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    STATE OF NEW YORK
    PUBLIC SERVICE COMMISSION
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    Case 03-E-0188 - Proceeding on Motion of the
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    Commission Regarding a Retail Renewable Portfolio
    Standard.
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                     Straw Proposal Meeting
                     3 Empire State Plaza
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                     19th Floor
                     Albany, New York
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                     Friday, January 15, 2010
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                     10:30 a.m.
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MR. PARELLA: I am Joseph Parella from the 1 Department of Public Service. I would like to welcome 2 you all here today. Thank you for coming, taking time 3 out of your busy schedules to help us put together a 4 proposal on this geographic balancing issue. 5 б Just a couple of logistical matters. There 7 is a sign in sheet going around. Please sign your names to the sheet, please. And as we go through the day, and 8 you want to make a presentation or offer up any 9 10 comments, if you could please introduce yourself and 11 your organization. We have a court reporter here today and she 12 13 is going to put together a transcript for us, and it would help her greatly if you introduce yourself and the 14 organization you are with, and if you could do that 15 16 every time you speak up that would be great. 17 The one other piece of information I need 18 from you is: Other than Con Edison, are there any other groups or individuals who will be making a presentation 19 20 in addition to the Department of Public Service 21 presentation? So, just the DPS and Con Ed, then. Okay, 22 very good. 23 I just want to give you a little bit of a 24 summary of why we are here today, and then we can go

around the room and do introductions. In its recent 1 2 order, which I think was out on January 8th or 9th, the Commission addressed the geographic balancing issue 3 4 which has come up in response to SAPA notices, and at the technical conference that the Commission held in 5 October. 6 7 And what the Commission said was that parties who are concerned about this issue raised some 8 valid points, and that staff should put together a 9 10 proposal that deals with this issue for ISO zones G, H, I and J. 11 The Commission gave staff three months to 12 13 report back on this matter, and suggested that a budget 14 of up to, and that's an important phrase here, up to \$30 15 million annually was an important consideration in 16 addressing this matter. 17 The Commission said for planning purposes 18 that it would like to focus whatever proposal staff 19 finally recommends on three technologies: Larger scale 20 PV, anaerobic digesters, and fuel cells. 21 The Commission also said that it would 22 likely base its decision on this geographic balancing matter in concert with its decision on the customer 23 24 sited tier, which will be taken up at the same time at

either the March or later session. 1 Finally, the Commission said that when it 2 looks at the geographic balancing proposal that staff 3 develops, and the customer sited tier proposal, that it 4 hopes that whatever plan staff proposes optimizes the 5 expenditure and deployment of these resources. 6 7 So, are there any questions before we start on what the Commission had to say in its January order? 8 9 MS. MILETICH: The way that you are speaking 10 about this, and I'm just trying to recall what the order 11 actually said, the geographic balancing proposal, that is related to the customer sited tier and those 12 activities? 13 MR. PARELLA: The Commission would like to 14 link consideration of both when it addresses the matter 15 16 in March or April, and they are definitely related, 17 because the three technologies the Commission wants to 18 focus on for planning purposes are also in the customer sited tier. 19 20 MS. MILETICH: And they are not in any way 21 related to the main tier. 22 MR. PARELLA: PV, for instance, is an eligible technology in the main tier. 23 24 MS. MILETICH: So, the geographic proposal

could potentially apply to that as well? 1 MR. PARELLA: The Commission wanted to focus 2 on -- well, the Commission did say it was interested in 3 larger PV installations as part of this initiative. 4 Now, how large they would be, I am not sure. 5 б Let's go around the room first before we 7 start asking more questions again. I'm Joseph Parella from the Department of 8 Public Service. 9 MS. PALMERO: I'm Tina Palmero from the 10 11 Department of Public Service. MS. MILETICH: Radmila Miletich with IPPNY, 12 Independent Power Producers of New York. 13 MS. JOHNSON: David Johnson, from the law 14 15 firm of Read & Laniado, for Independent Power Producers 16 of New York. 17 MR. DANIELS: Tim Daniels, Constellation 18 Energy. MR. TIERNEY: Good morning. Bob Tierney, 19 20 UTC Power. Manufacture fuel cells. 21 MR. KAMEN: Good morning. Ron Kamen, Earth 22 Kind Solar and New York Solar Energy Industries Association. 23 24 MR. ZALCMAN: Fred Zalcman, Sun Edison.

MR. SOBOLEWSKI: Terry Sobolewski, Sun 1 2 Power. MS. ADAMS: Heather Adams, Central Hudson 3 Gas and Electric. 4 MR. CAMPAGIORNI: Anthony Campagiorni, 5 б Central Hudson Gas and Electric. 7 MS. QUIN: Jane Quin, Orange & Rockland Utilities. 8 9 MS. NELSON: Denise Nelson, Con Edison. 10 MR. GALLAGHER: Jim Gallagher, City of New 11 York. MR. HAMMOND: I'm Steve Hammond. 12 13 MR. CORNEAU: Keith Corneau, Empire State 14 Development. 15 MR. MORRIS: Jackson Morris, Pace Energy and 16 Climate Center. 17 MR. SARCO: Peter Sarco, NYSERDA. 18 MR. LEVY: Dana Levy, NYSERDA. My group runs the customer sited tier. 19 20 MR. NACHMIAS: Stuart Nachmias, Con Edison 21 and O&R. 22 MR. RAVID: Christopher Ravid, Con Edison 23 and O&R. 24 MR. BARWIG: Floyd Barwig, Department of

Public Service. 1 2 MR. MYERS: Warren Myers, staff. MR. RIENZO: Tom Rienzo, staff. 3 MR. STEWART: John Stewart, DPS. 4 MR. FRANCIS: Frank Francis, Brookfield. 5 б MR. BARONE: Tom Barone, NYSERDA. 7 MS. STRAUSS: Valerie Strauss, Alliance. MR. REIS: Jim Reis from NYSERDA. 8 9 MR. COLGROVE: Mike Colgrove from NYSERDA 10 New York City. 11 MS. ANDREWS: Sue Andrews, NYSERDA. MR. JEFF DANIELS: Jeff Daniels, Con Edison. 12 13 MR. ROSE: James Rose, Network for New Energy Choices. 14 15 MS. JOSEPH: Janet Joseph, NYSERDA. 16 MR. PLUMMETT: Neal Plummett, Plummett and 17 Associates. 18 MR. WIGER: Scott Wiger, Plummett and Associates. 19 20 MR. HOFFSTATTER: Lloyd Hoffstatter. 21 MR. PETERSON: Jeff Peterson, NYSERDA. 22 MR. POWERS: Paul Powers, Empire Advocates. 23 MR. IRISH: Jeff Irish, Hudson Valley Clean 24 Energy.

1	MR. LARSEN: Scott Larsen, NYSERDA.
2	MR. PARELLA: Continue with the questions.
3	MS. MILETICH: Well, I was just trying to
4	understand what the exact scope of the proposal is and
5	whether or not it would affect any activities in the
6	main tier, to the extent that there may be utilities.
7	MR. PARELLA: I think there was an interest
8	from the Commissioners to focus on the technologies that
9	they enumerated, and they are mostly associated with the
10	customer sited tier; however, we are here to get input
11	from everyone.
12	I didn't read in the order that there was a
13	prohibition to include technologies that might be more
14	appropriate for the main tier, but I think there is
15	but we will see how the day goes and what people have to
16	suggest, but I didn't see a prohibition in the order.
17	MR. GALLAGHER: I was going to say that I
18	agree with your interpretation. I mean the way I read
19	the order is that for the purpose of this meeting it's
20	neither main tier nor customer tier. It's just design
21	an appropriate program.
22	I think some of the issues that we discuss,
23	are we talking about behind the meter? Are we talking
24	about putting power directly into the grid? And a lot

1	of the nuances are going to dictate where this program
2	ends up.
3	I think for the purpose of today we should
4	probably put aside whether it's main tier or customer
5	sited tier.
6	MS. MILETICH: So, on this point we are
7	talking about overall utility involvement in that
8	potential period no matter what section of the RPS.
9	Is that what you're saying?
10	MR. PARELLA: I think we are trying to
11	develop a geographic balancing proposal that satisfies
12	the Commissioners' concerns.
13	MS. PALMERO: Just more specific to your
14	point, Rad, under the notes of the straw proposal it
15	talks about utility and non-utility entities being
16	eligible to participate in the solicitation for the
17	straw proposal anyway.
18	MS. MILETICH: That's why I am asking.
19	MR. PARELLA: Are there any other general
20	questions or concerns folks want to raise before Tina
21	goes through her presentation?
22	MS. PALMERO: I have some extra copies of
23	the staff proposal over on that table if you need one.
24	I don't want to go ahead and read through the whole

thing, but I will just touch upon the thinking of 1 2 putting this together as a straw. As Joe articulated, the Commission asked 3 staff to consult with parties to develop a plan, 4 including a solicitation method, to address this 5 geographic balancing within zones G, H, I and J. 6 7 And in preparing the straw proposal that staff put out on the RPS list serve, the RPS list serve, 8 we had some guiding principles that either came directly 9 10 out of the order, or things that we believed would help 11 in designing a program. There are five of them listed. 12 As Joe 13 stated, the program -- we would like to see the program 14 optimize the planning and budgeting and deployment of 15 all resources within the RPS program, so we don't have 16 duplicative efforts going forward. 17 We believe that the Commission was in its 18 order looking for larger installations. Again, the customer sited tier has primarily focused on some of the 19 20 smaller eligible technologies directly. Obviously, 21 customer sited PV obviously has been mostly on the 22 residential side. So, again, looking for some of these 23 larger installations and we've noted in here above 50 kilowatt. 24

The other issue that was noted in the order 1 2 is that, for those fuel based technologies, there is a strong interest to have those fuel based technologies 3 use a renewable fuel stock. The RPS order, the initial 4 RPS order has laid out what eligible biomass fuel stock 5 б is. So, within those parameters we would like to see 7 renewable fuels used for anaerobic digesters and fuel cells. 8 9 The Commission also pointed out that it was 10 interested in accounting for the knowledge and expertise 11 of the distribution companies within those zones, and looking for places along the distribution system where 12 it would be an added value to put some renewable 13 14 resources along those systems for added support. 15 And so, in trying to come up with a very 16 sort of simple straw proposal, the six line straw 17 proposal, which is a competitive block installation, 18 It's very straightforward. Has the size over 50 kilowatt. 19 20 There would be a split in the budget. \$5 21 million would be for zones G and H. \$25 million would 22 be for zones I and J. And that was based on an historic 23 annual average of the energy use by those zones to come 24 up with that list. The selection criteria would

primarily be cost, levelized cost of energy per dollar 1 per kilowatt hour. 2 We were contemplating, and we put on the 3 table, this additional adder that would be established 4 5 for projects installed along the distribution system, but utilities would have to identify where those 6 7 desirable locations are. Not necessarily an exact point, but within a zone on a distribution system. 8 That would make it more fair and equitable 9 10 for all those who were bidding on or entering a bid in a 11 solicitation, to make sure that the information was out there so it didn't give -- so it wouldn't be 12 13 disadvantageous for somebody that wasn't a utility. In terms of payments, it would likely be a 14 15 combination of install capacity and performance payment. 16 How that split would be is open for discussion, as well 17 as how much the adder for projects installed along a 18 distribution system that would provide additional distribution support, that's also open for discussion. 19 20 And so the notes along the -- on the bottom 21 of that sheet just talks about the things I have 22 discussed. Value added portion of the solicitations to be identified up front. A panel would convene to go 23 24 over the solicitations and evaluate the proposals and

1	bids.
2	A couple of key things. These larger scale
3	projects are expected to be more cost effective on a
4	unit per incentive basis than the existing customer
5	sited tier.
6	Again, I know that program will not be
7	decided by the Commission until a future date, but for
8	those of you who have either participated or are
9	knowledgeable on the former customer sited tier program,
10	we would be looking to receive economies of scale. So,
11	the assumption would be that they would be more cost
12	effective than those in the customer sited tier,
13	formerly in the customer sited tier.
14	So, that's essentially it. Pretty brief.
15	Pretty straightforward. I know there's going to be a
16	lot of questions about it and some suggestions on how to
17	improve it. That's what we are looking for.
18	So, with that, we will just open it up for
19	discussion.
20	MR. FRANCIS: We agree with the concept of
21	geographic balance, however, to exclude certain
22	resources, certain eligible resources from the mix, we
23	think that is not an appropriate way to go.
24	And an example of the rationale behind that

1 is: We have developers who have invested millions of 2 dollars in controllable lines to help to alleviate the 3 congestion in New York City in zone J. And controllable 4 lines do have the ability to bring in renewable energy 5 into zone K.

