, do you have the slips  
23 from Con Ed? I'll read those again. [background  
24 comment] Okay. [pause, background noise] Okay.

25 FEMALE VOICE: Here they are.

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CHAIRPERSON GENNARO: Okay.

MALE VOICE: I gave it in already.

CHAIRPERSON GENNARO: And

[background comment] Okay, so, it kind--so what I'll do is I'll read the Con Ed, I'll read the names of the good folks from Con Ed and then we'll read the names of, from the next panel, just so that they can know to get ready. Margaret Jolly from Con Ed, and John Mucci--

JOHN MUCCI: Mucci.

CHAIRPERSON GENNARO: Mucci, okay.

JOHN MUCCI: Yep.

CHAIRPERSON GENNARO: Great. And

the next panel, if you just give me a little indulgence here, we have the Solar Alliance, represented by Carrie Hitt. These are all members of the Solar Alliance: Evan Dubé [phonetic] it looks like; Jonathan Lee; Shaun Chapman. And these are some good folks that we're going to be paneling with the Solar Alliance: Tim Smalls from RNS Capital Partners and Peter Olmsted from Vote Solar. So, that'll be the next panel, so they're on deck. But Con Ed has the floor. And I want to thank Con Ed for being here, and I've heard from

1  
2 John Banks and others about the good things you  
3 guys are doing to roll the ball forward on solar,  
4 and now I get to have this presentation, I'm happy  
5 and proud to get it. And I believe I have your  
6 statements here. And is there one statement?

7 JOHN MUCCI: Yes. One page--

8 CHAIRPERSON GENNARO: Okay.

9 JOHN MUCCI: --two sides, one page.

10 CHAIRPERSON GENNARO: Okay, great,  
11 and so, thanks very much for being here and please  
12 state your name for the record. And proceed with  
13 your good testimony.

14 JOHN MUCCI: Okay, thank you very  
15 much. Good afternoon, Chairman Gennaro, and  
16 Members of the Environmental Protection Committee.  
17 My name is John Mucci, and I'm the Vice President  
18 of Manhattan Electric Operations at Con Edison. I  
19 am joined today by Margaret Jolly, our Engineering  
20 Project Manager and the company's Ombudsman for  
21 Distributed Generation. I appreciate the  
22 opportunity to share with you all our efforts on  
23 the solar initiatives. At Con Edison we consider  
24 sustainability and the protection of the  
25 environment essential to the quality of life for

1  
2 our customers and have been actively encouraging  
3 this movement to go green for a long, long time,  
4 since the '70s. We are proud of our record in  
5 this area, we recently were, received accolades  
6 from Newsweek Magazine where, in the 200, 2010,  
7 2011 Green Rankings, identified us a the greenest  
8 utility in the United States. In addition, the  
9 Carbon Disclosure Project placed Con Edison first  
10 among utilities in the S&P 500 Leadership Index.  
11 And we were also named to the Dow Jones  
12 Sustainability Index for the third straight year.  
13 Although our primary focus has been on energy  
14 efficiency and conservation programs, which  
15 provide the most immediate returns on investment  
16 for our customers. We have been working on many  
17 initiatives that enable our customers to use solar  
18 powered renewable resources. We are actually, we  
19 were actually the first utility in the country to  
20 connect the solar facility exporting energy into a  
21 network grid in Crown Heights in Brooklyn. Last  
22 year, we worked with the City and CUNY Sustainable  
23 Works. We launched our 100 days of Soul Program,  
24 which is designed to help our customers move more  
25 quickly through the complexities of the approval

1 process for the installation of their panels.  
2  
3 Some of the notable achievements of this program:  
4 a significantly shortened approval process for  
5 projects under 25 KW, which is most of our  
6 projects, 75 percent of the applications, and all  
7 of the residential system applications.; an online  
8 project center on our website where customers can  
9 submit their applications and track their  
10 projects; all of the necessary agency and Con  
11 Edison requirements as shown there, we have a  
12 process flowchart that takes the guessing out of  
13 the installation. For the past three years, we've  
14 provided free training for our solar system  
15 installers and technicians on the technical and  
16 process issues for installing solar panels. We  
17 developed a software prototype, a one-stop  
18 shopping site, that will eventually enable  
19 customers to simultaneously apply to DOB, NYSERDA,  
20 Con Edison, for the various approvals required.  
21 And we are currently partnered with DOB, NYSERDA  
22 and CUNY on the second phase of this project. We  
23 helped CUNY developer their Interactive Solar Map  
24 Initiative, which was launched this year, and is  
25 accessible for everybody. The map is a great tool

1  
2 that helps our customers see the possibilities for  
3 solar power, both in the economics of it, and the  
4 practicality of the roof installations. We, along  
5 with the, DEP's EDC, have been advocating to the  
6 PSC and to NYSERDA for the, for more of the  
7 renewable portfolio standard funds, that our  
8 customers pay for, to be applied to solar projects  
9 downstate rather than where they've been going,  
10 which has generally been upstate wind and solar.  
11 As a result, NYSERDA recently allocated \$150  
12 million for downstate projects, of which \$125  
13 million is just for the Con Ed service territory.;  
14 Con Edison also has supported the implementation  
15 of net metering, an additional incentive for our  
16 solar customers. As a result of these programs,  
17 electric generation from solar has doubled each  
18 year for the past three years. And I would like  
19 to note to the Chairman that PV adoptions has been  
20 especially vigorous in Queens.

21 CHAIRPERSON GENNARO: Thank you,  
22 yeah, and my son is a great advocate, he's, his  
23 house is like green times ten. You know?

24 JOHN MUCCI: [laughs] Okay.  
25 Finally, we believe it is important to comment on

1  
2 the resolution under consideration today regarding  
3 solar related legislation pending in the State  
4 Senate and Assembly. As I have stated, Con Edison  
5 is strongly supportive of solar investment in our  
6 service territory. However, the Assembly Bill  
7 5713-A will increase energy commodity costs for  
8 our customers across the State by up to \$22  
9 billion under the terms of the legislation. While  
10 we support the overall objectives of increase  
11 solar investment in the State, this bill would  
12 discourage economic investment and guarantee New  
13 Yorkers a high cost energy state far into the  
14 future. Specifically, the bill creates additional  
15 cost subsidies for the solar industry, in addition  
16 to the programs already in place that I mentioned  
17 above, including the State's RPS. Under the  
18 existing RPS program, utility customers in New  
19 York are already committed to pay \$2.5 billion to  
20 purchase renewable energy between 2012 and 2014.  
21 Assembly Bill 5713-A will require an additional  
22 \$22 billion through 2039 from the State's  
23 consumers. Our customers just cannot afford to  
24 pay these costs, which are not warranted and are  
25 on top of the many existing incentives already

1  
2 being funded, and the incentives that we believe  
3 need time to work, and are just coming downstate  
4 now. Thank you.

5 CHAIRPERSON GENNARO: Yeah, thank  
6 you very much for, for being here and for your  
7 testimony. Let me just start with the last part  
8 and sort of work backwards. With regard to the  
9 bill, 5713-A, the brief statement that you have  
10 here, there is certainly much documentation and  
11 studies and things that would go behind to, go  
12 behind what you say here today. And to the extent  
13 that you can share some of that with the staff,  
14 that would be help for us, helpful to us to have,  
15 as we consider taking a look at this, and moving  
16 it out of the Council. Do you believe that this  
17 study that's going to be done by NYSERDA that will  
18 come out the end of January will sort of bear this  
19 out, or what do you think's going to happen there?

20 JOHN MUCCI: Sure, sure, I believe  
21 that. I think the--and we could provide the  
22 utilities--

23 CHAIRPERSON GENNARO: Right.

24 JOHN MUCCI: --came together to  
25 provide this analysis, and we could provide that



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to you electronically, if you'd like.

CHAIRPERSON GENNARO: That would be terrific. But could you just give me some, just a little more of a flavor as to why it's going to be this very big price tag through 2039 and with little to show for it, 'cause you're saying it'll be \$22 billion and you don't think there's going to be \$22 billion worth of benef--worth of benefits, obviously.

JOHN MUCCI: Yeah, I guess--

CHAIRPERSON GENNARO: You just.  
just--

JOHN MUCCI: I guess we're two,  
there's two aspects--

CHAIRPERSON GENNARO: Give me two  
minutes on that.

JOHN MUCCI: Okay. There's two  
aspects of this. I think the first aspect is what  
we were concerned with RPS, is that, is that much  
of, even though the bill has some incentives for,  
and I'm not sure it's clear in the bill, but it,  
some incentives from what I've heard today, that  
have RECs [phonetic] coming down to New York City,  
we see that most of the renewable--

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CHAIRPERSON GENNARO: RECs, pardon me?

JOHN MUCCI: SRECs. The investment in solar--

CHAIRPERSON GENNARO: Oh, okay.

JOHN MUCCI: I'm sorry, I should've explained.

CHAIRPERSON GENNARO: SRECs. That's like the shorthand for the shorthand.

JOHN MUCCI: Yeah. [laughs]

CHAIRPERSON GENNARO: Yeah, right, okay. Yeah.

JOHN MUCCI: Yeah, sorry.

CHAIRPERSON GENNARO: You're like a step ahead of me now, yeah, okay.

JOHN MUCCI: It's a utility lingo here.

CHAIRPERSON GENNARO: Right, right.

JOHN MUCCI: Anyway, the investment would come, or there's some incentive investment coming down to New York City, but what we've seen in the past, and what we see in this bill, too, is that there'd be, most of the investment, it'd be the least cost way to do this, would be to put

1  
2 them in Fields and Buffalo or upstate, in places  
3 that don't benefit our customers downstate.

4 CHAIRPERSON GENNARO: Right.

5 JOHN MUCCI: And those customers  
6 will be paying equally for this bill, for this  
7 incentives, and we believe that there's just  
8 incentives coming down now from the RPS, that are  
9 going to significantly jumpstart the technology to  
10 get people starting to install these things,  
11 greater than they've already done. And then we  
12 think we've got a doubling each year that'll  
13 continue to 50-60 megawatts going forward. So, we  
14 see that as a hardship, and we see the, on the  
15 consumers in New York City, and we see also the  
16 fact that these consumers, especially in the  
17 manufacturing industries, in Queens and the outer  
18 boroughs, who are paying very high percentage of  
19 their operating costs in energy, to take the brunt  
20 of these things. And we worry that those  
21 things'll move or lose jobs in New York City. We  
22 want to see, we'd like to see the economics of the  
23 City being encouraged to improve, and we don't  
24 like to see bills that we, we believe would not do  
25 that. The second thing is that the, it's a very

1  
2 long term commitment. And as you can see, there's  
3 advantages to the solar installers to have a long  
4 term commitments in this. But we believe any good  
5 technology like this is going to be cost effective  
6 in the sooner, in the shorter term. In other  
7 words, competitive business will drive the prices  
8 down for the panel, drive the prices down for the  
9 installation, which is very high right now. And  
10 to provide an incentive over a long term at prices  
11 that may be less competitive would not help the  
12 economics of this industry. And we'd like to see  
13 this industry take off on its own economics,  
14 rather than to have incentives for the long term.  
15 No industry can be sustained in the longer term  
16 without, you know, without there being  
17 economically sound. This business is, and the  
18 paybacks are coming down every year. And we  
19 believe some of the things we're doing today, the  
20 injection of funds today, will really change that,  
21 improve that market.

22 CHAIRPERSON GENNARO: Thank you.

23 Thank you for that. And working backwards, the  
24 bottom of your first page of your statement,  
25 regarding the funds from the RPS, that, they seem

1  
2 to tilt a little more towards upstate than  
3 downstate. But now, based on the last paragraph  
4 here, we see some money coming for downstate  
5 projects. Is there some more equity now? Do you  
6 believe generally with RPS funded types of  
7 initiatives? And is this something that you think  
8 is going to be a little fairer going forward?  
9 This is what, is this what his portends?

10 JOHN MUCCI: Sure, absolutely. And  
11 I think we've gained recognition of this needed  
12 improvement with, from NYSERDA and the Public  
13 Service Commission, also. So, and the City of  
14 course has been advocating for this for a long  
15 time--

16 CHAIRPERSON GENNARO: Right.

17 JOHN MUCCI: --at EDC, especially.  
18 And so, we really feel good about the change  
19 that's just occurred in this, and many companies  
20 are bidding right today, on projects in New York  
21 City because of this. And I think that's going to  
22 make a big difference. And it's probably, you  
23 know, it just giving, from my experience in Con  
24 Edison, when you make large, large investments in  
25 new technologies, you want to do it in incremental

1  
2 steps to get the first, you know, the first movers  
3 to take, to move it out. And I think that's what  
4 this does, it doesn't overwhelm the industry and  
5 cause prices to go up, it gives enough to  
6 jumpstart the industry into where we want to go.  
7 And we really believe the down, this move of the  
8 money downstate, is a real boon for our customers,  
9 because we've been paying, you know, our customers  
10 pay every year for the SBC charge, the system  
11 benefits charge, they pay about \$250 million every  
12 year for that. And part of that, \$87 million of  
13 that is for RPS. In the past, that money is all  
14 left - -

15 CHAIRPERSON GENNARO: Right.

16 JOHN MUCCI: --economics. Now,  
17 environmentally it's not, it's not a bad issue,  
18 because it's a planet, it's a problem of the  
19 planet, right?

20 CHAIRPERSON GENNARO: Right.

21 JOHN MUCCI: So it really may not  
22 matter where they go, environmentally. But from  
23 an economic standpoint, it's--

24 CHAIRPERSON GENNARO: I'm with you,  
25 I want some parity balance, you know, fairness. I

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think those are good words.

JOHN MUCCI: That's what we  
advocate.

CHAIRPERSON GENNARO: Right.

JOHN MUCCI: That's what we  
advocated for.

CHAIRPERSON GENNARO: Thank you.  
And I want to thank you for your efforts. With  
regard to the one-stop shopping thing, it's the  
fourth bullet point on your statement, that came  
out of working with the City, and CUNY and the  
Hundred Days Of Solar, this is something that  
we're looking at in terms of a local law here in  
New York City, to really codify that. And we may  
be looking to you for some brainwaves on how we  
might be able to do that. So, you know, thank you  
for leading the way on that.

JOHN MUCCI: We'd love to support  
that, any way we can. You know, the DOE has  
pointed out that this is not just a New York  
issue, this is countrywide issues, the processes  
and the approvals and the complications--

CHAIRPERSON GENNARO: Right.

JOHN MUCCI: --of the incentives

1  
2 and all those things, have been onerous for many  
3 of the customers, and may be a big impediment for  
4 further growth here.

5 CHAIRPERSON GENNARO: Thank you.

6 And your fourth paragraph, I was kind of surprised  
7 to see that Con Ed was the first utility in the  
8 country to connect a solar facility exporting  
9 energy into a network electric grid in Crown  
10 Heights in 2008. That was the first time that  
11 someone generated power and just put it back on  
12 the grid, or--?

13 JOHN MUCCI: Yeah. You know--

14 CHAIRPERSON GENNARO: Trying to--

15 JOHN MUCCI: --people have been  
16 generating power and putting it back into systems,  
17 electrical systems. But in a grid system, most of  
18 the utilities in the country believe that was, it  
19 was infeasible. Because grid systems are designed  
20 for flow to come from the substation out to the  
21 customers, and not the reverse.

22 CHAIRPERSON GENNARO: Right.

23 JOHN MUCCI: And many utilities  
24 have protective equipment, and even initially we  
25 did, too, to protect flow from entering the system



1  
2 into a grid system, we couldn't predict where the  
3 flows or the significance of the flows would be.  
4 But we built very specialized models for that, to-  
5 -mainly we built them for reliability purposes,  
6 but we used those models and able, we were able to  
7 use those models to model clusters of solar  
8 installations of--

9 CHAIRPERSON GENNARO: Right.

10 JOHN MUCCI: --rotating generators,  
11 all those kinds of things. And we even said--  
12 Margaret is an engineer with distribution  
13 engineering, and she's worked with a lot of folks  
14 to connect industry to our studies internally, to  
15 see how we could better support this. This was an  
16 issue initially, it's an issue around the country,  
17 and in 2008 we had Big Sue, which is the name of  
18 this facility in Crown Heights, and we were very  
19 proud of the fact to be the first connect, to  
20 connect, to allow flow input into, into an  
21 electrical service grid, network grid, like we  
22 have.

