

**In The Matter Of:**  
*COMMUNITY SOLAR ENERGY PILOT PROGRAM*  
*AFTERNOON SESSION*

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*July 24, 2018*

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*JH Buehrer & Associates*

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5 COMMUNITY SOLAR ENERGY PILOT PROGRAM  
6 STAKEHOLDERS MEETING  
7

8  
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10 MICHAEL WINKA  
11 ARIANE BENREY  
12 EMMA YAO XIAO, ESQ.

13 DATE: JULY 24, 2018

14 TIME: 2 P.M.

15 PLACE: RUTGERS UNIVERSITY COLLEGE AVENUE  
16 STUDENT CENTER  
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18 New Brunswick, New Jersey 08901

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1                   MR. SHEEHAN: This is Session  
2                   III, Value of the Credit. This one I  
3                   think we're going to start off with a  
4                   presentation from Rutgers, our hosts.  
5                   Clinton Andrews, I think, is going to  
6                   be...

7                   AUDIENCE MEMBER: He walked out.

8                   MR. SHEEHAN: Okay. Clinton  
9                   Andrews will present the first chunk of  
10                  the next presentation on Session III.

11                 MR. ANDREWS: Okay. Thank you  
12                 very much, folks. We've been asked by  
13                 the Board of Public Utilities' staff to  
14                 help think through the financial  
15                 assumptions that are relevant for  
16                 setting public policy in this area. And  
17                 it sort of requires us to put ourselves  
18                 in the heads of solar developers who  
19                 might be interested in community solar  
20                 projects, and try to think how does it  
21                 pencil out, what are the key factors  
22                 that determine whether a project makes  
23                 sense to pursue or not.

24                 And so what we are doing, and we  
25                 are asking for your help in this, is

1           trying to figure out what are those most  
2           important parameters and what are the  
3           reasonable values to assume in sort of  
4           the financial modeling that can then  
5           form in policy development.

6                         And so we want to approach this  
7           subject in four parts: Introducing our  
8           overall objective, which I've already  
9           previewed, talking about the major  
10          inputs that we are imagining would go  
11          into a financial decision-making, and  
12          there's a bunch of uncertainties that  
13          are associated with them as well to see  
14          if we can get a handle on what those  
15          are. We'll talk briefly about a  
16          modeling platform to pull us all  
17          together and then to discuss what are  
18          the most important, most salient things,  
19          what did we miss and basically get the  
20          conversation in this portion of the --  
21          of today's event going.

22                        Okay. So what we're after are  
23          to understand the financial concerns for  
24          the New Jersey context. And so some of  
25          you who are developers have experience

1 elsewhere with Community Solar, some of  
2 you who are developers within New Jersey  
3 have experience with solar, but not  
4 necessarily with Community Solar. And  
5 so among us we're hoping to find the  
6 right mix of values for key items.  
7 We're going to put all this into a  
8 publically available model that some of  
9 you may be familiar with that comes out  
10 of NREL. It's been pretty well vetted.  
11 And then we're going to do a lot of  
12 what-if analysis in assisting the BPU  
13 members and policy members.

14 So the basic model, pretty  
15 straight forward, there are costs  
16 associated with producing electricity  
17 from solar sources, and there are  
18 revenues, and if there's a net -- when  
19 you subtract revenues from costs, that  
20 means it's probably not going to fly as  
21 a solar project unless there's some form  
22 of incentive provided.

23 And so we're basically asking  
24 the question under what circumstances is  
25 there likely to be a financial shortfall

1           and then what circumstances is it going  
2           to be something that the market just  
3           takes care of without us -- without  
4           state government needing to get heavily  
5           involved.

6                         And so to make this clear, this  
7           is not an economic analysis of  
8           intangible benefits and avoided  
9           omissions and stuff like that. This is  
10          a much more straightforward business  
11          type of analysis that we're doing that  
12          sort of establish an initial basis for  
13          developing policy.

14                        Okay. So here's the big picture  
15          of the modeling platform. It gives you  
16          a flavor of the inputs and possible  
17          outputs. And so we have solar costs,  
18          which include major items like the  
19          purchase of panels and other equipment.  
20          We, of course, have some exciting new  
21          policy developments to deal with that  
22          range from tariffs on Chinese-made  
23          panels through to a tax reform bill,  
24          which has changed lots of people's  
25          assumptions. And then we know that



1           there are labor costs and soft costs  
2           that we've developed some experience  
3           within New Jersey in understanding, but  
4           those might be different in some ways  
5           for the Community Solar case.

6                        There are some other things  
7           which have historically been not  
8           particularly important but might become  
9           important in the Community Solar  
10          context, and one of those is whether we  
11          have to buy or lease land or rooftop or  
12          a parking lot. All of those might  
13          become significant, and we're hoping you  
14          will tell us.

15                       There are costs of capital  
16          assumptions that we will be needing to  
17          make, and that means we're going to have  
18          to be making assumptions about what  
19          sorts of structures, what proportion of  
20          debt and equity are people playing with.  
21          There's the ongoing costs once you've  
22          got the thing built, and then an  
23          important difference for Community Solar  
24          is going to be customer acquisition, is  
25          this a significant cost or is it a minor

1 cost. Is it something that we need to  
2 pay attention to and we're hoping you  
3 will tell us that.

4 All of that we are able to  
5 transform into a cost of electricity to  
6 provide a kind of a benchmark for  
7 assessing the relative importance of  
8 things and for doing our what-if  
9 analysis. So that's the cost side.

10 On the revenue side there is a  
11 world of possibility because this is an  
12 area of active policy making, and the  
13 rules of the game are going to determine  
14 what sorts of revenues are possible.  
15 And so we are bracketing those  
16 possibilities with four scenarios here.  
17 We're hoping you will tell us if those  
18 are the right scenarios to represent the  
19 range, and you might even have opinions  
20 over which scenario you prefer.

21 So at one end of the spectrum we  
22 might imagine that Community Solar is  
23 not eligible for SRECs, and it's also  
24 not eligible for net metering. In other  
25 words, what you get is the wholesale

1 price of electricity. On the other  
2 hand, you might imagine a more lucrative  
3 world from the solar developer's  
4 perspective where SRECs are still there  
5 and they're still valuable, and you also  
6 are able to do net metering and able to  
7 basically sell your electricity at  
8 wholesale -- at retail.

9 And then there's all sorts of  
10 mix-and-match possibilities between  
11 those. And those are going to yield  
12 quite different revenue projections that  
13 range probably by a multiple of three or  
14 four. And we want to make sure that  
15 we've understood whether this is really  
16 the full range that we ought to consider  
17 and what you think of them.

18 And then costs minus revenues,  
19 yields, the potential shortfall that  
20 might need to be made up with additional  
21 public policies or might yield a signal  
22 that Community Solar is going to fly.

23 Okay. Let's dive into the next  
24 level of detail now, and I'm starting  
25 with some historical data. This is New

1 Jersey's capital and installation costs  
2 for a variety of different sizes of  
3 solar installations across the three  
4 major utility territories for the year  
5 2017.

6 Just picking one number, for  
7 installations that are at the 100  
8 kilowatt size level, the mean  
9 installation cost is \$2,974 per kilowatt  
10 in the PSE&G service territory in 2017.  
11 But the standard deviation is \$753. So,  
12 in other words, there's a really wide  
13 range around that 2,974 amount, which  
14 suggests that the basic cost to have an  
15 installed solar system actually varies a  
16 lot from installer to installer to  
17 installer. And we need help figuring  
18 out what that means and how we should  
19 account for that uncertainty in policy  
20 development.

21 Another source, and you know,  
22 this is an area where both Lawrence  
23 Berkeley National labs and the National  
24 Renewable Energy Labs have, over years,  
25 done a lot of good work assessing the

1           changing cost of solar. This particular  
2           slide is taken from NREL's benchmark  
3           study of about a year ago. And just to  
4           be clear, we're not using the total  
5           dollars per watt number because it's  
6           been superceded by more recent  
7           experience, but we are finding the  
8           distribution of costs into profit, sales  
9           tax, labor, balance of system inverter,  
10          module, and everything to be a plausible  
11          distribution. And if that's not a good  
12          assumption, we hope you'll tell us.

13                    There are substantial  
14          differences, especially as we get into  
15          Community Solar. We can imagine rooftop  
16          installations, we can imagine  
17          ground-mounted installations, and we can  
18          imagine canopy installations, such as we  
19          have over on the Livingston campus of  
20          Rutgers, where we have covered the  
21          parking lots with solar canopies and  
22          everybody likes to park their car under  
23          them on days like today.

24                    There appears to be a cost  
25          premium associated with canopies, and

1           what we've seen is that, depending on  
2           which source you look at, we're talking,  
3           you know, maybe a 30-percent premium for  
4           canopies. If you have information that  
5           suggests otherwise, please let us know.

6                         In January we saw the beginning  
7           of the trade war. It's in the newspaper  
8           every day now, you know, the latest news  
9           as of lunchtime was that you soy bean  
10          farmers no longer have to worry because  
11          there's going to be an extra package of  
12          subsidies directed at soy bean farmers,  
13          and so we'll buy you off one by one. So  
14          far they haven't said if there was going  
15          to be subsidies for solar.

16                        But anyway, a 30 percent tariff  
17          on imported solar cells from China  
18          represents a significant increase in the  
19          cost of that component, but the question  
20          that we will be -- that we're posing to  
21          you is does that add up to a significant  
22          change in the overall attractiveness of  
23          solar, given that you also have all of  
24          the other components that do not  
25          necessarily have the tariff, and you

1           have the labor costs and you have all  
2           the other bits. And there's nothing in  
3           the way of peer review work on this, but  
4           the trade press is suggesting we'll be  
5           seeing price increases somewhere between  
6           10 and 40 cents per watt. So we'll be  
7           interested in what assumptions do you  
8           think we should be making in this area.

9                     The Investment Tax Credit. The  
10           new tax bill has continued something  
11           that was actually started earlier that's  
12           saying, well, currently 30 percent of  
13           installed costs are eligible for  
14           investment tax credit, but that is going  
15           to step down over time until we -- in  
16           the year 2021, which is not that far  
17           away, where, as we understand it,  
18           residential investment tax credit is  
19           going to go down to zero, and for  
20           commercial and industrial it's going to  
21           drop to 10 percent and stay and flatten  
22           out there.

23                     There are some additional  
24           accounting games that people regularly  
25           play that we here in the ivory tower

1           probably dimly understand, and we will  
2           be asking for your advice on what are  
3           the reasonable assumptions to be made  
4           there. You know, can you include the  
5           credit in the same year that  
6           construction begins, and that kind of  
7           thing.

8                           And now we'll go on to -- we  
9           searched and searched and debated, broke  
10          down numbers, erased numbers, and  
11          decided to end up with this slide that  
12          says we don't know, we hope that you do.  
13          How much does it cost to acquire a  
14          customer? What is the -- what is a good  
15          churn rate to assume and how does this  
16          change if you're talking about low- and  
17          moderate-income participants compared to  
18          others, and how do all of these affect  
19          not only what we should assume regarding  
20          the actual cost of acquiring a customer,  
21          but what's the typical size of a  
22          customer.

23                           And then as we think about the  
24          different ways that Community Solar can  
25          be implemented, one is to pretend that



1           it's just a giant residential  
2           installation that's kind of distributed  
3           in its ownership. And then should we be  
4           assuming that acquisition costs are  
5           similar to experience that New Jersey  
6           has with residential installations, or  
7           is it really a different model that is  
8           going to be related to some other  
9           metric, you know, or some other analogy,  
10          or do we have evidence from other states  
11          about what the reasonable values are.

12                         Switching over to the revenue  
13           side, I mentioned those four scenarios,  
14           eligible for SRECs or not, net metering  
15           or not, and here are some plausible  
16           numbers to give you a little bit of the  
17           flavor of how much a difference it makes  
18           to revenues. So in the no net metering,  
19           not eligible for SRECs world, that would  
20           suggest that we're down in the 5 cents a  
21           kilowatt range. That's typical  
22           wholesale price. Unless you tell us  
23           otherwise, unless you tell us that's a  
24           bad assumption.

25                         If we think about bringing SRECs

1           into the picture, the current value of  
2           an SREC, looking at the one-year average  
3           prior to today, is that they're in the  
4           \$200 range. So does that suggest we  
5           should add 20, 21 cents to the kilowatt  
6           hour plus the 5 cents for the wholesale,  
7           and is 26 cents a reasonable assumption,  
8           or should we discount future SRECs  
9           because we're seeing that market phasing  
10          out.

11                         All of this is, of course, open  
12          to public policy-making as well, but all  
13          of you who are in business are making  
14          assumptions along these lines right now  
15          to try to figure out how much of a risk  
16          you are willing to take.

17                         We can add in that metering and  
18          thereby, you know, be able to sell the  
19          electricity at a retail rate, which  
20          would potentially put the revenues up in  
21          the 35, 36 cents per kilowatt range.  
22          You know, quite attractive. And so  
23          that's why these revenue assumptions are  
24          so important for the model because they  
25          represent -- they span such a wide range

1 just looking at a couple of the  
2 variables that go into it.

3 Okay. So we are using NREL's  
4 Crest model, Cost of Renewable Energy  
5 Spreadsheet Tool, that's our garbage  
6 grinder to bring all the assumptions  
7 together and spit out a livable cost of  
8 electricity.

9 This is a model that's been  
10 around for a while. It's been pretty  
11 well vetted, most of the bugs are out of  
12 it. Our main challenges, in fact, are  
13 scrubbing out some of the tax code  
14 assumptions that really represented what  
15 they were a year ago and don't represent  
16 what they are today.

17 There are other models  
18 available, and you know, developers are  
19 likely to use models that have much more  
20 engineering detail and detailed weather  
21 assumptions. We thought that level of  
22 detail was inappropriate for this policy  
23 analysis type of work because it's more  
24 important that we get the big picture  
25 right, and given the ranges of

1           uncertainties that we've already sort of  
2           laid out exist along many of the key  
3           variables.

4                         Here are a bunch of the  
5           assumptions that we are planning to make  
6           unless you tell us that we're full of it  
7           and ought to make different assumptions.  
8           And I think the way this can work is  
9           after I finish speaking, which will be  
10          very soon, you might have a favorite  
11          number that you want to come up and  
12          comment on. And then in addition we  
13          have the written comment opportunity  
14          that would let you really hone in on  
15          particular assumptions and help us  
16          choose more wisely as we try to assemble  
17          a reasonable set of assumptions for  
18          policy analysis.