6 We think that this should be opened up to 7 all eligible resources as long as they deliver into the 8 zones noted in the program, instead of just restricted 9 into the listed resources, anaerobic fuel cells. We 10 think it should be opened up to all eligible resources 11 as long as they deliver into those affected zones.

12 The way it is right now, we do have 13 renewable energy coming in from Canada into New York, 14 into NYSERDA program. It's pretty much essentially the 15 same thing. If you can bring renewable energy in from 16 PJM across the controllable line into zone K, I think 17 they should have the opportunity to participate. They 18 are serving the function of the RPS program the concept of geographic balance is intended for. 19

20 So, that's our comment. We think it should 21 be opened up on the broader scale to all eligible 22 resources. 23 MS. PALMERO: Thank you.

24 MR. ZALCMAN: I have some comments on the

proposal, but maybe if I could just start by asking a 1 few questions of clarification. 2 MS. PALMERO: 3 Sure. It talks about providing block MR. ZALCMAN: 4 incentives on the base of levelized cost of energy. 5 Ι б am assuming that the program is only funding the 7 required incentive, not the full install cost of the 8 system. 9 MS. PALMERO: That is correct. 10 MR. ZALCMAN: And the adder, would that 11 basically come out of this pot of money, or would that be an additional revenue stream provided by the 12 utilities to offset otherwise required distribution 13 14 system costs? MS. PALMERO: It would come out of this pot 15 16 of money. I guess we were envisioning it similarly to 17 the economic development adder like they have in the There would be this additional adder. 18 main tier. What the weight would be, whether it would 19 20 be like the 70/30 that's in the main tier, or different 21 split, that's still to be determined, but that was the 22 initial thinking was it would definitely come out of 23 this block of money. 24 MR. ZALCMAN: Thanks.

MR. GALLAGHER: Just on that point, it seems 1 like some PV installations, which you are going to be 2 working during the summer when power is most expensive, 3 should earn a premium. I am not sure the incentive 4 alone from the RPS is going to be adequate. 5 б It would be nice to find a way to, just like 7 with the main tier, they could get paid locational base marginal prices for the value of the power. 8 So, I think that should be an option that's 9 10 open at least to further discussion. 11 MR. TIMOTHY DANIELS: We would be opposed to 12 allowing utilities to bid into the program. New York 13 has had a long standing policy, about ten years now, 14 discouraging utilities to own generation. A lot of reasons behind that. 15 16 Some may see this as sort of a small -- this 17 isn't a large resource, we're not talking about a 500 18 megawatt plant, but I think a lot of the same principles 19 apply. 20 What I would say, as right now putting on my 21 developer hat, there is a very good argument that it's 22 almost impossible to set up a level playing field in 23 terms of bidding. The utility is almost always going to 24 have some kind of advantage in the way the bidding

structure is set up. And allowing utilities to bid into 1 2 these programs is going to discourage other developers to participate. 3 And I want to point to the example. I mean, 4 obviously the Commission wants to make sure this program 5 б is coordinated with the needs of the distribution 7 system. Obviously the utility needs to be directly involved with that. 8 9 But there is a fairly long history in Con 10 Edison territory of programs being developed that 11 utilize non-utility development, development dollars,

12 and yet support the system. There's targeted DSM 13 program which has been operating for several years, been 14 quite successful, and the targeted demand response 15 program I guess two or three years operating now.

So, there are ways of structuring this that allow private sector development and leverage that with the utility's knowledge to make sure that you optimize the benefit to ratepayers in terms of distribution system support.

MS. PALMERO: I understand that and appreciate that comment, but the thinking was there are utility-owned facilities that perhaps some of these eligible technologies could be placed on, and so that

was the thinking. 1 2 And in terms of them having this advantage over non-utilities, if it's because they could 3 potentially have influence over the whole 4 5 interconnection into their system, I am not sure where б else. 7 MR. TIMOTHY DANIELS: I think it's -- I would point out two things. 8 One would be information that's available. 9 10 A lot of programs -- and I am generalizing. I am 11 thinking of other states where this has been attempted. 12 Sometimes a utility has information that's proprietary, it can't be shared with developers, and it gives them an 13 14 advantage in the bidding. 15 The other place is if the Commission does go 16 in this direction, a lot of thought would have to be 17 given to the cost allocation and the risk management, because we have seen in other states when these programs 18 19 are developed there's supposed to be a level playing 20 field. 21 You will see when you start digging down 22 that the risk allocation in some way -- for example, if this is structured, if there is any risk that is passed 23 24 through the delivery portion of the bill, you have a

1	cost risk. That immediately creates an unlevel playing
2	field.
3	So, this would have to be set up so the
4	utility has all the same risk a non-utility has.
5	MS. PALMERO: That's what we would hope to
6	set up, a very even playing field.
7	And in terms of them having additional
8	knowledge about their distribution system, the intent
9	was for the utilities up front to come in and publicly
10	state these distribution systems, or within these areas,
11	these would be good sections to provide additional
12	distribution support.
13	So, those would be like the adders within
14	the solicitation. If you can place a project within
15	these certain areas, this would give you this additional
16	adder. And everyone would know what those locations
17	are. The utility couldn't come in and say, well, this
18	is going to provide distribution support and somebody
19	else didn't know about that location. It would all be
20	upfront.
21	But I can appreciate the things you are
22	saying with maybe some other knowledge, but we would
23	hope to try to flush all those out.
24	MR. TIERNEY: I have got a question,

actually a couple of questions, on guiding principle 1 number three, and I am sure some follow on questions 2 once I hear the answers. 3 Can you tell me a little bit about the logic 4 5 of creating that principle in terms of limiting б renewable feedstock and how you envision the production 7 incentive payments. From reading that it sounds like there would still be eligible -- natural gas system 8 would be eligible for some sort of an up front payment, 9 10 but progress payments or production of the energy would 11 be not allowed to have a payment, if I read between the lines. 12 13 MS. PALMERO: I will try to explain what the 14 thinking is here. We see that there is a lot of untapped 15 16 methane in these zones, especially down in New York City 17 where we have got some of these waste water treatment 18 facilities. I know a lot of those are NYPA customers so they wouldn't necessarily be eligible unless there is a 19 20 way you could get a customer associated with that. 21 So, the feeling was if you could put a fuel 22 cell in a location that could utilize some of this 23 methane gas, recognizing that there might be some 24 instances where you would have to use natural gas to

supplement, but the actual payment would only be based 1 on the portion of the renewable fuel that is being used. 2 So, you could use both natural gas and the 3 renewable feedstock, but you would only get paid for the 4 5 renewable fuel that you are using under this program. So, it's a good question with the actual up 6 7 front capacity payment, how that would be structured, because if you were mostly going to be using natural 8 gas, and maybe just a small percentage of a renewable 9 10 fuel, I guess we would have to think about that a little 11 bit more, how much would be an up front payment as 12 opposed to a production payment, but that was the thinking. 13 14 MR. TIERNEY: Thank you. Just a couple of 15 follow on questions if I may. 16 Waste water treatment plants clearly are a 17 source of methane. Beyond that, I'm not a hundred percent sure where that would be in the city 18 environment. And, you are right, a lot of the waste 19 20 water treatment plants are owned by NYPA. We have eight 21 or nine fuel cells that are already supporting those. 22 We'll have to scratch our heads a little bit and figure out where else that might be. 23 24 I guess one other question in regards to the

bio fuel, would it need to be directly fed into the fuel 1 2 cell? California has just passed an allowance for what they are identifying as directed bio fuel. 3 What that means is somebody may find an 4 5 opportunity to clean up methane and work with the б utility to put it into the pipeline, but then you would 7 contract with them or that source for the methane, but of course you wouldn't be getting the same molecules 8 that you would be putting into the system, and would you 9 10 envision some scenario like that qualifying for 11 incentives? MS. PALMERO: I think we would be open to 12 I would have to think about -- we would have to that. 13 think about that a little bit more and delve into that. 14 15 MR. TIERNEY: It's like a gas REC 16 essentially. 17 I guess the last comment, obviously some of 18 the things driving renewable energy is the reduction of greenhouse gases. And fuel cells, in and of themselves, 19 20 don't necessarily result -- fuel cells on natural gas 21 don't necessarily result in reduction of greenhouse 22 qases. 23 However, if they are used in combined heat 24 and power scenario, we have seen significant reductions

1 of greenhouse gases.

2	I would urge the Commission to look at
3	allowing natural gas and paying for capacity payments,
4	but maybe there is a certain threshold for heat use that
5	maybe puts it on a more equal footing with some of the
6	ultimate goals of the program.
7	Thank you.
8	MR. GALLAGHER: Just to follow up on this
9	NYPA point. And I think it's complicated somewhat and,
10	first of all, clarification. The waste treatment
11	facilities are owned by the city.
12	MS. PALMERO: Right, but they have NYPA
13	power, you are right.
14	MR. GALLAGHER: But the point I wanted to
15	make about NYPA customers and we have been talking
16	about potentially paying a premium to customers that are
17	installing PV or some other renewable at the point in
18	the distribution system that's providing distribution
19	system benefits.
20	And the point I want to make is NYPA
21	customers are also Con Ed delivery customers and they
22	pay Con Ed delivery rates. In fact, a recent Commission
23	order directed that NYPA customers pay for certain Con
24	Edison demand reduction programs.

So, the line gets blurred somewhat when we 1 2 are talking about the distribution system benefits. Systems that are installed on NYPA customer facilities 3 in certain locations will provide local distribution 4 system benefits. So, I'm just making that point that 5 б requires further attention. 7 MS. PALMERO: Thanks, Jim. We are just looking I guess for 8 MS. ADAMS: more guidance and clarification in terms of announcing 9 10 opportunities where there are distribution benefits, how 11 are we going to quantify them, how often we need to reevaluate them. 12 13 MS. PALMERO: Well, thinking of a 14 solicitation once a year. At some point prior to the solicitation we would ask the utilities to come forth 15 16 with information on areas along their distribution 17 facilities. 18 Trying to -- I know in terms of the confidentiality of this information, I don't think it 19 20 would be, but the utilities will come in saying either 21 along this system, between these two points, we could 22 use distribution support. And that would be made available to all bidders within that solicitation. 23 24 So, if a project that bid into the

solicitation was within this area along the distribution 1 2 system, they would get this adder. So, to answer your question: I think it would be a once a year if that's 3 how frequently we were going to provide the 4 solicitation. 5 And if a utility came in with a project that 6 7 was in an area that was advantageous for the distribution system, but it wasn't on the filing that 8 they made prior to the solicitation, it wouldn't count 9 because it wasn't made available to all bidders. 10 11 Very basic, so, if you have any other suggestions on how to count that distribution adder we 12 13 would be receptive to further input. 14 MR. NACHMIAS: I wanted to go back to a 15 question for the gentleman about the fuel cells. If it 16 were natural gas, for example, not a renewable fuel. 17 And I understand that if it were a CHP type set up it would provide efficiencies but it wasn't clear 18 how that fits under the RPS or how it's different from 19 20 other DG technology other than that fuel cell that might 21 provide in a CHP context that same benefit. 22 That's a question for me? MR. TIERNEY: 23 Fuel cells on natural gas are qualified as 24 class one renewables in the State of New York, so they

1 are renewable power.