23 CHAIRPERSON GENNARO: And in the  
24 last three years since this happened, there are  
25 other entities that are doing this.

1  
2 JOHN MUCCI: Oh, yeah, many, many  
3 entities, yeah.

4 CHAIRPERSON GENNARO: - - okay.

5 JOHN MUCCI: And not only in solar,  
6 but in rotating equipment, too.

7 CHAIRPERSON GENNARO: Right. But  
8 it's always nice to be first, right?

9 JOHN MUCCI: Yeah.

10 CHAIRPERSON GENNARO: And I want to  
11 recognize all of the accolades that you've gotten,  
12 which you laid out here in the, in the first part  
13 of your statement, and well deserved and I want to  
14 offer you my congratulations.

15 JOHN MUCCI: Thank you.

16 CHAIRPERSON GENNARO: And thank you  
17 for being here today, I really appreciate it, and,  
18 and Margaret, thank you for all, all your good  
19 work, and appreciate it very much. Mr. Mucci,  
20 thanks for being here, appreciate it.

21 JOHN MUCCI: Hey, thank you.

22 CHAIRPERSON GENNARO: You bet. And  
23 I'll call once again the ... panel that, for the  
24 Solar Alliance and others. Carrie Hitt, Evan  
25 Dubé, Jonathan Lee, Shaun Chapman, Timothy Smalls,

1  
2 Peter Olmsted. [pause, background noise] And  
3 while we're waiting for that panel to get settled,  
4 I'll call the names for the next panel, so they  
5 can get ready. And the panel after this one,  
6 representing the Plumbing Foundation, Terrence  
7 O'Brien; Ross Gould of Environmental Advocates of  
8 New York; Ricardo, looks like Getla [phonetic],  
9 New York League of Conservation Voters, I am  
10 sporting a New York League of Conservation Voters  
11 tote bag today, in case maybe, maybe someone saw  
12 that. I hope that gets back to the League of  
13 Conservation Voters that I am carrying around  
14 their tote bag. Samantha Wilt [phonetic] of NRDC,  
15 and another, oh, we have two people from League of  
16 Conservation Voters. [background noise] Okay,  
17 all right, so we'll have Michael Leone. That'll  
18 be the next panel, there'll be panels to follow.  
19 And I just want to get the statements of this  
20 panel here. [pause, background noise] Okay.  
21 Okay, so, I have a total of three written  
22 statements. Is there a total of three written  
23 statements? Is that right?

24 CARRIE HITT: [off mic] So, the  
25 Solar Alliance is here--

1  
2 CHAIRPERSON GENNARO: Okay, just,  
3 okay, yeah, let me just--just hang on one second.  
4 And ... okay. Thank you all for coming,  
5 appreciate your being here. This is a big panel,  
6 six people. But, you know, we can do this, right,  
7 we'll do this. Great, great. And I take it that  
8 you are Carrie Cullen Hitt, is that right? Okay.  
9 So why don't we have you testify first, on behalf  
10 of the Solar Alliance, and then we'll have other  
11 folks testify. But what I'd ask you is to speak  
12 directly into the microphone and state your name  
13 for the record. And proceed with your good  
14 testimony. And I thank you very much for being  
15 here.

16 CARRIE HITT: Good afternoon. And  
17 thanks for having us here today.

18 CHAIRPERSON GENNARO: My pleasure.  
19 I thank you for being here, and I have kind of a  
20 long history with the Solar Alliance. I remember  
21 a gentleman by the name of Mr. Torpe [phonetic],  
22 still--

23 CARRIE HITT: He's, he is still  
24 with us, but he is not with us today, he is in  
25 Australia.

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CHAIRPERSON GENNARO: Okay.

CARRIE HITT: On work leave. So.

CHAIRPERSON GENNARO: Okay. Well.  
Yeah, he was my sort of previous contact with the  
Solar Alliance. Okay.

CARRIE HITT: Okay, so again, good  
afternoon, my name is Carrie Cullen Hitt and I'm  
here today on behalf of the Solar Alliance, and  
also the New York Solar Energy Industries  
Association, New York SEIA.

CHAIRPERSON GENNARO: Oh, okay, so  
both. Okay.

CARRIE HITT: Yes.

CHAIRPERSON GENNARO: Got it, okay.

CARRIE HITT: Yep, so, the Solar  
Alliance is a trade association representing 35  
companies engaged in all aspects of solar, from  
financing to manufacturing to installation. Our  
members serve customers, all customer groups, and  
we have many customers right here in the City.  
New York SEIA, created in 1994 is a New York State  
association, representing many solar companies  
based here in New York. Their hundreds of members  
consist of companies of all shapes and sizes, from

1 family owned businesses to larger corporations.  
2 I'm just going to address three topics briefly  
3 today. The New York solar industry as it  
4 currently exists, what we think needs to happen  
5 next, to expand investment, jobs and  
6 installations. And I want to introduce a few of  
7 our members who will highlight their New York  
8 experience.  
9

10 CHAIRPERSON GENNARO: Sure.

11 CARRIE HITT: So first we're  
12 encouraged by the City's leadership in renewable  
13 energy development. As you're already aware and  
14 heard earlier today, New York is a committed, has  
15 a committed focus to rational, sustainable  
16 policies to bring investment and jobs, as well as  
17 new and clean energy resources to the City.  
18 According to the Solar Energy Industry  
19 Association, New York is currently home to 293  
20 solar companies, which includes 47 manufacturers,  
21 ten project developers, 108 contractors and  
22 installers, 18 distributors, 39 financial firms  
23 and 71 other supporting businesses. And that by  
24 all estimates is a conservative estimate, simply  
25 because that's done by survey, so you can imagine

1  
2 that the numbers are actually greater than that  
3 for those that don't respond. Our current  
4 estimate is that New York hosts over 4,200 jobs,  
5 specifically focused on solar, which puts New York  
6 fifth among many states supporting the solar  
7 industry. And your current capacity is about 100  
8 megawatts, that's as of Q2 2011 this year. What I  
9 want to talk about just briefly is what we think  
10 New York needs to do next. Although you have  
11 historically been a leader in renewable energy  
12 efficiency states, it's recently fallen behind our  
13 neighboring states. States such as New Jersey,  
14 Massachusetts and Connecticut are moving forward.  
15 And actually in your written testimony you have  
16 two charts that I don't, I'm not going to put up  
17 today, but you have those here. And if you need  
18 additional information, let me know. But the  
19 solar industry's growth in surrounding states is  
20 going to continue to exceed New York's as the  
21 impact of their solar friendly policy build the  
22 industry. The current trajectory of New York  
23 compared to other states, in which the blue line  
24 shows New York trajectory, while the dotted line  
25 shows the other proposed, what the New York Jobs

1  
2 Bill would do, would put New York back on the map.  
3 The economic development impacts of the bill under  
4 your consideration are as dramatic. With the  
5 National Renewable Energy Labs' JEDI model,  
6 estimating the policy would create more than  
7 41,000 jobs in the State. And again, details are  
8 in your written testimony. There are many  
9 impediments to New York achieving its full  
10 potential. The primary impediment is a  
11 comprehensive, sustainable, long term solar energy  
12 policy for the State. You heard this morning, or  
13 this afternoon, excuse me, from a number of  
14 agencies which refer to all the things going on,  
15 but we don't have a comprehensive plan here. With  
16 a basic framework highlighted in the legislation,  
17 such as in the New York Solar Jobs Act, New York  
18 can put in place the necessary components to  
19 attract investment and move towards a clean energy  
20 future. In order to benefit from the benefits  
21 outlined, I outlined above, New York needs to  
22 implement progressive, permanent solutions, and we  
23 encourage the Committee to immediately pass  
24 resolution 1098. And I'd like to introduce four  
25 companies who are here today and have business



1  
2 here in New York: Tess Baron from Community  
3 Energy. Tess, if you're still here. Tess is not  
4 on our panel, but she's here representing  
5 Community Energy, and Community Energy has been  
6 involved in New York for a number of years and  
7 actually is a green provider to Con Ed for their  
8 retail choice program. I also have Shaun Chapman  
9 from Solar City, Evan Dubé from SunRun, and  
10 Jonathan Lee--

11 CHAIRPERSON GENNARO: Shaun, who's  
12 Shaun?

13 CARRIE HITT: I'm sorry.

14 CHAIRPERSON GENNARO: Oh, Shaun,  
15 okay.

16 CARRIE HITT: Yeah, we're a little  
17 out of order here. Jonathan Lee from Tioga  
18 Energy. And I think that's everyone. So, I'm  
19 going to go ahead and let Evan, I think you were  
20 going to speak first, if that's okay.

21 EVAN DUBE: Sure. Mr. Chairman,  
22 Members of the Committee, thank you for the  
23 opportunity to speak today. My name's Evan Dube  
24 and I'm with SunRun. SunRun's a leading  
25 residential--

1  
2 CHAIRPERSON GENNARO: Evan, I'm  
3 just wondering if I had a copy of your statement,  
4 or I don't--

5 EVAN DUBE: I don't think you do--

6 CHAIRPERSON GENNARO: No, it's  
7 fine, okay, it's fine--

8 EVAN DUBE: --I can provide it - -

9 CHAIRPERSON GENNARO: --I just want  
10 to make, 'cause if there was a copy of it, I, I  
11 would read it, but I'm happy to glasses off and  
12 just listen.

13 EVAN DUBE: [laughs] Sorry about  
14 that. SunRun's a leading--

15 CHAIRPERSON GENNARO: And I'm also  
16 going to make sure that you talk right into the  
17 mic, just like I'm talking, too, 'cause it has to  
18 be recorded to be transcribed. Mm-hmm.

19 EVAN DUBE: That might be better.

20 CHAIRPERSON GENNARO: Yeah.

21 EVAN DUBE: SunRun is a leading  
22 residential solar provider in the U.S. Currently,  
23 we invest more than a million dollars a day in  
24 solar installations across the country, and we're  
25 installing more than three megawatts of

1 residential solar every month. I'm going to be  
2 brief today to follow on with Carrie's comments  
3 and some of my colleagues. SunRun recently  
4 launched in New York and we've started to do  
5 business here. And I wanted to highlight for the  
6 Council just a couple of things that we think will  
7 be critical for the solar industry to continue to  
8 develop and thrive here in New York, and  
9 particularly in the City. Recently, small scale  
10 solar has seen tremendous growth across the  
11 country in the areas where we do business. This  
12 has been particularly brought about by the  
13 adoption of the third party owned solar systems,  
14 customers who choose third party owned systems are  
15 able to take advantage of solar, without the  
16 barriers of high upfront costs. That's the  
17 important impact it has, is that it allows, with a  
18 very low upfront payment, residents to take  
19 advantage of solar. To follow that, third party,  
20 the third party model provides ongoing maintenance  
21 and monitoring, and sort of a complete customer  
22 service package, over the course of the agreement.  
23 I'd like to just highlight that currently the  
24 property tax abatement in New York City is, we  
25

1  
2 need that to be clarified through the Department  
3 of Finance and the Department of Buildings, that  
4 the abatement would be eligible equally to  
5 customers who choose the third party solar model  
6 as those who do a traditional cash deal. I don't  
7 know that there's any impediments to that, it's  
8 just we see this from time to time, that laws that  
9 were put in place a few years ago, just don't  
10 specifically speak to the, to the business model.  
11 It would be extremely helpful to us and others, if  
12 that could be clarified. And I understand that  
13 the departments are working on that currently.  
14 With that, I think I will pass it on to Shaun who  
15 I think will speak to you about some permitting  
16 concerns that we all have and I--

17 CHAIRPERSON GENNARO: Sure.

18 EVAN DUBE: --think the Council  
19 shares. Thank you.

20 CHAIRPERSON GENNARO: You bet.

21 Thank you, thank you. And also I'm going to hold  
22 back my questions and comments until the whole  
23 panel has spoken, because I want to get back to  
24 you on that tax incentive thing, and to clarify  
25 that for third party, whatever, but I'm going to

1  
2 come back to that, I just want to let people talk  
3 first, and then I'll ask questions later.

4           SHAUN CHAPMAN: All right, thank  
5 you Mr. Chairman, and the entire Committee for  
6 having us here today.

7           CHAIRPERSON GENNARO: Sure.

8           SHAUN CHAPMAN: It's a really  
9 important issue. My name is Shaun Chapman, I'm  
10 the Deputy Director for Government Affairs for  
11 Solar City. Solar City is one of the nation's  
12 largest solar installations companies. We focus  
13 on residential commercial, large commercial,  
14 installations. And interesting fact that I just  
15 learned about the company having recently joined,  
16 is that we are during the workweek, during those  
17 business hours, we were completing a solar project  
18 roughly one every 15 minutes. Which is really  
19 impressive and really exciting, actually. One of  
20 those places that we're not completing that is in,  
21 in New York City currently. Evan does a great job  
22 of highlighting the challenges we have. We, too,  
23 focus on the lease and the PPA model. Not having  
24 access to that severely restricts our ability to  
25 do work in the City. There are a few other

1  
2 challenges and I do want to highlight the great  
3 work done by CUNY and Con Edison, they're doing  
4 some really exceptional, groundbreaking, first in  
5 the nation style work, to address some of these  
6 issues. Obviously, in the industry, we always  
7 want those things to go as fast as possible. But  
8 one of the things that we really need to have  
9 faster is the coordination between Department of  
10 Buildings, Con Ed and that one stop shopping. And  
11 sooner that comes online, the better it will be  
12 for us, as you know and you've heard, time is  
13 money. So, thank you for the support of this  
14 bill, not surprised to find that you and the  
15 Assembly Member know each other very well, because  
16 you're both great solar advocates, so it's really  
17 terrific, cut from the same jib.

18 CHAIRPERSON GENNARO: All right,  
19 thank you, thank you.

20 JONATHAN LEE: Good afternoon, my  
21 name's Jonathan Lee, and I represent Tioga Energy.  
22 And I'm also a New York City resident. Tioga is  
23 one of the largest and most experienced  
24 independent power purchase agreement providers in  
25 the U.S. Tioga is--

1  
2 CHAIRPERSON GENNARO: And just,  
3 yeah, just talk right, as close as you can get to  
4 the--

5 JONATHAN LEE: Sure.

6 CHAIRPERSON GENNARO: --tip of the  
7 microphone, would be better, yeah.

8 JONATHAN LEE: We're headquartered  
9 in San Francisco, California, but we've maintained  
10 offices in New York, Boston and Toronto. And we  
11 operate a growing portfolio of solar projects  
12 across the U.S., including New Jersey, California,  
13 Massachusetts, and Hawaii. What we offer is to  
14 commercial and government clients, a single source  
15 solution for accelerating their path to solar,  
16 without any capital outlay. Through our Sure Path  
17 Solar PPA, we design, engineer, procure,  
18 construct, finance, insure and maintain solar  
19 power projects. And we sell the energy from these  
20 systems to our clients via predictable rates for a  
21 15 to 20 year term, which is typical of a power  
22 purchase agreement. As a result, these  
23 organizations receive immediate energy savings and  
24 a hedge against future utility rate volatility,  
25 all while at the same time lowering carbon

1  
2 emissions, without the hassle of owning and  
3 operating the system outright. Tioga's a  
4 privately held company, and we employ a strong  
5 team of solar industry veterans. And we launched  
6 in June of 2007, with investment capital from  
7 leading renewal energy sector investors. And  
8 through our partnership with these financial  
9 partners, we've established a successful and  
10 repeatable model for delivering permanent tax  
11 equity to solar projects across the U.S. In  
12 addition, having partners such as these high  
13 quality partners, in ensures that our PPAs  
14 maintain long term project viability and bolsters  
15 the creditworthiness of our projects in general,  
16 and meet exceedingly high standards. We've  
17 maintained, Tioga has maintained an office in New  
18 York almost since inception, and we are committed  
19 to the northeast renewable energy market. New  
20 York is one of the top five State energy markets  
21 in the U.S. and New York City in particular, has  
22 some of the highest electricity rates in the  
23 country, which I know personally. We see that  
24 there is enormous potential for solar development  
25 in New York, and for a number of reasons, however,



1  
2 Tioga has not been able to be as active in New  
3 York as we aspire to be. We have had a project  
4 out in Long Island, but none directly in the City.  
5 Foremost among these reasons is insufficient State  
6 incentives to make solar energy an economic  
7 alternative at the consumer level, and we would  
8 just strongly agree with our colleagues here, that  
9 the Committee should immediately pass Resolution  
10 1098. I didn't submit my comments.