19                        So just starting in the upper  
20          left what's subject to the investment  
21          tax credit and to accelerate  
22          depreciation. Is 94 percent of capital  
23          a reasonable amount or should it be more  
24          in the 70s? Are there opportunities to  
25          apply bonus depreciation? Is 60/40

1 approximately the right equity to debt  
2 split? Is 10 percent a reasonable  
3 internal rate of return for the equity  
4 part of the investment? Is 6-1/2  
5 percent a reasonable rate of interest to  
6 assume for the debt portion? Is there a  
7 loan fee, should be it be 1 percent,  
8 should it be some other number?

9 Capacity factor. Remember we're not  
10 doing detailed engineering calculations,  
11 we don't have a weather deck behind us.  
12 And so is a net capacity factor in the  
13 14/15 percent range plausible, and do we  
14 have the right annual degradation rate  
15 assumed.

16 Ongoing costs for operation and  
17 maintenance is the \$15.00 per kilowatt  
18 year reasonable. This comes from NREL.  
19 Or is it different in New Jersey. I  
20 know many other things are different in  
21 New Jersey, so that might be one of  
22 them.

23 Tax rates, state rate, federal  
24 rate, the blended rate is already  
25 suspect to me given the new tax law.

1 But insurance, capital costs. You know,  
2 we're seeing nice dramatic declines in  
3 how much it costs to buy solar panels  
4 over the last several years. Is that  
5 trend likely to continue.

6 Do you have to pay for land,  
7 either to lease it or to buy it.  
8 Customer acquisition, again we don't  
9 even dare put straw man numbers there,  
10 all we are willing to put is question  
11 marks. So clearly an area where we need  
12 lots of input. Should we be assuming  
13 property taxes or royalties in any of  
14 this. And, of course, the tariff  
15 discussions that we've already had.

16 Okay. So I'm closing with  
17 questions. And so here are a dozen  
18 questions that we would love you to  
19 answer, and if you don't answer it,  
20 we're going to make up answers as part  
21 of the policy analysis. And so we would  
22 like to do it in a way that's informed,  
23 and so just walking down it, per watt  
24 capital costs, what's eligible for  
25 investment tax credits and accelerated

1 depreciation, how much does it cost for  
2 customer acquisition, especially -- and  
3 let's separate that to the low- and  
4 moderate-income category here. Churn  
5 rates, different types of installations,  
6 rooftop, ground-mount, canopy, what are  
7 the right differentials to assume.  
8 Leasing or acquisition of the location  
9 where we're going to put the panels,  
10 property taxes, SRECs, cost of capital,  
11 replacement inverters. They don't  
12 necessarily have the same lifetime as  
13 the panels, so what's the right  
14 assumptions there, royalties, tariffs,  
15 and there may be other things that we  
16 haven't thought of.

17 Okay. So this is work that a  
18 group of us have done, Will Irving and  
19 Jaci Trzaska have carried a lot of the  
20 weight here, Frank Felder has been super  
21 helpful in making sure that we look at  
22 the big picture, and Jennifer Sennick  
23 (ph), who is not listed here, has been  
24 playing a role in looking for good  
25 policy analogies from other states and

1 good organizational ways to organize it,  
2 institutional mechanisms and things like  
3 that.

4 So there is an e-mail address  
5 for sending your comments to, and that's  
6 Communitysolar@NJcleanenergy.com. So I  
7 think that's also in today's agenda, so  
8 be sure to send lots of comments. So I  
9 will stop there.

10 AUDIENCE MEMBER: Will the  
11 slides be available?

12 MR. ANDREWS: As far as I know.

13 AUDIENCE MEMBER: Will you put  
14 it on your site?

15 MS. BENREY: We'll send those  
16 slides on to our web server. That's the  
17 e-mail to ask.

18 MR. ANDREWS: Okay. I'm done.  
19 Thank you.

20 MR. SHEEHAN: Okay. We're going  
21 to move on with our other speakers at  
22 this point, CCSA.

23 MR. SMITHWOOD: Sorry to  
24 introduce myself briefly in the last  
25 session. Melissa gave a reference to



1           CCSA in her opening presentation. I  
2           guess I'll just briefly, before I get  
3           going, give you a better sense of who we  
4           are. So we are a national trade  
5           association. We have 50 members now, so  
6           we've nearly doubled in a short period  
7           of time. We have developers,  
8           owner-operators, pure-play Community  
9           Solar providers, developers that  
10          participate across market segments.

11                        So to get into this discussion  
12          of the value of the bill credit, I want  
13          to start with some of the point that I  
14          think is pretty basic, but is important  
15          to remember as we get into some of the  
16          discussions of when the bill credit  
17          should be and what kind of projects that  
18          would enable.

19                        The bill credit is really the  
20          means by which customers realize the  
21          economic value of their participation in  
22          the program. Just as much in the same  
23          way that customers receiving bill  
24          credits for exports onto the grid. So  
25          there are different models out there in

1 terms of subscriptions, but it's pretty  
2 similar to an arrangement where you are  
3 build after the credits minus the cost  
4 after the subscription, that's your net  
5 savings.

6 So the bill credit is really  
7 important to ensure the customers  
8 realize that, economic value proposition  
9 and it relates to project economics but  
10 it's not revenues that flow directly to  
11 the project. It's a bill credit showing  
12 up on the customer's bill. So a basic  
13 point but kind of something to anchor  
14 our conversation around.

15 So I enjoyed the professor's  
16 presentation. I think he raised -- you  
17 know, there are a lot of variables out  
18 there in the New Jersey market right  
19 now, and the BPU has a pretty Herculean  
20 task of trying to come up with these  
21 rules in a short period of time. So I  
22 think we've taken a slightly different  
23 tact, which is to kind of think about  
24 what is the current situation in the  
25 market and what is the context in which

1           the BPU is creating this pilot, and  
2           what's their kind of nexus in decision  
3           making.

4                         And our view is when you look at  
5           the about half gigawatt of projects  
6           already in the pipeline and the about  
7           600 megawatts of head room created by  
8           the current legislation that pulled  
9           forward the SREC cap, the 5.1 percent  
10          goal, we think that even with assuming  
11          the 20 percent attrition rate, by the  
12          time you get to the end of this year  
13          there's going to be enough applications  
14          out there that the program will be fully  
15          consumed.

16                        So, you know, the BPU is still  
17          determining whether the program should  
18          be closed based on applications or  
19          closed based on when projects are  
20          energized, but from the perspective of a  
21          project developer you're going to be  
22          looking at that queue and saying, well,  
23          my project is energized so there will be  
24          SRECs left, and the likely answer is  
25          going to be no.

1                   So we're coming from this very  
2                   pragmatic standpoint of even though the  
3                   statute, specifically in SRECs successor  
4                   language says Community Solar should be  
5                   explicitly included, we think it's a  
6                   practical matter that this pilot program  
7                   has to be developed with the presumption  
8                   that SRECs are not going to be  
9                   available.

10                   So that really makes the bill  
11                   credit program size citing flexibility  
12                   and access to Class I RECs critical.  
13                   And in this discussion I think there's  
14                   been a lot of discussion about various  
15                   program design objectives, various types  
16                   of projects people would like to see.  
17                   And maybe this isn't the best analogy  
18                   but it's like a balloon, if you push in  
19                   on one spot, it's going to push out on  
20                   other another, and these things are all  
21                   interrelated. Sites there are more  
22                   difficult to develop because they're  
23                   brown fields, they're roots where you  
24                   have structural concerns, you know, it  
25                   has to be counter-weighted by the fact

1           that the SREC market is likely to be  
2           full.

3                         With that said, as this program  
4           moves forward, SRECs successor program  
5           is really an opportunity to create  
6           adders and other incentives to  
7           incentivize the type of projects that  
8           various stakeholders want to see on  
9           certain sites and potentially with  
10          certain subscribers.

11                        This has been done in other  
12          markets, the smart program in  
13          Massachusetts, the Megawatt program in  
14          New York, they're differentiated adders  
15          for different types of projects. There  
16          was a reference to flowable takes (ph)  
17          this morning. Massachusetts even has a  
18          flowable take (ph) entered.

19                        So getting kind of into the  
20          specifics of what the credits should be,  
21          we think the bill credit should be a  
22          full retail rate credit, and that's kind  
23          of based on three points: One is, and  
24          really starting from this bottom dash  
25          here, is pragmatism. The timeline

1           doesn't -- that we have to develop this  
2           program doesn't allow for a full value  
3           of solar development. States that are  
4           doing this in a robust manner, it's  
5           taking years.

6                         But we do have, moving bottom to  
7           the top here on those dashes, we have a  
8           number of value solar studies. The last  
9           one done in New Jersey was about six  
10          years ago, but much more recent ones  
11          with similar markets and similar  
12          marginal costs, like Maryland, that  
13          justify our residential retail rate  
14          credit easily. So it's a fair proxy for  
15          value, but we don't have time to do a  
16          full value credit development. And to  
17          get to the top dash here it parallels  
18          that metering framework that we have in  
19          place, and the legislation effectively  
20          doubled the REMCAP (ph), so that's a  
21          framework that's working and that people  
22          want to continue with.

23                         The bill credit should be  
24          maintained for 25 years. The point is  
25          not that future iterations of the

1 program -- so New Jersey said in three  
2 years we want to really do a robust  
3 value-based crediting scheme that all  
4 projects going forward have to have the  
5 same credit. It's that when a distinct  
6 project needs to know what that credit  
7 rate's going to be for customers, so  
8 that those can go in the financial  
9 models.

10 And then similar to the states  
11 that have modified their tariffs, you  
12 see these kinds of provisions to be sure  
13 that, you know, the project economics  
14 are stable. And then bill credit  
15 recovery, one part of if the state did  
16 want to move to a value-based crediting  
17 scheme, it really kind of requires a  
18 reinvention of distribution process, and  
19 that's happening in New York and  
20 California, are really kind of the  
21 leaders on that.

22 So ideally we're seeing a lot of  
23 evidence that in the real world now that  
24 distributed generations on a scale we're  
25 avoiding a lot of infrastructure costs

1           that would otherwise be born by  
2           ratepayers, and we need to go capturing  
3           those costs in a rate case. As a  
4           practical matter for this pilot, those  
5           bill credits, because that otherwise  
6           would be lost revenue to the  
7           distribution utilities, should be above  
8           related costs. Costs of those bill  
9           credits should just be recovered and not  
10          by a passable charge so we don't have a  
11          lost revenue concern from the utilities.

12                        So that's under the value of the  
13          credit, and then something which is  
14          gonna seem kind of pedestrian, but I  
15          want to start off with a real live  
16          example here is the bill crediting  
17          process, how bill credits are allocated  
18          to customers on their bills and  
19          accounted for is critically important.

20                        To their first slide the bill  
21          credit is how the customer receives the  
22          value of their Community Solar  
23          participation, their subscription. What  
24          we've seen in Massachusetts, which has a  
25          very successful program, it's a very



1           simple -- it's been built on a very  
2           simple tariff. Not to take this on a  
3           tangent, but in Massachusetts you get  
4           something called schedule Z when you're  
5           that metering customer, and you fill out  
6           the account you want credits to go to.  
7           So like I'm in the process of getting a  
8           rooftop system, but my sister is in the  
9           same utility service territory. I can  
10          put her -- I can give her credits from  
11          my system. So it's a flexible system.

12                        The down side is the utility's  
13          billing processes is really not scaled  
14          to the success of the program, it's  
15          being done annually and without  
16          sufficient processes even to do it  
17          manually. And so what we've seen is  
18          customers receiving credits on their  
19          utility bills months later, and in some  
20          cases those credits have gone to the  
21          wrong customers. And so that creates a  
22          lot of frustration. The Community Solar  
23          is paying their subscription. In a lot  
24          of cases the solar companies have taken  
25          on them to say, well, forego a payment

1 while this gets corrected, but it really  
2 gets back to the utility's billing  
3 processes to really resolve that  
4 problem.

5 So I'm getting into specifics  
6 here, but I really want a level set on  
7 this is a problem that we want to make  
8 sure does not recur in other markets  
9 because it's really frustrating for  
10 customers.

11 So the process. Community  
12 Community Solar providers, or what we  
13 tend to call subscriber organizations,  
14 need to submit a report to the  
15 utilities, ideally electronically, again  
16 to try to prevent errors and making it a  
17 smooth process, on the subscribers to  
18 the project and how much of the  
19 project's generation is attributable to  
20 those customers.

21 So if it was a 100 kilowatt --  
22 well, I'm not even going to bother doing  
23 math, but if they have a, you know,  
24 10-kilowatt system and whatever  
25 proportion of that project is 10

1 kilowatts, you know, that generation  
2 needs to be credited to that specific  
3 customer.

4 So the EDCs, the utilities that  
5 apply that bill credit to the accounts  
6 of all those subscribers, based on the  
7 their proportion of the production, so  
8 whatever their subscription entitles  
9 them to in terms of a portion of the  
10 project's generation, and then metering  
11 that bill credit should roll over month  
12 to month.

13 So these projects are no  
14 different than any other solar project,  
15 the production varies seasonally, and  
16 you want customers to really capture the  
17 value of that additional generation in  
18 the summer by rolling those credits  
19 over.

20 So importantly is a feedback  
21 lobe, so the Community Solar providers,  
22 this subscriber organization, sends a  
23 report in, credits are allocated out,  
24 and then the utility should really send  
25 a report back for accounting purposes,

1           so you can see, okay, I see this report,  
2           and, yes, the math adds up to 200  
3           percent and the credit's not what it's  
4           supposed to be and then there's kind of  
5           an accounting control there.

6                         And then the last point, there  
7           was a question on how do we size these  
8           projects relative to customers. What we  
9           see work in other markets, because  
10          you're going to want to create  
11          flexibility to subscribers, you know,  
12          they may need to transfer their  
13          subscriptions, they may want to upsize  
14          their subscriptions, you know, you're  
15          inevitably going to have some churn, in  
16          kind of the most successful model is to  
17          allow that project to retain credits for  
18          a period of time, typically a year, and  
19          then they can allocate those credits  
20          out. So if they lose a customer and  
21          then another customer comes in a month  
22          later, those credits can be allocated  
23          over to that new customer.

24                         And then barring that, you know,  
25          customers -- or the subscriber

1 organization or project owner should  
2 have the opportunity to sell the  
3 unsubscribed energy to the utility at  
4 avoided cost.