2	MS. PALMERO: He's referencing the fact that
3	they were in the customer sited tier of the the
4	former customer sited tier program in the RPS where fuel
5	cells on natural gas were eligible.
6	MR. PARELLA: I think we need to be clear
7	that I think our intent, our preference, Tina, is if
8	fuel cells are to be considered we would like to see
9	them fueled by a renewable fuel source.
10	MR. GALLAGHER: One option I would suggest
11	to you is open, for example, if you can get incremental
12	methane out of a waste treatment facility, inject it
13	into the system to offset natural gas that's used in a
14	fuel cell, I think you would get the same benefit. You
15	don't have to run it directly through the fuel cell.
16	MS. JOSEPH: If we are, indeed, looking at
17	primarily renewable resources for fuel cells, and by
18	definition for anaerobic digesters, this issue of
19	determining the eligibility of feedstocks from the waste
20	water treatment plants in New York City is just an
21	absolute threshold issue.
22	If those feedstocks are not eligible, the
23	renewable supplies, other than PV, in the metro area
24	become quite limited. There might be some supplies via

food digestion, for example, at Hunts Point, but it's 1 2 really a very threshold issue. Depending upon the determination of whether 3 those biological feedstock are in or out, it might 4 5 become just a PV program in the metro area, which could have merits as well. So, I just want to underscore that 6 7 that's a very threshold issue. MS. PALMERO: You are not talking about the 8 actual feedstock because the feedstock is an eligible 9 10 technology, but you are talking about the NYPA -- the 11 relationship of the customer, right? 12 MS. JOSEPH: Right. That's a real threshold 13 issue. And then one other just comment I will put 14 on the table somewhat unrelated. In terms of having the 15 16 utilities identify the critical areas in their 17 distribution systems, I think that's certainly something 18 that could be done through a collaborative mechanism, maybe even establishing an advisory group for this 19 20 geographic balance component going forward. I think also, on the tail end, we would all 21 22 benefit if the utilities were deeply engaged in 23 conducting an analysis of the economic value of the 24 resources in the distribution system.

We have been grappling with this throughout 1 2 the RPS technical workshop. So, I think there is a very significant role in identifying the geographical -- the 3 specific locations for the resources, and then also in 4 sort of analyzing from a fairly hard economic 5 б perspective the realized value of the resources. So, I 7 would put that on the table. Just lastly, there are some institutional 8 market barriers in the metropolitan area that we are all 9 10 aware of, and I think that we would need to be 11 addressing those sort of in a complementary manner with 12 the program. 13 It might not even need to be RPS resources. 14 For example, we have talked with Con Ed and others, on the PV side we know we need to do a little bit more in 15 16 terms of training the building inspectors in the 17 metropolitan area. So, we shouldn't forget that there 18 are market barriers in the metropolitan area that even sometimes the RPS dollars might not address. 19 20 So, just wanted to put those comments on the table. 21 22 MR. PARELLA: Thank you, Janet. 23 Regarding your first comment, getting way 24 ahead of myself, but I think as part of the next steps

we are going to ask for written comments. 1 2 Jim, it would be really helpful if the city really provided some information and perspective on this 3 NYPA-New York City relationship. That would be really, 4 5 really useful. MS. NELSON: As Ms. Joseph had mentioned, we 6 7 do have a presentation we would like to make afterwards, and I think there will be some overlaps so I don't want 8 to go too far astray, but on some of the points that 9 10 have been discussed so far. 11 First of all, we do work in a very congested 12 area, so, I think that everybody is aware that the costs 13 of upgrading and maintaining our system are significant. These efforts towards understanding some of the benefits 14 15 there are certainly very much appreciated. 16 And some of my questions, specific to your 17 proposal and to that point, perhaps this is getting a 18 little bit ahead of myself, have to do with some of the timing of when our analysis would be done and provided, 19 20 and then when these projects, if there would be a 21 requirement for the projects to be on line by a certain 22 time. 23 And then, in getting to Janet's point also, 24 what kind of follow up or measurement, because certainly

in order for our -- to value what that benefit is, it 1 2 needs to perform and that's something very, very important. 3 So, again, perhaps this is further down the 4 5 road in the development of the programs, but it's something that would be very important in terms of 6 7 really capturing that value towards longer term being able to offset some infrastructure and costs. 8 9 MS. PALMERO: Any comments you have about 10 that, because that's a good point, if we are going to 11 provide a part of this as a production incentive what's the term of that production incentive? 12 Is it three 13 years? Five years? Does it go out beyond? 14 So, if you have some feedback on what you 15 think is a good term for that, that would be helpful. 16 MR. TIMOTHY DANIELS: Has staff thought 17 about -- this is getting back to the utility and 18 non-utility competing in the bidding process. One bit of information that I think would be 19 20 difficult to bid if a non-utility entity didn't have 21 information on some of the interconnects. 22 What I mean by that is: We have this fault 23 current map that Con Ed updates and is on their website. 24 For dispatchable resources, a non-utility entity could

determine, if given information -- which I assume Con Ed 1 2 would do, they have done with their targeted program -information on the number of accounts in a particular 3 network that are in different size ranges, they could 4 determine sort of a market potential almost for that 5 б area. 7 But solar is a little more difficult because with solar, unless you are going to build it small 8 enough so it's absolutely never going to export, in most 9 10 cases there's going to be some kind of exporting, some 11 net metering aspect to it. Right now with the Con Edison system, and 12 13 Con Ed can correct me, maybe I'm wrong on this, but if you look at a case by case basis, and depending on the 14 15 feeders that are involved, in some cases there is 16 allowance for some export as long as it doesn't back 17 feed into the system. 18 I am not an engineer, but it's back fed into the system at some point. That's information that if 19 20 you are trying to figure out to go to network how much solar would be available, unless a non-utility entity 21 22 had that information it would be very difficult to determine. 23 24 They would have to bid very conservatively.

They would have to assume that they could only install 1 2 systems at facilities where there would be no exporting. Whereas, a Con Edison distribution engineer can look at 3 that and do it kind of easily, but there's a capability. 4 They could look at that information and determine where 5 б there might be a possibility of some sort of exporting 7 it in individual sites. So, I mean I am guessing you probably 8 haven't gotten into that detail. Maybe I would throw it 9 10 out there as one of the issues that have to be worked 11 through. MS. PALMERO: I am just thinking in terms of 12 one of the remedies for that is whether we do this in a 13 collaborative fashion or if the utilities submit some 14 15 kind of filing with these areas along their network that 16 would be subject to this adder, if they could also 17 identify sort of the threshold limits on those portions 18 of their network projects. Up to a certain size could be sustained on this portion of the network. 19 20 So, it would give some additional 21 information. I am not sure if that would work but I'm 22 just trying to think. 23 MR. TIMOTHY DANIELS: The issue of which 24 sites you could do the net metering at comes down I

think, really, to more specific sites. Maybe it's just 1 a little cluster. 2 The issue there is that for non-utility 3 bidders to have the same information, Con Edison would 4 5 have to say potentially like those four buildings you б could potentially do some. In those three you can't. 7 In the past, I don't think in these similar types of -- like in the targeted program, that level of 8 specificity was never given because the thinking was 9 10 that went beyond that kind of confidentiality issues. 11 MS. PALMERO: Right. We will have to think 12 about that to make sure we make it as level a playing field as we can and if we can't then we will alter that. 13 14 MR. LEVY: I've got two guick comments. 15 First, regarding the issue of customers that 16 don't pay into the RPS, there's been an advisory opinion 17 that's on file that has been instrumental during the 18 customer sited tier program up until now that has indicated that the customers which do not pay into the 19 RPS can be still considered if there's "sufficient 20 21 public benefit". 22 That's been taken on a case by case basis. 23 Would that be under consideration as well in this 24 program? Would it be possible to consider that

customers that don't pay into the RPS can still be 1 perhaps eligible if this issue of sufficient public 2 benefit holds true? That's item number one. 3 Item number two that I wanted to mention is 4 5 that NYSERDA has been promoting installation of systems б at sites that can serve as facilities of refuge during 7 natural or a manmade disaster, or a grid outage, and we have been providing an adder in the fuel cell program to 8 systems that are capable of running during the grid 9 10 outage and are sited at a facility that can serve as a 11 facility of refuge. So, in the discussion of adders in the 12 13 programs, that might be an additional adder to consider 14 aligned with important public policies. 15 Thank you. 16 MS. PALMERO: Certainly. Thanks, Dana. 17 Dave, did you have --18 MR. JOHNSON: I have a question. How does the current customer sited tier 19 20 work with respect to the utility participation? Is the 21 customer the utility or is it always a customer, a given 22 customer, so it's a relationship between the company installing the fuel cell or the PV, and a particular 23 24 customer, or is it with the utility? And in this

program would it work the same way or be different? 1 The former customer sited tier 2 MS. PALMERO: it was -- in the case of PV, it was the installer who 3 applied for the incentives. NYSERDA had a list of 4 5 eligible installers that went through NYSERDA-sponsored б training and they were the ones that were applying on 7 behalf of their -- a customer, mostly residential and some commercial and non-for-profit. 8 9 But the understanding was the eligible 10 installer who applied for the incentive, all the 11 incentive would go back to that customer. So the 12 customer would get the full advantage of it, but it was 13 the installer. So, there wasn't this utility 14 relationship other than the fact that they had to apply 15 for interconnection and work with the utility, but the 16 utilities were not applying in the former customer sited 17 tier program. 18 This is a little different that because of the Commission's desire to optimize some of these larger 19 20 installations along the distribution network, especially 21 in New York City, that they are interested in getting 22 utility input. 23 And so, again, as a first blush with the 24 straw, we thought it would be appropriate if utilities

could then bid into the process as long as the playing 1 field was level. 2 MR. JOHNSON: I quess in this situation an 3 example would be: You have a fuel cell developer. 4 You 5 don't have a particular relationship with the customer. They would be selling the energy to the utility and then 6 7 the utility would resell that to the local distribution customers? 8 9 Or would the fuel cell developer install a 10 fuel cell at a particular customer's location and then 11 competing with the utility to provide the service to 12 that particular customer. 13 MS. PALMERO: It's interesting, because 14 there's so many different scenarios that could play out, 15 and I guess the thinking was we would put out the rules 16 and what we got back, there could be some very creative 17 arrangements. 18 I think the one thing is we just wanted to 19 make sure that customers who were paying into the RPS 20 really get the benefit of the program. So, if there 21 could be some arrangement where a fuel cell was located 22 on a city property, but somehow there is always the 23 thing where you can lease the land for a dollar, and I 24 don't know, there's all these different kinds of
arrangements that can be made so it benefits the utility
 customer, the distribution customer paying into the RPS
 that would be considered.