11 CHAIRPERSON GENNARO: That's okay.

12 JONATHAN LEE: But I can provide a  
13 copy later.

14 CHAIRPERSON GENNARO: Yeah, I got  
15 it, I got it. Okay. Thank you, Mr. Lee. Mr.  
16 Smalls. Just like I knew Mr. Englebright for many  
17 years, I know Mr. Smalls for a lot longer than  
18 that. And so, going back to grammar school.

19 TIMOTHY SMALLS: Don't hold it  
20 against me.

21 CHAIRPERSON GENNARO: And so--Yeah,  
22 no, it's okay. But, so I guess that would be,  
23 then I moved to Bellmore in 19--1966, so '66 and  
24 counting.

25 TIMOTHY SMALLS: Ouch.

1  
2 CHAIRPERSON GENNARO: That's  
3 almost, what, 45 years or whatever?

4 TIMOTHY SMALLS: We were mere  
5 children.

6 CHAIRPERSON GENNARO: Yeah, I'm  
7 going to say, yeah. What does that make us now?  
8 But I--

9 TIMOTHY SMALLS: Well, yeah.

10 CHAIRPERSON GENNARO: --I'm not  
11 going to ask questions yet, okay, I'm holding that  
12 for the end. Okay.

13 TIMOTHY SMALLS: All right, thank  
14 you, Mr. Chairman. My name is Tim Smalls, and I'm  
15 Partner with R&S Capital Partners. We're a  
16 financial advisory firm that specializes in  
17 renewable energy. My testimony today will address  
18 the current climate for financing solar projects  
19 and how New York City may be best able to incent  
20 the future development of solar energy within its  
21 confines. The best way to describe the financial  
22 markets today is constrained and conservative.  
23 Lenders are highly risk averse while institutional  
24 investors seek safe, stable returns of above ten  
25 percent. Solar projects need to compete for

1  
2 financing against other renewable projects, such  
3 as biomass, wind, etc., as well as against a  
4 broader base of energy products that involve  
5 natural gas and/or coal. Currently, solar is  
6 significantly more expensive to build than a  
7 competently sized natural gas or wind power plant,  
8 and does not provide the return on equity that  
9 these technologies offered to investors. This is  
10 why government incentives are key to fostering  
11 solar development. At the end of this year, the  
12 1603 Treasury Grant, which supplies a 30 percent  
13 grant from the federal government, will go away,  
14 and in 2012 solar investing will see the return of  
15 the investment tax credit, as the major federal  
16 incentive. Tax equity sales of depreciation will  
17 remain but at a lower rate than this year, from  
18 the 100 percent bonus depreciation down to 50  
19 percent, and therefore project equity will have to  
20 bear a larger share of capital burden. Add to  
21 this the caveat that power prices nationally have  
22 declined in recent years due to the recession and  
23 remained historically low, and in many states too  
24 low to permit renewable investment. This all  
25 translates to lower returns on equity for solar

1 project investors. But there is good news. On  
2 the bright side of it, solar project costs are  
3 rapidly declining. Polysilicon has declined 93  
4 percent to \$33 a kilogram, from \$475 just over  
5 three years ago, as the top five producers have  
6 more than doubled output. This data's been  
7 compiled by Bloomberg News Service. The steady  
8 drop in panel prices has allowed the industry,  
9 solar industry overall to grow at a 65 percent  
10 annual rate over the past five years. In 2010,  
11 some 17 gigawatts of solar power were  
12 manufactured, shipped and installed globally.  
13 This is the equivalent of 17 large nuclear power  
14 plants. In addition to lower panel prices,  
15 construction costs for solar in the United States  
16 are estimated to come down 17 percent this year  
17 compared to last, as construction companies become  
18 more proficient with solar projects. Amidst this  
19 rapidly changing environment, the challenge for  
20 government is to develop a series of incentives  
21 that are sufficient to meet current market  
22 demands, but that can only be scaled back as  
23 prices decline further, as is expected. The key  
24 issue for government officials is to focus on  
25

1 project return of capital, both in terms of debt  
2 and equity. Low double digit returns  
3 traditionally have been high enough to incent  
4 private sector money into area of infrastructure,  
5 and solar is, in truth, just another spoke in the  
6 U.S. energy infrastructure wheel. To address this  
7 capital, this issue, regulators must remember the  
8 overarching reality that capital chase has  
9 returned. So for example, right now solar  
10 investing is a movable feast, where money flows  
11 away from states where incentives are decreasing,  
12 such as New Jersey with a sharp decline in SREC  
13 prices, recently, to more favorable markets such  
14 as Massachusetts, with its high tariffs. To  
15 incent development, New York State and/or New York  
16 City will need to have sufficient stable, long  
17 term project returns comparable to other leading  
18 solar states. Renewable portfolio standards are  
19 all well and good, but they can often take on a  
20 more Shakespearian quality, full of sound and  
21 fury, signifying nothing. What is more useful is  
22 very clear, detailed and concise rules that  
23 streamline the solar development process, coupled  
24 with the combination of incentives that together  
25

1  
2 enable a typical solar project to earn a total  
3 return of ten to twelve percent per year, for the  
4 ten to 20 year lifecycle of a project. This  
5 duration is critical as the initial capital  
6 intensity of solar projects requires longer  
7 amortization schedules to accommodate the higher  
8 debt burden relative to megawatts produced. I  
9 thank you for your time and I welcome any  
10 questions or comments you may have.

11 CHAIRPERSON GENNARO: Thank you.  
12 Thank you, Tim, I appreciate that. We'll get back  
13 with questions. Oh, okay, Peter, right? Mr.  
14 Olmsted. Vote Solar Initiative. Thank you for  
15 being here today, and please state your name for  
16 the record and proceed with your statement.

17 PETER OLMSTED: Great. Thank you,  
18 Chairman. Good afternoon, Chairman Gennaro and  
19 Members of the Committee of Environmental  
20 Protection. I thank you for the opportunity to  
21 testify today in strong support of resolution  
22 1098. My name is Peter Olmsted, and I'm a Policy  
23 Advocate for the Vote Solar Initiative. Vote  
24 Solar is a nonprofit, grassroots organization  
25 working to address environmental issues and foster

1  
2 economic development by bringing solar to the  
3 mainstream. Since 2002, Vote Solar has been  
4 active at the State, local and federal levels to  
5 remove barriers and implement key policies that  
6 will bring solar to scale. And just for the  
7 record, we're not a member of the Solar Alliance,  
8 but we work closely with them, in collaboration.  
9 So we're an independent nonprofit organization.  
10 But I'm thrilled to be on the panel with them  
11 today.

12 CHAIRPERSON GENNARO: Sure.

13 PETER OLMSTED: So, with over  
14 50,000 members across the country, including many  
15 in New York City, we're extremely enthusiastic  
16 about the potential of the New York Solar Jobs  
17 Act. We encourage the passage of Resolution 1098  
18 in support of this important legislation. So, I'd  
19 just like to take this opportunity to speak about  
20 a few of the more compelling aspects of the Solar  
21 Jobs Act. First, the provisions being proposed in  
22 the Solar Jobs Act will propel New York State into  
23 a leadership position in the solar energy economy.  
24 With many of New York's neighbors having embraced  
25 the environmental and economic benefits of solar

1 through market based programs, these states are  
2 surpassing New York and fostering cost effective,  
3 clean energy opportunities. Therefore, the Solar  
4 Jobs Act has been designed to not only stimulate  
5 local and competitive solar development, but to  
6 establish diverse opportunities for a wide range  
7 of market participants. Importantly, this  
8 legislation will establish a long term market for  
9 both local installers and large scale developers.  
10 Secondly, the Solar Jobs Act will create a  
11 critical economic and job creation engine.  
12 Whether considering jobs per megawatt hour of  
13 installed capacity, or jobs per amount of  
14 investment, research shows time and again that the  
15 development of solar facilities employs a far  
16 greater number of individuals than nearly every  
17 type of energy technology. These are real and  
18 well-paying jobs that draw upon various skillsets.  
19 The Solar Jobs Act will therefore provide  
20 impressive opportunity and thousands of jobs in an  
21 industry surging around the country. As the cost  
22 of solar energy continues to dramatically decline,  
23 the appetite for solar could not be greater.  
24 Recent polling shows that Americans love solar.  
25



1  
2 In fact, an impressive nine out of ten Americans  
3 think it is important for the U.S. to develop and  
4 use solar energy. These include rate payers,  
5 including support remaining strong regardless of  
6 party affiliation. Republicans, Democrats and  
7 Independents all agree that we need solar, a  
8 resource that currently comprises much less than  
9 one percent of all U.S. generation. At a time  
10 when unemployment numbers remain high and New  
11 York's aging and congested infrastructure is in  
12 need of relief, the Solar Jobs Act will foster  
13 development of reliable and environmentally  
14 sensitive energy resources. And I believe  
15 Resolution 1098 calls out some of our jobs  
16 projection numbers that we certainly appreciate,  
17 as well as some independent analysis that we've  
18 completed surrounding the costs of the Solar Jobs  
19 Act and we certainly look forward to the report  
20 coming out of NYSERDA. We're confident that our  
21 numbers will stand up. And you know, we also  
22 appreciate any opportunities to submit to the  
23 record the quantifiable benefits of these solar  
24 investments. So, we're grateful for the  
25 leadership New York has provided and demonstrated

1  
2 around solar energy in the past. We're greatly  
3 encouraged by the Commission's consideration of  
4 Resolution 1098, urge its immediate adoption and  
5 thanks for your time and support.

6 CHAIRPERSON GENNARO: Thank you.  
7 Thank you, Peter. Appreciate your being here and  
8 your work with the Alliance, and your great  
9 advocacy in trying to, you know, move this  
10 important issue forward through lots of hoops.  
11 And yeah, just in terms of questions, folks from  
12 the Solar Alliance seem to have a kind of similar  
13 business model where you do the whole turnkey  
14 system and you've taken all the burdens and I  
15 guess that's a common model now, or like a more  
16 common model, or a model that's coming into some  
17 kind of emergence, is that, is that fair to say?

18 CARRIE HITT: Well, if I may--

19 CHAIRPERSON GENNARO: Sure, sure.

20 CARRIE HITT: --correct it  
21 slightly, excuse me, Chairman. Actually, our  
22 organization represents a lot of different  
23 business models. There are folks that Turnkey  
24 Project Development, where they built projects and  
25 turned the key over to the owner. Many of them do

1  
2 do PPAs and maintenance, but they're, they really  
3 run the gamut of the business--

4 CHAIRPERSON GENNARO: Right.

5 CARRIE HITT: --different ways you  
6 construct these transactions. So, you heard from  
7 three companies today, Tioga, SunRun and Solar  
8 City. They serve different types of customers,  
9 and many, again, just have different business  
10 models. But the one you're focused on is the one  
11 you heard mostly about today.

12 CHAIRPERSON GENNARO: Right. And,  
13 but, and certainly from the perspective of folks  
14 that embrace that model, they're in strong support  
15 of the State bill, and that's what I heard from  
16 everyone. And I'm, and is this something that  
17 the, that the Solar Initiative as a body has  
18 embraced? Was that part of your testimony?

19 CARRIE HITT: Yeah, so, I can speak  
20 to both--

21 CHAIRPERSON GENNARO: Yeah, sure.

22 CARRIE HITT: --to both  
23 organizations today, 'cause New York SEIA asked me  
24 to speak on their behalf today.

25 CHAIRPERSON GENNARO: Oh, yes. Mm-

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hmm.

CARRIE HITT: So, again, I represent the Solar Alliance in my fulltime job. And our 35 members who, some just manufacture panels, some manufacture inverter parts, some finance projects, some develop projects, some do everything. They, we're in full absolute support of the legislation. I can say the same for New York SEIA. We are working with many other folks here in New York who I don't have authorization to speak on behalf of today--

CHAIRPERSON GENNARO: Right.

CARRIE HITT: --that think that this legislation moves us in the right direction.

CHAIRPERSON GENNARO: Okay, so it's pretty much universal, based on what we hear from people who are in the business, and which it's good to know, that that's a monolith. Good. You know, we got that. And with regard to the statement earlier, before I forget, I have so many statements around, but the gentleman made a ... Mr. Dubé, am I saying that right? Dubé?

EVAN DUBE: Dube, yes.

CHAIRPERSON GENNARO: Oh, Dube.

1  
2 Okay. With regard to the tax incentive, whether  
3 it was available for the third party model,  
4 that's something that is being considered now, or-  
5 -?

6 EVAN DUBE: That's my  
7 understanding, yes, is that jointly the  
8 Departments of Finance and Buildings are reviewing  
9 the question and may in fact put forward a, a  
10 clarifying statement, that's something which would  
11 be very much helpful to us, as we look to enter  
12 the marketplace.

13 CHAIRPERSON GENNARO: Right. But  
14 right now, that has not been clarified and people  
15 who have that model have not had access to the tax  
16 incentive, or--?

17 EVAN DUBE: My understanding is  
18 yes, it has not been clarified to date.

19 CHAIRPERSON GENNARO: Okay, so I  
20 just want to make a note to staff, we should, you  
21 know, find out about that, Samara, and found out.

22 EVAN DUBE: Mr. Chairman, I would  
23 be remiss if I didn't add--

24 CHAIRPERSON GENNARO: Sure.

25 EVAN DUBE: --just to that. It

1  
2 would also be sort of on a go forward basis, very  
3 helpful to figure out any ways that we could  
4 streamline or simplify the application process for  
5 the customer. It's somewhat involved--

6 CHAIRPERSON GENNARO: Well, yeah,  
7 that, that was part of the, well, that was one of  
8 the main reasons that we're having the hearing,  
9 you know, we've heard anecdotally that people had  
10 problems trying to get these projects to go. And  
11 then, CUNY came out with the report, and we want  
12 to get people focused on how we can make this  
13 better. And while we have had the Bloomberg  
14 Administration put their heads together and try to  
15 figure that out, my statement to the Bloomberg  
16 Administration, both here in this hearing and in  
17 previous conversations with Deputy Mayor Cass  
18 Holloway, who is a former DEP Commissioner, and  
19 is, in one of his roles, as the Deputy  
20 Commissioner for Operations is in charge of all of  
21 PlaNYC, wants to figure out how, maybe, we could  
22 codify this into some sort of, rather than just  
23 make it something that this initiative, that this  
24 Administration does, perhaps we could do sort of  
25 like a solar portal kind of bill, similar to, I

1  
2 guess, what the, you know, good folks at Con Ed  
3 are doing to try to streamline everything. And we  
4 just think it's important to do that. And so,  
5 that's something that, like I said, and in private  
6 meetings and in my public statement today, it's  
7 something that I very much want to get done. And  
8 in keeping with that, in order to make, you know,  
9 that bill the best it can be, we, you know, need  
10 some input on what you all would like to see in  
11 something like that, because you're the ones out  
12 there that, you know, banging your heads against  
13 the wall, with a bureaucracy, with the City  
14 bureaucracy, so any kind of horror stories that  
15 you have, or any kind of recommendations that you  
16 may wish to make, you can make 'em to the Counsel  
17 to the Committee, her name is Samara, and my  
18 Environmental Policy guy, his name is Bill. You  
19 know, please get their business cards and be in  
20 touch, and 'cause this is something that we very  
21 much want to do. And so we're happy to do that.  
22 And you can talk about some things now, or you can  
23 talk to them, but if you had, okay, let's make it  
24 into a question. Like the top three things that  
25 we have to do better with regard to like all the

1  
2 bureaucracy that you have to go through, if you  
3 had to do like a, a top three list, we don't want  
4 to make it's like the David Letterman Show here,  
5 but like a top three list of, you know, things  
6 that just need to get better.