5 So that's what we've got on bill  
6 credit. I'm happy to answer any  
7 questions.

8 MR. SHEEHAN: Thank you very  
9 much.

10 MR. SMITHWOOD: Thanks.

11 MR. SHEEHAN: Our next speaker  
12 is Ondrea Kanwhen.

13 MS. KANWHEN: Hello. My name is  
14 Ondrea Kanwhen, that is K-A-N-W-H-E-N.  
15 I hope you guys are having a great  
16 afternoon. It's been wonderful to  
17 attend all these different sessions and  
18 analysis.

19 About myself, I'm the founder of  
20 Bona Global Energy and Solutions. We  
21 do -- we're focused on providing  
22 financial analysis, sales support, and  
23 project management services. So I'm  
24 going to actually keep a lot of what I'm  
25 going to say brief because throughout

1           today everybody's basically mentioned  
2           what I planned to talk about, especially  
3           the very last presentation, I have to  
4           say I concur, I agree, with all the  
5           points that are mentioned. But there  
6           are a few points that I would like to  
7           mention.

8                         So I actually model the  
9           scenarios in question 14, and I'll  
10          provide them in detail in the written  
11          comments. One of the things I found --  
12          or one of the few things that I found  
13          was that the cost of acquisition of  
14          subscribers actually created a huge  
15          impact on the IRR for the -- for  
16          example, the 5 Megawatt project. And  
17          that was the most economically  
18          attractive project, and I still saw IRR  
19          when I added in the customers  
20          acquisition costs.

21                        And while in regular residential  
22          multi-family projects you will have that  
23          customer acquisition cost to take into  
24          consideration, with Community Solar it  
25          is a bit larger just due to the fact

1           that you're acquiring a lot more  
2           customers, and, of course, in turn, this  
3           is a cost that you're going to  
4           continually have year after year. So I  
5           did see that the IRR dropped 500 basis  
6           points just by adding in that.

7                         And then the second drop that I  
8           saw was the -- in adding savings for  
9           subscribers, that especially with the  
10          market that we're targeting, when I  
11          added an additional 25 percent bill  
12          savings for subscribers, I noticed an  
13          additional 800 basis point drop in IRR.

14                        And I guess it's up for debate  
15          whether or not we'd like to add such a  
16          high bill savings for the subscribers.  
17          However, just from my experience selling  
18          to LMI residents as well as multi-family  
19          housing, that's the first thing you have  
20          to propose when you walk in the door, is  
21          savings. They're interested in other  
22          things as well. However, if you don't  
23          have savings to show on the sheet when  
24          you walk through the door, then it sort  
25          of stops your conversation.

1                   So then there seems to be two  
2 parts to that savings that we've seen,  
3 and one is the value of the credit, and  
4 I do agree with the previous  
5 presentation that the credit should  
6 equal the retail rate.

7                   If there is a lot of fluctuation  
8 in the valuation of that bill credit,  
9 like we're seeing in New York, it causes  
10 quite a bit of difficulty doing a  
11 financial analysis and giving reliable  
12 numbers to a financial entity, that in  
13 20 years this is what your project is  
14 going to return. And, of course, the  
15 subscriber also will run -- may run into  
16 even higher costs in the initial...

17                   So the next thing that I saw  
18 were developer costs that -- and the  
19 main developer costs was the customer  
20 acquisition costs, which I had mentioned  
21 before. That cost I modeled out -- I  
22 can provide the numbers for that at  
23 another time as well. That's through  
24 research and only a very small sample  
25 size, so I'm sure a lot of other people



1 would be able to provide additional  
2 numbers for that. But those numbers  
3 are, of course, affected by the type of  
4 subscribers that you are getting. I  
5 don't know have numbers put out between  
6 LMI and non-LMI customers. But it's not  
7 just LMI, it's also the number of  
8 subscribers.

9           If you have a 5 Megawatt project  
10 and you have a huge project that's  
11 taking up 80 percent of the power that's  
12 generated, then, yes, your customer  
13 acquisition costs aren't going to be  
14 that high. If you can find subscribers  
15 that will sign up for a 20-year term,  
16 that would also change your yearly  
17 customer acquisition rates. However, I  
18 have not been able to, so -- in 20  
19 years. So that's something I don't have  
20 experience with. I would see something  
21 more of a 12-month, 18-month of a  
22 subscription and then you, of course,  
23 would have to do a churn.

24           So those are the points that I'd  
25 like to bring up that needs to be taken

1           into consideration. I feel like there  
2           should be some sort of additional  
3           incentive to incentivize LMI  
4           subscription because of the additional  
5           costs that may be incurred. And I  
6           definitely believe that the SRECs, or at  
7           least some sort of REC should be  
8           available to developers to offset the  
9           cost of solar. Otherwise, it's going to  
10          be very tough to incentivize developers  
11          to take on these projects.

12                           That's it. Any questions?

13                           MS. BENREY: So thank you. So  
14          you provided additional detail, but just  
15          on the one number that I found  
16          interesting. You said you modeled a  
17          25-percent bill savings. Is that, in  
18          your experience -- has that been a  
19          threshold to get people interested?

20                           MS. KANWHEN: Most of my  
21          experience has been with LMI and doing  
22          floor sales to LMI and as well as  
23          Housing Authority for low-income  
24          individuals. So, yes, 20 to 25 percent  
25          was what we were targeting, and so that

1 was the goal. I can try to sell more,  
2 but that's how the model is, yeah. And  
3 in doing research for this I thought SEI  
4 quoted 30 percent, but I don't remember  
5 an initial number.

6 MR. SHEEHAN: Thank you very  
7 much.

8 Direct Energy Solar? Daniel  
9 Schneider. New Jersey Resources Act.

10 MR. SCHNEIDER: Okay. We had a  
11 slightly different perspective on this,  
12 but, you know, you guys paid good money  
13 to be here, so let's tee up some  
14 differences of opinion.

15 When we look at this model, we  
16 think it is most analogous, not quite to  
17 sort of a retail -- third-party retail  
18 supply model. So, you know, the idea is  
19 now that we have some power to sell, we  
20 have a retail customer that wants to buy  
21 that power, and we're going to kind of  
22 create a transaction to make that  
23 happen.

24 So the way a third-party retail  
25 supplier would work is they would charge

1           you an overall generation charge that,  
2           in most cases, particularly for  
3           residential customers, is going to be  
4           what you might hear, your basis  
5           generation service rate. And that right  
6           now, if you -- you know, it depends on  
7           the utility region that you're in, that  
8           right now can run from 8 to 9 to 10  
9           cents a kilowatt hour.

10                        So what we would be thinking of  
11           was, okay, now instead of paying for  
12           that, Mr. Customer, you will sign up for  
13           this solar power that we're going to  
14           provide to you from this solar facility  
15           located in your utility service  
16           territory. And then that BGS cost that  
17           you now incur on your bill, that bill  
18           credit is going to go away and will be  
19           replaced then by what we're going to be  
20           charging you.

21                        Now, just as in the third-party  
22           supply model, we would say let's make  
23           this real easy. The utility already has  
24           an infrastructure set up, building  
25           infrastructure, to be able to account

1           for, you know, what power that retail  
2           supplier provided to you at what price,  
3           make sure that's reflected on your bill,  
4           collect the payment from the customer,  
5           revert the funds back to the supplier,  
6           and also provide the overall credit and  
7           collection service.

8                         So we think about that model as  
9           something to really think about now as  
10          we're starting to see the cost of solar  
11          come down, see that it's generation that  
12          we can put in our own New Jersey world,  
13          and literally, you know, now serve the  
14          electric loads of customers, and that  
15          that can be a model that we apply here  
16          for Community Solar for virtual net  
17          metering for community choice, that that  
18          model is kind of scaled.

19                        Also, as the cost of solar has  
20          come down pretty significantly, you  
21          start to look at if you can build a  
22          large scale project and get all the  
23          economies to scale, as folks have talked  
24          about. You're not too far from being  
25          able to deliver a price that's

1 attractive to that price to compare the  
2 BGS rate, and so it starts to come  
3 together.

4 So in the best-case scenario in  
5 the state if you can do this, for  
6 instance, in the PSE&G territory, which  
7 has the highest BGS rate, if you can  
8 build the largest system you could, five  
9 megawatts in this case, a ground-mounted  
10 system in, say, a landfill or brown  
11 field, you would not need much of an  
12 incentive at all to make that -- the  
13 economics of that work. The customer  
14 would get their bill credit, they'd get  
15 a little savings.

16 The utility, by the way, gets  
17 fully paid for transporting the power,  
18 which is how the deregulation market was  
19 originally set up, is they should be  
20 agnostic as to where the electron comes  
21 from. They should be paid, though, for  
22 the use of the poles and wires, and the  
23 state should be happy with that because  
24 you have less of a need of contribution  
25 from non-participants. So how do we do

1 more of those.

2 You know, the other piece of  
3 that would be, to make that model work,  
4 we do have to start to get more serious  
5 about this value of solar thing that  
6 people have been talking about. So if  
7 we're going -- whenever I get to the  
8 pulpit, I will say this, but we need a  
9 value of solar study here in this state,  
10 not a study done by this group or that  
11 group, but a study that kind of is where  
12 the state pulls together the expertise,  
13 goes through the process and says here's  
14 going to be our methodology for how we  
15 do this.

16 Because if we're going to be a  
17 clean energy state, we're going to need  
18 it in the bag and done so that we're not  
19 relitigating it every time we want to do  
20 something new. We need a number. If  
21 you look at Minnesota, their number is  
22 13 cents. You can look at New York,  
23 their number is something else. There's  
24 no right number, but there is a number,  
25 and I think we need that.

1                    Now, if I use Minnesota's  
2                    number, which includes the peak value of  
3                    the energy, it includes the avoided  
4                    generation costs that that facility is  
5                    contributing to, the avoided  
6                    transmission costs, the avoided power  
7                    plant O & M, the environmental benefits.  
8                    All of those things start to add up to  
9                    what a solar system from a relatively  
10                    large facility here in New Jersey can  
11                    deliver. So you start to have the  
12                    economic justification behind that  
13                    price.

14                    Now, the problem is, as you  
15                    start to move out of that idealized  
16                    project and you go to a smaller project,  
17                    you go to a rooftop project, you go to a  
18                    project that has multiple customers,  
19                    when you're talking about churn and  
20                    things like that, then your costs go up.

21                    You would need a premium, here's  
22                    where you would need incentives, if you  
23                    were doing that project with JCP&L or  
24                    ACE territory, you would need a multiple  
25                    of that if you were doing a rooftop



1           Community Solar project and a multiple  
2           on that if you were doing a canopy.

3                       That all gets back to the  
4           earlier question I raised about, well,  
5           you know, so if we're going to be happy  
6           with a diverse set of projects here,  
7           we're going to need some source of  
8           funding to be able to support those  
9           incentives. I won't belabor the point  
10          about the options.

11                      So that is -- you know, when we  
12          submitted our comments, we did some  
13          analysis on all the scenarios that you  
14          posed, and we can give you some specific  
15          numbers there that relate to, you know,  
16          what the incentives are under the  
17          different cases.

18                      If you're going to have  
19          commercial customer in the mix, that  
20          adds another level of complexity because  
21          they're priced-to-compare rate is not --  
22          is energy and it's also a per-kilowatt  
23          basis for capacity and other charges, so  
24          you need to figure out how to do that a  
25          little bit differently.

1                   But that's kind of the -- that's  
2                   our thought process on the theory then,  
3                   but I also do recognize pragmatism, too,  
4                   and if we're going to be stumbling  
5                   around for a while figuring out what the  
6                   right incentive structure is to get this  
7                   pilot going, then, yeah, I mean, maybe  
8                   full retail credit is the way to go just  
9                   to expedite it. But I'd like us to be  
10                  thinking how can we start to break  
11                  through a new paradigm here.

12                 MR. WINKA: So in the value of  
13                 solar have you ever looked at the cost  
14                 benefit analysis at Rutgers down to the  
15                 clean energy program on an annual basis,  
16                 so it has the avoided T & D cost, the  
17                 avoided environmental costs. I don't  
18                 think it has resiliency in that, but...  
19                 so it has those stack values in there.  
20                 Does that do a proxy for what you're  
21                 talking about, or do you want to take a  
22                 look at it and send us comments?

23                 And I would suggest that folks  
24                 do that. So we do that annually, Scott  
25                 Hunter's program, Sherry Jones effect.

1 MR. SCHNEIDER: Yeah, I wasn't  
2 aware it was -- is there a number we  
3 refer to? Any ranges you can share? I  
4 mean, what's the...

5 MR. FELDER: So why don't we  
6 distribute the latest one, and maybe you  
7 can take a look at the factors that --  
8 we're asking every year for comments on  
9 avoided T & D costs and all of those  
10 things. So, you know, if we can do  
11 something that's a proxy that you think  
12 is something that's close enough, that's  
13 something we can do.

14 MR. SCHNEIDER: Yeah, and just  
15 to be clear I'm not saying that needs to  
16 be done for this pilot, I'm just saying  
17 that needs to be done at some point  
18 over, you know, a reasonable period of  
19 time in a rigorous, robust way.

20 What I see in other states is it  
21 does take some time to do this. It's a  
22 proceeding and you've invited one expert  
23 and he says it's worth 3 cents, and  
24 another expert and he says it's worth 30  
25 cents and eventually you come to some

1           consensus on what makes sense. But it  
2           is a proceeding, and then there becomes  
3           an official methodology. But, again,  
4           I'm not suggesting that has to be done  
5           before the pilot but it could be a  
6           reference point for us.

7                         MR. SHEEHAN: Jonathan Ratner.

8                         MR. RATNER: Yeah, just some  
9           very briefly. This is obviously a real  
10          trick shot particularly because of the  
11          fact that the elimination of the SREC  
12          program is overhanging this pilot period  
13          and we don't know exactly what we're  
14          transitioning to.

15                        So I think there's certainly the  
16          challenge of making sure that the  
17          incentives and the credit is established  
18          in such a way that there's sufficient  
19          uptake for the pilot. There are  
20          certainly examples of other states'  
21          pilot programs that have not really  
22          garnered very much enthusiasm and many  
23          takers for doing projects.

24                        I think it's also critical to  
25          ensure that the BPU has thought in

1           advance about methodologies they might  
2           be able to use to translate the results  
3           of the pilot and make use of those  
4           results given that no doubt the  
5           crediting environment will be different  
6           three years from now.