So, I guess my answer is it could be an either/or situation. There could be a lot of variations on these projects. Again, I think the Commission is very interested in making sure, though, that those who are paying into the program are receiving the benefit.

9 I think one arrangement that's a little 10 concerning is if we didn't have some kind of control, 11 for instance, not to pick on New York City, but if all 12 the projects were put on New York City property that 13 were NYPA customers, we would have to sort of figure out 14 what that benefit was to those that are paying into the 15 RPS.

But, as you said, a lot of NYPA customers pay into the Con Ed or their delivery customers of Con Ed who then pay the RPS charge. So, I guess there's got to be some kind of further development on that relationship.

Did I just totally confuse the --MR. JOHNSON: In a standard RFP if a utility is going out and soliciting for, let's say, energy capacity, they are going to offer a long term contract

to buy the energy from the project. And the project 1 2 wouldn't have to go out and be searching for individual customers and make arrangements with them. They would 3 just have one contract with the utility and it would be 4 5 a lot simpler than if there is process where you would be both competing to sell to the utility and then 6 7 potentially to other customers that might be located near the distribution location. 8

MR. PARELLA: Let's do this. We understand 9 10 that the utility involvement, ownership issue, how they 11 would play in this game is really important to a lot of 12 interest groups, and I don't want to really get bogged 13 down in a discussion of whether that's good or bad here. 14 We are going to ask for written comments and we 15 encourage people, if they have a specific concern, let 16 us know in the written comments.

I would really like to sort of focus on some of the other issues or concerns folks might have, if that's okay.

We understand it's a concern and a lot of thought went into our preparation of this document because we know it's out there. And we definitely want to hear from you, but we also have a lot of ground today to cover on some other matters, and if we could move

along that would be good. 1 2 Maybe not. 3 MR. GALLAGHER: Just a point. The main tier right now, the main tier program as it's designed, 4 5 developers get payments. And whether they pay into the б RPS or not, the requirement on the developer is simply: 7 You have to put renewables into the grid. And you can build a new facility. You can 8 9 build on NYPA-owned property. You can do anything. As 10 long as you put power into the grid you get paid. 11 MS. PALMERO: But that's getting streamed 12 back to the RPS customers who pay into, the RECs get streamed back to the customers through their utility. 13 So, different than the customer sited tier 14 15 where you were getting money to put these installations 16 on residential or commercial buildings. 17 So, I understand what you are saying, that 18 the developer doesn't pay into it, but the attributes that are created by that project that NYSERDA buys gets 19 20 streamed back to the RPS paying customers. 21 MR. GALLAGHER: Right. I understand that, 22 but what I am saying is you can still have a project 23 developed by a third party on, say, a NYPA facility or a 24 non-utility customer, that if it's putting the power

into the grid it's achieving the same benefits. 1 2 Okay, Joe, we will move on to something else. 3 Maybe not quite. Maybe this MR. ZALCMAN: 4 is another way to parse the issue. 5 б I think there is -- and obviously the 7 utility issue is controversial and tricky, but I think there is an important distinction between projects on 8 the customer side of the meter and projects on the 9 10 utility side of the revenue meter. 11 If what you envision by utility 12 participation is projects that the utility develops on the customer side of the meter, that really puts the 13 14 utility in direct competition with third party 15 developers, and seems you are losing the leveraging. 16 The developers are bringing private capital 17 to bear to develop renewable projects. If a utility 18 participates in a solicitation, where does that incremental cost come from? Is it coming from the 19 20 customer on whose premise the facility is located and 21 receives the energy from that system? Or is it coming from other customers? 22 23 I think in the latter case, you have got the 24 lion's share of customers paying for benefits that are

concentrated on the host. I think if you are talking 1 2 about utility participation, where the power flows into the grid for the benefit of all customers, that is 3 perhaps a different situation. 4 And there, I think, we would just expect, 5 б again, that if the utility is conducting this that it 7 issue a competitive solicitation to allow third parties to participate in that process. 8 9 MR. GALLAGHER: Can I just ask the solar 10 people here, and possibly the utilities, do you 11 anticipate doing only behind the meter projects, or do you expect to have some projects putting directly into 12 the grid? 13 14 Has anyone thought that one through yet? 15 MR. TIMOTHY DANIELS: We are a solar 16 developer. We have projects in all the surrounding 17 states. 18 So, I think that we are looking -- not in New York right now, but we are looking at projects 19 20 behind the meter and feeding into the grid, but in most 21 cases, depending on how the incentives are set up, 22 usually it's more economic to have it behind the meter. That tends to be where 90, 95 percent of the 23 24 development is, but obviously you look out west you see

there are huge wholesale grid feed projects being 1 2 developed. MR. PARELLA: I am confused with how people 3 are defining feeding into the grid. Are we talking 4 5 about a one megawatt project that conforms with the ISO б rules? 7 MR. TIMOTHY DANIELS: I would say that feeding into the grid in most cases I'm talking about 8 something that might start at, let's say, five to ten 9 10 megawatts. 11 MR. PARELLA: So, you are talking about main 12 tier. 13 MR. TIMOTHY DANIELS: It really would be structured as a main tier. 14 15 MR. PARELLA: I just wanted to get 16 clarification. 17 MR. TIMOTHY DANIELS: Although there are 18 some places where there will actually be solar panels on 19 a facility because it just structurally it makes sense. 20 You would have a place to put them out of the way, it's 21 unused space, but yet they are connected on the utility 22 side of the meter. 23 They might be sized below the customer's 24 peak demands. So, Most of that power, electrons are

1 flowing immediately back into the customer's facility,
2 but from the ISO's perspective it would seen as a
3 wholesale generator.

MS. NELSON: To get to Jim's question, Con Edison does see that there are some opportunities where utility size solar projects in particular, in the New York City area, do make sense, and that there are opportunities for that.

9 Warehouses, for example, there is not 10 significant electrical demand for some of these 11 buildings, yet they have flat rooftops, low construction, and we see that, being on the utility side 12 13 of the meter, if that energy produced is -- particularly 14 if it's solar and it's day time energy, where we have 15 higher hourly clearing prices, that energy can be back 16 fit or can essentially offset some of the otherwise 17 wholesale procurement that's going to need to be made on behalf of the customer. 18

So, in that sense, that power that gets generated by these projects benefits all of the customers through the reduction in some of that peak energy purchases.

23 So, we do see that there are opportunities 24 there. I don't know if we are talking five to ten

megawatt, but certainly one to two megawatt. 1 MR. KAMEN: First, this is a great step. 2 It's a nice step to see New York taking this initiative. 3 We look at this \$30 million of geographic 4 5 equity as really being -- coming out of the main tier б with these economic benefits that are going to be 7 associated with it now being the step taken that needs to happen to quantify these benefits in the load 8 pockets, the constrained areas in particular, the zones 9 10 that you guys are targeting. 11 We think that the customer sited tier piece of it has been really successful over the last five 12 13 years. It really ballooned the solar market. 60 14 percent a year there's been in growth notwithstanding 15 all the other issues that are out there. 16 But when you take a look at some of the 17 surrounding states and the fact that New Jersey now has 18 a five gigawatt goal and we are looking at a relatively small amount of megawatts, still, we think there's a lot 19 20 that needs to be done. 21 This is one small piece of a plan that we 22 are going to be working on where there is various levels of opportunity, everything from the small customer sited 23 24 tier bearing on the residential, and the small piece,

1 less than 50 kw, to where this one is now kind of a sort 2 of secondary tier. 3 But ultimately we need utility scale, much 4 larger projects. While this we think can play a kind of 5 pilot role in maybe initiating some of that, what we

6 don't want to see happen is that, if you take a look at 7 yesterday's announcement that NYSERDA went out and got 8 10 megawatts for \$6 million, \$1.60 a watt, basically 9 sort of premium out there, and you divide that into \$30 10 million, you get about 20 megawatts worth of resource 11 with current prices.

Maybe it's a little bit less because it's Con Ed area, there will be higher costs, etc., so that Maybe it's a little bit less because it's Con Ed area, there will be higher costs, etc., so that Maybe it's not be distributed so that's not just a few projects that buy it up and leave the rest of the market out.

17 So, what we would like to see is a couple 18 different things. One, that, yeah, there's a collaborative effort that quantifies the fact that you 19 20 target those areas. If it's only 20 megawatts, maybe 21 the whole program initially gets targeted to those 22 areas, that there's some split between third parties and 23 smaller installers of 50 kw up to a hundred, or a couple 24 hundred kw, to allow other businesses that are growing

and striving to now move into this main tier piece, that 1 2 we allocate a piece to utility side projects that there's specific piece that they do and that are allowed 3 to do, whether it's power purchase agreements or other 4 ways that make sense, but specific to find they are not 5 competing unfairly, because ultimately we think that 6 7 utilities need to be involved in a much greater area in rate base, a whole host of additional projects that will 8 make economic sense as to look at the additional 9 10 benefits that we are going to get out of these pilot 11 projects. In terms of the contracts and the 12 performance contracts, we think you should structure it 13 14 over ten years. Ultimately we want to have everything 15 driving toward the same pricing and the piece. 16 And I think that we need to be really 17 careful with this, that we want to encourage the next 18 step of growth and start getting towards the gigawatts, 19 but we don't want to lose the small and medium size 20 piece. 21 You talk about over 50 kw. 50 kw is still a 22 relatively small project in Manhattan or the boroughs. So, we want to make sure that that 50 kw, a hundred to 23 24 500 kw block is there and it's clear and we're

incentivizing as the behind the meter piece in a way 1 2 that makes and that gets competitive bidding going and doesn't have just a few parties buying up the large 3 pieces of it. 4 5 MR. GALLAGHER: I just want to agree б completely with what Ron just said about this project, 7 in itself, is more I would say in line with being a pilot, and if we ultimately do want to get to utility 8 scale projects. I think in terms of correcting the 9 regional equity problems, this project itself, even over 10 11 five years, does not do that. The testimony that we put in is the 12 13 downstate area is already committed to close to \$300 14 million for the RPS program, and I think we really need 15 to find a way to move toward the utility scale programs 16 and large scale main tier programs in the city and 17 downstate. 18 We will probably only see six megawatts to 20 megawatts coming out of this program. At the same 19 20 time, I think what staff has circulated is a good 21 proposal and I think it goes in the right direction. 22 There's some technical details that we will 23 probably need to work out, but I think we always need to 24 keep in mind that this isn't the ultimate goal. We want

to go further than this. Looking for utility scale 1 opportunities, I think, is really something that we 2 should consider as move forward. 3 MS. NELSON: I, first, would like to agree 4 5 with both of the comments here on the need for larger б projects and utility scale projects, but I also want to 7 point out that, as Con Edison looks at its own customers and hears from its own customers, and assesses how we 8 use energy in our service territory, that it's also 9 10 important to recognize that even the below 50 kilowatt 11 in terms of solar particularly is important and can be 12 meaningful. 13 We have 3 million customers and the average 14 utility bill is quite small, but when you add it all up 15 you see we have got huge demand in New York City and 16 it's made up of a lot of small customers, and each one 17 of those can do their part. 18 As we have seen through other energy 19 efficiency programs that these help at individual 20 customers' level. As we look at the solar programs, we 21 think that there is a large untapped potential below 50 kilowatts also. 22 23 These are some of the comments and some of 24 the thoughts that we've been putting into this that we