7 EVAN DUBE: Well, just to, on the  
8 tax abatement question in particular, it's almost  
9 universally a question of time and simplicity.  
10 The more that the application process can be  
11 streamlined and the information required  
12 simplified, that much, it's that much easier for  
13 us as an industry to, to move forward. I'd be  
14 happy to follow on--

15 CHAIRPERSON GENNARO: Okay.

16 EVAN DUBE: --with staff after--

17 CHAIRPERSON GENNARO: But that's  
18 your top thing.

19 EVAN DUBE: Specific--

20 CHAIRPERSON GENNARO: Okay.

21 EVAN DUBE: --specific items going  
22 forward.

23 CHAIRPERSON GENNARO: Okay. I'm  
24 happy to take, happy to take comments now, and--

25 SHAUN CHAPMAN: Again, Shaun



1  
2 Chapman from Solar city, and what I would just add  
3 to that - -

4 CHAIRPERSON GENNARO: Yes, and also  
5 thank you, 'cause Shaun, thank you, and when  
6 people take the mic they should, even though  
7 they've said their name before, should say it  
8 again, because we have someone who's going to be  
9 listening to this on headphones trying to type  
10 this out, and--

11 SHAUN CHAPMAN: I noticed that--

12 CHAIRPERSON GENNARO: --they're  
13 going to have to like remember your voice.

14 SHAUN CHAPMAN: --Evan and I have  
15 the same sounding voice, I think, so it's just  
16 good to clarify. So, number two is I would  
17 clarify is if installers and even, you know, a  
18 rather large company like, like the one that I  
19 work for, we don't necessarily even have the  
20 resources in our house to got to go to Buildings,  
21 got to go to Finance, got to go to Con Ed. The  
22 more that that approval is in one house, one stop  
23 shopping approval, that simplifies things and  
24 makes it a lot easier. We're, we know that those  
25 regulations are born out of necessity and born out

1  
2 of wanting to protect the residents of New York  
3 City. Fire codes are put in place to protect New  
4 York's bravest. And we're not asking that those  
5 would be thrown out the window. Just where  
6 reasonable, where those things can happen quicker  
7 and a more timely fashion, that saves the, the  
8 install, installer, and the installee, those  
9 getting the solar resource, significant money,  
10 headache and frankly when people start this solar  
11 process, they want it on the roof, they want to--

12 CHAIRPERSON GENNARO: Right.

13 SHAUN CHAPMAN: --be enjoying that  
14 system. You bought a car and couldn't have it for  
15 100 days, that would be kind of stinky, wouldn't  
16 it? [laughs] So, same, same situation. When you  
17 start the solar ownership process, you want to  
18 start using it as fast as possible. So.

19 CHAIRPERSON GENNARO: Thank you.  
20 Anyone else that wants to chime in on the solar  
21 portal, what they'd want to do, and I'm going to  
22 talk in a few minutes on this whole landfill  
23 thing, and other City spaces, and how that bill  
24 can be made a little better. But before we get to  
25 that, let's close it out with the, with the--

1 JONATHAN LEE: Jonathan Lee with--

2 CHAIRPERSON GENNARO: --solar  
3 portal bureaucratic buster bill, whatever.

4 JONATHAN LEE: [laughs] Yeah,  
5 Jonathan Lee with Tioga Energy. Prior to my  
6 experience at Tioga, I did work for a City  
7 installer that was located here in New York City.  
8 And just speaking from personal experience, one, I  
9 learned today here at the meeting that the, the  
10 non-requirement for national testing, was newly  
11 implemented. That's actually very significant.  
12 That was a very significant cost burden. I know  
13 the people on the panel didn't speak to it, but  
14 that was about \$6,000 to \$7,000 per project--

15 CHAIRPERSON GENNARO: Wow.

16 JONATHAN LEE: --to have somebody  
17 from ETL or UL fly out to New York City, and we  
18 had to pay their expenses on top of the actual  
19 report fees. And basically that, for a 7KW  
20 project, which is what you would find the typical  
21 residence, that would add a dollar a watt, which  
22 is 15 to 20 percent. So that, that made it very  
23 burdensome cost, and made residents often wonder  
24 why New York City costed so much more than, you  
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know, adjoining areas.

CHAIRPERSON GENNARO: Right, which is, which is why I, you know, wanted to give some credit to the Bloomberg Administration. This is not the first hearing that we had on various kinds of impediments, you know, to this and other kinds of projects. And they've heard and they have responded and we appreciate that. And we also, through this previous bill that we did, it was like a green tech bill, we did a green tech bill that required to City to, part of the bill had to do with all different kinds of technology, and how the permitting could be made easier for that. And so, I think this is something that really grew out of a previous bill, and that which made it to law. That, you know, kind of required them to look at some of these things and figure out how they can move this along. And so, that was a good thing, but we still have, you know, more to do; otherwise, we wouldn't be here today, so.

JONATHAN LEE: Yeah, another sort of tangential issue, having to do with permitting, was in the actual execution of project installations, would often requires street

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closure, and the requirements of crane.

CHAIRPERSON GENNARO: Yeah, I've heard that, I've heard, he had a whole crane thing, yeah.

JONATHAN LEE: Because, 'cause they're all multistory buildings. That, that was kind of difficult. It presented challenges unnecessarily, I think. If that could all be integrated with that hub, that would - - speed up the process.

CHAIRPERSON GENNARO: Yes, I, yeah. I've met with, you know, many folks that have crane issues, and every, you know--but all, yeah. Yeah, so I'm well aware of that, and I've already made it well known to staff that that's something we have to take a look at. I guess I, I can't take these guys coming in with their crane horror stories anymore. Just it's--it gets very sad.

JONATHAN LEE: They're real, yeah.  
[laughter]

CHAIRPERSON GENNARO: And so, so, that's where we are on the, on the solar portal, like one stop shopping bill. Now, with regard to the other thing that I, that I kind of dropped on

1  
2 the Administration. Well, I didn't drop it on 'em  
3 today, something that I've talked about them, with  
4 them, in private earlier, regarding the landfill  
5 proposal, they're going to come out with this RFP,  
6 and they're, you know, kind of free to do what  
7 they want. And I, I don't, and I want them to  
8 make this happen. And I want to work with them.  
9 And I want to make sure that the next  
10 Administration carries forward on this. And, but  
11 you know, they know that when they're, the Council  
12 wants to work with them, we also want to, you  
13 know, put our fingerprints on it, too, a little  
14 bit, and, and you know, put our own little, and we  
15 have our own things that we'd like to see, with  
16 regard to that. And, and any kind of advice that  
17 you have for us as we start talking with the  
18 Administration, how we can do this, you know,  
19 landfill kind of project, what we should be  
20 looking for. Even if it's a case where they ...  
21 maybe the Administration does their model, you  
22 know, once they finally conceive of it. But they  
23 may not be like the only way to go, maybe there  
24 are other ways to do this. And certainly, for,  
25 you know, looking for input from folks who are in

1  
2 the industry on how the City can make the best use  
3 of its open face, of--of its open space like  
4 landfills and that kind of thing, to really make  
5 good projects. Anybody that wants to weigh in on,  
6 on how that should work, with, you know, regard to  
7 the, how the project's put together, how it's  
8 financed, this/that, anybody's got anything, now  
9 would be a good time to come forward and like let  
10 us know about that.

11 CARRIE HITT: I'll just offer--this  
12 is Carrie Cullen Hitt with the Solar Alliance.  
13 I'll just talk for a general comment, and the  
14 developers may have, and Finance may have more  
15 specific. I think that's a great idea. We've  
16 seen landfills be considered as great resources in  
17 other states. I'm actually from Massachusetts,  
18 and there's a number of landfill projects  
19 underway. However, I will say that the  
20 fundamental need here in New York is demand. And  
21 a long term view on the markets here. So, you may  
22 get interest in that RFP, or RFPs, that surround  
23 your landfill projects, and that would be great.  
24 I think you'll have all the more competition and  
25 interest if the State and the City can implement a

1  
2 long term view on where they want to be and so on.  
3 Because developers won't come in and just do a  
4 one, "Hey, I'm going to big into that project."  
5 You know, they want to say, "I'm going to be in  
6 the State, I'm going to be here and do a number of  
7 different projects. I'm going to be competitive,  
8 I can price competitively, 'cause I can do a  
9 number of projects.

10 CHAIRPERSON GENNARO: Right.

11 CARRIE HITT: Because they need to  
12 see the long term view, and they need to see the  
13 demand. So, I appreciate I'm not directly  
14 answering your specifics on the landfill--

15 CHAIRPERSON GENNARO: No, it's  
16 okay, but it's, you know, you're--

17 CARRIE HITT: Be more successful  
18 when they - -

19 CHAIRPERSON GENNARO: Right, right,  
20 you want to be on message and you're very on  
21 message.

22 CARRIE HITT: Yes. [laughs]

23 CHAIRPERSON GENNARO: You know.

24 CARRIE HITT: But it, it is also  
25 true that the context will help you be more



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successful with that project, as well.

CHAIRPERSON GENNARO: Right, and with regard to what the State is doing, I don't really have a real, I can't really make that happen. I can bring the bill's sponsor in here, I can pass a resolution through the Council, I could, you know, try to get public awareness out there, that's not going to be something that's going to hurt New York City. I'm trying to do my part here.

CARRIE HITT: Oh, we appreciate it.

CHAIRPERSON GENNARO: But, and that's a given that, you know, we should have the vision thing worked out for the, for the State. But that's something that I, you know, do have some modicum of control over, that is like what the City does with this, you know, good idea that it has, and I want to see that work out as well as it possibly can. And I have a lot of respect for people, and the Bloomberg Administration, and everything that they've done. But, you know, my, you know, mantra is always to talk to people who are in the business, who are, you know, doing this thing who are, who are building the things,

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2 who are financing the things, who, you know, have  
3 to make a living. And like, you know, make sure  
4 things happen, and get that very, you know,  
5 valuable perspective, which, you know, you don't  
6 get all the time from people who are in  
7 government, 'cause they're in government, they're,  
8 you know, they're not in the business. And so I  
9 always like to talk to people who are in the  
10 business. You know, whether it's financing or  
11 whatever. So, anybody has anything to say.

12 TIMOTHY SMALLS: Yeah, this Tim  
13 Smalls from R&S Capital Partners. Following what  
14 Carrie said, if this bill gets enacted in Albany,  
15 it will make New York an economically viable state  
16 for developers to come to, come and build  
17 projects. We've seen billions of dollars' worth  
18 of revenues and thousands of people going to,  
19 being put to work in New Jersey, over the past  
20 three years, 'cause New Jersey was viable.  
21 Massachusetts is probably the best on the east  
22 coast right now, with the collapse of New Jersey.  
23 Connecticut, as Carrie mentioned, is in, in the  
24 process of writing a very comprehensive, renewable  
25 energy bill, to create the jobs there. It's being

1  
2 built all around, except for New York. As far,  
3 to, to answer your question about the landfills,  
4 if the economic viability of these projects  
5 exists, through the SREC program, and things like  
6 that, these projects can get financed and create a  
7 rate of return that will make people stand in  
8 line.

9 CHAIRPERSON GENNARO: Right.

10 TIMOTHY SMALLS: To, to build these  
11 projects. And even if the City doesn't want to  
12 get involved with the, you know, the ownership, as  
13 they shouldn't, the lease payments alone will be  
14 positive cash flow. And if they, if they agree to  
15 be the, the purchaser of the power from these  
16 plants, it'll make the financing capabilities even  
17 greater. And that's the model that works with  
18 municipalities. We saw recently, in the past six  
19 months, the largest municipal landfill project  
20 opening down in Atlantic City County New Jersey.  
21 Half the property was built as a park system, the  
22 other half was built as a solar facility. And  
23 that's a model that works. And they had to go  
24 over a lot of hurdles to get there, because it's  
25 new. So, a lot of new municipalities haven't gone

1  
2 through this yet. But with this jobs bill, with  
3 this solar bill being passed, you will have people  
4 knocking down your doors to big on these projects,  
5 because the solar radiation levels in New York  
6 City and around here, are very, very compelling.  
7 And you, the, the attractiveness of these  
8 properties would make it very, very economically  
9 viable for any developer.

10 CHAIRPERSON GENNARO: There you  
11 have it. And so, well, we need leadership from  
12 the State, hopefully we'll get it. And let's just  
13 say, let's just say, you know, we don't get  
14 leadership from the State, and we don't, you know,  
15 create the SREC and all that. What would the  
16 prospects for entities that want to come and, you  
17 know, develop like the Fresh Kills Landfill,  
18 that's like a solar installation. What would  
19 that, what would that look like? Has someone, I  
20 mean, I don't know, I'm not in the industry. You  
21 tell me, in terms of people who--

22 SHAUN CHAPMAN: If staying on  
23 message, of course, because much more challenging-  
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25 CHAIRPERSON GENNARO: You got to

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say your name, you got to say your name.

SHAUN CHAPMAN: Oh, that's right,  
that's right, Shaun Chapman from--

CHAIRPERSON GENNARO: Yeah. And  
you were so good about the name saying.

SHAUN CHAPMAN: --Solar city, I  
know.

CHAIRPERSON GENNARO: You were like  
the poster boy.

SHAUN CHAPMAN: Set the bar, I  
know, I set the bar and then went under it.

CHAIRPERSON GENNARO: For doing  
that, yeah, I know.

SHAUN CHAPMAN: I apologize.

CHAIRPERSON GENNARO: Yeah.

SHAUN CHAPMAN: So, Shaun Chapman  
from Solar City here. You know, it would become  
more challenging. I still think they go forward.  
The City itself has just such high electricity  
rates and such a demand. And you know, we have  
areas like that that are in need for, for  
development. And I actually grew up in the  
Berkshires of Massachusetts, right by, Carrie's  
speaking about it, Pittsfield, has one such

1 project, and one of these famous place is an old  
2 brownfield development from GE, so a lot of old GE  
3 waste. And when I was a kid [laughs] when there  
4 was, you wanted to make fun of someone, it was  
5 like, "What've you been swimming in Silver Lake?"  
6 and that's the kind of way we thought of it. Now,  
7 it has a two megawatt project. A fellow I went to  
8 high school with is in the Senate now, and he just  
9 loves that project because it's, it's \$25,000 of  
10 tax dollars into the community every year. You  
11 know, it's economic development, it's taking a  
12 poisoned land space and cleaning it up. I hosted  
13 a panel on just this topic, and I'd love to get to  
14 Bill and Samara some resources on what goes into  
15 the financing of this. What you need to consider  
16 in terms of risks, you know, where you're taking  
17 over a plot of land that, you know, has been kind  
18 of, you know, condemned a little bit, and you  
19 need, you take on some risk with that, but there's  
20 ways to, the federal government can work with you  
21 to have that, so I'd happily turn some of those  
22 resources over and, and some of those  
23 recommendations. I think those projects still go  
24 forward. They become more difficult, and they're

1  
2 not as cheap, they're not done as cheaply as they  
3 might be done if we have a holistic approach.

4 CHAIRPERSON GENNARO: Right. And I  
5 wonder, with regard to the City, as they  
6 contemplate this, you know, landfill, or open  
7 space, kind of solar array project, who they are  
8 talking to. Are they talking to the Solar  
9 Alliance about this? Or I'm sure they're talking  
10 to good folks, I can find that out. But it's  
11 something where we, but we do want to have an  
12 imprint, we want, we want this to work. Right now  
13 I have a better sense of how important it is that  
14 we get leadership from the State, you know, to  
15 make this landfill concept and every other thing  
16 we want to do, work better. And I thought by  
17 bringing in Steve Englebright, that was probably a  
18 good thing, and he makes a very compelling case,  
19 and I'm just glad he didn't give me a quiz after  
20 his, after his--

21 SHAUN CHAPMAN: Ah, he took the  
22 apple home.

23 CHAIRPERSON GENNARO: Yeah. After,  
24 yeah. As my former teacher, quiz, that's what  
25 that was about, people who weren't here early on.