7                         The only other comment that I  
8           wanted to make was just that it seems  
9           like net metering will likely be a piece  
10          part of the equation, and the model  
11          that's been used for net metering for  
12          traditional rooftop solar has always  
13          basically used prior historical customer  
14          usage to establish the maximum size of  
15          the installation, but the retail rate  
16          has been always capped at basically  
17          zeroing out your bill at the level  
18          that -- of electricity that's overall  
19          been used or supplied.

20                        And then immediately you go to  
21          avoided costs, and it just seems to me  
22          that there is an argument to have the  
23          retail rate applied up until such a  
24          point as not simply you zeroed out your  
25          bill, but you have surpassed your

1 baseline historical usage because I  
2 think that is a better approach in order  
3 to incentivize energy efficiency, you  
4 know, it kind of measures by the  
5 customer. If they know that once they  
6 get to net zero through the net metering  
7 that they're just going to be  
8 compensated and avoid costs, that does  
9 significantly lessen the incentive for  
10 energy efficiency measures. That's it.

11 MR. SHEEHAN: Thank you very  
12 much.

13 Vote Solar.

14 MS. KASOTIA: Hi again. We  
15 don't really have any new comments than  
16 what's already been offered. I think  
17 someone had touched on earlier, that to  
18 get customers interested in Community  
19 Solar program, you want to make the  
20 value of credit meaningful. So we are  
21 recommending that we start with the  
22 retail rate for the value of credit and,  
23 as others have talked about, if we do  
24 move to on the value of credit study,  
25 Minnesota is a good example, so we would

1           recommend that how Minnesota did its  
2           study and the different aspects that  
3           were utilized. So that's it. Thank  
4           you.

5                       MR. SHEEHAN: Pine Gate  
6           Renewables.

7                       MR. BIXBY: My name is Evan  
8           Bixby with Pine Gate renewables. I  
9           apologize, I was not able to attend the  
10          morning session, but I'm glad to be here  
11          now.

12                      So for the value of credit there  
13          are a few things that we would like to  
14          sort of harp on to make sure they get  
15          implemented into the program.

16                      The first thing is the value of  
17          credit, whatever it turns out to be,  
18          needs to be transparent and calculable  
19          by developers. In other programs that  
20          we've seen, such as in New York, there  
21          is an information asymmetry that is  
22          developed between the developers and the  
23          utilities where developers can't go in  
24          and be able to calculate what these  
25          rates are because some of the parts of

1           the value stack are hidden behind  
2           so-called proprietary utility  
3           information and knowledge. That makes  
4           it very difficult to develop and finance  
5           projects, as well as it makes it very  
6           difficult for the actual subscribers to  
7           be able to understand how their credits  
8           are being valued.

9                        To go into a community and tell  
10           someone, yeah, we have this great  
11           Community Solar program you can sign up  
12           for and get a discount, and someone  
13           asks, well, okay, how does that actually  
14           work. Net metering make a lot of  
15           intuitive sense to a subscriber.  
16           Something like a value stack, where it's  
17           hidden behind all of these obscure  
18           values, makes that very difficult to  
19           explain to a subscriber, for them to  
20           understand what that real value  
21           proposition is there.

22                       And so at the very least we  
23           advocate for net metering, but I believe  
24           that there should be an added benefit on  
25           top of net metering. There are



1            ancillary benefits, such as  
2            environmental actions, such as a legacy  
3            (ph). And as long as those components  
4            of a value stack are transparent and  
5            understandable and easily explained, not  
6            only from a development side, but as  
7            well as to a potential subscriber, that  
8            will make this program all the more of a  
9            success.

10                            A few other things that I think  
11            should be addressed in the crediting  
12            system is that these credits need to be  
13            administered in such a way that they  
14            remain compatible with budget billing.  
15            This was an issue that arose in New York  
16            State. They had a two-bill system where  
17            if a subscriber became a member of a  
18            Community Solar environment and they  
19            were on budget billing, they lost their  
20            budget billing. For a lot of people  
21            that's something that they rely on to to  
22            be able to make their monthly finances  
23            work.

24                            And we also think that SREC  
25            should be a part of this program. We

1 understand the challenges around the  
2 closure of the SREC program, but there  
3 needs to be adequate dovetailing  
4 communication between this working group  
5 and the new SREC replacement program to  
6 ensure that that is as successful as  
7 possible. Thank you.

8 MR. SHEEHAN: Thank you very  
9 much.

10 That concludes the  
11 pre-registered individuals. Now we're  
12 moving on to Mr. Long.

13 (No response.)

14 ACE?

15 MR. SUNDERHAUF: Hello again. A  
16 few comments from the Atlantic City  
17 perspective. One of the cost items I  
18 noticed on the original chart were  
19 distribution costs and interconnection  
20 costs, the distribution system upgrade  
21 costs listed. It's certainly one thing  
22 that we want everyone to be aware of  
23 when thinking about the system cost of  
24 the Community Solar facility.

25 From the billing standpoint we

1           too agree that bill credits should be  
2           simple to understand and calculate, or  
3           remember the utilities are going to  
4           calculate them. They have a liability  
5           process, we want to reduce billing  
6           errors, we want to produce billing  
7           errors for our staff to review, and we  
8           want to make them fairly simple and  
9           transparent.

10                         It's likewise applicable to both  
11           the host facilities and to customers  
12           that are being recruited to these  
13           Community Solar facilities. So, again,  
14           very clear values and very clearly  
15           transparent is an important part.

16                         And one of the things that we've  
17           always heard is credits could be based  
18           on third-party supplier prices. Very  
19           hard for us to administer and we would  
20           not recommend any use of a third-party  
21           supplier pricing in that calculation.

22                         Monthly credits should be  
23           minimized. The variations should be  
24           minimized month over month. It really  
25           complicates the billing process and

1 creates additional potential for errors,  
2 as we bill and pay all those various  
3 subscribers and also hard to communicate  
4 to people who subscribe to Community  
5 Solar facility. We don't want to  
6 engender a lot of traditional billing  
7 questions or complaints related to that  
8 as well.

9 The one thing that we're very  
10 cognizant is if we pay costs above  
11 market value, there will be some  
12 subsidization to other non-participants.  
13 We need to recognize that and be aware  
14 of what that does to other participants.  
15 That does affect all income groups, we  
16 just need all to be cognizant of that.

17 And one of the other questions  
18 that came up earlier is how close a  
19 Community Solar facility needs to be to  
20 the community that it serves. And our  
21 view is that these Community Solar  
22 facilities should be cited anywhere  
23 within the utility footprint of each  
24 utility and they can get subscribers  
25 from across that utility footprint, and

1           that way there will be more locations  
2           that these Community Solar facilities  
3           could connect at a lower distribution  
4           cost impact and also an interconnection  
5           impact and also land use considerations  
6           become a less of a potential issue.

7           It's going to greatly -- make it much  
8           more complex to cite these and  
9           interconnect these at a relatively low  
10          cost so we have some level of  
11          flexibility. The community is much  
12          broader than some streets that are close  
13          to one another.

14                   One of the things that we also  
15          will note is if some form of advanced  
16          metering were available, it would allow  
17          these facilities, the Community Solar  
18          facility and the subscribers, to be  
19          billed in the same potential billing  
20          cycle. And right now there are  
21          Community Solar facility and the other  
22          people are on different monthly cycles,  
23          greatly complicates the billing, greatly  
24          complicates any understanding of exactly  
25          how the production is translating into a

1 credit back to the customer. So there  
2 are significant advantages if we can  
3 basically do it all at the same time.

4 And so we have AMI in other  
5 jurisdictions, but that would allow some  
6 greater flexibilities in terms of  
7 information by the consumers. So those  
8 are the added remarks that I had.

9 MR. WINKA: That last point,  
10 would you see that as -- so each  
11 subscriber would then be upgraded with  
12 an advanced meter, or is that a  
13 wholesale utility upgrade of the  
14 advanced meter system?

15 MR. SUNDERHAUF: Right. It's  
16 obviously a policy issue in New Jersey.  
17 At the point where AMI is universal,  
18 that would be ideal, right, because then  
19 you'd have the ability to move things  
20 around as you needed to. Until that  
21 time you'd have to consider what the net  
22 metering characteristics would be.

23 So ideally we would want to  
24 meter the participants in some type of  
25 remote metering capability. But then

1 given the complexity of that, then  
2 metering may not be realistic. So it's  
3 kind of a timing issue related to AMI.  
4 We would point out that with that remote  
5 metering flexibility you do have  
6 actually have a lot more flexibility of  
7 how you bill these accounts and how you  
8 group communities together in terms of  
9 that billing, unfortunately. Thank you.

10 MR. SHEEHAN: Lina Smith from  
11 Food & Water Watch.

12 MS. SMITH: Hello again. To the  
13 question of the value of solar, we would  
14 encourage the BPU not to implement a  
15 value of solar program.

16 When this type of valuation was  
17 implemented in New York to replace the  
18 metering, renewable development came to  
19 a screeching halt. The policy created  
20 uncertainty and confusion in the solar  
21 industry and amongst its customers,  
22 resulting in project in over 100  
23 communities being cancelled, which  
24 represented over 600 megawatts.

25 Implementing such a policy in

1 New Jersey would likely be just as  
2 disastrous for solar developments. And  
3 a more effective and preferable policy  
4 would be to extend metering benefits to  
5 Community Solar projects like has been  
6 mentioned before.

7 New Jersey could consider  
8 equitable net metering non-community  
9 solar where ratepayers are credited at a  
10 retail rate for up to 120 percent of  
11 their annual electricity generation,  
12 receiving bill credits with the option  
13 for annual payments for excess  
14 generation up to the 120 percent cap.

15 If solar owners' generation  
16 exceeds 120 percent of their generation,  
17 the utility that serves them should be  
18 required to credit a BPU-administered  
19 fund to support the development of LMI  
20 community solar project at their retail  
21 rate for their excess electricity put  
22 into their grid.

23 Regarding excess credits on  
24 subscriber bills, we recommend that  
25 subscribers should have the options of



1 rolling over their credits at the end of  
2 the year or receiving a check from the  
3 utility.

4           Until the question of renewable  
5 energy credits unbundled as RECs should  
6 not be allowed to be sold to utilities  
7 to meet renewable electricity standards  
8 or sold to electricity customers as a  
9 way to offset their fossil fuel usage  
10 and claim renewable energy benefits  
11 while actually utilizing fossil fuels or  
12 other sources of electricity. These  
13 credits are used to offset fossil fuel  
14 burning elsewhere, and there is no  
15 guarantee that SRECs will result in more  
16 solar energy being built.

17           But bundled RECs should be  
18 regenerated and sold with electricity to  
19 electric utilities if a Community Solar  
20 project generates excess electricity.  
21 The proceeds from the excess generation  
22 should be credited to subscribers billed  
23 and on an annual basis. Compensation  
24 for excess generation from a Community  
25 Solar project should be credited to a

1 BPU fund that will support the  
2 development of low-income solar projects  
3 including reducing subscription costs  
4 for LMI subscribers who join the project  
5 or current members of Community Solar  
6 project.

7 However, if unbundled SRECs are  
8 used in the state, they should be  
9 available to Community Solar projects  
10 and credited to subscribers for the  
11 portion of energy available in their  
12 subscription up to 120 percent of their  
13 electricity usage.

14 Revenue generated from unbundled  
15 RECs beyond 120 percent of their  
16 electricity usage should be credited to  
17 a BPU administered fund to support the  
18 development of low-income solar. Thank  
19 you.

20 MR. SHEEHAN: So are you  
21 advocating for -- are you advocating for  
22 scaling the facilities based upon the  
23 load or scaling as large as you can and  
24 using this credit system?

25 MS. SMITH: Based upon the load.

1 MR. SHEEHAN: Okay. So you're  
2 not expecting a lot of this credit  
3 system, it's just in the event?

4 MS. SMITH: In the event.

5 MR. SHEEHAN: Okay. Thank you.

6 Next up is Lyle Rawlings.

7 MR. RAWLINGS: Thank you, Ken  
8 and Mike, and the other staff. I'm Lyle  
9 Rawlings. I'm the president and  
10 co-founder of the Mid-Atlantic Solar  
11 Energy Industries Association, or MSEIA.  
12 MSEIA, going on 21 years now, has been  
13 advocating for solar energy in New  
14 Jersey.

15 And for all of that time we've  
16 done so under three basic principles  
17 they're very easy to say, you can see  
18 them on our website. Those three  
19 principles are grow solar as much as  
20 possible, obviously; do so at the least  
21 possible cost to ratepayers and deliver  
22 the greatest possible values of public  
23 good; and, third, maintain a diverse  
24 market that provides incentives for  
25 local businesses to grow and create

1 jobs.

2 MSEIA has a wide variety of  
3 different members and we haven't come to  
4 a consensus on what they're recommending  
5 for net metering yet. It's a very  
6 complicated topic, and a variety of our  
7 members with a lot of different views on  
8 Community Solar need to come together.  
9 We have a policy committee meeting  
10 tomorrow and we hope to get there in  
11 time to submit comments.

12 But if we apply those basic  
13 fundamental policy principles that we  
14 have, I think we would have to say that  
15 Community Solar projects should not  
16 place a greater burden on ratepayers  
17 than the default way of doing the same  
18 thing.

19 For instance, if you have a 5  
20 Megawatt Community Solar project, that  
21 should not have a greater total  
22 ratepayer burden than a 5 Megawatt  
23 project in that same location if it were  
24 just to sell power to the grid. So what  
25 is that total rate impact?

1                   First of all, let's look at what  
2                   is the total rate impact if we do a real  
3                   true net metered project on somebody's  
4                   roof. Now, that's -- it's murky, it's  
5                   hard to understand this concept of bill  
6                   credits, and I don't think I've got a  
7                   real handle on it yet.

8                   The two pathways that cost of  
9                   solar gets to ratepayers, the way it's  
10                  laid on ratepayers, are first through an  
11                  attribute payment that stands for the  
12                  qualities, those environmental  
13                  qualities, that we've heard about from  
14                  others, and we do that through an SREC.  
15                  So the SREC is the attribute payment.

16                  The other part comes in a net  
17                  metered project when the utility company  
18                  goes for a rate recovery proceeding or a  
19                  rate recovery mechanism or a periodic  
20                  rate case. So how much is that? This  
21                  is so murky that when I talk to utility  
22                  people I say, please, explain this to me  
23                  like I'm eight years old.