did want to share. I don't want to take up too much 1 2 time, but I do hope to be able to elaborate on it later, but that these are some of the considerations that we 3 4 feel are important. And we are hearing from our 5 customers that they would like to be doing some of this б themselves, and there are barriers that need to be 7 broken down. And we feel that there is a utility role and 8 9 that working with NYSERDA we can get to some of this to 10 get to some of the smaller projects as well. 11 MS. PALMERO: Just to follow up on that, the 12 former customer sited tier that obviously targeted the 13 smaller installations, so you are saying even go above 14 and beyond that not in terms of funding, but having a 15 utility role with respect to these smaller installations 16 above and beyond what the customer sited tier was set 17 out to do. 18 MS. NELSON: We just think that with partnering with NYSERDA, we think NYSERDA has done a 19 20 good job and has good program infrastructure in place, 21 and certainly developed a lot of good processes, but 22 that there is great name awareness of NYSERDA at a level 23 that when you get to the smaller customers, I think by 24 bringing the two names together there can be some

greater benefit and awareness that will help in bringing 1 2 some of these programs to the customers. 3 MR. IRISH: We are a PV installer, designer and installer in the Hudson Valley area. 4 First of all, I shudder every time I hear 5 б you refer to the customer sited tier in the past tense. 7 We have 35 employees that hope that it's not solely in the past. 8 9 But I would like to see the 50 kilowatt 10 limit removed. And building on the comments just --11 that we just heard from Con Ed, I think that it's a myth that larger scale PV systems would be more cost 12 13 effective from a kilowatt per dollar incentive basis 14 than smaller systems. 15 NYSERDA just had a competitive bid, PON 16 1686, that was announced yesterday, the awarding was 17 announced yesterday, and they had \$10 million that was up for bid. Six megawatts was one. As Ron Kamen 18 referred to or mentioned earlier, half of it went to 19 20 residential, small systems, and that was in a 21 competitive situation. I think that demonstrates that residential 22 23 and small systems can be competitive on a basis, dollar 24 per kilowatt per dollar basis with larger systems.

MR. PARELLA: It might be useful to remind 1 2 folks that the Commission will be taking up the customer sited tier program and funding levels sometime in the 3 first quarter, if not at the March session, or April. 4 As we said in our opening remarks, they want 5 б to look at what's -- what comes out of this process in 7 concert with the decision it makes in the customer sited tier. 8 9 So, you need to keep that in mind that 10 whatever we decide here and the impacts it has on small 11 or larger customers might be remedied, in part, by what the Commission decides to do with the customer sited 12 13 tier. 14 So, let's keep that in mind. Okay? Just to be clear, our position 15 MR. KAMEN: 16 with the customer sited tier is it should be at least 50 17 million, which was beyond the level of the staff 18 proposal, and it should be targeted towards the same constituency and billed over time. 19 20 I think Jeff's point is well taken in that 21 if you allow people to build blocks into this program it 22 doesn't have to then have a minimum or 50 kw is the 23 minimum, that basically people can build in block -- you 24 structure it so that they have to bid 50, whatever

number of megawatts or portion of megawatts that you get 1 2 to the same end result. But in terms of Con Ed's piece, absolutely, 3 there needs to be continued development, and our 4 proposal to get to two gigawatts, about 800 megawatts, 5 б would come from smaller, less than 80 kw size systems. 7 And, clearly, that market needs to be developed because that's where most of the load 8 ultimately resides. 9 10 MS. ADAMS: A lot of these previous points 11 are well taken about developing the smaller tier. 12 Something we would like to keep in mind is that if we 13 are really going to grow solar seriously in New York State and move toward utility scale size, we also have 14 to consider the benefits to the distribution system. 15 16 With the smaller systems you are just not 17 going to get there. We're not going to be able to take 18 a few 25 kw systems on circuit and defer capital investment projects. So, we do have to keep in mind 19 20 there should be a balance there. 21 I agree with you. However, one MR. KAMEN: 22 of the things we saw from the last solicitation is by bundling a number of smaller residential projects you 23 24 get the same benefit. And if those are in targeted load

1 areas, that can be a tremendous security. So, you need 2 to start scaling absolutely. We need to start hitting 3 that.

In terms of utility scale, we think that 4 utilities should be involved at 5, 10, 20 megawatt and 5 bigger projects because they are everywhere else in the 6 7 country, and that that should be where we start incentivizing and capitalizing and socializing the cost 8 of those types of investment, and getting you guys 9 10 involved in in terms of power purchase agreements, if 11 not in actual ownership, for that generation.

12 So, we want to get to multiple gigawatts. 13 We want utilities on the larger scale wholesale piece of it, but on the residential, rather, the distributed side 14 15 of it, we need to keep building the market and keep 16 building blocks of that market, keep getting the 17 technology out there and grinding the process out. 18 MR. PARELLA: We get it. This is another 19 issue. 20 Are there any other new issues, concerns, 21 people want to introduce on the staff proposal? 22 MR. HOFFSTATTER: We are currently involved

23 in a number of installations throughout New York State 24 and other states, but we do a large part of our work in

the areas we are talking about as being affected, lower 1 2 Westchester, New York City. We are working constantly with Con Edison, 3 4 New York City DOB, to try to simplify and get through 5 the interconnection process in a timely manner. That seems to be one of the biggest concerns, barriers, etc., 6 7 to the whole process. I think, while we are dealing with literally 8 on the wire by wire basis, it's something that needs to 9 10 be considered as a whole, so that not only us but new 11 companies as well can come in, both on large and small 12 scale projects, being able maybe to aggregate small 13 scale projects in residential and co-op type situations to provide some of the scaling that we are talking 14 15 about, but to simplify the process so that these projects can go in a timely manner. 16 17 Labor, other considerations, working 18 particularly in New York City, are exacerbated by just where we are trying to work, from getting to work, 19 20 whatever. 21 So, the less number of trips back to a site 22 to do something, the less number of -- these issues we can deal with the better. So, I recommend that we 23 24 incorporate or look at some kind of -- it's been talked

about, but actually doing now some kind of standard 1 2 interconnection process for both the customer side and utility side of the meter applications. 3 Thank you. 4 5 MS. PALMERO: Thanks. MR. LANDARD: Good morning. I'm managing 6 7 Director of Deepwater Wind. We are a developer of offshore wind projects in Rhode Island and New Jersey, 8 and hopefully soon in New York. So, I would like to 9 10 thank you for the opportunity to speak with you today. 11 The main point, I think, that we would like to raise is the idea of using some of these funds to 12 allocate them to NYSERDA to do some of the research that 13 would, down the road, expedite the siting and the 14 15 permitting of offshore wind facilities. 16 The timeline for permitting an offshore wind 17 facility in federal waters is fairly long, but there's a 18 lot of work that could be done early, and NYSERDA, I think, is positioned well to do that. 19 20 Specifically, if some of the RPS dollars 21 could be -- for the downstate allocation -- could be 22 used for meteorological towers, developing what the wind resources are in federal waters; also looking at what 23 24 current and wave forces are out there for a tidal and

wave energy, as well as also helping us understand what 1 2 the forces are so that we develop our foundations so that they can withstand the pressures out there. 3 Also, Avian radar is very, very important. 4 Right now the US Fish and Wildlife Service asks for a 5 б two year study before we can even go in for permitting. 7 If NYSERDA could do some of that work ahead of time, any of the developers, whether it's Deepwater 8 or any our competitors, would be able to show that data 9 10 ahead of time and shorten the permitting period. 11 So, I should be very clear that we're not 12 asking for this for Deepwater Wind. We are really 13 asking for the industry. And lastly, there are marine mammals and 14 15 other marine life that could be studied out there. The 16 National Marine Fisheries Association or group, and also 17 NOAA and some of the other groups would be interested in 18 this. This is similar to what Rhode Island has 19 20 done. Rhode Island has something called the Ocean 21 Special Area Management Plan, Ocean SAMP, and they are 22 spending millions of dollars studying the ocean so that 23 they can identify where to site offshore wind facilities. 24

It's similar to what New Jersey is doing with a \$6 million ecological baseline study that will then give us what the baseline is, so that after some offshore wind facilities are developed we can go back to baseline and get a very good understanding of whether there has been any effects of developing these offshore wind facilities.

In Rhode Island right now we have -- we are 8 very close to getting final approval from the Utility 9 10 Commission up there to put up to eight turbines in state 11 waters for up to 30 megawatts of power, and we will be in the water in 2012 and operating those turbines by 12 2012, probably the first offshore wind turbines in the 13 country. And within -- moving quickly from that to a 14 15 385 megawatt Rhode Island Sound wind facility that will 16 observe Rhode Island.

17 And in New Jersey, along with our partner 18 Public Service Enterprise Group, we were selected by the state to be the pilot project developer of a 350 19 20 megawatt offshore facility. The Governor in that state 21 a couple years ago decided that in order to create a 22 critical mass that could create the job development and 23 job creation and economic development that they are 24 interested in moved from just having us be the developer

to choosing two other developers as well. 1 2 So, the goal in New Jersey is 1,000 megawatts offshore by 2012. That will not be met. 3 And then 3,000 megawatt by 2020, that's still, we think 4 feasible, if the federal government permitting process 5 б rationalizes itself and moves forward. 7 So really, in summary, what we would like to ask you to do is consider some of those funds to get to 8 NYSERDA to do the research that would expedite down the 9 10 road the permitting. 11 And we would like you to start thinking 12 about how to fund these relatively large facilities, and 13 where the RPS funds get expended. A 350 megawatt facility will generate about 1.3 million megawatt hours 14 15 of power a year. We look to 20 year term contracts. 16 That's what we think the life of our facilities are. 17 So, I don't want to be too aggressive here, 18 but maybe some type of carve out for ocean renewables is something to be considered down the road in the 2014, 19 20 2015 timeline, but it's still something to think about 21 now. 22 That is what New Jersey is doing. They are 23 creating something called the ocean REC, the ocean 24 renewable energy certificate, where the suppliers, the

third party suppliers in New Jersey, will be required to 1 2 buy a certain amount of them each year. Because we have an auction process in New 3 Jersey, we can't have PPAs because we never know who the 4 5 suppliers are. We need revenue certainty. And the electric distribution companies were not too excited б 7 about PPAs. Never could quite understand that, but that's not where they want to go, so we try to go to a 8 back up position, which is having a regulatory mandate 9 10 that the basic generation suppliers purchase these ORECs 11 from us so that we can get that socialization and the 12 support we need to move forward. 13 MS. PALMERO: Thank you. 14 MR. GALLAGHER: I want to respond to that 15 point. While I agree with you, and the city made 16 similar recommendations that the Commission consider 17 using RPS funds for some of the offshore wind 18 preliminary research, my concern now is not to do it as a carve out of this \$30 million. 19 20 MR. PARELLA: Up to \$30 million. 21 MR. GALLAGHER: Don't do it as a carve out 22 out of this, but do it as an increment above this pot of 23 money. I just believe that when you look at how far 24 this is going to go, this is not going to go very far.

The other point I wanted to make is the 1 2 offshore wind collaborative, which the city is involved in, you also have NYPA and LIPA involved and I think 3 they need to step up to the table as well. It's 4 appropriate to use NYSERDA funds, I believe, to fund 5 б some of the research, but definitely LIPA and NYPA have 7 responsibilities as well. MR. LANDARD: Jim, we do agree with you that 8 the carve out should be in addition to the \$30 million. 9 10 We are very strong supporters of the solar and anaerobic 11 digesters and the other customer sited tier work that 12 you are looking at here. So, we don't want to step on 13 that. 14 And we understand our magnitude is in a

15 different ball game than a lot of what we are talking 16 about here today.