1  
2 And so, I think it just, one second to see if, see  
3 if staff has any more questions. [pause] Okay,  
4 the, staff has just agreed that you guys were the  
5 best panel. And then, you get [laughter] but you  
6 get no apple, so you just get that good feeling.  
7 But no apples. And please make sure whatever you  
8 have in the way of additional information, you  
9 know, you make that available to staff and we  
10 really appreciate your having been here today.  
11 And thank you. Okay.

12 CARRIE HITT: Thank you for having  
13 us today.

14 [pause, background noise]

15 CHAIRPERSON GENNARO: Okay. And  
16 so, I want to thank this panel and--[pause,  
17 background noise] What I want to do, I'm grateful  
18 for this panel for being here. I want to announce  
19 the next and final panel. Hopefully, these folks  
20 all have the time to be able to stay here and give  
21 us the benefit of their views. But the panel that  
22 will go after this one: Eileen Gorsch [phonetic],  
23 from the Municipal Arts Society; McGowan  
24 Southworth [phonetic], McGowan Southworth, Sunset  
25 Park Solar Advocates; Jessie Feller, Regional Plan



1 Association; Matthew, looks like Miskin  
2 [phonetic], or yeah, Miskin, Solar Installation;  
3 Dan Willis of Sea Bright Solar. That'll be the  
4 next and final panel. But I'm grateful for this  
5 panel for being here, and we want to give everyone  
6 the chance to speak to the fullest, and so that  
7 sometimes makes for long hearings, and we  
8 certainly appreciate your patience, and  
9 willingness to stay the course and be here with  
10 us. And maybe what we'll do is we'll start from  
11 my left to my right and we'll start with Mr.  
12 O'Brien. Go forward and to just state your name  
13 for the record, and give us your views. But I  
14 think Bill wants to tell me something. [pause,  
15 background noise] Okay.

17 TERRENCE O'BRIEN: Tell me what?

18 CHAIRPERSON GENNARO: You're on.

19 TERRENCE O'BRIEN: We're good.

20 Good afternoon, Chairman, my name is Terrence  
21 O'Brien, I'm the Deputy Director of Plumbing  
22 Foundation. Before I get into my testimony,  
23 there's one thing I would like to bring up. Most  
24 of this, this hearing is regarding energy and  
25 solar uses for energy. I just want to broad

1  
2 stroke this whole thing, but quickly. Solar has  
3 many different usages and we're just talking about  
4 the energy this panel; I represent, like I said,  
5 the plumbing industry, and we have the realm of  
6 control over heating and hot water usage, which is  
7 a vital component that can be utilized for the  
8 solar industry. And just so I don't go too far on  
9 tangent, I just want to make that clear point:  
10 Why would a plumbing industry representative be  
11 here talking about energy conservation? Well,  
12 that is why, because that is a vital component  
13 that isn't addressed, and it's the kind of third  
14 rail of the State, the City, and the federal  
15 government, is water usage, when it comes to  
16 conservation, and especially with a utility and--  
17 utility--with a source of heating these vital  
18 components of heating and hot water, solar is the  
19 next probable realm for the plumbing industry.  
20 But like I said, a little tangent there, but like  
21 I said, Terrence O'Brien, I represent the plumbing  
22 industry. Plumbing Foundation, which is a  
23 nonprofit association of licensed contracting  
24 firms, engineering associations, manufacturers,  
25 suppliers whose mission is to ensure public

1 health, the enactment and enforcement of safe  
2 plumbing codes. I'm here to testify in support,  
3 of course, of Resolution 1098, urging the State  
4 and Legislature and the Governor to pass Solar,  
5 New York State's Solar Act of 2011. Unlike many  
6 of the previous, not the previous panel, but the,  
7 I would say first of second and third panel, they  
8 kind of just gave broad stroke about solar pros  
9 and cons. They never actually, like many  
10 government agencies, never state where they are.  
11 They like just saying a lot and never actually  
12 answer the question. But anyway, since the  
13 establishment of the Foundation in 1990--1986, we  
14 have worked diligently to ensure that the plumbing  
15 industry has as little carbon footprint of New  
16 York City as possible. The plumbing industry, the  
17 plumbing industry has historically utilized  
18 environmentally friendly materials and  
19 technologies. Solar technology for heating and  
20 hot water is the next wave of innovation that will  
21 help the plumbing industry lessen its city's  
22 carbon footprint. Like I said before, the City,  
23 the Foundation urges the State Legislature to pass  
24 the Solar Jobs Act of 2011, which will create jobs  
25

1  
2 as well as strengthen the public health by  
3 ensuring sustainable and healthy city landscape  
4 for further generations to come. Thank you, Mr.  
5 Chairman.

6 CHAIRPERSON GENNARO: Thank you  
7 Terrence and I'll return for questioning or  
8 whatever, but I note that 1986, so it's the 25th  
9 year anniversary. You guys going to have a party?  
10 [laughter] Think about it.

11 TERRENCE O'BRIEN: You pass this  
12 bill, yeah.

13 CHAIRPERSON GENNARO: Okay  
14 [laughter] okay, hear, hear. Yeah, touché, good  
15 one, good one. Okay. thank you. Please.

16 ROSS GOLD: Thank you, Mr.  
17 Chairman. Good afternoon, my name is Ross Gold,  
18 and I serve as the Air and Energy Program Director  
19 at Environmental Advocates of New York.  
20 Environmental Advocates' mission is to protect New  
21 York's air, land, water and wildlife, and the  
22 health of all New Yorkers. We monitor state  
23 government, evaluate proposed laws and champion  
24 policies and practices that will ensure the  
25 responsible stewardship of our environment. We

1  
2 also work to support and strengthen the effort of  
3 the New York environmental community, and to make  
4 our state a national leader. Thank you for the  
5 opportunity to address you today. We commend you  
6 for having this hearing on solar energy and your  
7 resolution. New York needs a robust solar program  
8 to improve air quality, stave off the worst  
9 impacts of climate change, improve public health,  
10 protect water quality, create good paying, high  
11 quality jobs, and to help drive our economic  
12 recovery. Minimizing air pollution and climate  
13 altering greenhouse gas emissions caused by New  
14 York's power supply must guide our energy policy  
15 decisions. New York City's air quality fails to  
16 meet minimum federal standards. Rising sea  
17 levels, increased heat related mortality, and  
18 respiratory ailments, as you alluded to earlier,  
19 damage to ecosystems across the State, and  
20 increasing frequent extreme weather events, such  
21 possibly as the hurricanes and the nor'easter we  
22 recently experienced, are just a few examples of  
23 the challenges we will face if bold action is not  
24 taken by policy makers. It is critical that  
25 lawmakers consider air pollution and the magnitude

1  
2 of the threat of global warming possessed, global  
3 warming possesses to New York's economy, public  
4 health, infrastructure, natural resources, and  
5 ensures that energy considerations drive policy.  
6 The largest source of air and climate pollution is  
7 the combustion of fossil fuels. Combustion of  
8 fossil fuels creates harmful air pollutants that  
9 cause respiratory problems, and which include  
10 asthma, bronchitis, emphysema, lung and heart  
11 disease. This leads to more frequent doctors'  
12 visits and emergency room visits, and the  
13 increased reliance upon medications. These  
14 physical impacts also create medical expenses for  
15 individuals, municipalities and the State  
16 government; as well as leads to lost worker  
17 productivity and time from school. Extraction of  
18 fossil fuels also wreaks havoc on our air, water,  
19 land and wildlife. Examples of fossil fuels'  
20 destruction includes the recent Gulf oil spill,  
21 water pollution and land degradation from coal  
22 mining, and the air, water and public health  
23 impacts other states are experiencing from the  
24 drilling of natural gas using hydraulic  
25 fracturing. As a result of this environmental and

1  
2 public health threat, the extraction and use of  
3 fossil fuels is controversial. On the other hand,  
4 tapping the sun for energy minimizes air, water,  
5 land and climate altering pollution and is far  
6 from controversial. As you heard with the  
7 previous panel, in a recent, a recent poll,  
8 Americans were asked "How important do you think  
9 it is for the U.S. to develop and use solar?"  
10 Nine out of ten responded saying it is important.  
11 That breaks down as eighty percent of them were  
12 Republicans, 90 percent of Independents and 94  
13 percent of Democrats all agree with this  
14 statement. Now, as I said, we must move from  
15 fossil fuels to clean, renewable energy sources,  
16 such as solar energy systems. A robust solar  
17 program will bring numerous benefits to New York  
18 residents, including local grid congestion relief,  
19 long term energy cost reduction, and electricity  
20 price stabilization, improved air quality, and  
21 improved energy security. Since the City's peak  
22 demand correlates well with solar output, an  
23 investment in increased solar generation will save  
24 the ratepayers of this money contrary to what Con  
25 Edison claims, because New York has the most

1  
2 expensive electricity in the country. To these  
3 benefits, add two more: jobs and economic  
4 development. In addition to the environmental and  
5 grid benefits, an investment in solar market  
6 development program for New York, will provide  
7 significant economic opportunities for the State.  
8 Investments in solar energy creates more jobs per  
9 megawatt hour than any other energy resource.  
10 Solar energy development is also a strategy for  
11 mitigating rising prices, blackouts and  
12 environmental justice concerns. Studies have  
13 demonstrated that solar photovoltaics could have  
14 prevented both the 1999 power outage in Washington  
15 Heights and the 2003 blackout in the northeast.  
16 And for more information on that, I refer you to  
17 Professor Richard Perez of, out of SUNY Albany.  
18 Now, some of the barriers to the widespread  
19 installation of solar. Now, despite all these  
20 undeniable benefits of solar energy, there are  
21 several barriers that are interfering with the  
22 much needed transition to this clean, renewable  
23 energy. The major obstacles are, 1) current  
24 policies that favor fossil fuels; 2) upfront costs  
25 in installing solar energy systems; 3: market



1  
2 uncertainty, which you heard from the industry  
3 panel earlier; and 4) as I think you've, you also  
4 are aware of, misinformation surrounding the costs  
5 and reliability of solar energy systems. For over  
6 100 years, we have had policy structures that have  
7 favored dirty, highly polluting fuels. Federal  
8 incentives for the oil and gas industry have  
9 averaged \$4.86 billion annually for 100 years.  
10 And nuclear has averaged \$3.5 billion for 50  
11 years. Meanwhile, annual support for all  
12 renewable, now not just solar, all renewables, has  
13 averaged only \$370 million, for just the past 15  
14 years. In addition, our current market structure  
15 is structured so that fuel producers do not fully  
16 account for the damage that their product has  
17 caused to our air, land, water and public health.  
18 These regulations, subsidies and the failure to  
19 account for the true costs of fossil fuels have  
20 made renewable energy such as solar seem more  
21 expensive than its dirty, highly polluting  
22 nonrenewable counterparts. Another variant--  
23 actually, I'm just going to skip on for a sec. I  
24 want to get to the misinformation real quick. As  
25 I said, you know, many people overstate the price

1  
2 of solar. Now, it's important to realize that  
3 significantly, the price of solar has been  
4 dropping. Surge in demand has dropped solar  
5 module prices approximately 75 percent in just the  
6 past three years, with another 50 percent expected  
7 over the next three. Over the past 18 months, the  
8 average pre-incentive cost of residential and  
9 commercial solar PV systems decreased by 17  
10 percent. The Solar Jobs Act is a major step in  
11 overcoming these barriers. The Solar Jobs Act  
12 sets an aggressive target; it sets annual interim  
13 targets, which chart and an achievable goal; and  
14 it has a framework for diverse participation that  
15 supports a strong, robust market, with  
16 opportunities across utility, residential and  
17 commercial sectors. The bill's structure creates  
18 a commodity in the form of a tradable solar  
19 renewable energy credit that could serve as the  
20 basis for obtaining upfront capital for installing  
21 a solar energy system. In order to realize its  
22 full market potential, New York must pursue an  
23 aggressive solar strategy to achieve 5,000  
24 megawatts of solar photovoltaics by 2025. The  
25 sol--the long term target in the Solar Jobs Act

1  
2 creates market uncertainty that is required for  
3 companies to invest in the solar industry in New  
4 York. The robust solar program that would result  
5 from the Solar Jobs Act would also create jobs. A  
6 recent study has estimated the creation of  
7 approximately 41,000 jobs and the generation of  
8 \$20 billion in economic output. The Solar Jobs  
9 Act is a win-win proposition that will not only  
10 help reduce some of our environmental challenges,  
11 but it also creates good paying jobs and will  
12 stimulate our slowed economy. We encourage the  
13 City Council to immediately pass Resolution 1098  
14 in support of the Solar Jobs Act. Thank you.

15 CHAIRPERSON GENNARO: Thank you.

16 Thank you, Mr. Gold, appreciate your statement and  
17 all the good work on Environmental Advocates,  
18 particularly on the whole fracking thing. We're  
19 not even going there today [laughter] I'll get so  
20 upset.

21 ROSS GOLD: This is a solution.

22 CHAIRPERSON GENNARO: Yeah, I'm  
23 just, just I, just mention the word fracking and  
24 all of the sudden I'm like--

25 ROSS GOLD: [laughs]

1  
2 CHAIRPERSON GENNARO: --I'm getting  
3 upset. I don't want to do that. But thank you.  
4 Yes.

5 SAMANTHA WILT: Good afternoon,  
6 Chairman Gennaro. Thanks for the opportunity to  
7 testify in strong support of Resolution 1098,  
8 calling upon the New York State Legislature to  
9 pass--

10 CHAIRPERSON GENNARO: You know, if  
11 you could just state your name for--

12 SAMANTHA WILT: Sorry [laughs] my  
13 name is Samantha Wilt, I'm an Energy Policy  
14 Analyst at NRDC.

15 CHAIRPERSON GENNARO: Okay, thank  
16 you.

17 SAMANTHA WILT: The New York State  
18 Solar--sorry.

19 CHAIRPERSON GENNARO: Yeah, just  
20 pick it up from where you were.

21 SAMANTHA WILT: Of course, sorry.  
22 Thank you for the opportunity to testify in strong  
23 support of Resolution 1098, calling upon the New  
24 York State Legislature to pass, and Governor Cuomo  
25 to sign into law, the New York Solar Jobs Act of

1  
2 2011. The New York State Solar Industry  
3 Development and Jobs Act is smart legislation that  
4 will greatly enhance and diversify successful  
5 State and City clean energy and economic  
6 development programs. The legislation would send  
7 a strong signal to the marketplace that New York  
8 is serious about solar, with a market based  
9 program that would scale up solar over time,  
10 support a diversity of solar business models, and  
11 result in maximum benefits in the most cost  
12 effective way. New York is currently at a  
13 competitive disadvantage as you've heard, for  
14 clean energy enterprise and green job  
15 opportunities, among neighboring states that have  
16 moved ahead in adopting solar deployment programs.  
17 We have a helpful figure to illustrate who has  
18 what, surrounding us. The New York, the U.S.  
19 solar energy market is taking off, and New York  
20 finds itself playing catch up. In 2010, New York  
21 State fell out of the top ten list of states for  
22 most installed solar capacity, with only 54  
23 megawatts since tracking these number began a few  
24 decades ago. At present, solar power represents  
25 less than .1 percent of New York's electricity

1  
2 generation, but New York can come back. The New  
3 York Solar Jobs Act will get thousands of people  
4 back to work with well-paid and meaningful jobs,  
5 in an industry with increasing local and global  
6 growth potential. It is estimated that the  
7 legislation will provide tens of thousands of new  
8 jobs and subsequent tens of billions of dollars in  
9 new economic activity for the State. The New York  
10 Solar Jobs Act will add over three percent solar  
11 energy supply to the total New York electricity  
12 supply, at least, at less than one percent of the  
13 expected total cost of electricity by 2025.  
14 Combined with the expected utility system wide  
15 transmission and delivery benefits of customer  
16 side and industry rated solar resources, the  
17 actual would be a net positive economic gain on  
18 the order of hundreds of millions of dollars,  
19 which translates into savings for all New York  
20 electricity customers. This bill will help retain  
21 New York businesses by giving them more  
22 opportunity to opt out of ever increasing and more  
23 volatile energy costs that are out of their  
24 control. The environmental and human health  
25 benefits of this legislation would also be

1 enormous, because solar power produces zero  
2 emissions, including no particular matter, which  
3 contributes to the State's high asthma rates, and  
4 no carbon emissions which are the primary cause of  
5 human induced global warming. From the study we  
6 did on the environmental impacts of the  
7 legislation, over 110 million metric tons of  
8 greenhouse gases will be eliminated, equivalent to  
9 taking 2.6 million cars off the road. Because of  
10 these benefits for New York's economy and  
11 environment, the NRDC gives it strong support in  
12 passing Resolution 1098 as soon as possible.  
13 Thank you for your leadership on this important  
14 issue.  
15

16 CHAIRPERSON GENNARO: Thank you,  
17 thank you, I want to thank everyone from NRDC. I  
18 guess you work with Donna, right? Okay, yeah,  
19 she's great.