24                  So if you really get down to the  
25                  basics and look at the numbers, if you

1 take the residential net metered  
2 customer and he puts solar on his roof,  
3 the utility takes their total lost  
4 revenue, that credit on the bill, and  
5 they subtract their avoided costs, costs  
6 that they didn't have to pay because of  
7 that solar generation.

8 And that part of it is pretty  
9 murky, but basically for a residential  
10 customer their credit is the same as the  
11 retail rate, unlike in commercial where  
12 it's complicated by the demand costs.

13 So if the customer is paying 17  
14 cents per kilowatt hour, their bill  
15 credit is 17 cents per kilowatt hour.  
16 The utility roughly is going to  
17 calculate an avoided cost that's about  
18 13-and-a-half cents a kilowatt hour.  
19 There's many components to go into that,  
20 some of which is a little bit  
21 questionable.

22 But that means they go for a  
23 rate recovery of about 3-and-a-half  
24 cents a kilowatt hour. That becomes  
25 part of the ratepayer impact. Now it's

1 the SREC plus that 3-and-a-half cents of  
2 kilowatt hour.

3 Now, when I ask them, okay, so  
4 what is the avoided cost if it's a  
5 virtual net meter. If we have this five  
6 Megawatt out in the field somewhere  
7 pumping power into the grid, then what  
8 is that avoided cost? And I can't get  
9 any answer. I think everybody's still  
10 trying to figure that out, what is the  
11 real physical credit to ratepayers, the  
12 real market value that they're getting  
13 for the solar in that case.

14 On the low end you could say  
15 it's just L & P plus capacity, which is  
16 the same thing you get paid if you  
17 develop that project and just sold power  
18 to the grid. That's on the low end. On  
19 the high end you might say it's the same  
20 as it would be if it were net metered,  
21 it's that same 13-and-a-half cents. So  
22 somewhere in between there or on one end  
23 or another is the actual avoided cost.

24 Whatever that number is,  
25 whatever the real number is, the delta

1           between that and the bill credit that  
2           the BPU defines for a Community Solar  
3           project becomes part of the rate impact.  
4           So presumably that avoided cost is going  
5           to be lower than the bill credit that  
6           you guys defined for Community Solar.  
7           That difference is part of the rate  
8           impact for that project, and then  
9           there's whatever else it gets as an  
10          attribute payments, like SRECs, if the  
11          Community Solar project gets SRECs.

12                        So we would say if we're staying  
13          true to our principles, that you've got  
14          to deliver solar at the lowest cost to  
15          ratepayers. That total of the recovery  
16          the utilities are going to get for the  
17          Community Solar project plus the SREC or  
18          other attribute payment, that total  
19          should not be more than the default case  
20          for building that same megawatts.

21                        What is the default case? Well,  
22          the default case is a grid supply  
23          developer develops that 5 Killowatt  
24          project, just cells the power to the  
25          grid, and you pay him an attribute



1 payment and that's it. So I think if we  
2 stay true to our principle, we would say  
3 the Community Solar total rate impact  
4 should not be more than that default  
5 base case. And I believe that perhaps  
6 is the way the BPU should look at it.

7 Now, I'm a Community Solar  
8 developer in Massachusetts and in New  
9 York, and one of the aspects of  
10 Community Solar that's been mentioned  
11 here a lot is that there are costs that  
12 occur, the customer acquisition cost,  
13 the customer maintenance cost, service  
14 costs, there's the subscriber discount  
15 that's a cost, and then there is the  
16 additional risk and higher cost of  
17 capital for the developer.

18 Those aren't ratepayer costs;  
19 those are costs on the developer, but  
20 that can result in the need for a higher  
21 incentive payment. So that's something  
22 we have to be aware of and guard  
23 against.

24 There was one other thing I said  
25 in terms of our principles when I said

1 lowest possible ratepayer cost, I also  
2 said deliver the greatest value of  
3 public good. So the one case in which  
4 we can say a higher rate impact for a  
5 community solar project would be okay is  
6 if it's serving a public policy goal  
7 such as helping low-income ratepayers.  
8 In that case a discount for low-income  
9 ratepayers is a public good and could  
10 justify a little bit higher compensation  
11 in terms of the rate.

12 That is all my remarks for now.  
13 Thank you.

14 MR. SHEEHAN: Thank you very  
15 much.

16 That concludes the individuals  
17 who signed up. Was there anybody else  
18 who would like to come up and speak on  
19 this topic?

20 MS. KEMP: Hey everyone. Good  
21 afternoon. Melissa Kemp. I was up here  
22 this morning on behalf of CCSA, and this  
23 afternoon I'm just going to comment on  
24 behalf of the Cypress Creek Renewables.

25 As I mentioned, we're a large

1 solar storage company across the country  
2 with a big investment in the northeast.

3 I just wanted to comment on a  
4 couple of quick things. One was the  
5 framing of the potential, you know, bill  
6 credit as making sense as a third-party  
7 supplied credit. And, you know, just  
8 thinking through that logically here's  
9 what our reaction was:

10 One, it just fundamentally under  
11 values their resources in an apples to  
12 oranges comparison. When I get a  
13 third-party credit on my bill or have an  
14 escrow partner as a homeowner and  
15 business owner, that is for energy  
16 supply, commodity in the market, and  
17 capacity.

18 And we're supplying a lot of  
19 these Community Solar projects, we're  
20 supplying more value than that. New  
21 Jersey has not gone down the path of  
22 trying to value that yet, but the  
23 decision -- you know, there definitely  
24 are attribution and transitions as to  
25 the values, it's a recognized category

1 of value that hasn't been touched here.

2 Number two, there's a huge  
3 environmental value and the SREC program  
4 are placeholders for that. As we've  
5 already talked about, I know Brandon  
6 mentioned up here earlier there are not  
7 going to be SRECs in any available for  
8 Community Solar. Like we'll submit the  
9 modeling in our filed comments, you  
10 know, the capacity is very much on its  
11 way to being used up by early Q1 of next  
12 year. So I would say, you know, looking  
13 at the D&T value and the full E value  
14 are things that Community Solar is  
15 providing different than just a normal,  
16 conventional generation, third-party  
17 supply method. I just wanted to make  
18 that point.

19 You know, I would say I know  
20 there's some difference of opinion here,  
21 but we welcome the value of this  
22 approach to solar if that's what you  
23 guys decide you want to do. You know,  
24 we don't have time for that now. And so  
25 what we recommend strongly is not to try

1 to rush, no shortcuts to get to some  
2 kind of number there. It has never  
3 resulted in good or appropriate outcome  
4 for lots of stakeholders.

5 And instead make that a project  
6 and New Jersey can consider whether it  
7 wants to do it and do that in the future  
8 going forward and recognize how much  
9 work it actually is to do that.

10 And I guess I would just repeat  
11 the last thing from earlier, which is,  
12 you know, retail rate is not a big deal.  
13 You have a precedent here in New Jersey  
14 for using that. There is a ton of data  
15 out there as it being not an  
16 unreasonable proxy for value, which we  
17 have an impact here and we acknowledge  
18 that. But it's not actual reality now,  
19 we're not paying retail right like  
20 Hawaii where it's 30 cents, and maybe  
21 that's a real controversial number for  
22 value. This isn't a range of values  
23 that come in across the country, but  
24 clearly to the point taken, New Jersey  
25 wants to go down that path, we should do

1 the work. But there's not time to do  
2 that work properly for this Community  
3 Solar pilot program.

4 I think that wraps up the  
5 comments that I wanted to add. I  
6 appreciate everyone's time.

7 MR. SHEEHAN: Thank you very  
8 much. Anyone else who would like to  
9 step up?

10 MR. McDONALD: Good afternoon.  
11 I'm Cameron McDonald with Oster Energy  
12 (ph). I'm actually a developer of  
13 Community Solar in other states as well.  
14 I just look to the BPU to say I know you  
15 guys are on a limited time table to  
16 accomplish your goals here, but you have  
17 a lot of good things that other states  
18 that have put in place that you have  
19 access to review and look at, which cuts  
20 your need for time down quite a bit.  
21 But you also have the luxury of seeing  
22 what didn't work.

23 And being a Community Solar  
24 solar developer in New York State and a  
25 solar developer in New York State over

1 the past two years I would say don't  
2 stifle the developer by getting ahead of  
3 yourself. And some of the things they  
4 did were great, and I want to go back to  
5 where we were before, but definitely  
6 take a look and see what's worked in  
7 states like California, New York, and  
8 Massachusetts and look at what didn't  
9 work so you can avoid those.

10 Another point I wanted to make  
11 is people brought up escrows. I don't  
12 agree with using the escrow value, but  
13 what I would agree with is on the  
14 recovery and possibly taking it a step  
15 further where escrows have, in certain  
16 utility territories, and I think some in  
17 New Jersey offered, was POR, or purchase  
18 of receivables. This would give  
19 financiers even more risk mitigation  
20 working on projects if the utility was  
21 to just offer recovery, time of purchase  
22 of receivable or even pay a point or  
23 two, I think it was 2 percent for the  
24 escrows.

25 That gives the financiers even

1 more structure to lean on and, you know,  
2 safety to lean on, and really that's  
3 what it comes down to is if you can get  
4 the capital markets and the financiers  
5 behind these projects, the private  
6 sector will get the projects built.  
7 That benefits the LMI projects, but as  
8 most solar developers are out there, a  
9 lot of us don't have the balance sheets  
10 to do the projects on our own, so we  
11 need the certainty, and that comes from  
12 the BPU. So those are just my comments  
13 there, if you have any questions.

14 MR. SHEEHAN: Thank you very  
15 much. Okay. That was Session III. We  
16 are running about 15 to 20 minutes  
17 behind schedule.

18 So we will go right into Session  
19 IV. This is Applications and  
20 Interconnection. With that I think  
21 we'll start with our first speaker,  
22 which is Atlantic City Electric.

23 (No response.)

24 MR. SHEEHAN: Okay. Then we'll  
25 move on to our second speaker, CCSA,



1 Justin Wilson.

2 MR. WILSON: Good afternoon.

3 I'm Justin Wilson speaking for CCSA here  
4 today. My company is reflected for a  
5 Community Solar developer with projects  
6 in 16 states, and so I wanted to talk a  
7 little bit about some of the best  
8 practices we see in the application and  
9 interconnection process for Community  
10 Solar.

11 So I think our principle here is  
12 that we want the Community Solar project  
13 to be -- the program to be designed and  
14 administered to run transparently and  
15 efficiently. We've heard transparent  
16 mentioned a couple of times, in  
17 particular around the bill credit. That  
18 transfers over into many of the  
19 different components of developing a  
20 program.

21 As we proposed earlier, with  
22 regard to dividing up that capacity in  
23 the program, we believe that each EDC  
24 should administer a BPU-approved pilot  
25 program based on those categories to

1 earlier questions. And so the way we  
2 kind of see this working is each EDC  
3 would have its own interconnection  
4 queue. It would really be the place  
5 where applications go, that's how you  
6 apply to the program. They would be  
7 managed on a first come, first serve  
8 basis with high project maturity  
9 requirements and have those project  
10 maturity requirements be ongoing  
11 throughout the interconnection process.

12 And so that makes sure that as  
13 projects are entered into the queue,  
14 that they over time are being developed  
15 and being accepted into the program and  
16 begin serving customers as quickly as  
17 possible.

18 And then we believe that  
19 existing projects should not be aloud to  
20 reclassify as Community Solar projects.  
21 Really the purpose of this program is to  
22 add new, clean generation that customers  
23 are wanting to place onto the grid.

24 A little bit on EDC reporting  
25 requirements, and this is separate than

1           the issues that Brandon talked about  
2           earlier with bill credits. And it  
3           really has to do with the  
4           interconnection queue and giving the  
5           development community the information it  
6           needs to make good decisions on where to  
7           site projects and what available  
8           capacity is still up there.

9                        So each EDC should post weekly  
10           updates to an interconnect queue report  
11           as long as the path remains pilot  
12           program capacity in each year. We've  
13           got a set of information that needs to  
14           be included, the date that the program  
15           queue is updated, overall program size  
16           and capacity remaining, what capacity is  
17           in service, and the total capacity  
18           allocated as well.

19                       Then on a slightly longer-term  
20           basis monthly would be preferred,  
21           quarterly can also work. It's just a  
22           little bit more overall information, a  
23           little bit more granular in detail. So  
24           the status of the application, including  
25           those that are active or in commercial

1 operation, and in particular the  
2 withdrawn. It's very good practice to  
3 have an insight into what projects may  
4 have been in the queue at one point, but  
5 have dropped out of the queue for  
6 another reason that can allow us to  
7 understand perhaps where projects are  
8 placed on the grid.

9 So, again, and then the -- some  
10 information on the activity of the  
11 applications and kind of what different  
12 phases that they are in, if it's study  
13 or design or construction. Yeah, and  
14 then the overall numbers, again very  
15 similar to what we'd want on a weekly  
16 basis or just updated in the same  
17 quarterly report.

18 And I think that's it. I would  
19 say the overall, again going back to the  
20 principle, is transparently and  
21 efficiency. We think that electric  
22 distribution companies, they know theirs  
23 systems, they know where projects are  
24 going to be in the queue, and they can  
25 very efficiently manage the programs

1           themselves. I'm happy to take any  
2           questions.

3                       MR. WINKA: So just in the  
4           statute it says the BPU shall make  
5           available on its Internet site  
6           information on solar projects. So you  
7           don't see a conflict with what you're  
8           saying to what the statute requires?

9                       MR. WILSON: I don't see a  
10          conflict necessarily. I think you can  
11          certainly delegate it to the utilities.  
12          I think you can certainly make a  
13          favorable on the NJ Clean Energy page, a  
14          site that, if developers would like to  
15          advertise, available capacity for them  
16          to do so.

17                      You know, one of the things we  
18          have in Colorado is in Colorado, where  
19          my company is based, their original  
20          legislation had something similar in it.  
21          And the reality is that you have  
22          sometimes development cycles, and so  
23          sometimes there's a lot of project  
24          capacity available, sometimes there's  
25          not, and the websites just were not

1           being updated accurately. And so the  
2           companies were getting calls about  
3           interest in Community Solar but they  
4           didn't have available capacity. So I  
5           think from my perspective it's nice to  
6           have, but not necessarily something that  
7           every single project needs to be listed  
8           in a contact form.

9                        MS. BENREY: You mentioned that  
10           projects should have a high maturity  
11           requirement in order to be accepted onto  
12           the queue. Can you elaborate a little  
13           more on what those requirements should  
14           be?