17 So, and also, we would welcome the opportunity, and I can speak for all the developers, the 18 offshore wind developers, working with LIPA, NYPA, 19 20 NYSERDA, to help give our expertise, what we have known 21 and learned about how to do some of the research, 22 because we are developing in Rhode Island. Blue Water 23 is developing in Delaware. And there would be an 24 opportunity so that your staffs don't have to get up to

1	speed. We could probably get them up to speed quicker
2	by telling you what we have learned.
3	MS. NELSON: On this point of offshore wind,
4	this is something naturally Con Edison is involved in
5	and it's something that, as staff considers the points
6	that were raised today, I just wanted to add some of the
7	that the consideration also include some of the
8	benefits that offshore wind brings in that it's
9	generally a higher capacity factor and also higher on
10	peak capacity factor.
11	Although offshore is generally more
12	expensive than onshore to develop, it does have some of
13	the other benefits, as well as being closer to the load
14	center. Transmission costs also need to be considered
15	equally in terms of getting into land, but then also on
16	land to bring upstate down to the point.
17	SPEAKER: We have also identified some
18	interconnect points that would not require virtually any
19	upgrades at this point. And 1.3 million megawatt hours
20	a year, that's a significant savings to customers. We
21	do have costs, obviously.
22	We appreciate your comments on the benefits
23	and we are bringing our energy from a completely
24	opposite direction than most of the energy flow on the

1	east coast so we avoid a lot of the congestion.
2	MR. PARELLA: Thank you.
3	Anyone else have any comments on the staff
4	proposal?
5	MR. GALLAGHER: Just very quickly, and let
6	me leave you with a few other specific comments.
7	One thought would be for the PV that you
8	also consider an adder for storage. We are encouraging
9	storage to go with a number of the PV installations we
10	are putting in city buildings, but I think it does add a
11	lot of value to the project.
12	Second, I would recommend that you do two
13	solicitations per year, rather than one.
14	Third, I would strongly recommend including
15	the city in some way in their marketing efforts with
16	NYSERDA, with Con Edison. I think, for example, the
17	Economic Development Corporation, we have our own list
18	of builders, developers and the like that we routinely
19	work with, and the city owns over 4,000 properties with
20	about 20 million square feet Con Ed served space, so
21	there's a lot of potential for cooperation there.
22	Lastly, just a question. One thing that I
23	am left wondering when I reviewed the proposal is what
24	kind of price threshold are we even talking about here?

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The way the main tier works is you have a certain amount 1 2 of money. You put out the main tier solicitation. You award contracts until the money -- you run out of money. 3 Are you thinking of something similar here? 4 So there wouldn't necessarily be a cut off point in 5 б terms of economics? 7 MS. PALMERO: There could be like there is with the main tier. There's a price threshold. 8 We are trying to make this even more competitive than the 9 10 customer sited tier. If we were getting bids that were 11 well beyond that, I think there would have to be some 12 kind of threshold but, yeah, up to a certain amount of 13 money. So, you are right. 14 I am just curious. Why two solicitations a 15 year as opposed to one? 16 MR. GALLAGHER: I think that there is 17 potential in the city that we can do this a lot more 18 quickly. I don't see the need to wait a year. 19 MS. PALMERO: I guess I'm just thinking of 20 the pots of money. If it's up to 30 million a year, I 21 thought it might be more advantageous to go out once a 22 year with a larger sum of money because if you go out twice a year then you are cutting that pot in half. 23 MR. GALLAGHER: 24 That's a good point. Ι

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1	think one thing we could do is see what the response is
2	to the first solicitation and consider going out again,
3	because I think especially with the first time people
4	are just going to be learning about this.
5	MS. PALMERO: Okay.
6	MR. PARELLA: Anything else?
7	MR. ZALCMAN: This is kind of a getting down
8	into the weeds kind of a detail, but especially given
9	that it is a finite pot of money, it will be very
10	important that the solicitation have significant
11	milestones to ensure that the projects that are being
12	bid, and actually secure funding, move forward and you
13	don't have just paper megawatts.
14	We see that throughout the country where
15	there aren't project milestones and the megawatts just
16	simply don't materialize.
17	MR. PARELLA: I am sure we can build some of
18	the contracting procedures that we have in the main tier
19	into a customer sited tier geographic balancing
20	solicitation also.
21	So, that's it on the feedback on the staff
22	proposal? Sounds like everyone just wants to sign on
23	right now.
24	MR. CHAPMAN: Written comments, what's the

1 timeline on that? 2 MR. PARELLA: Yesterday we had a meeting on alternate contracting options, contracts for 3 differences, and we gave folks two weeks, to January 4 5 29th, to file comments. I suspect we will probably want б to do something like that here also. 7 It's noon, so we have a choice. We can break for lunch and then do Con Ed's presentation or we 8 can do Con Ed's presentation now. 9 10 Denise, how long do you think that would be? 11 MS. NELSON: 15 minutes. MR. PARELLA: 15 minutes, with some 12 13 questions, so what's the sense of the audience? Do you 14 want to break for lunch now or do the presentation? 15 MR. TIMOTHY DANIELS: Seems almost possible 16 we could hear the Con Ed presentation and have the 17 comments on it and maybe even wrap up by one. 18 MR. FRANCIS: Is it going to be two separate 19 or --20 MR. PARELLA: Let us think about it. We can 21 talk a little bit about it when we talk about next 22 steps. 23 MS. PALMERO: Are you talking about the 24 comments for the hedging or Con Ed?

MR. PARELLA: We will figure it out, do 1 2 whatever is most convenient for you all. So, the sense is to carry on and try to push 3 through. Why don't we take a ten minute break now and 4 we will come back at 12:10. 5 б (Recess taken.) 7 MR. PARELLA: Please, if you haven't signed in yet, please sign in. 8 9 So, Denise, you have the floor. 10 MS. NELSON: First of all, Con Edison 11 appreciates the opportunity to be engaged in this dialogue, because we look at the renewables and the 12 13 environmental challenges that we have, and we think we 14 are all in this together. And we think that there is tremendous 15 16 untapped resources in New York City and that helping to 17 bring some of that to fruition will help the state, will 18 help all of us. As I had mentioned before, our customers are 19 20 interested in renewables and particularly solar. Solar 21 happens to be for LAN based applications what makes most 22 sense in our service territory, and particularly in the 23 city, and we feel that there is a tremendous untapped 24 potential there.

We have about 1.7 billion square feet of 1 2 roof space, and we think about 45 percent of that, or about a billion of that is suitable for solar, so 3 naturally not all of that will get built. 4 If it did, that would be something else, but there are a lot of 5 б roofs there. And trying to bring some of that to good 7 use I think is something that we can work together on. As we look at the RPS funds they are 8 significant, and our customers pay about 43 percent of 9 10 those funds that are elected, and we would like to see 11 some of the pool that -- the resource pool, the 12 portfolio that gets built with this RPS money come 13 directly down to help some of the -- relieve some of the congestion that we have locally, and so that our 14 15 customers can get some of that benefit as well. 16 Some of their -- we see local emissions 17 We are in an ozone non-attainment area so we also. 18 think that that's an important consideration that should be looked at wholistically in terms of some of the other 19 20 values to bringing some of that downstate. 21 As well as our local energy costs, they are 22 significantly higher. And certainly economic 23 development as well. I think we have heard before also that the 24

\$30 million is the start. We feel that's a start. 1 We 2 appreciate that, but we feel that ultimately we will need to go beyond that, and that there is justification 3 for that and rationale that we can put that forth for 4 you for consideration. 5 I think one important point, I mentioned 6 7 this in terms of sizing, and on the customer sited tier, that we feel -- and I know it is still for future 8 consideration -- that the application based process that 9 10 NYSERDA has been effectively running is effective, and 11 that some of the barriers in New York City are some of 12 the more intangible ones and they have to do with 13 process. 14 And that we feel it's important to continue 15 this program and work on some of these barriers and try 16 and work on figuring out what exactly these underserved 17 markets need, and that would be a very effective, or 18 could be a very effective approach that we could -- that

19 we should be exploring and continuing this application 20 based approach to RPS.

In terms of some of the other interests in solar, in downstate, we do have -- the city is also very interested. New York City is one of 25 Solar American Cities and the City University of New York has a Center

for Sustainable Energy that's also very involved and has 1 2 received grant money to help promote renewables, and particularly solar, in New York City. 3 Some of the unique features that solar 4 5 brings to New York, I had mentioned the peak energy prices are higher. We have done some analysis on this, 6 7 and I'm talking about just the New York City zone J itself. 8 9 Our peak energy prices are significantly 10 higher, and that is because we are more congested. Т 11 have an 80 percent in-city requirement because of some of the reliability concerns there to help mitigate that. 12 13 But when we look at our peak energy hourly clearing prices, as Jim has mentioned, gathering some of 14 15 the benefits, that it is real and that there's real 16 value in that solar and that it is more coincident with the peak and certainly we do have day peaking networks. 17 18 That these are areas that can be tapped to really extract some of that value. There's also the 19 20 capacity prices, and then as well as just the cost of 21 doing the construction and offsetting some of the distribution infrastructure. 22 23 Another point for our solar is that we are 24 lower in latitude. So, in terms of just the overall

1	megawatt output for that kilowatt that's installed, that
2	that's important consideration as well.
3	We have been talking with NYSERDA, as we had
4	mentioned before, and hoping to build on some of their
5	programs and working together. And overall, I think we
6	have some concepts and values that we share, and that we
7	would like to continue working with them and build upon
8	those in terms of expanding the application-based
9	program.
10	We think that jointly developing a program
11	is something that we would like the opportunity to do,
12	and we will look forward to putting something forth to
13	you.
14	Some of the concepts that we have are
15	have been some of the ones that have been mentioned.
16	Targeting solar areas that will produce some of the
17	greatest benefits; looking at some of the underserved
18	markets and some of the paying for performance also.
19	And as the utility, we look at the potential
20	for performance-based incentives paying for the kilowatt
21	hour production over time. That's something that we are
22	looking further at in terms of capturing some of that
23	delta in the peak pricing over a time period, be it five
24	years, be it 10 years or so.

We think this is something that we can help with in that we have the meter and the relationship with the customer, billing relationship with the customer. So, that's something that we would like to explore some further. And we also agree with using competitive structures for some price discovery also.

7 On the facilitation concepts, reducing the 8 barriers is really important. It would be great if we 9 could see solar be installed in a hundred days instead 10 of a year, or sometimes greater that we hear. We look 11 at ways perhaps that some sustainable model for 12 financing can be worked on further.

There is a tremendous amount of financing opportunity that's put together, but sometimes accessing that is a little bit difficult and sometimes timing is difficult. So, these are some of the areas where we think just the streamlining process is important.