20 SAMANTHA WILT: She's on vacation,  
21 otherwise she'd be here. [laughs]

22 CHAIRPERSON GENNARO: Well, it's  
23 just always great to work with everyone at, at  
24 NRDC. But once upon a time Donna sat right there  
25 in that chair as the Counsel to this Committee,

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and she was terrific. Yes, thank you.

MICHAEL LEONE: Thank you, Mr. Chairman. Thank you. My name is Michael Leone, I'm here on behalf of Ricardo Gatlo--

CHAIRPERSON GENNARO: Okay.

MICHAEL LEONE: --Legislative Director of the New York League of Conservation Voters.

CHAIRPERSON GENNARO: I'm just wondering, if you had a prepared statement to hand out.

MICHAEL LEONE: I do, unfortunately, I don't have any other copies, he didn't--

CHAIRPERSON GENNARO: Well, hang on.

MICHAEL LEONE: Yeah, I did turn in --

CHAIRPERSON GENNARO: All right, I got some, I got it. Okay.

MICHAEL LEONE: There you go. New York League of Conservation Voters, as you know, is a statewide environmental advocacy organization, with a chapter here in New York



1  
2 City. And I just want to thank you again for the  
3 opportunity to speak.

4 CHAIRPERSON GENNARO: Sure.

5 MICHAEL LEONE: And recommend this  
6 Resolution 1098. NYLCV strongly supports the  
7 Solar Jobs Act, currently under consideration in  
8 Albany, as it will create a strong mandate for  
9 solar energy production, it will jump start the  
10 industry throughout the State, including right  
11 here in New York City. Despite its potential, New  
12 York solar industry, as you've heard, lags behind  
13 its neighbors. Currently statewide installed  
14 solar capacity is less than 36 megawatts, in  
15 contrast to New Jersey's 5,500 photovoltaic  
16 systems that equate to nearly 150 megawatts of  
17 installed solar capacity, which is almost 400  
18 times larger than New York's statewide total.  
19 There's no reason for New York to lag behind New  
20 Jersey's installed solar capacity. In fact,  
21 studies show that New York receives more sun than  
22 New Jersey does. The only difference between the  
23 two states is in solar energy policy. Where New  
24 Jersey has had a strong solar energy program, New  
25 York currently does not. And New York should be

1  
2 moving aggressively to promote solar energy, and  
3 this bill would be a big step forward in that  
4 direction. And New York City's well positioned to  
5 benefit from this act. The bill's designed to  
6 encourage the installation of a diversity of  
7 different sized systems, so that in areas where  
8 land is abundant, such as in the Hudson Valley,  
9 one may find relatively large systems. And where  
10 roof space is plentiful, such as here in New York  
11 City, we may find, you know, many smaller systems  
12 being installed. So it's generating a good  
13 diversity of systems that will benefit many  
14 different types of producers. And New York City  
15 as we've heard does have significant solar  
16 potential. The New York City solar map that was  
17 produced by Sustainable CUNY developed an estimate  
18 of solar PV potential for every rooftop in the  
19 five boroughs, and the survey found that roughly  
20 65 percent of the City's buildings have suitable  
21 roof space for solar panels, that could generate  
22 upwards of 5,800 megawatts. This is in contrast  
23 to the negligible 6.5 megawatts of the City's  
24 currently installed solar capacity. The status  
25 quo is not without its own drawbacks. Already on

1  
2 many summer days, electricity demand exceeds  
3 energy supply. During these periods, the City  
4 relies on backup or peaker plants to power the  
5 City. Peaker plants often emit more pollution per  
6 unit of energy produced than base load plants, and  
7 many of them are located in low income  
8 communities. By emitting significant levels of  
9 greenhouse gasses and particulate matter, these  
10 peaker plants undermine the City's efforts to  
11 thwart climate change, and achieve federal clean  
12 air standards. As New York City's population  
13 continues to grow, and energy demand increases,  
14 these issues will be magnified further. Improving  
15 the City's aging energy network will require  
16 innovative policies and bold leadership, and this  
17 bill's an important piece of that puzzle.  
18 Increasing solar installations is a critical  
19 component to building a healthier and more  
20 sustainable City, particularly in the areas of air  
21 quality, greenhouse gas emissions, energy  
22 infrastructure, and grid reliability. So for all  
23 these reasons we strongly encourage the City  
24 Council to adopt this resolution. Thank you.

25 CHAIRPERSON GENNARO: Thank you. I

1  
2 thank the League, and, yeah. [laughter,  
3 crosstalk] You got the tote. Yeah, so, now, I  
4 didn't, now, you see it's kind of worn and like  
5 [laughter] very, is like that, so it's--

6 MICHAEL LEONE: That's good.

7 CHAIRPERSON GENNARO: --it has  
8 gotten a lot of use. And I just hope that my, you  
9 know, bag from NRDC shows up sometime soon. You  
10 guys have tote backs, Environmental Advocates, you  
11 guys have tote bags?

12 ROSS GOLD: Not at the moment.

13 CHAIRPERSON GENNARO: Okay, okay.

14 ROSS GOLD: But when we do.

15 CHAIRPERSON GENNARO: Yeah, we like  
16 tote bags. And yeah, so I thank the League for  
17 their strong support, and, and also NRDC and  
18 Environmental Advocates and the Plumbing  
19 Foundation. You know, not just Chairs of major  
20 Committees, but you know, people listen to you  
21 guys, and it's, you know, good when everyone  
22 speaks with one voice. And there's something I  
23 really feel that the State needs to get done. I  
24 heard the folks from, you know, Con Ed, they have  
25 all kinds of concerns. I'm going to, you know,

1  
2 wait to see what NYSERDA says, and is it the sense  
3 that we have a sort of a good feeling about what  
4 NYSERDA's going to say? Is that, is that the  
5 sense of people? Is NYSERDA talking to you, or--I  
6 mean, what kind of, what do people think out  
7 there?

8 ROSS GOLD: This is Ross Gold from  
9 Environmental Advocates. Well, as far as the  
10 NYSERDA studies, it's been independent study, so  
11 we have not had communications with NYSERDA about  
12 it. But from our research into the legislation it  
13 impacts--

14 CHAIRPERSON GENNARO: Oh, I see.

15 ROSS GOLD: --we believe that  
16 NYSERDA's going to come along the lines of our  
17 studies which have shown the \$20 billion impact  
18 and the 41,000 jobs being created. Just to, you  
19 did raise Con Ed a little bit in your, in your  
20 preamble to the question. Just wanted to address  
21 just briefly, if I may. They brought up--

22 CHAIRPERSON GENNARO: Sure.

23 ROSS GOLD: --the renewable  
24 portfolio standard and the systems benefit charge.  
25 I just wanted to make sure I set the record

1  
2 straight. Both of those programs have saved  
3 ratepayers millions of dollars in the State, and  
4 they've also created thousands of jobs. And I'd  
5 be very happy, I don't have the exact figures with  
6 me, but I would, I'd be happy once I get back to  
7 my office tomorrow to pass along to you the  
8 correct figures on the job creation, as well as  
9 this energy savings--

10 CHAIRPERSON GENNARO: That's fine--

11 ROSS GOLD: --and environmental  
12 benefits of those programs.

13 CHAIRPERSON GENNARO: And also,  
14 even Con Ed was saying that there's a little more  
15 in the way of equity, you know, now. But I've  
16 heard that not only, you know, from Con Ed, but  
17 from folks in City government, and just, just  
18 generally about how there is some belief that  
19 there's, you know, not the level of fairness that  
20 there needs to be, but you know, Con Ed, like I  
21 said, had indicated that they see a little more  
22 fairness now from that. But I, I think their  
23 concern is more with the overall cost of the  
24 thing, and they said that they were going to give  
25 me their numbers, and you saw their statement

1  
2 about how, you know, strongly opposed they were,  
3 and \$22 billion and, you know, it's, they have,  
4 they made quite a statement there. And we'll see  
5 what NYSERDA says. But there you have it, so.

6 ROSS GOLD: We're looking forward  
7 to helping.

8 CHAIRPERSON GENNARO: Yeah, and I  
9 would imagine that, you know, folks who are doing  
10 studies, like Environmental Advocates, would be,  
11 you know, ready to come forward with your own  
12 study, if--and release those numbers, if they, you  
13 know, differ with NYSERDA. Right? Well, yeah,  
14 so, you've done the study and run the numbers, and  
15 you know, you'll put those forward once again, if  
16 they seem to disagree with NYSERDA, but--and so,  
17 it's good that lots of people are looking at this  
18 and hopefully we can all agree that we should move  
19 forward with this and, you know, folks like  
20 utilities and folks like environmental groups,  
21 working together to get this done. So, that'd be  
22 great. Terrence.

23 TERRENCE O'BRIEN: Mr. Chairman, I  
24 have one comment to make about that. NYSERDA came  
25 out with a report for the Fiscal Year 2008/2009

1  
2 regarding the use of solar for domestic water  
3 usage, and that's I guess what I'm here for.

4 CHAIRPERSON GENNARO: Right.

5 TERRENCE O'BRIEN: And if it's a  
6 prelude to NYSERDA's report coming out in January,  
7 it'd be favorable to the use technology. Not  
8 saying any one use of a technology doesn't come  
9 with some kind of negatives, but overall the  
10 report that was from a number of years ago, was in  
11 favor of using solar technology for water.

12 CHAIRPERSON GENNARO: Right.

13 TERRENCE O'BRIEN: So, it's only  
14 fair to say that for the three years since, or  
15 what, the impact from the report that was from  
16 three years ago, the technologies had advanced and  
17 you would think that the amount of time they put  
18 into would be probably as good for energy use, as  
19 well as just for the portable use of, heating of  
20 water.

21 CHAIRPERSON GENNARO: Let's hope.

22 And then, they'll put that out, the--and then  
23 January, and if they do get at that by, by the end  
24 of January, then maybe we could all have a very  
25 happy Groundhog Day, you know. Which is two days



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later, February 2nd. Okay.

ROSS GOLD: Just, just hopefully it won't be a repeat of past things, like Bill Murray's movie, where we continue to make the mistake of going down the fossil fuel path.

CHAIRPERSON GENNARO: Right, right, right. And it is curious that my analyst's name is Bill Murray [laughter] and so that, so there you go. We're all connected, you know, all this thing, and so, I want to thank this panel very much. And the staff just said that you guys were the best panel. [laughter, crosstalk] And so. And they are true to their convictions. Once they, you know, for at least five or ten minutes, anyway, and so. Thanks very much, appreciate your all being here. And make sure to say hi to Donna, usually she's going to like the Galapagos or whatever. [laughter] And she's great. Okay. Thank you all very much. [background comments] You bet, sure. And [pause, background noise] Okay. Thank you all for, for being here. Appreciate you having the patience to stay the course. And I guess without further ado, we should get started, and perhaps, so maybe we'll do

1  
2 it the same way, from my left to my right, and if  
3 you can state your name for the record and proceed  
4 with your statement, that'd, that'd be great.

5 And--

6 EILEEN GORSA: Sure.

7 CHAIRPERSON GENNARO: --thanks,  
8 thanks once again for being here.

9 EILEEN GORSA: Thank you. My  
10 name's Eileen Gorsa [phonetic], I'm an Associate  
11 Planner in Advocacy at the Municipal Art Society  
12 of New York. MAS is pleased to comment on the  
13 very important issue regarding the installation of  
14 solar energy systems in New York City. The  
15 Municipal Art Society fights for a more livable  
16 New York City and advocates for intelligent urban  
17 planning, design and preservation. MAS launched  
18 its preservation and climate change campaign in  
19 2010 to promote the positive environmental  
20 benefits of retaining and improving the efficiency  
21 of New York's old and historic buildings. The  
22 Campaign recognizes that any strategy to fight  
23 climate change, especially in New York City, must  
24 address how to better manage and operate the  
25 City's existing buildings, especially older

1  
2 buildings. As part of the campaign, MAS has been  
3 exploring how preservation can be integrated into  
4 New York City's climate change green building and  
5 sustainability agendas. One of the key areas of  
6 work is identifying and working to alleviate any  
7 impediments between preservation regulations and  
8 measures to improve efficiency and sustainability.  
9 MAS has two major projects that in modest ways  
10 address the use of solar panels. MAS has  
11 partnered with the Henry Street Settlement and  
12 with the Pratt Center as their consultant, is  
13 working to improve the efficiency of the  
14 Settlement's headquarters, located in three  
15 landmarked federal style row houses built in the  
16 1830s. The goal of this project is to develop  
17 affordable, measurable, and replicable model for  
18 improving efficiency and achieving sustainability  
19 in historic structures. We held an eco-charrette  
20 in June 2011, to develop a scope of work. Solar  
21 panels were a key point of interest. The Henry  
22 Street buildings like many historic buildings in  
23 the city have flat roofs. Our eco-charrette  
24 committee was confident that we could develop a  
25 plan in which the solar panels would not be

1  
2 visible from the street, would not negatively  
3 impact the historic architecture, and would likely  
4 be approved by the Landmarks Preservation  
5 Commission. Despite our confidence, upon further  
6 discussion, the Committee felt that the use of  
7 solar panels could be cost prohibitive with a  
8 payback too long for this particular project.

9 However, we welcome advice and feedback from the  
10 experts that spoke today. MAS wants to be part of  
11 the solution for encouraging the use of renewable  
12 energy and developing solutions for appropriate  
13 installation on historic buildings. To that end,  
14 MAS and the Landmarks Preservation Commission are  
15 soliciting proposals from consultants to prepare  
16 greening New York City's landmarks, a guide for  
17 property owners. The manual will serve as a  
18 educational tool for property owners, providing  
19 straightforward action steps describing how to  
20 improve the energy efficiency and sustainability  
21 of the City's landmark buildings, while meeting  
22 Landmarks Commission requirements. One chapter in  
23 the manual will focus on renewable energy and will  
24 include the use of solar panels. The historic  
25 preservation movement has proven itself to be

1  
2 flexible and accommodating to new technologies and  
3 regulatory issues like ADA requirements. We are  
4 confident that if the solar panel industry works  
5 with the preservation community to identify  
6 potential barriers, we can develop solutions that  
7 will both protect historic resources and promote  
8 the broader use of renewable energy sources. In  
9 fact, the Municipal Art Society is happy to help  
10 convene cross-discipline discussions on this  
11 critically important subject. Please feel free to  
12 contact us. Thank you.

13 CHAIRPERSON GENNARO: Thank you.  
14 Thank you. And I'll come back with comments. But  
15 I want to thank you very much for being here.  
16 Appreciate it.