15                       And specifically you can touch  
16           upon -- either here or later upon what  
17           requirements should exist or should not  
18           exist with regards to customer  
19           subscriptions that say should there be a  
20           threshold percentage of customers who  
21           have already signed up, at which point  
22           the project is considered able to move  
23           forward.

24                       MR. WILSON: Sure. So on the  
25           first question, the project maturity

1 requirements, I think there's a couple  
2 of things to look for. To be placed in  
3 the queue I think you want to have site  
4 control, so that's ownership of land or  
5 an option to lease or purchase that land  
6 that's contingent on the project being  
7 continued to approve.

8 You want perhaps some sort of  
9 interconnection study or agreement  
10 signed, and so different states have  
11 different levels of interconnection  
12 study, and you want that to be something  
13 pretty substantial so that we know  
14 pretty -- with pretty clear eyes what  
15 the cost of interconnection would be.

16 And then there's a set of  
17 permits that could be somewhat of a  
18 checked box to make sure that local  
19 jurisdictions have signed off in some  
20 cases that this is a place that they're  
21 planning to approve the development.

22 And then the second was  
23 around -- sorry, your second question?

24 MS. BENREY: A threshold for  
25 subscribers.

1                   MR. WILSON:  So I think with --  
2                   so in short, no, I don't think there  
3                   necessarily needs to be a threshold for  
4                   subscriptions.  What I would say is  
5                   getting the subscribed and the  
6                   unsubscribed energy figured out is going  
7                   to -- and making sure that there is an  
8                   incentive for developers to have  
9                   subscribed energy is going to make sure  
10                  they have that capacity locked down  
11                  before they go and develop a speculative  
12                  project.

13                  Thank you.

14                  MR. SHEEHAN:  Okay.  It's Direct  
15                  Energy, Dan Schneider.

16                  (No response.)

17                  Pine Gate Renewables?

18                  (No response.)

19                  MR. McDONALD:  So there have  
20                  been, and I'm sure a lot of the local  
21                  developers here are aware of this, quite  
22                  a lot of distribution hosting capacity  
23                  restraints on the distribution grid.  
24                  Developers should have access to  
25                  distribute grid line information in the



1           substation hosting capacities. Increase  
2           the transparency there, it will decrease  
3           costs for developers to actually get  
4           these projects through, and you will  
5           have a lot less failed applications at  
6           the end of the day.

7                     Utilities should also be  
8           required to identify lines which in  
9           their belief will receive the greatest  
10          grid benefit from the addition of  
11          renewable energy resources. Whether  
12          that's load centric or however they deem  
13          that to be of benefit is fine as long  
14          as, as I said before, it's a transparent  
15          process that we can look at and  
16          understand what their methodology is.

17                    That methodology should also be  
18          standardized across all of the  
19          utilities. It can be problematic if ACE  
20          has been provided methodology from JCP&L  
21          who been provided methodology from has  
22          Orange Rock.

23                    And utilities should also be  
24          required to provide specific timelines,  
25          costs, and deadlines for these

1 interconnection studies. We don't want  
2 a repeat of what has happened in --  
3 especially PJM right now where I think  
4 the interconnection timeline is supposed  
5 to be a year and a half, and now it's up  
6 to almost three years now for their  
7 interconnection queue.

8 When upgrade costs are required  
9 by a utility, developers should have a  
10 fair and efficient appeals process.  
11 There should be transparency into why  
12 they think the upgrades cost the way  
13 that they do. And, again, these pricing  
14 methodologies should be standardized  
15 across all the EDCs. And the program  
16 should have a separate interconnection  
17 queue for Community Solar projects.

18 And that's everything that  
19 seemed important to talk about in this  
20 point.

21 MR. SHEEHAN: Thank you very  
22 much.

23 MR. WINKA: Sorry. So you  
24 mentioned hosting capacities and they  
25 should be similar, so there's a number

1 of hosting capacities across the  
2 country. Do you have one -- is  
3 California's methodology better than New  
4 York, better than Massachusetts, better  
5 than Maryland?

6 MR. McDONALD: So the only  
7 methodology that I personally have  
8 experience with is New York's. All of  
9 their utilities have released these  
10 hosting capacity maps, and it's been  
11 very helpful.

12 AUDIENCE MEMBER: Was that  
13 required?

14 MR. McDONALD: Yes, it was  
15 required by their public service. Any  
16 other questions?

17 MR. WINKA: Thank you.

18 MR. SHEEHAN: Thank you. We're  
19 going to go next with New Jersey  
20 Resources.

21 (No response.)

22 Vote Solar?

23 MS. KASOTIA: So quick comments  
24 on this section as well. We do think  
25 it's important to create the application

1 and interconnection that's transparent  
2 and streamlined, and the BPU should  
3 direct each utility to administer a  
4 program with a certain annual capacity  
5 allocation in each service territory  
6 during the pilot program.

7 We also recommend that BPU  
8 explore ways to support projects that  
9 will low-income customers and customers  
10 in underserved communities. One of the  
11 ideas we have is if BPU can provide us  
12 assistance with the application process  
13 through waivers or support for  
14 interconnection fees, so that will help  
15 those projects to move forward. That's  
16 all that we have on this one.

17 MR. SHEEHAN: Thank you. That  
18 concludes the individuals who have  
19 signed up ahead of time.

20 We have Justin Wilson from the  
21 Clean Energy.

22 MR. WILSON: That was me.

23 MR. SHEEHAN: Perfect. Thank  
24 you.

25 ACE? Of course, we already had

1           you talk, so you don't have to come up  
2           again if you don't want to.

3                       MR. SUNDERHAUF:  Sorry I wasn't  
4           here for the beginning of the  
5           discussion, but very quickly a couple of  
6           items for your consideration.

7                       Since we don't know the number  
8           of Community Solar potential projects it  
9           would be helpful, if there is a risk  
10          that it might be oversubscribing a  
11          particular service territory, that there  
12          be some type of screening effort by the  
13          BPU to determine which projects in which  
14          order would actually be the ones that  
15          would be selected for any period of  
16          time.

17                      We can do some preliminary  
18          interconnection screening but in-depth  
19          interconnection screening does require  
20          some substantial time on our part be.  
21          Could be far better than some screening  
22          criteria that were applied by the BPU in  
23          terms of determining which ones actually  
24          should go through that process.

25                      Beyond that we think the

1 existing interconnection process that we  
2 use and the application process is the  
3 appropriate one. But the one thing that  
4 we would note is that because of the  
5 size and scale of these projects and  
6 they may all come in at the same time,  
7 that that additional processing time may  
8 be required on the part of utilities.

9 Those are my remarks. Thank  
10 you.

11 AUDIENCE MEMBER: Can we ask for  
12 a clarification?

13 MR. SHEEHAN: You can ask him.

14 AUDIENCE MEMBER: You said the  
15 current interconnection process for net  
16 metering?

17 MR. SUNDERHAUF: For net  
18 metering, yes. It's the interconnection  
19 process that I'm referring to. And,  
20 again, it depends on the size of these  
21 facilities, if they go up to the PJM in  
22 size, but most of these will probably be  
23 in a size they would just come through  
24 the normal utility processes. But,  
25 again, I think it's unclear and the

1 volume could come at the same time if  
2 everybody's queued up. That's the one  
3 thing we are particularly sensitive to.  
4 Thank you.

5 MR. SHEEHAN: Lina Smith?

6 (No response.)

7 Okay. That appears to be  
8 everyone who signed up for this session.  
9 Is there anyone who would like to speak?

10 MR. ABBEY: Ross Abbey with

11 US Solar. Just a few quick remarks.

12 I'm going to overlap a little bit. Two  
13 key questions, I think, that we have.

14 First question is, at what point  
15 in the development cycle does the  
16 developer who's going to bring the  
17 project forward get a capacity against  
18 the annual program limit and also get a  
19 rate? Because until you have those two  
20 pieces it's hard to pivot to subscribers  
21 and contracting with subscribers. It's  
22 hard to make a commercial offer to  
23 subscribers until you've got that rate  
24 assigned to a project and also to  
25 financiers, unless you've got the

1 project rates.

2 So once you've -- once those  
3 things invest in the project you might  
4 also want to think about how long they  
5 invest for, how long does the project  
6 have to get done to actually bill the  
7 solar facility before they lose that  
8 vesting or is it forever -- I'm not sure  
9 of a program that lets a developer take  
10 forever. There has to be some type of  
11 term limits. Thirty months might be  
12 something to look at for that.

13 And then the other key question  
14 is what does a project developer have to  
15 demonstrate to give that reservation,  
16 that limited reservation. And so that's  
17 what you would require as project  
18 requirements, project maturity  
19 requirements.

20 So this is kind of a balancing  
21 act. You know, on the one hand if you  
22 allow projects to invest too early, then  
23 maybe get higher dropout rates versus  
24 making it up as you go before you get  
25 that allocation. But I would I say the



1 two things we need to look at are, one,  
2 the developer should have a site  
3 address, and ideally site control to  
4 make it demonstrate through legal  
5 documents; a land use permit, at least  
6 if it's a ground-mount kind of primary  
7 use because that shows the developer has  
8 gone to the city or to the county, he  
9 has permission to use that. And then  
10 the third piece would be apply for  
11 interconnection study, and ideally in my  
12 mind has a paper backing from the  
13 utilities saying, yes, there is the  
14 capacity on the substation on this wire.

15 Some states go further and  
16 require the developer to incur any  
17 interconnection costs and maybe even  
18 have paid that interconnection cost. In  
19 my mind that's a little bit -- you know,  
20 interconnection for these sets of  
21 facilities can be between \$100,000 to \$1  
22 million. But I would keep those in  
23 mind.

24 MR. SHEEHAN: Would you have any  
25 squatting concerns for a process like

1           this, or is there a concern about people  
2           grabbing hold early?

3                       MR. ABBEY: Yes. Exactly. I  
4           think that's going to be a concern. If  
5           there was an unlimited market, then  
6           maybe that's not a big concern. You can  
7           give out of a thousand, you know,  
8           capacity allocations, and if only a  
9           third get built, it is what it is. But  
10          certainly for the pilot program there's  
11          a limit; you want to avoid that.

12                      MR. WINKA: And so this may not  
13          be a fair question because I'm going to  
14          ask a question about ACE and they can  
15          come up and comment on the comment, but  
16          so they have a screening process, so the  
17          interconnection process has some kind of  
18          screening process. What do you think  
19          about their comment on the screening  
20          process? It would go to the BPU, the  
21          BPU would say X, these are okay, these  
22          are not okay, go ahead and file for the  
23          interconnection.

24                      MR. ABBEY: Would this be  
25          screening based on kind of on the parcel

1 or...?

2 MR. WINKA: I'll leave that up  
3 to ACE.

4 (Laughter.)

5 MR. WINKA: So you would have a  
6 parcel, you would have the zoning, you  
7 would have the planning.

8 MR. ABBEY: Yeah, at least the  
9 market I've been involved in typically a  
10 utility will do a capacity study, and  
11 then there's a more in-depth facility  
12 study where they say granted there's  
13 transformer capacity, here's all the  
14 upgrades you would have to do. And I  
15 think that facility study, it could go  
16 under different names, would probably be  
17 more involved. And so you want to  
18 second study to be in place as a proper  
19 requirement, I think is a good question.

20 MR. WINKA: It's that you  
21 presented us with a chicken-and-the-egg  
22 situation, so we're not sure which goes  
23 first.

24 MR. ABBEY: Well, it does put  
25 more work on the utility. They study

1 all these things before they even get a  
2 capacity, so you can go either way.

3 MR. WINKA: Okay. Thanks.

4 MR. SHEEHAN: Thank you.

5 MS. KEMP: Hey, everybody.

6 Melissa Kemp for Cypress Creek again. I  
7 just wanted to build up on related  
8 topics that CCSA and others have  
9 covered.

10 The program administration  
11 application requirements and then  
12 reservation length, right. It's kind of  
13 the administrative side of this  
14 Community Solar program and what its  
15 rules are its compensation approach.

16 As this is a transition for New  
17 Jersey in terms of actually having  
18 offsite facilities that can serve  
19 customers, the one flag like separating  
20 recommending -- a strong recommendation  
21 to clearly separate distributed  
22 generation interconnection from program  
23 administration. And there's a couple of  
24 things. Like one is a technical, right,  
25 so interconnection processes and

1           Technical review screening study.  
2           That's kind of -- what's the word I'm...  
3           doesn't have a preference on what  
4           program you're in, what you might  
5           qualify for on the compensation side.  
6           It's, you know, what's technically  
7           viable on the grid and what are their  
8           reasonable rules to manage that and make  
9           sure it's done properly and that things  
10          move along.

11                         So there's a couple of key  
12           things that we've learned in this  
13           region, New York, Massachusetts, on like  
14           things were missing at some point and  
15           then more development opportunities in  
16           Community Solar were open, and then all  
17           of a sudden the interconnection  
18           technical process, it was kept separate  
19           from the program, and that's great. And  
20           I highly recommend to keep that  
21           separate, but, two, it just didn't have  
22           an update, hadn't been reflected to  
23           really take into account the amount of  
24           interest or just the difference in being  
25           offsite and not always having a customer

1 building that you already agree, that  
2 you're working with the customer on.

3 So some of the things have been  
4 kind of essential components in other  
5 successful states, you know,  
6 interconnection, technical process, it's  
7 a separate program, it's first come,  
8 first serve, it's sequential study so  
9 you come in first, you get served first,  
10 meaning that you're studying first in  
11 the queue and other applications that  
12 come in behind you on a feeder  
13 substation are studying with you in  
14 mind. Up to a point of timelines,  
15 right, so making sure that we have  
16 really good timelines on developers.  
17 That's what we worked hard for in New  
18 York, as well as other utilities, and  
19 making sure that they're reasonable and  
20 that they're strongly enforced.

21 The other piece was getting  
22 information ahead of time. So you guys  
23 are talking about hosting capacity, and  
24 that's great, and California's the best  
25 one out there, but it takes a lot of

1 work and time. And pre-application  
2 reports are an easier starting way to  
3 get -- but the point really is is that  
4 if I'm a developer, I don't need to get  
5 into your queue. I just want this  
6 information about this feeder and this  
7 substation, let's provide that without  
8 clogging up what appears to us to be  
9 projects actually in development, right.  
10 I might just be looking at these parcels  
11 or land with buildings, or these  
12 landfills, or whatever it is.