18And also some alignment with the energy19efficiency programs. I know some of the other states20are looking at alignment with energy efficiency and21that's a consideration that we think is important also.22The point of -- I want to shift gears a23little bit now and talk a little bit about utility-owned24solar. We had put forth in our November comment that we

think that there is a role for utility owned ownership 1 2 of solar on a larger scale. Utilities can recover their costs over 3 longer period of time, 25 to 30 years, at a lower cost 4 5 of equity, so we think that that helps bring the cost down to the customer. And offset -- and the energy 6 7 output then goes directly into the grid, so it's offsetting some of the energy that needs to be procured 8 in the real time market for the customers. 9 10 So, these are some points, again, that we 11 just wanted to reiterate here because we do feel that this is something that needs further consideration. 12 13 Our last point really has to do with the offshore wind. I think, just reiterating some of that, 14 15 that we feel that there is -- in the portfolio of 16 renewable solutions, that offshore wind is important and 17 can provide an important component of the overall renewable initiative that we have. 18 Included in that should be some of the tidal 19 20 power, including what we have already started to work 21 with in the East River. 22 So, our road map. We will continue to work 23 with NYSERDA and we do hope to file some of these 24 concepts in the timeline that is set forth.
1	And that's a quick summary of my comments.					
2	Thank you.					
3	MR. PARELLA: Any questions or concerns					
4	folks want to raise with Denise?					
5	MR. KAMEN: First, I think that's great, and					
6	I'm very excited and happy that you guys are looking to					
7	both streamline the process, which I know you guys have					
8	part of the issue is the interconnection, which					
9	hopefully you guys work on that.					
10	A question, several things. One, when you					
11	say utility scale and larger projects, what kind of					
12	what's your concept about what that is?					
13	MS. NELSON: Well, we do for example, we					
14	have I think it's a great warehouse. We can get two					
15	megawatts on a roof in Astoria, Queens. And that would					
16	be something we would love to be able to develop, for					
17	example.					
18	And we see that the business model, for					
19	example, that SoCal Edison on its warehouse district					
20	where they are owning this. It's a model where there's					
21	not a lot of electrical load by that building, by the					
22	host building itself, but it offers great real estate					
23	opportunity to utilize that.					
24	I think those should be developed. And					

1 ultimately I think what's the most important is what's 2 the least cost for the customer, and that's where we can 3 come back to our economic analysis and what is your 4 underlying cost of equity and how quickly do you need to 5 recover your costs and what kind of risks are you taking 6 on.

Again, ultimately, we want what's cheapest for our customers. We just feel that, especially in our current financial situation that we are in right now, that a utility can help bring these things, bring these projects to our market quickly and efficiently with less risk.

13 MR. KAMEN: In many ways we agree on a lot 14 of different things. Talking to the ESCO community, as 15 well as the Commission, and dealing with historical 16 evolution of utility ownership of generation assets in 17 the state, there is a concern about utilities in a bunch 18 of different ways, both on the competitive side as well as the risk in the long term development, and the 19 20 historical problem of utility investments in capital 21 taking too long and having cost overruns and such. 22 But one of the things we really like is the 23 utility involvement from the marketing perspective, from

24 the targeting perspective, from those value added, all

1 the things you talked about.

2	One of the questions is the role as the						
3	utility in terms of shifting the capital risk through a						
4	power purchase agreement, or other type of structure, is						
5	that when you say "ownership" it kind of has various						
6	potential ways because what you are really looking to						
7	own is to own that fixed price energy resource over						
8	those 25 or 30 years.						
9	You could actually own the capital or you						
10	could have a third party own the capital and therefore						
11	buy the output and reduce the risk to customers and all.						
12	Is that kind of in your model of thinking?						
13	MS. NELSON: It really all comes down to						
14	ultimately the cost to the customer. If that business						
15	model is something that can provide that same energy and						
16	that same benefit to our customers at a cheaper cost, it						
17	certainly is something that should be part of the						
18	answer.						
19	But my our preliminary analysis that we						
20	have been looking at, what we see from the marketplace a						
21	lot of times is the independent developers want a cost						
22	recovery over ten to 15 years, and then are also looking						
23	for a higher return on equity, so the equation doesn't						
24	always end up being least cost for the customer.						

And then the treatment of how that energy 1 2 output is utilized and valued is a part of the equation that has to go into it also. 3 So, if you can maximize that direct offset 4 5 for those peak hours and capture that peak clearing б price, that's really an important part of how the 7 structure is set up. Just one last question. 8 MR. KAMEN: 9 In terms of those values, because it's been 10 very difficult getting a handle on what are the value of 11 those coincident peaks and the targeted, etc., are those 12 something that you are prepared -- that Con Ed is 13 prepared to kind of share, at least through certain instances, that would help justify some of these 14 15 programs and targets? 16 Because that's an issue right now because no 17 one really has a good handle on those values. 18 MS. NELSON: In terms of the peak clearing prices? 19 20 MR. KAMEN: In terms of the ultimate benefit 21 to you in particular zones, particular target 22 subdistricts, and all those. Yeah, I know the clearing price information is public, but in terms of providing 23 24 some economic analysis of that long term benefit of

coincident peak and other periods of time, it's been 1 2 really difficult for my association, which is a relatively small one, to get some sort of handle and 3 justification. 4 5 It seems like no one really has those б numbers very clearly yet. Maybe you guys do, and maybe 7 you shared them already and I just don't know about it. MS. NELSON: I think there's a lot of 8 different ways of looking at it. When I was talking 9 10 about large scale utility ownership I was really talking 11 about the clearing price of an entire zone. So, I think 12 that that's public information and people are aware of 13 that. 14 In terms of targeting specific areas, we are 15 doing some work on looking at this, and we are looking 16 at historical peak hour price. There's an historical 17 clearing price for every hour on our peak days, and looking, then comparing that to actual data, solar data, 18 because hypothetical data is helpful to some extent, but 19 20 also when we have our heat waves, sometimes you get haze 21 that comes in with that also. Particularly as heat 22 builds up over days, and then the days get a little hazier and hazier and hazier. 23 24 So, you don't have necessarily as much of

the solar radiation as you -- on the third day of a heat 1 2 wave that you might have had on the first day. A lot of this is new and needs to be further studied. So, this 3 is something -- we support some of the competitive 4 5 bidding targeting and want to continue to work on that for specific areas, but I think that there's just a lot 6 7 of uncharted territory there, too, that we also need to work through. 8 And in terms of what is the actual value of 9 10 that, we hope that we are going to get there. And 11 ultimately can you offset distribution infrastructure? That's a question I think still further down the road. 12 13 But we do know that there are system 14 benefits. There's less thermal cycling of equipment, 15 for example. Again, a lot of information that needs to 16 be discovered there. 17 MR. GALLAGHER: Ron, a quick point. 18 One of the things that makes it difficult is that Con Ed has 57 networks, and oftentimes the networks 19 20 are peaking at different times during the day depending 21 on whether it's residential, commercial and what the mix is of each. 22 23 But we, through the Solar American Cities 24 Program, we received an award from DOE to do a study, in

cooperation with Con Ed, to try to help identify where 1 are those networks that would make the most attractive 2 3 targets. So, I'm hoping that that would feed into any 4 5 process that we use to possibly come up with a weighting б scheme that would provide more weight for projects in 7 the high potential networks. MR. CHAPMAN: One thing that I think we 8 didn't really hammer down earlier about where the 9 10 resource is located on the meter, behind, in front, 11 something that I would like to get down to is where do 12 you foresee this as serving some sort of actual on site resource load? 13 14 So, whereas the resource is on the roof, 15 It's serving the load of that particular building, and 16 how would that interplay? 17 I think it's an important question. I don't 18 know. If you guys want to chime in that would be 19 helpful. 20 MS. NELSON: I am not sure I totally follow 21 your question, but we see behind the meter and in front 22 of the meter both as important to being tapped. MR. CHAPMAN: Absolutely, I understand, but 23 24 so where that power is being shipped off, there is two

1	ways to do it. You can meter it and net weigh and					
2	consume it on site, or you can take that power, buy that					
3	whole resource, all that energy, and ship to the grid.					
4	Whereas, none of that energy is actually consumed on					
5	site.					
6	So, how would that, those two different					
7	options, interplay with what you are thinking in moving					
8	forward?					
9	MS. NELSON: I think both of them make					
10	sense. I think that on site consumption makes sense,					
11	but also, where there is not a significant load, that					
12	putting it into grid there's certainly a lot of					
13	metering and measurement that needs to be considered as					
14	we move forward there, but I don't think that all the					
15	answers are there yet, but hopefully we will get there.					
16	I don't think I am giving you I'm					
17	answering your question.					
18	MR. CHAPMAN: Not quite, but I'm just					
19	thinking about as it depends on what you are paying					
20	for for the electricity, whether you consume it on site					
21	or ship, I think. It greatly depends. That attribute					
22	that so far we are talking about, \$30 million being out					
23	and about for these types of programs, I think that that					
24	money being allocated, it depends greatly on whether or					

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1	not it's being consumed on site or being shipped					
2	directly to the grid on how much those attributes are					
3	going to be worth.					
4	So, just helping further educate that					
5	thinking.					
6	MS. PALMERO: Any more comments on Con					
7	Edison's proposal?					
8	MR. TIMOTHY DANIELS: I think two points.					
9	One, just this is use this maybe as an					
10	example when I was talking about difficulty of having					
11	bids for utility-owned and non-utility owned in level					
12	ground.					
13	For example, 25 or 30 year financing for a					
14	solar project is something that is, for a lot of					
15	distribution system equipment, that is an appropriate					
16	financing period. For a lot of the solar development, I					
17	would say most private sector folks never consider					
18	financing that period because most of the equipment is					
19	only designed to operate for something closer to a 20					
20	year period. There may be some examples.					
21	The second thing is on terms of risk, you					
22	know, a two megawatt system at, let's say, \$6 a watt,					
23	which is standard, you're talking about \$12 million					
24	system. If two years from now a solar company, one of					

the solar companies here comes forward with brand new 1 2 technology and are able to produce solar at \$3 a watt, ratepayers now have, in effect, \$6 million in stranded 3 costs. 4 5 For a system that's been owned, let's say, б by Sun Edison, sits on a customer's facility, where they 7 have developed it off of a REC payment, customers have their liability, their risk is a lot less. So, again, I 8 think everyone understands that but I just wanted to 9 10 emphasize it. 11 The other thing was, maybe getting back to something Jim Gallagher made a comment on, this is 12 13 something that I think we are quite interested in this 14 project, and we see a lot of value finding a way to 15 maybe go a step beyond I think what Jim was describing 16 in terms of identifying networks where solar might be 17 appropriate. 18 We would love to see a targeted nearer term 19 where there actually are -- and this was -- another 20 individual I think tried to make or made this point 21 earlier. I will just sort of restate it. 22 Really believe that looking at individual 23 networks you should be able to come up with sort of a 24 coefficient factor, let's say, for a day peaking

1	network. And the effect would be that when Con Edison						
2	identifies, let's say, a day peaking network, there						
3	should be the ability of developer at some point to put						
4	in a solar panel and there would be some kind of						
5	deferred T&D value that could be associated with that.						
6	The thing that prevented that from happening						
7	so far is we don't really know at the times when that						
8	particular network peaks how it how that matches up						
9	with the generation, the output of the solar panels at						
10	that particular point.						
11	I think, looking at I mean the national						
12	labs, federal national labs have done a lot of work on						
13	this. I think we have some other utilities that have						
14	some information. I mean I would think after a year or						
15	two years of having some solar panels that Con Edison is						
16	monitoring very closely, I would think that would be an						
17	achievable goal, and I think it could go a long way to						
18	developing kind of the next generation solar programs						
19	where they are really integrated into the Con Edison						
20	distribution planning.						
21	MR. PARELLA: Any other comments? No other						
22	proposals?						
23	MS. NELSON: Couple of responses to that.						
24	You brought up some concerns, actually, that						

1	we do have. In terms of essentially a stranded cost					
2	issue that you are talking about, if we build a project					
3	at \$6 a watt and three years down the road now the cost					
4	is \$3 a watt, especially in a time when we do expect					
5	costs to come down, so this is something that we are					
6	going to have to really carefully work with and ensure					
7	that we are not going to be in that situation.					
8	However, if we are paying for a PPA that's					
9	based on the energy price, as opposed to a REC now, a					
10	REC does get around some of that issue because then it					
11	is current real time market price, but if the developer					
12	is looking for a PPA that's tied to the actual, that					
13	will pay for a certain amount of output, underlying that					
14	you are still dealing with your \$6 today, \$3 in the					
15	future. So, whether we are owning it or the PPA, that					
16	same situation exists.					
17	MR. TIMOTHY DANIELS: We would agree with					
18	that.					
19	MS. NELSON: As far as the length of					
20	financing, we have been having discussions with our					
21	accountants, and much of the solar panels actually are					
22	designed or indicated for 25 years of life, and for much					
23	of our utility equipment sometimes the actual life is					
24	longer than the design life.					