17 JESSIE FELLER: Hi. Thank you for  
18 this opportunity to share our strong support of  
19 Resolution 1098 with the Council today. My name  
20 is Jessie Feller, I'm the Manager of the New  
21 Energy Policy Program for the Regional Plan  
22 Association, a nonprofit planning, research and  
23 advocacy organization. RPA has been advocating  
24 for the livability and continued competitiveness  
25 of the tri-state region for 90 years. And we are

1  
2 deeply involved in the promotion of smart and  
3 sustainable policies in New York and our  
4 neighboring states. New York is increasingly  
5 falling behind New Jersey and missing a prime  
6 opportunity to harness the solar job and clean  
7 energy opportunities here in the State. New  
8 Jersey's solar incentive program has propelled the  
9 state to now rank second to California in  
10 installed solar capacity, with over 406 megawatts,  
11 enough to power approximately 41,000 homes. Our  
12 report to be released this month by RPA, NRDC and  
13 the Solar Initiative, all of whom are here today,  
14 discusses the benefits of solar, including the job  
15 and economic development opportunities here in the  
16 tri-state region. Which I'm happy to share with  
17 you later this month when we release that. Solar  
18 power generates more jobs than any other energy  
19 industry category per megawatt installed. It has  
20 already employed over 2,800 people fulltime in New  
21 Jersey. New Jersey's success in accelerating its  
22 solar installation capacity can be attributed to  
23 its strong incentive program. The New York Solar  
24 Job Act of 2011 will provide the same kind of  
25 supportive and enabling policy environment for the

1 solar industry to grow and prosper here in New  
2 York, as our neighboring state of New Jersey has  
3 provided. Solar power also provides multiple  
4 benefits to the citizens of New York, including,  
5 which we've heard today, better air quality,  
6 reduced asthma, insulation from volatile fossil  
7 fuel prices, improved reliability of our  
8 electrical grid, and the reduction of oil imports.  
9 Solar can also provide one part of the replacement  
10 solution for Indian Point, which is up for  
11 relicensing in 2013 and 2015. It is now time for  
12 New York to catch up and begin to create a strong  
13 solar economy just as New Jersey has done. This  
14 Council has the ability and responsibility to  
15 create jobs and reliable clean energy  
16 opportunities for all New Yorkers through the  
17 scaling up of solar power. RPA gives its strong  
18 support in passing Resolution 1098 as soon as  
19 possible. Thank you for your time and for your  
20 continued commitment to the City and the State.

21  
22 CHAIRPERSON GENNARO: Thank you.

23 Thank you very much.

24 JESSIE FELLER: And one more thing-

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CHAIRPERSON GENNARO: Please.

JESSIE FELLER: --Chairman. I know you had some questions about solar usage on Superfunds and landfill and brownfields, and you might be interested to know that the EPA announced on November 4th, they have a press release on the website, a new initiative to study the feasibility of brownfields, landfills and Superfunds, for nobles [phonetic], including solar, and they have a mapping tool with Google Earth to look at specific sites around the country. And New York is one of the, one of the states that they are looking at. And they're also investing a million dollars for projects across the U.S. to revitalize these sites, actually using renewable energy.

CHAIRPERSON GENNARO: Right.

JESSIE FELLER: So, enabling those sites to not have to build the transmission infrastructure, but rather to power the tools and the actual projects themselves to clean up sites using solar. So that might be of interest to you.

CHAIRPERSON GENNARO: Oh, yeah, thank you. Yeah, I'll just make a note to staff that as we sort of make our case for the



1  
2 legislation that we want to do in this regard, to  
3 make sure that this important, that this important  
4 project is carried over into the next  
5 administration. We can use that as some fodder  
6 for why it, you know, this is important, and the  
7 EPA has seen this, and its map, and this and that,  
8 or whatever. So we should, we should put that, we  
9 should put that in our back pocket.

10 JESSIE FELLER: And we're also  
11 going to be including that in the report that we  
12 release this month. So, we can share that with  
13 you, as well.

14 CHAIRPERSON GENNARO: Great,  
15 please, and make sure that is issued to staff,  
16 that'd be great.

17 JESSIE FELLER: Yeah, it's the  
18 section in there, so.

19 CHAIRPERSON GENNARO: Yep, you bet.  
20 Okay, thank you. Yes, yes, sir.

21 MATTHEW MISHKIN: Okay. Okay,  
22 thank you, Mr. Chairman.

23 CHAIRPERSON GENNARO: Sure.

24 MATTHEW MISHKIN: My name is  
25 Matthew Mishkin [phonetic], I'm a Solar Installer

1 here in New York City, I've installed a few dozen  
2 solar PV electric and hot water systems, the solar  
3 thermal systems. And from our experience, would  
4 say that the impediments are really twofold.  
5 There's the large upfront cost to the homeowners  
6 and business owners, and then it's the expensive,  
7 time consuming and highly restrictive regulations  
8 for the installers. And I guess we've heard a lot  
9 about that already.  
10

11 CHAIRPERSON GENNARO: Yeah.

12 MATTHEW MISHKIN: The solar PV  
13 systems offer double digit return on investment,  
14 and the simple payback in, on the outside for five  
15 to seven years, we've even had models where we  
16 have two to three years, where there's a payback.  
17 So, the expected life of a solar system is  
18 decades. So, there's hardly any investments that  
19 match these returns. And from our research, we've  
20 found that the obstacles to consumer acceptance of  
21 the--is the initial cash outlay; a lack of trust  
22 in the technology, that solar's going to work; and  
23 a general suspicion of the contractors and  
24 installers. So, we've seen that perhaps PACE, the  
25 Property Assessed Clean Energy Loans, might be a

1  
2 place to look for trying to reduce the initial  
3 costs, the upfront costs. Private banking for  
4 small systems we've seen have not really been very  
5 interested in creating loans and if the SRECs come  
6 through, then I guess that may change that, how  
7 easy it will be to, to obtain loans for this.  
8 There's certainly a lot of money out there, but  
9 it's hard to get a bank to offer this. We've  
10 heard a lot about the solar leasing and the PPAs  
11 today, and the downside of this is that that gives  
12 the profits to the leasing company, or the PPA,  
13 and not really to the home or business owners.  
14 The suspicion and the technology is baffling to  
15 us. The original solar panels developed more than  
16 50 years ago are still, still producing energy.  
17 Perhaps we would offer that maybe there would be  
18 some sort of citywide information campaign and  
19 maybe you can work with the mainstream media to  
20 try to say that solar energy is good, it's viable,  
21 it works. And instead of just hearing about the  
22 bankruptcies of Solyndra and other companies. So  
23 there could be something, that's something that I  
24 think the Council could work with. We also have  
25 seen with the consumers that they believe that

1  
2 this will go the way of computers, that every year  
3 it's going to get better and change, and that just  
4 has not been the case and it doesn't seem like  
5 it's going to be the case, that solar equipment is  
6 going to be better next year, so they don't need  
7 to start doing a solar installation this year, if  
8 they just wait. And it's, I guess, maybe beyond  
9 what you want to hear about today, but the  
10 efficiency of solar panels has only changed about  
11 from eight percent to sixteen percent in 50 years,  
12 and the efficiency, all that means is that it  
13 takes less square feet, it doesn't mean that it  
14 produces more energy. So, that's not really a  
15 good argument against. The lack of trust in  
16 contractors seems to be pervasive in New York  
17 City, and from what I've seen that maybe that is  
18 sometimes justified. In the last few years, more  
19 installers have entered the market, and there has  
20 definitely been a race to the bottom on the cost  
21 of this, of bidding projects, so the price of per  
22 watt of installed PVs has gone down quite a bit.  
23 Consumers are used to this sort of comparison  
24 shopping and driving the price down, and all the  
25 equipment and installations appears the same to

1  
2 untrained eye--untrained eyes, scuze me. And so,  
3 the consumer will just think, "Why not go with the  
4 lowest price per watt there, the best deal I can  
5 find out there. And that isn't always necessarily  
6 the best, best case, and I don't know if that's  
7 anything that the Council can be involved in, is  
8 to try to have some more oversight and ways to  
9 distinguish one installer from another. And  
10 having a quality level, or even a consumer review  
11 type of thing, of various installers. As I've  
12 said, I've worked for probably six different  
13 companies I install for, I actually do the  
14 installations. So, I work for a lot of different  
15 companies, and I've seen quite a disparity in the  
16 quality level between those. And some, some are  
17 better than others, I would think. And basically,  
18 from start to finish, on a small residential  
19 project, it takes about one year to do all the Con  
20 Ed, the NYSERDA, the Department of Buildings, and  
21 then having all the inspections at the end. And  
22 we've heard that Con Ed has put forward that 100  
23 Days of Solar, and from my experience it is  
24 getting better, and I would say that Con Ed's  
25 website is real easy to deal with, that it, it's a

1  
2 process, they're extremely helpful. And with the  
3 new Department of Buildings, if they're going to  
4 have the single portal for NYSERDA and all that,  
5 that seems pretty good. And just in defense of  
6 Department of Buildings, I'd like to say I'm not  
7 certain that the solar installations are any more  
8 difficult than any other Department of Buildings  
9 activities that you have to do. They're always  
10 very expensive and time consuming. It's just the  
11 way things work in New York City, so I don't know  
12 if solar's being singled out on that. So, going  
13 forward with that, and I'll just give you some  
14 numbers about that, because a typical installation  
15 of a row house looks, right now is about \$25,000  
16 maybe to \$35,000, and about \$5,00 to \$7,000 of  
17 that is in the soft costs, the permitting and the  
18 structural engineers, the architects, the  
19 expeditors, all these things. So that's 20 to 25  
20 percent and--

21 CHAIRPERSON GENNARO: Yeah.

22 MATTHEW MISHKIN: --and anything we  
23 can do to reduce that, I think would be very  
24 helpful. And, oh, also, for, I'm sorry, with  
25 Department, the Fire Department, FDNY, they've

1  
2 also been, I know a lot of people are knocking it,  
3 but I think they've been very helpful in trying to  
4 work around some of the impediments to getting  
5 solar installed, and particularly Lieutenant  
6 Trinidad is very accessible and has worked with us  
7 well. So, I think they need to have some  
8 recognition for the work, and Con Ed and  
9 Department of Buildings, they're, they're not as  
10 tough as they could be, I think. All right, thank  
11 you for your time.

12 CHAIRPERSON GENNARO: Thank you  
13 very much. It's great to get like a real  
14 frontlines perspective. We appreciate it. Thank  
15 you.

16 MCGOWAN SOUTHWORTH: Hi, my name is  
17 McGowan Southworth [phonetic], and I just want to  
18 come here as a homeowner, to give you also that  
19 different perspective. And actually Matthew, who  
20 lives in my neighborhood, and we've partnered on  
21 some projects together, has covered most of what I  
22 have to say, so I'll probably jump in more with  
23 questions. But I know you were starting to ask  
24 sort of like, "Well, what can you do to help  
25 streamline a process?" and things like that. And

1  
2 I think that the, like I said, it was John from  
3 the Department of Buildings, something I thought  
4 maybe he missed an opportunity there, is that to  
5 install a solar panel is actually, for small  
6 residential, is actually quite easy. There's pre-  
7 engineered racks, and you're putting a bunch of  
8 bolts together. And it's basically you're  
9 plugging it in, almost like a stereo system. And  
10 I believe that if we get from the point where  
11 it's, you know, everybody talks about one stop  
12 shopping, if I could go one step further to, to  
13 plug-and-play, that could be a streamlined design  
14 that's preapproved, and I'd like to see that  
15 happen, I think that would be a topic to bring up  
16 with everybody you're working with. And the  
17 second major thing I would say from a perspective  
18 of a consumer, when I brought the idea of solar to  
19 my co-op, I moved to Sunset Park in 2005, and  
20 became the President of my co-op in 2006, and  
21 evaluating everything I could do, I've figured out  
22 that solar panels combined with submetering  
23 system, was actually the most cost effective  
24 capital investment I could, I could make in my  
25 building. And that was by far. But the thing is



1  
2 it took me four years to figure that out. And the  
3 information's not readily available. And there's  
4 a lack of clear information. And so I think there  
5 is a lot of, a lot of information that needs to be  
6 made aware, in, like he says, some public  
7 awareness campaigns, or some awareness campaigns.  
8 And that there's enormous interest in it.  
9 Everybody, old, young, we have nine languages  
10 spoken in our building, everybody's interested in  
11 it. But that's coupled with a lot of questions.  
12 And I can't help but notice questions in your  
13 hearts, like the people who are asking questions  
14 here, they're still not 1,000 percent convinced.  
15 And in my experience, I feel that if you're given  
16 the information I've been given, that you will,  
17 and that you will recognize that it's a valid  
18 source of energy, and it's valid now. It's not  
19 developing, it's great now. And the, and the  
20 rebates are great now. So, I think that that jump  
21 between interest and action, will have a lot to do  
22 with busting some of the myths that go on with it.  
23 So, that's all I have to say. Thank you.

24 CHAIRPERSON GENNARO: Thank you  
25 very much, appreciate that. Thank you.

1  
2 DAN WILLIS: Hi, my name is Dan  
3 Willis, I'm with Sea Bright Solar. We're an  
4 installer based in New Jersey, but we also have an  
5 office in New York. So, first off, just want to  
6 voice my support for the Resolution.

7 CHAIRPERSON GENNARO: Thank you.

8 DAN WILLIS: It's great. And also  
9 the Solar Jobs Bill. Having seen the market in  
10 New Jersey, based on the SREC incentive, we see  
11 the difference between the markets, New York and  
12 New Jersey, New Jersey, orders of magnitude  
13 larger, it's simpler, having the one incentive  
14 instead of the property tax abatement, the State  
15 tax credit, and the NYSERDA rebate, simplifies  
16 things. That'll take a lot of the administrative  
17 costs out, as well as bringing in investment and  
18 everything else you've heard. But wanted to touch  
19 on a couple of specific things that came up. One  
20 is fire code. Right now, the requirement is to  
21 have a, on a roof that is shallower than a 20  
22 percent grade, so brownstones, row houses, it  
23 requires a six foot wide path from front to back  
24 and from side to side. Which on a brownstone  
25 that's 15 feet wide, that's an enormous amount of

1  
2 the area of the roof. Such that it's not really  
3 economically feasible to put a solar system up on  
4 one of these roofs, right? If you can only get  
5 six panels up on one of these roofs, it's not  
6 really worth it; whereas, so if you were to  
7 decrease that requirement from six feet to four  
8 feet, I understand you still need to get a across a  
9 roof in case of a fire, but just those two feet  
10 would allow you to increase the system size to a  
11 size where you'd be able to capture some of the  
12 economies of scale, that make it viable, you know.  
13 Going from six panels to ten panels, or six panels  
14 to 12 panels, makes a big difference in terms of  
15 the price per watt. You spread those fixed costs  
16 of the electrician and the expediter, over more  
17 watts, right. So that's one thing. I don't know  
18 if that's in your purview or--

19 CHAIRPERSON GENNARO: Yeah, we'll,  
20 we're not really constrained. I mean, we can  
21 advocate, we can talk to the Administration, we  
22 can, we--happy to make the case, you know.

23 DAN WILLIS: Sure. Just thought  
24 I'd bring it up. The other thing, the property  
25 tax abatement, that's a process. And I understand

1  
2 why they have all their paperwork in place, it  
3 makes sense, so you can't have people just telling  
4 the Department of Buildings that, "Yeah, we've got  
5 solar panels up, give us our \$8,000," and then you  
6 don't actually have panels up. Right, so, it  
7 makes sense, but right now there's only one plan  
8 reviewer. Maybe increase the number of plan  
9 reviewers. That could bring the time down.  
10 Warren, he's very good. [laughter]

11 CHAIRPERSON GENNARO: Thank god.

12 DAN WILLIS: Yeah, yeah.

13 CHAIRPERSON GENNARO: Right.

14 [laughter]

15 DAN WILLIS: He's approachable, but  
16 busy.

17 CHAIRPERSON GENNARO: I bet, yeah.

18 DAN WILLIS: The other thing,  
19 electrical inspections. Not all the inspectors  
20 are on the same page, we've found. In Staten  
21 Island, they're, you know, really up to speed and  
22 know that we don't, they no longer require a UL  
23 inspection.