13 So other states are really  
14 helpful in making sure that we have a  
15 good information ahead of time system in  
16 place. Pre-application reports are one  
17 easy way to do it, where you don't have  
18 to have an old capacity map. It's  
19 simply a you put in a form, you pay \$100  
20 or whatever, and the utility sends you  
21 back these 13 key pieces of data, and  
22 your engineering team can process that  
23 and then make a reasonable decision on  
24 what you pursue -- a possible project  
25 further.

1                   And that fits in really well  
2                   with maturity requirements for queue  
3                   entry. Until you can ensure for people  
4                   in New Jersey what rules we have in the  
5                   book and making sure that there are  
6                   maturity requirements. Like we don't  
7                   want people getting in the region by  
8                   joining the interconnection application.  
9                   We want to make sure they do have some  
10                  land owner consent use in New York or  
11                  site control or something.

12                  If you want to get in there and  
13                  look like your serious project is queued  
14                  and make people wait behind you, let's  
15                  make sure you have some actual, you  
16                  know, skin in the game, or whatever that  
17                  silly metaphor is.

18                  So those are the bill things. I  
19                  know that's not your job at this table,  
20                  but I would just recommend maybe we  
21                  could initiate a process simultaneous to  
22                  this to make sure we keep up with  
23                  standards and make sure they're going to  
24                  fit and not have some weird effect when  
25                  this program does get up and running.



1           There are other pieces like making sure  
2           the technical, if there is technical  
3           streaming, as well as updated standards  
4           for study. Someone just mentioned  
5           payments. You know, like in New York  
6           we're allowed to have a 25 percent  
7           payment and kind of break up the money  
8           so if folks do want to have a  
9           requirement for putting some money on  
10          the table, I think that's a very  
11          reasonable concern. And so I just  
12          wanted to mention all those things.  
13          We'll follow up our comments with more  
14          detail, but something that may be very  
15          helpful.

16                   MR. WINKA: You're follow up on  
17                   skin in the game would be helpful.

18                   MS. KEMP: On the payment  
19                   segment?

20                   MR. WINKA: Yes.

21                   MS. KEMP: Absolutely.

22                   MR. WINKA: Thanks.

23                   MR. SHEEHAN: (Indicating).

24                   MR. RAWLINGS: So a couple  
25                   things. On interconnection, if you go

1 to interconnect a grid supply project  
2 now, and RVP for New Jersey is actually  
3 also the president and founder of the  
4 New Jersey Solar Grid Supply  
5 Association, you've got a hard road  
6 ahead of you to interconnect a grid  
7 supply project, and presumably that's  
8 going to be true for a 5 Megawatt  
9 Community Solar project as well.

10 On the other hand, if you  
11 develop a net metering project of the  
12 same size, it's quick, easy, and cheap.  
13 Now, if we want to do solar at the least  
14 possible cost we want to interconnect it  
15 in a way that's quick, easy, and cheap  
16 and facilitates development, and we also  
17 want to encourage the most low cost,  
18 most efficient project.

19 Now, by a great margin the most  
20 low cost, efficient project you could  
21 possibly do is a giant rooftop. Now,  
22 today if you do a giant rooftop, you  
23 wouldn't be able to connect it to the  
24 grid because it's so opposite of quick,  
25 easy, and cheap.

1                   So one thing you'll be hearing a  
2                   lot from MSEIA about is if we should  
3                   harmonize the interconnection process  
4                   with grid supply projects with the  
5                   process for net metering. It should be  
6                   just as quick, easy, and cheap to do  
7                   grid supplies.

8                   So if I have a 20-acre rooftop,  
9                   I should be able to choose between a net  
10                  metered connection and a grid supply  
11                  connection with not very much difference  
12                  in cost. Because supply -- if I'm on a  
13                  roof, and I have a choice of connecting  
14                  on the customer side of the meter or  
15                  moving it 3 feet and going to the grid  
16                  side of the meter, there shouldn't be an  
17                  enormous difference in the process and  
18                  difficulty and cost just because I moved  
19                  it 3 feet. And this is a way to get the  
20                  lowest cost, most efficient solar. That  
21                  would apply to Community Solar as well.

22                  Now, unfortunately, you guys  
23                  can't waive a wand and make that happen  
24                  because when you connect on the grid  
25                  side of the meter, you're under PJM

1 jurisdiction, and that's federal, not  
2 under your control. But that's not  
3 entirely true because those larger  
4 costs, those great costs that are driven  
5 when you go through a PJM  
6 interconnection process, are largely  
7 driven by the local utility. Many of  
8 those costs are actually driven by the  
9 local utility.

10 So maybe there's a way for you  
11 to jump into that conversation and see  
12 if that process can get quicker, easier,  
13 and cheaper. And of course there's the  
14 bully pulpit of the governor to go to  
15 PJM and say, look, you guys, help us get  
16 to these great renewable energy goals  
17 that we've got, find a way to streamline  
18 this interconnection process.

19 Now, on a not-so-related note,  
20 going back to the conversations  
21 we've had with the value of solar, CCSA  
22 mentioned that five or six years ago New  
23 Jersey did a value of solar study. I  
24 believe the study that they're talking  
25 about was commissioned by MSEIA and it

1 was done by Clean Power Research.

2 Clean Power Research is the same  
3 outfit that did the Minnesota study that  
4 was mentioned just before. That is a  
5 wonderful study. It's called the  
6 Minnesota pathways -- solar pathways  
7 study. And it's not published yet, it  
8 will be published around the end of this  
9 month, and the results are fascinating.  
10 They said we can get to 100 percent wind  
11 and solar by 2050 at a cost of about  
12 3-and-a-half cents per kilowatt hour.  
13 And it has more value on this  
14 conversation by how do we set the bill  
15 credit or what is the value of solar.

16 And, by the way, the result of  
17 our study was that Clean Power Research  
18 calculated a value of solar in New  
19 Jersey and Pennsylvania in different  
20 nodes, but the average value in total  
21 per energy plus attributes was 27 cents  
22 per kilowatt hour, and the attribute  
23 value alone was about 17 cents per  
24 kilowatt hour.

25 At the time Richard Perez from

1           SUNY Albany, who was a primary author of  
2           that report had a theory that we should  
3           pay for solar what the value is. Now,  
4           he no longer advocates for that. He's  
5           taking a least cost approach. Let's  
6           deliver it to ratepayers at the least  
7           possible cost, and that's what this  
8           pathways report is all about.

9                         It's not only talking about the  
10           value, but it's also talking about what  
11           is the least cost way for us to get  
12           there, what are the technical regulatory  
13           and economic drivers that produce the  
14           least cost and what is that.

15                        That would have a great value  
16           for this state because we have a high  
17           falutin goal, a wonderful, incredibly  
18           ambitious goal to get to 50 percent  
19           renewables by 2030 and now an executive  
20           order to get 100 percent by 2050.

21           That's a laudable goal, but there's no  
22           plan on how to get there. And there's  
23           different pathways, there's different  
24           ways to get to that point, but one of  
25           them is going to be the least cost way.

1           And whatever way that one was, if we  
2           identify it, then we'll know if it's  
3           steps we need to take now to start on  
4           the right path, the more expensive path.  
5           So that's the value of doing a study  
6           like that. Thank you.

7                       MR. SHEEHAN: Thank you.  
8           Anybody else who would like to talk on  
9           this topic?

10                      (No response.)

11                      With that mind, our next session  
12           is scheduled to start at 4:45. I think  
13           we will probably start that a little bit  
14           early. I think we should probably take  
15           a break on the last one. At least the  
16           crew up here has to be here until 6:00,  
17           so if we take a seven-minute break.  
18           We'll be back at 4:30.

19                      (A recess was taken from 4:20 to  
20           4:34 p.m.)

21                      MR. SHEEHAN: Thank you, Ladies  
22           and Gentlemen. The good news is we are  
23           scheduled to go until 6:00 p.m. The  
24           better news is you all don't have to  
25           stay. We will open up with Session V,

1 take those comments from people who are  
2 here. We will then at that point  
3 probably pause the record and keep the  
4 record open until at least 5:45, based  
5 upon the notice.

6 If people come in later, they  
7 will get to put their comments on the  
8 record, but once we are done with this  
9 level of comments, we will close up and  
10 let you all leave.

11 With that in mind, this is  
12 Session V on customer subscriptions and  
13 customer protection.

14 As has been our tradition, we  
15 will start with people who have signed  
16 up ahead of time and then follow up with  
17 anyone who would like to discuss. As a  
18 favor to the court reporter, if everyone  
19 can slow down about 20 percent, that  
20 would probably be beneficial to her.

21 With that in mind, I would like  
22 us to start with Atlantic City Electric.

23 MR. SUNDERHAUF: Steve  
24 Sunderhauf with Atlantic City Electric.  
25 A couple comments related to



1           subscriptions and consumer protection.  
2           A minimum of two subscribers is required  
3           per legislation. We support that view,  
4           that's similar to what our other  
5           jurisdictions require.

6                         Community Solar hosts should be  
7           responsible for managing customer  
8           subscriptions, and we don't see the  
9           utilities kind of stepping into that  
10          role. Customer subscribers must have an  
11          active case billing account. In the  
12          absence of an active account for a  
13          subscriber, they sign a share use that  
14          reverts to a Community Solar host. If  
15          somebody is participating that doesn't  
16          have an ACE account, I don't know  
17          whether you envision that's a  
18          possibility or not.

19                        Community Solar must specify  
20          each customer percentage share of  
21          Community Solar production. Again, the  
22          totals obviously cannot be skewed 100  
23          percent. If they do, that's obviously a  
24          math issue.

25                        Any customer subscriber charged

1 must be provided at least 90 days in  
2 advance of the first applicable billing  
3 period upon adequate notification so we  
4 can adjust our billing system so that  
5 everyone gets the credit that they  
6 deserve or they expect to see.

7 If a subscription sells less  
8 than 100 percent of Community Solar  
9 production, the remaining percentage  
10 should be assigned to the Community  
11 Solar host.

12 And related to consumer  
13 protection, consumer protection should  
14 be consistent with rules applied to  
15 third-party suppliers, energy suppliers,  
16 when you think about it. So those  
17 suppliers -- those rules are fully  
18 vetted, and that should provide some  
19 level of guidance as to how we manage  
20 Community Solar on a subscription  
21 requirements.

22 So those are the comments I had.

23 MR. WINKA: Just a  
24 clarification, I think you said the  
25 minimum subscribers was two. There is

1 nothing in the statute that --

2 MR. SUNDERHAUF: I thought it  
3 had stated two.

4 MR. WINKA: There is nothing --

5 MR. SUNDERHAUF: So it's my  
6 interpretation of the statute. So I  
7 thought it had specified two, but two is  
8 what we envisioned. Thank you.

9 MR. SHEEHAN: Thank you very  
10 much.

11 Vote Solar?

12 MS. KASOTIA: Okay. So Vote  
13 Solar has learned from other communities  
14 on the market that program rules must  
15 specify how to achieve robust  
16 participation by diverse customer  
17 classes. As stated in Assembly Bill  
18 3723, "The rules and regulations  
19 developed by the Board shall establish  
20 standards to ensure the ability of  
21 residential and commercial customers to  
22 participate in solar energy projects,  
23 including residential customers."

24 So in order to do that we  
25 already proposed a 15 percent program

1           carve out. We are also proposing that  
2           50 percent of the program be a result  
3           for residential and small commercial  
4           customers. Again, I think it is  
5           important to make sure that the program  
6           creates those kinds of criteria to  
7           ensure that those customers are reached  
8           for participation.

9                       We also recommend a minimum of  
10           three subscribers per project and a  
11           maximum subscription size of 40 percent  
12           per subscriber. These minimums and  
13           maximums are consistent with  
14           programmatic best practices across the  
15           country.

16                      And we also think subscriptions  
17           should be sized to match average  
18           historical usage and they should be both  
19           transferrable and portable within  
20           individual utility service territories.

21                      In terms of consumer protection  
22           it is important to ensure that there are  
23           appropriate consumer protection measures  
24           in the Community Solar program. We  
25           recommend looking at Maryland and

1 Minnesota as examples, as they both have  
2 been mentioned. Pretty straightforward  
3 consumer disclosure, checklists that  
4 clearly identify key terms associated  
5 with any subscription. This can be  
6 useful not just to get an idea of how  
7 they designed those checklists, but also  
8 how to educate and protect consumers  
9 that participate in New Jersey's solar  
10 program.

11 Some of the other speakers said  
12 that what BPU should explore is creating  
13 checklists against predatory and  
14 misleading sales tactics. And I think I  
15 mentioned this previously, utilizing  
16 multiple mediums to reach out to  
17 customers, both online and in print and  
18 in-person communication.

19 So those are the comments on  
20 consumer protection. Thank you.

21 MR. SHEEHAN: Thank you very  
22 much. Next will be UU Faith Action.

23 MS. HEMINGTON: My name is Carol  
24 Hemington. I'm representing Unitarian  
25 Universalist Faith Action, and we're

1 concerned with issues of equality and  
2 social justice and also the environment,  
3 so I'm going to address low-income,  
4 environmental justice, and providing  
5 enumerable energy to consumers.

6 In this topic attracting  
7 customer subscriptions and providing  
8 customer protection will be important  
9 issues for these communities and three  
10 important issues related to these  
11 questions: Portability,  
12 transferability, and consumer protection  
13 rules.

14 As far as portability, we  
15 believe that subscriptions should be  
16 portable as long as the subscriber  
17 remains in the original territory of the  
18 Community Solar organization.

19 We think this is important for  
20 these communities because members of the  
21 community tend to move, they're more  
22 likely to move, and if they can take the  
23 subscription with them, this would give  
24 the developer more stability in the  
25 membership, it would allow the

1 subscribers to continue their  
2 membership, there would be less  
3 administrative costs when the subscriber  
4 moves because you don't have to find new  
5 subscribers, and flexibility would be  
6 appropriate to a pilot program.

7 Transferability, we believe that  
8 they should be transferrable in as many  
9 situations as possible, that the rules  
10 should be flexible to promote assurance  
11 of consumers subscriptions to developers  
12 and to allow subscribers to recover  
13 costs and end their obligations as  
14 simply as possible.

15 Now, consumer protection, I have  
16 to get personal here. What is it about  
17 solar that lends itself to all these  
18 things that I keep getting in the mail  
19 and all these robo calls?