-						
1	Our accountants have advised us that we					
2	should be, then, rate basing the asset over a longer					
3	period of time, which I said 25 to 30 years, although					
4	ultimate goaling is something that would have to come					
5	out in time.					
6	Thank you.					
7	MR. KAMEN: So, obviously, there will be the					
8	period of written comment, which will be great. One of					
9	the things I would like to just put forth is that I					
10	think that looking at this as kind of a pilot means that					
11	what you want to do is you want to put out certain					
12	things, test them, see how they work, and then take it					
13	to the next step.					
14	So, Jim's idea about two solicitations a					
15	year makes a lot of sense to me. In addition, to look					
16	at different models and testing those models. One of					
17	the models, it seems to me, is that when we talk about					
18	these adders, we talk about an adder on the REC value					
19	that you guys are thinking about paying for those					
20	particular areas.					
21	MS. PALMERO: Let me just clarify that I					
22	call it an adder, but it's really how the proposal gets					
23	evaluated. So, it's a weighting, for this additional					
24	piece. Again, like the main tier. I think the adder					

1	might be I am misspeaking when I say adder, but it's					
2	really how it's evaluated.					
3	MR. KAMEN: I think that the evaluation					
4	process is critical to making these things happen.					
5	I think that one of the models that we					
6	should look at, though, is that in particular target					
7	areas where we think that there is, for all the reasons,					
8	great constraint, etc., etc., substation, etc., one of					
9	the models we might consider is Con Ed and other					
10	utilities putting out a proposal for 25 year PPA, having					
11	developers come in and then bid what they would need as					
12	a REC price for ten years, under that 25 year PPA,					
13	understanding what the PPA would look like.					
14	Give them the benefit of knowing, okay,					
15	we're going to pay this, this is our value, we					
16	understand, this is what we want to put out. We want					
17	this amount. We will have to see how many megawatts we					
18	will get and what the adder would be from a competitive					
19	solicitation for those number of megawatts at that fixed					
20	utility involvement.					
21	So, it kind shifts some of the risks, it					
22	shifts some of the bidding, it shifts some of the way					
23	that you do it. That's just one potential model to					
24	think about.					

MS. PALMERO: I'll expect to see that in 1 2 your written comments. MR. GALLAGHER: A suggestion about possible 3 additional technology that you might want to consider. 4 5 One of the greatest opportunities in the б city is, for efficiency improvements and also carbon 7 reduction, is combined heat and power. Given all the city buildings, as well as the infrastructure of the 8 city alone, 80 percent of the energy is going through 9 10 the buildings. 11 One thought might be -- and I was disappointed that we couldn't find a way to get combined 12 13 heat and power into this program, but think about 14 combined heat and power fueled by biodiesel as a 15 potential opportunity. 16 I think that over the next couple of weeks 17 we should explore that in more detail because I think 18 that would have an immediate impact on the city. There's a lot of enthusiasm in combined heat and power 19 20 Ιf industry. They are just getting a lot of traction. 21 we can get them moving toward biofuels, I think that 22 would be a significant advantage. 23 MR. SOBOLEWSKI: I just wanted to ask a 24 couple follow on questions. About the clarification on

the adder, and how that's a criteria for consideration, 1 2 not part of the incentive structure, was very helpful. To further clarify how you envision working 3 4 in the straw proposal, is it correct that there would be 5 two components of whatever the incentive payment would be, so capacity based component, up front payment, let's 6 7 say, and then a production based component; is that correct? 8 9 MS. PALMERO: That's the initial thinking. 10 That's correct. 11 MR. SOBOLEWSKI: Then that production based piece, would that be flat or established up front, or 12 13 would that be something that the bidder would be 14 competing on effectively as well where they would bid on 15 perhaps lower required attempts for the project and be 16 considered more favorably? 17 MS. PALMERO: Right, and I think that would be combined, and that's when you would take a look at 18 what's your -- sort of your average weighted cost on a 19 20 dollar per kilowatt hour basis. 21 I guess you can look at it several ways. The bidder could need much more money up front, so, the 22 way that you would have to structure your bid over this, 23 24 and I guess it would have to spell out the terms of how

long that production payment would be for. 1 2 So, giving all the parameters of the solicitation and you would have to come up with I think 3 -- well, I don't know. Either one final number, 4 5 levelized number, and you could potentially get more of that money up front and have lower capacity payments. 6 7 But I don't think that's been thought out, or it hasn't been fleshed out. There could be various 8 scenarios how we could divvy up that capacity payment 9 10 and that production incentive. 11 I will just note that the Commission has been -- they have been favoring more verification of 12 13 actual production of these facilities. So, they may lean towards having a bigger piece being the production 14 15 payment as opposed to the up front capacity payment. 16 So, they could be weighted differently. 17 MR. SOBOLEWSKI: Should we assume that there 18 are also implications for the pool of funds and how 19 that's administered to use with respect to up front 20 versus payments over time, or is that not a 21 consideration? 22 In other words, is it to your advantage to 23 be able to, instead of let's say distributing the \$30 24 million all up front, an all up front payment, is there

an advantage to spreading that over time? 1 2 MR. PARELLA: I don't think we have gotten to that level of detail yet. If folks have thoughts on 3 4 how to do that, whether to allocate where percentages 5 should be between capacity and performance payments, we are interested in hearing what you have to say. 6 7 MR. SOBOLEWSKI: I guess one last comment on that piece. 8 I have heard a couple of different comments 9 10 with respect to how much development we might see in 11 terms of total megawatt capacity based upon the amount of funds allocated in this initial proposal. 12 13 We can attempt to address this in written comments, but I don't know if you have got all of the 14 15 answers here now. It strikes me there could be a number 16 of different ways to stretch those funds through different types of mechanisms. 17 18 Really, both how you structure the incentive 19 and also, perhaps, how you tie that to the contracting 20 and otherwise. So, I'm just putting that on the table 21 to state that I think there is really the potential to 22 develop quite a bit more capacity than some of the numbers kicked around here today if we think through 23 24 creative and intelligent ways in terms of how to

1 structure it.

2	MS. PALMERO: That's good. Yeah, any kind						
3	of input you can provide, that's what the Commission I						
4	think is really looking for, how can we stretch out the						
5	dollars, how can we get as much capacity for the dollar						
6	as we can. So, if you have thoughts on that that would						
7	be helpful.						
8	MR. SOBOLEWSKI: One last comment I would						
9	make is just that with respect to what we had been						
10	calling adders, criteria for consideration that would						
11	weight more favorably for a particular project, I would						
12	just state specifically that we would support,						
13	certainly, the adder based upon location.						
14	The transparency and that, we think would be						
15	very important with respect to the bidding. So, we						
16	would agree that there could be a list of zip codes						
17	issued where they would have that special consideration						
18	would be helpful.						
19	Peak delivery as a second criteria I think						
20	is very important. We brought up emergency or refuge						
21	sites and storage. All are good criteria. For all of						
22	them it sounds like there's sufficient data available to						
23	develop the criteria relative specifically to economic						
24	value.						

So, for peak delivery, let's say, that could 1 2 be quantified in numerical terms, not just sort of binary, yes, no. So, we would encourage any support 3 from the various parties helping to establish that. 4 5 MS. PALMERO: Thank you. MR. PARELLA: Any more comments? Questions? 6 7 Concerns? MS. QUIN: I have some comments for Orange & 8 Rockland Utilities. We won't repeat a lot of the more 9 10 generic comments that Con Edison made that we do 11 support, but a few Orange & Rockland specific comments. Our customers have contributed \$120 million 12 13 towards the RPS program, but we have no main tier 14 projects within our service territory, so we are not 15 receiving the local benefits that other customers are 16 receiving from that tier of the RPS program, including 17 the economic development opportunities. 18 We believe the \$5 million may be a start. \$5 million, that is, for Orange & Rockland and Central 19 20 Hudson, but largely insufficient to address the 21 imbalance issue. I think that my neighbors to the left 22 here probably agree with me on that. 23 O&R has resources not being served by the 24 current solar program, and we think the emphasis on

1	solar going forward would be beneficial to our service					
2	territory. We have larger roofs. Not as many as New					
3	York City, but we do have larger roofs that could					
4	support solar.					
5	Utility property and targeting					
6	opportunities. So, we do support the value added					
7	proposal.					
8	We support the competitive solicitation					
9	proposal which is attractive to drive down the cost and					
10	get more funding for our customers' homes.					
11	We would echo Con Edison's comments on					
12	utility ownership and on reducing administrative					
13	barriers, which we also may not have the same barriers					
14	as New York City has, but our developers have noted					
15	those.					
16	So, thanks.					
17	MR. PARELLA: Thank you.					
18	No other comments? Let's spend some time					
19	talking about next steps.					
20	First, I appreciate you all, again, like I					
21	say, again, I appreciate you all coming here today and					
22	offering input. I know we got a lot of valuable					
23	information that we need to take back and think through					
24	its implications, but we also want to get some written					

1 comments from you all.

2	And, as I said earlier, I think before the						
3	lunch break, we were sort of thinking about a deadline						
4	of January 29th. And we will take some time to go over						
5	those comments and then decide what we need to do next.						
6	If we need to convene another meeting, or if						
7	we need to reach out on a bilateral basis with some						
8	commenters to explore in a little bit more detail what						
9	their comments are, we may want to do that.						
10	But we do have a pretty hard and fast						
11	deadline to get a final recommendation back to the						
12	Commission. I think the order said within three months.						
13	So, we want to involve you as much as						
14	possible in helping us design and finish up our						
15	proposal, but we do have a deadline, so, we will try to						
16	be flexible and we hope you can help us along the way.						
17	We really, really appreciate you going						
18	through this and the principles, and going over our						
19	proposal, the objective and the principles with a fine						
20	tooth comb, and additions, subtractions, modifications,						
21	that would be really helpful.						
22	An idea that came up at the end, which I had						
23	been sort of thinking about since the start of the						
24	meeting, is there a way that we could use this up to \$30						

1 million as some sort of seed money to help address this 2 situation maybe in a more dynamic and long term way. Ι think that would be useful. 3 As I mentioned before, the whole 4 5 relationship between this geographic balancing б initiative and the whole customer sited tier, which the 7 Commission is going to take up in March or April, getting your input on that relationship, I think, could 8 also be very helpful and useful for us since we have to 9 10 make a proposal to the Commission on the customer sited 11 tier also. So, once again, thank you for coming. 12 We look forward to your comments on the 29th. If you could 13 follow those comments on the RPS list serve, and if you 14 15 are not on it send Tina an e-mail or give her a phone 16 call. We will make sure you get on the list serve. 17 MS. PALMERO: Or, better yet, if you have a 18 card with your e-mail address I can make sure you get 19 posted on the list serve or get added to the list serve. 20 MR. PARELLA: Thank you very much. It was 21 very helpful. 22 (Meeting concluded.) 23 24

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