24 CHAIRPERSON GENNARO: Right.

25 DAN WILLIS: The third party aware.

1  
2 Up in Queens, they don't, or they have a different  
3 interpretation of what the labeling required is.  
4 So, and you know, we've had projects fail  
5 inspection for things that shouldn't have failed.  
6 And then, what that means is that our electrician  
7 has to go above their head and do this and that,  
8 and it's just extra work. So, maybe if there was,  
9 I don't know, if there's periodic training that  
10 all the inspectors go through, maybe add solar  
11 into the mix, so that they're all on the same  
12 page.

13 CHAIRPERSON GENNARO: Well,  
14 certainly people that do inspections should know  
15 what they're doing.

16 DAN WILLIS: Right.

17 CHAIRPERSON GENNARO: Yeah, I mean,  
18 that's--

19 DAN WILLIS: That's a no-brainer.

20 CHAIRPERSON GENNARO: --easiest way  
21 to say that, I guess. Yeah. This is why we have  
22 hearings. You know, to go back to the  
23 Administration and say that "This is what we heard  
24 and this is what we need to make better," and so.

25 DAN WILLIS: Yeah, and, and to

1  
2 their credit, they are getting better. And I  
3 mean, things are changing so often in the  
4 industry, that it's like hitting a moving target,  
5 for everybody involved: the Department of  
6 Buildings, installers, NYSERDA. So, you know,  
7 they're not, they're acting in good faith, and  
8 they're doing a good job, but you know, just one  
9 more thing to get them up to speed. There was a  
10 concern, I believe it was the representative from  
11 Con Ed. He brought up concern about if an SREC  
12 system was instituted, that it would essentially  
13 be the ratepayers in New York, which the majority  
14 of the residents in the State, subsidizing  
15 projects for upstate. Which could be true. You  
16 know, you have these, these farms up there.

17 CHAIRPERSON GENNARO: Well--

18 DAN WILLIS: But--

19 CHAIRPERSON GENNARO: I don't think  
20 that was it, 'cause he wasn't so concerned about  
21 the, it just seemed like this, that's why I asked  
22 him, so I didn't want to get into a whole debate,  
23 but he said this is going to be \$22 billion that  
24 we're not going to get \$22, we're not going to get  
25 \$22 billion worth of benefit. That the, you know,

1  
2 ratepayers of New York State are in this service  
3 area, are going to pay \$22 billion and they're not  
4 going to get anywhere near that in value. And it  
5 was going to do this, that and the other thing.  
6 And then, so, I, I'm happy to get the statement  
7 from him, but I want the numbers to back it up.  
8 And I'm not, you know, quite sure what he means.  
9 But I don't think it was like a fairness thing, it  
10 was just like, "This is going to cost too much  
11 money, and like this is a bad idea."

12 DAN WILLIS: Well, right, I think  
13 that was his bottom line argument.

14 CHAIRPERSON GENNARO: Right, he  
15 said "Going that way was the wrong idea."

16 DAN WILLIS: Right.

17 CHAIRPERSON GENNARO: Going through  
18 like the SREC thing, we should just let incentives  
19 and let like, let the thing double ever year like  
20 it's been doing, and it's not broke, don't fix it.

21 DAN WILLIS: Yeah.

22 CHAIRPERSON GENNARO: That's the  
23 way I interpreted it.

24 DAN WILLIS: It's not broke, but  
25 it, we could go from a Model T to, you know, a

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Camry.

CHAIRPERSON GENNARO: That's what I was thinking. [laughter] But I, you know, certainly have respect for what they've done, and for, you know, who they are, I want to listen to what they have to say. I'm going to try to listen to NYSERDA, and try to listen to the good folks like you, who really want to make this happen. And so, yeah, I didn't want to get into a big debate, I just, you know, let 'em make his statement--

DAN WILLIS: Sure.

CHAIRPERSON GENNARO: --and then just show me what you got, in terms of, you know, backup for that.

DAN WILLIS: Well, one idea as far as the concern about subsidizing projects that are going to go upstate, you could have, perhaps, a New York City SREC, right. So, another class of the credits, whi--

CHAIRPERSON GENNARO: There was some kind of thing that Steve Englebright talked about, that like New York City is, there's language in there that's specific to New York



1  
2 City, and I wasn't going to parse the bill and get  
3 into a whole thing like right here, but it seems  
4 like concerns that are particular to New York City  
5 have been addressed in the bill, and I'm willing  
6 to take a look at that. And I'm going to take a  
7 look at that before I make a move to put the  
8 Resolution on the floor. Right, I want to--but,  
9 but what I, you know, hear sounds good, but I'll  
10 have to--but go ahead. I'm--

11 DAN WILLIS: Sure, well, I mean,  
12 the idea would be that, so, you know, you install  
13 a megawatt upstate in a field, it doesn't have the  
14 same benefits as a megawatt installed on the  
15 rooftops in New York City, as far as, you know,  
16 yes, it's generating clean energy, but--

17 CHAIRPERSON GENNARO: Right.

18 DAN WILLIS: Upstate, you've got to  
19 invest in transmission infrastructure--

20 CHAIRPERSON GENNARO: Yeah.

21 DAN WILLIS: --and then ongoing  
22 maintenance of that infrastructure, where it's  
23 distributed generation on rooftops, you know.

24 CHAIRPERSON GENNARO: Right, but  
25 it's really not my job to, you know, change the

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2 State bill or negotiate that bill, that's like  
3 above my pay grade. It's just, you know, is the  
4 thing on balance, based on what they've worked  
5 out, like you know, good for New York City and  
6 good for me as an environmentalist, to try to get  
7 them to pass or not. You know? I'm not going to  
8 say, "Pass it only if you do X, Y, Z, what I say."  
9 And so, the bill is what it is. And the final  
10 version is whatever it is. And I have to look at  
11 this and say, "Hey, is this something that is  
12 worth it for me to bring before the Council and  
13 have a Statement of the Council saying that we  
14 should do this?" That's like a yes or no  
15 questions.

16 DAN WILLIS: Right.

17 CHAIRPERSON GENNARO: Not, it's not  
18 going to depend upon other like little factors.

19 DAN WILLIS: Yeah.

20 CHAIRPERSON GENNARO: And I, I  
21 think we're going to want to do that, but you  
22 know, once I get to State government, if I ever  
23 get there, you know, then now would be a time for  
24 me to get involved in those, because I can't  
25 really make that happen.

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DAN WILLIS: Right.

MCGOWAN SOUTHWORTH: Could I add something?

CHAIRPERSON GENNARO: Yeah, sure, sure, sure.

MCGOWAN SOUTHWORTH: Sorry, McGowan Southworth again, homeowner. Just an experience I had with solar, that I find fascinating, and that I think isn't talked about a lot, is first of all it's, solar's got a cool sort of--it's a cool idea. Everybody sort of loves it, it's kind of like, it's a status thing, it's like owning a Prius or something for some people. And so there's a halo effect around solar that I find really compelling. And the best example of that is that when my brother put solar panels on his house, he lives in northern New Hampshire, the started to watch the meter go backwards. And once he did that, he started to think about everything else that he was doing that was consuming energy. And the first thing he realized was the same thing Con Edison advertises quite a lot about, and that's to replace your light bulbs. And so he came down to my apartment, my little tiny

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2 apartment, I've got four rooms in it, and he  
3 replaced every single one of my light bulbs. He  
4 just threw a fit when he saw that I had older  
5 light bulbs. And, and he reduced my energy  
6 consumption by 75 percent, just like that. And  
7 when people start to pay attention to that, I  
8 think there is a big effect. So, when Con Edison  
9 says that the price of energy will go up based on  
10 this, I, my feeling is that if people are  
11 installing solar, and are thinking about their  
12 energy consumption, 'cause that's essentially what  
13 this is all about, that using less energy can only  
14 be less expensive.

15 CHAIRPERSON GENNARO: Fair enough.  
16 And I just thought about your earlier statement  
17 about, you know, trying to get information out,  
18 and people should know, and I can play a role in  
19 doing that. But I'm almost thinking that from the  
20 industry, and I don't know, a part of the  
21 industry, you know, for the solar industry, like  
22 if you're a solar industry and like you're located  
23 in Brooklyn, you want to, you know, join the,  
24 like the Brooklyn Chamber of Commerce or whatever,  
25 and then you hook into their thing, and when they

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2 have symposiums and this and that, and whatever, I  
3 mean--I think the industry, you know, kind of has  
4 to be its own advocate also, and figure out, you  
5 know, ways to get its message out through, you  
6 know, various business organizations. But what  
7 I'm happy to do, which I will commit to do, which  
8 I'm going to tell--oh, and we have Steve Levin  
9 back with us; he's great, he always comes back.  
10 [laughter]--And, is that, you know, we should do  
11 like a town hall, you know, kind of thing, maybe  
12 at Queens College.

13 MCGOWAN SOUTHWORTH: Absolutely.

14 CHAIRPERSON GENNARO: You know,  
15 that kind of thing, or because Queens College is  
16 like centrally located in the borough, and it's in  
17 my district, and we should do a whole sort of like  
18 solar Queens College hoo-haw, you know, where we--  
19 because, if I were to go home, you know, tonight,  
20 and I am going to go home tonight, so that there's  
21 no doubt about that [laughter] but you know, when  
22 I go home tonight, if my wife were to ask me,  
23 "Well, if we were going to do this, like what  
24 would really, what would we really be eligible  
25 for?" We'd get something from NYSERDA, we'd get

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2 something from the City, we'd get a tax thing, we  
3 get the feds, and I would frankly have to go  
4 before and say, "I have no idea." And she would  
5 say, like "You just chaired a hearing on this for  
6 five hours, and you don't know?" And I'm like,  
7 "It's all very complicated." But I like, "My  
8 staff could bring you up to speed." [laughter]  
9 You know? So, even someone like myself, who has  
10 like held several hearings on this ,you know, the  
11 one that really knows in my family is my son, his  
12 house in Astoria, it was featured in the Daily  
13 News, and he's got, you know, it's--forget it, he  
14 was so proud of his, you know, he's, he moved in,  
15 you know, he, you know, took out the oil burner  
16 and the tank and, you know, like his radiators  
17 went, and he's, it's a whole like solar hot water  
18 thing he has. He doesn't have PV, he's got hot  
19 water, but he knows everything. And his  
20 architect, and his, you know, and his  
21 construction, and the firm that he used, and--but,  
22 but I don't. And so, this is to make the point  
23 that to kind of back up your point, that people  
24 really have to get a sense that there are these  
25 inducements out there, they're real, you can get

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2 them. And what better way to respond to what, you  
3 know, you guys wanted me to do, which is to, to  
4 kind of, you know, trumpet this, we should have  
5 like a, you know, town hall or whatever it is, at,  
6 at Queens College. And we will let Council  
7 Member, you know, Levin, sort of cross borough  
8 lines, and we'll give him a visa to come into the  
9 24th District and [laughter] you know, participate  
10 in this.

11 JESSIE FELLER: Can I just add--

12 CHAIRPERSON GENNARO: 'Cause  
13 people, 'cause people want to see someone like  
14 Steve Levin pushing this, they want like a young  
15 face doing this, you know what I mean? They have  
16 like, I mean, and like "I don't think that guy  
17 knows a lot," you know, but, but yeah, so you were  
18 just going to say something.

19 JESSIE FELLER: So I just wanted to  
20 add something, Jessie Feller, from RPA.

21 CHAIRPERSON GENNARO: Yeah, yeah,  
22 it's kind of like the graying of solar energy.  
23 And like they really want like a young face to put  
24 this forward, but yes.

25 JESSIE FELLER: We need

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multigenerational.

CHAIRPERSON GENNARO: Right.

JESSIE FELLER: But Jessie Feller from RPA. I want to just reiterate your point in that at RPA we have, kind of our obsession is the idea that energy is very invisible, and our role as an advocacy organization, research, planning organization, is to make energy visible. And I think solar is kind of the entry technology, or the entry drug, if you want to say, for people to start getting into thinking about consumption and where their energy is coming from. And it's a very visible, cool technology that, that isn't embedded into the architecture of your building, it's not cables under the street, it's kind of like light bulbs, but it's a lot sexier. So, I think solar is kind of the entry point for public awareness around energy--around individual energy consumption, and I think, I think that point needs to be driven home. And it's, it's more because of its distributed nature, it's easier and it's available right now, compared to some other technologies that are coming, fuel cell, or battery storage technology. So, I think that's a,



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that's an important point to make.

CHAIRPERSON GENNARO: And during the late '70s, when I was in Stony Brook, I did some of my graduate work at the, or I worked for the, something called the Institute for Energy Research, which I don't think any longer exists, it's a, it was something funded, it was cofounded by the U.N. and USAID, for energy ministers from less developed countries, who had come to Stony Brook. Then they'd, you know, go to Brookhaven National Lab, and you know, on how they can develop, better develop their, their energy resources, you know, be it coal, hydro or whatever was suitable to that country. And I had a little, just something with like a little, you know, like a tiny PV panel, and it, it was like a cube, and it like turned this like little propeller. And like everyone who walked in there and said like, "Oh my god, this thing's--" it, yeah, it was like literally like the size of, it was nothing. It was kind of like the size of like a, of a Rubik's Cube, but it's like in the late '70s, it's like, "You mean, like the sun is hitting that little panel, and that little blade, which is only this

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2 long is like, is like turning?" I could have, you  
3 know, I think I could've sold it for like \$10,000  
4 [laughter] and said, "Yes, this is the only one  
5 like it in the world, and like please don't go  
6 near it, because like the museum, like needs it  
7 back" or something. And I had to take it down  
8 because people wouldn't listen to me, they'd just  
9 like watch the thing going around, like in like  
10 total amazement. And I said, "I got to put this  
11 in my drawer now," so, you know, so that I can  
12 have conversations with people. So, it is  
13 something very, very compelling. You know, just  
14 golden sunlight being turned into energy, we got  
15 to figure out a way to do this, and here it is, 35  
16 years later, and, or whatever, and I'm happy that,  
17 you know, you all are doing what you're doing, and  
18 trying to make this happen. And I certainly, you  
19 know, feel compelled to play my part, which we're  
20 going to do. And so, with that said--Oh, Steve,  
21 did you have anything? Oh, Steve left?  
22 [background comments] Oh, I just said all these  
23 great things about him, and he like [laughter]  
24 takes off on me. Younger generation, I think he  
25 has a cell phone, I think that's what this is.

1  
2 You know. 'Cause one of those young guys, always  
3 a cell phone, you know what I mean?

4 JESSIE FELLER: God forbid.

5 CHAIRPERSON GENNARO: Yeah. So, I  
6 want to thank this panel for being here, for being  
7 patient, for giving us the benefit of your, you  
8 know, real world experience--

9 JESSIE FELLER: Thank you.

10 CHAIRPERSON GENNARO: --on this.

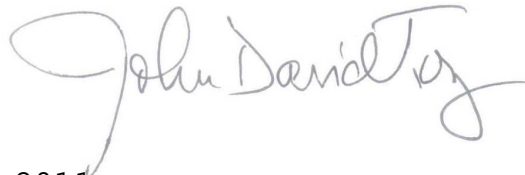
11 And with that said, the--before I say that, though  
12 [background comment] Right. There are some  
13 entities that gave testimony for the record: RSA,  
14 which is the Rent Stabilization Association; and  
15 Manhattan Borough President Scott Stringer. Both  
16 presented statements for the record. And so, with  
17 that said, with no one else wishing to be heard, I  
18 thank everyone for coming today. And this hearing  
19 is adjourned.

20 [gavel]

C E R T I F I C A T E

I, JOHN DAVID TONG certify that the foregoing transcript is a true and accurate record of the proceedings. I further certify that I am not related to any of the parties to this action by blood or marriage, and that I am in no way interested in the outcome of this matter.

Signature

A handwritten signature in cursive script that reads "John David Tong". The signature is written in black ink and is positioned to the right of the printed word "Signature".

Date December 9, 2011