20 I've been in the environmental  
21 area my whole career I'm a bureaucrat.  
22 I've also been -- I'm used to dense  
23 language, I'm used to environmental  
24 stuff. I get things in the mail. I  
25 don't know who they're from. They kind

1 of look like they're official. It's  
2 none of you, I'm sure. One of them had  
3 a map of the state, so I'm like is this  
4 from the state? That would be good.  
5 But then I'm not sure, not from your  
6 utility, you have to do this and you  
7 have to do it by such and such a date,  
8 and I put it over there. I'd love to  
9 have solar, but it didn't make me  
10 confident in signing up with that.

11 The other end of the spectrum is  
12 I got a robo call yesterday from a solar  
13 company. I'm retired, so I had just  
14 awakened from a nap, and I said, oh,  
15 solar, it had a New Brunswick phono  
16 number on it. And I said, oh, they're  
17 calling me from -- where did they get my  
18 number.

19 So I said let me hear about this  
20 solar, so I said yes to something and I  
21 said yes to something. They said let me  
22 put you on hold and then somebody came  
23 on and said, I'm from such and such a  
24 company, thank you for your order, I'm  
25 here to qualify you. And I'm like, oh,



1 no, did I fall for one of those if you  
2 said yes they're going to record you.

3 But the bottom line is if this  
4 stuff is confusing me and I'm skeptical  
5 and I still haven't signed up for  
6 solar -- I'm sorry. It's very  
7 confusing.

8 So what occurs to me is you need  
9 to get customers, and if you don't get  
10 customers, it's not going to work at all  
11 especially if you put carve outs for LMI  
12 groups.

13 So what our organization  
14 advocates very strongly is things that  
15 have been said before, education in the  
16 community by people that these people in  
17 the community know and trust.

18 And we would recommend maybe a  
19 two-tiered approach. The first tier  
20 would be getting the local community  
21 groups that have been mentioned before  
22 involved and maybe do some training of  
23 them, and have some classes, some  
24 education of them. And then perhaps  
25 they can put forth panels, stakeholder

1 meetings, things in the community of the  
2 people that are known and trusted by the  
3 community.

4 And with all that you still need  
5 transparency, you'll need to protect  
6 consumers from misleading claims about  
7 the impact of subscribing. We'd like to  
8 see -- I think now if you subscribe to  
9 solar, you can find out what the  
10 difference would be between what you're  
11 going to be paying and what you pay now,  
12 the utility can provide that  
13 information. We'd like to see ways for  
14 them to compare those costs with their  
15 current bills.

16 We would like the BPU to review  
17 any marketing materials sent to  
18 subscribers, and we would -- we  
19 recommended in a different question that  
20 the projects be registered and the  
21 registrations be easy to verify.  
22 Because even when I went on the  
23 Internet, there's all these things,  
24 which ones are real and which ones of  
25 them aren't.

1                   We would like to see on bill  
2                   monthly charges for repayment of any  
3                   initial loans and for use. I know that  
4                   could be a problem, but it seems to us  
5                   that would be the simplest way for  
6                   people to understand what they are  
7                   getting into.

8                   We would like to see  
9                   standardization, standard disclosure  
10                  forms, we make some recommendations in  
11                  our written comments on what we have  
12                  included in the standard outline for a  
13                  solar quote.

14                  We'd also like to see assurances  
15                  that developers will complete the  
16                  project or return deposits. And we  
17                  understand this requires an escrow  
18                  account for this.

19                  We'd like subscribers to be able  
20                  to recover payments for the  
21                  subscriptions if their circumstances  
22                  change. And also other protections we'd  
23                  like to see in the contract would be no  
24                  yearly price installation beyond rate of  
25                  inflation, no transfer fees if the

1 subscriber moves and transfers  
2 subscriptions.

3 That's all. Thank you.

4 MR. SHEEHAN: Thank you very  
5 much.

6 CCSA, Ben Downing.

7 MR. DOWNING: Thank you all very  
8 much for the opportunity. And thank you  
9 for your patience and perseverance here.  
10 So my name is Ben Downing. I work with  
11 a 10-year-old solar developer based in  
12 Boston, founded by two U.S. Army  
13 captains.

14 Nexamp is a full-service solar  
15 developer that specializes in community  
16 solar largely in the northeast, but also  
17 in Maryland, Illinois, and other states,  
18 and, as was referenced, we are a member  
19 of CCSA. We appreciate the opportunity  
20 to be part of the discussion today and  
21 my brief comments will focus on consumer  
22 protection and subscription management.

23 From CCSA's perspective and I  
24 can say that Nexamp shares this,  
25 consumer education, as was referenced by

1 previous speakers, is key when it comes  
2 to Community Solar even in the more  
3 advanced state markets, Massachusetts  
4 and Minnesota.

5 Community Solar is still very  
6 new, and to the extent that there will  
7 be a significant push, especially around  
8 residential and particularly around  
9 low-income and LMI participation, it is  
10 critically important that not only  
11 private developers, but non-profit  
12 organizations that have longstanding  
13 roots in the community, the public  
14 agencies are all working together to  
15 ensure that the communities that we all  
16 want to serve are able to make decisions  
17 about what projects best reflect their  
18 values in investigating our broadly  
19 shared goals.

20 I would say on this point I  
21 joined Nexamp about a year and a half  
22 ago, we were filling up one of our  
23 projects in western Massachusetts, where  
24 I grew up at the time, and I was asked  
25 to make a few calls to potential people

1 to fill up those final slots.

2 I thought the easiest sell in  
3 the world would be my mother, so I  
4 called my Mom. And after I went through  
5 the brief pitch around what signing up  
6 for the subscription would sound, like  
7 my mother simply said it sounds too good  
8 to be true.

9 After taking a brief moment,  
10 this was how I was going to pay for my  
11 home that I just secured a mortgage on,  
12 we ultimately were able to convince her  
13 that it's critically important.

14 I share that partially because  
15 it's funny, it points out how bad of a  
16 salesperson I am. But more importantly  
17 it points out the fact that there is  
18 still a great deal of upfront consumer  
19 education work that needs to be done.  
20 And we find that it's most successful  
21 not when it is done in a rushed, pushed  
22 fashion, but when there is a sustained  
23 and ongoing engagement in the community.  
24 As long-term owners of these projects,  
25 we see these not as a three-year program

1 but as a three-year investment, and we  
2 all need to operate as such.

3 On customer disclosure we think  
4 it is critically important that there is  
5 a uniform, simple description of the  
6 projects and the value proposition that  
7 they propose. Obviously, every company  
8 is going to have a different product, a  
9 different contract that underlies that  
10 customer disclosure, but if different  
11 community groups, if different  
12 individuals, if different families,  
13 businesses are thinking about different  
14 projects and where they want to  
15 subscribe, they should be able to  
16 compare those against one another, they  
17 should not have to have a 30-page  
18 document in one hand and a 30-page  
19 document in the other hand, and then  
20 work through it. They should have  
21 something simple up front that they  
22 could work through.

23 States have done this we'll move  
24 to that in the next slide, but certainly  
25 this is something that Maryland and New

1 York in particular have gotten right and  
2 we'll show that.

3 And, finally, we think it's  
4 important to provide innovation. We  
5 don't want to say that here are all of  
6 the things that have to be in a contract  
7 from the start and only have one value  
8 proposition for customers.

9 I think it's difficult, right,  
10 this is the balance between how do we  
11 allow different business practices to  
12 come forward, but at the same point  
13 continue to provide that protection and  
14 ensure that whatever choice a subscriber  
15 makes it is not one that he or she  
16 regrets in the long run.

17 We believe at CCSA all the  
18 leadership members, all the members  
19 believe this is critically important.  
20 If there is one bad community solar  
21 project, then it's a bad thing for every  
22 last one of us, and we want to hold  
23 ourselves to the highest standard  
24 possible.

25 This -- and it is obviously



1           incredibly small, but it is pretty  
2           impressive, right? This is the single  
3           sheet in Maryland that goes on top of  
4           your contract, so that is the disclosure  
5           form. You have the customer name, the  
6           term, whether or not there is any  
7           inflation, the estimated date of bill  
8           credits. Obviously, some of these  
9           things are beyond developer control, the  
10          yare beyond regulator control, but to  
11          the extent that it is possible, those  
12          simple upfront terms ought to be up  
13          front for customers to be able to make  
14          those decisions.

15                   And I should say this is not  
16          where CCSA started, it is not where the  
17          regulators in Maryland started. It's  
18          not where anyone started. This reflects  
19          a long-sustained process to get to this  
20          point. But we think that's upfront work  
21          that was done that New Jersey can  
22          benefit from and what is a rapid  
23          roll-out here.

24                   Finally, on customer  
25          subscriptions that was also a part of

1           this, we believe that there should be a  
2           minimum of three subscribers per  
3           project. For reference, that is the law  
4           of the land in Illinois, and they're a  
5           similarly situated program. We believe  
6           that there should be a maximum of 40  
7           percent for any one subscriber. That is  
8           the case in Illinois.

9                        So the baseline CS project in  
10           Illinois, if they were to do no  
11           residential participation, would at  
12           least have to be 40, 40, and 20, but  
13           certainly there are incentives to do  
14           much more than within their REC program.  
15           Massachusetts has a maximum 50 percent,  
16           but then the rest is limited to small  
17           subscribers, residential and small  
18           business.

19                       On size, we believe that there  
20           is an argument for having a subscription  
21           size up to 120 percent of load. That is  
22           reflecting the assumed electrification  
23           growth that we expect to see. While we  
24           hope that underlining load for customers  
25           is dropping through efficiency, if

1 customers are going to be bringing on  
2 electric vehicles, we don't want to lock  
3 them into an agreement that somehow  
4 doesn't reflect their future needs. Not  
5 a number that is locked down by any  
6 means, right, we want to be part of the  
7 discussion, but we want to reflect that  
8 people are going to be making different  
9 decisions around electrification in the  
10 future and we want the Community Solar  
11 systems to be a part of that.

12 And then, finally, on manage  
13 many, as has been referenced by several  
14 of the previous speakers, we believe the  
15 subscription to be both affordable and  
16 transferrable. We do not believe there  
17 should be incentive against transferring  
18 those credits, and that there ought to  
19 be, as I believe ACE referenced, others  
20 exclusively managed by developers.

21 So thank you all for the  
22 opportunity for CCSA to be a part of  
23 this process at multiple stages, and we  
24 hope to continue to be a part of the  
25 process and resource. And, again, we

1 just appreciate the opportunity.

2 MR. SHEEHAN: Would you be  
3 comfortable with us sharing your  
4 presentation here through the server?  
5 You don't have to answer me now.

6 MR. DOWNING: I'm looking at  
7 everyone. Yeah, we're cool.

8 MR. SHEEHAN: Okay. Thank you.  
9 We're going to share all the slides we  
10 received. We just wanted to make sure  
11 you guys were comfortable with that.

12 MR. DOWNING: Absolutely. Thank  
13 you very much.

14 MR. SHEEHAN: Thank you.  
15 Pine Gate Renewables.

16 MR. McDONALD: So for this  
17 section I would just like to point out a  
18 few subsections of the market that I  
19 think may be, not necessarily  
20 marginalized, but just not thought of in  
21 this program.

22 One are larger scale  
23 subscribers, such as universities or  
24 multi-family buildings or apartment  
25 complexes being able to aggregate meters

1           so that a landlord could come in and  
2           say, okay, I'm going to be paying for  
3           all of your utilities, be able to  
4           aggregate all of those meters for all of  
5           the tenants in the building into a new  
6           solar program.

7                         There should also be no maximum  
8           subscription size. Maximum subscription  
9           sizes could unfairly exclude certain  
10          community members such, as I said,  
11          universities or larger subscribers who  
12          want to aggregate meters.

13                        There should be no limits placed  
14          on residential versus subscriber  
15          customers on a per-project basis because  
16          different organizations have different  
17          preferred subscriber strategies and  
18          structures based on their specific  
19          financing partners and the risks that  
20          they're willing to take on that  
21          aggregate credit. So, you know, not  
22          having these restrictions will allow the  
23          program to allow for unique project  
24          structures, which will be able to serve  
25          quite a range of customers.

1                   Another thing that should be  
2                   included in this program design is the  
3                   allowance for community choice  
4                   aggregation in these projects. I think  
5                   that community choice aggregation could  
6                   allow for a lot of the subscriber  
7                   acquisition costs to be lessened if we  
8                   can go to a municipality and sign up  
9                   people in bulk that way instead of  
10                  having to go individual to individual.  
11                  It can provide much better benefits.

12                                   Any questions?

13                                   MR. WINKA: I'm not sure the  
14                                   statutes for community aggregation would  
15                                   allow for that, so you'd probably have  
16                                   to tweak that statute. We can take a  
17                                   look at that.

18                                   MR. McDONALD: Okay. Great.  
19                                   Thank you.

20                                   MR. SHEEHAN: Okay. That  
21                                   concludes the individuals that have  
22                                   signed up ahead of time.

23                                   We have Justin Wilson.

24                                   (No response.)

25                                   Brandon Smithwood?

1 (No response.)

2 No wait, I read the form wrong.

3 I apologize for that.

4 Lyle?

5 MR. RAWLINGS: No need.

6 MR. SHEEHAN: Excellent. Anyone  
7 who would like to step up to the mic?

8 (No response.)

9 Well, listen, Ladies and  
10 Gentlemen, thank you very much. We  
11 appreciate everyone coming out. We will  
12 keep the record open until 5:45 based  
13 upon the obligations of the notice.  
14 Unless anyone has a desperate desire to  
15 hear someone who might come in, you  
16 don't have to stay.

17 We want to thank you for the  
18 opportunity. This has been one of the  
19 stronger staples that we've had in a  
20 very long time. So I want to thank  
21 everyone for coming out and your  
22 thoughtful comments. We're looking  
23 forward to continuing this process with  
24 you. And thank you very much.

25

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(The proceedings adjourned at 5:45 p.m.)

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## C E R T I F I C A T E

STATE OF NEW JERSEY )

) ss.

COUNTY OF BURLINGTON)

I, LAURA P. REAM, a  
Shorthand (Stenotype) Reporter and  
Notary Public of the State of New  
Jersey, do hereby certify that the  
foregoing hearing, taken at the time and  
place aforesaid, is a true and correct  
transcription of said deposition.

I further certify that I am  
neither counsel for nor related to any  
party to said action, nor in any way  
interested in the result of outcome  
thereof.

IN WITNESS WHEREOF, I have  
hereunto set my hand this 3rd day of  
August, 2018.

*Laura Ream*

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LAURA P. REAM

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