
Committee Meeting

of

SENATE ENVIRONMENT AND ENERGY COMMITTEE

The following bill(s) will be considered:

Senate Bill 2978
Senate Bill 3258
Senate Bill 3863
Senate Bill 3909
Senate Bill 3928
Senate Bill 3996

For discussion only:

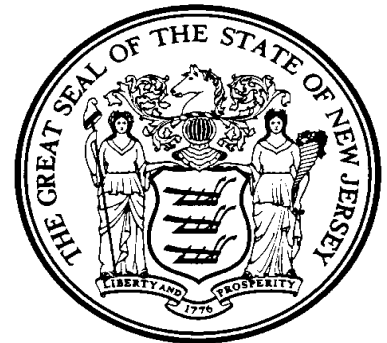
Senate Bill 3992

LOCATION: Committee Room 6
State House Annex
Trenton, New Jersey

DATE: November 20, 2023
10:00 a.m.

MEMBERS OF COMMITTEE PRESENT:

Senator Bob Smith, Chair
Senator Linda R. Greenstein, Vice Chair
Senator Andrew Zwicker
Senator Edward R. Durr, Jr.
Senator Jean Stanfield



ALSO PRESENT:

Eric Hansen
Office of Legislative Services
Committee Aide

Joseph Gurrentz, Ph.D.
Senate Majority
Committee Aide

Rebecca Hughes
Senate Republican
Committee Aide

Meeting Recorded and Transcribed by
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SENATOR BOB SMITH (Chair): So, everybody should take a seat, if we have them -- do we have enough seats? Are there more seats down there, on that side?

So, first, I want to thank everyone in the room. The last Committee meeting, there were only 15 people here. And, I felt guilty saying, "Welcome to the most interesting committee in the Legislature." Today, I don't feel guilty saying that. Welcome to the most interesting committee in the Legislature.

Let me give you the plan. I think the main event is going to be 2978. And, I think it's going to have lots of testimony; a lot of slips were turned in. So, what we're going to do is do that last. Because, if I do that first, nothing else will get done. The other stuff on the agenda should be done in 20 to 30 minutes, and then we'll get into 2978.

So, let us start with a Republican bill, all right, which is-- And, let's take a roll, so that everybody knows that we're fully constituted.

MR. HANSEN: Senator Stanfield.

SENATOR STANFIELD: Present.

MR. HANSEN: Senator Durr.

SENATOR DURR: Here.

MR. HANSEN: Senator Zwicker.

SENATOR ZWICKER: Here.

MR. HANSEN: And, Senator Greenstein.

SENATOR LINDA R. GREENSTEIN (Vice Chair): Here.

MR. HANSEN: And, Chairman Smith.

SENATOR SMITH: I am also here.

So, let's do Senator Bucco's bill, 3258. It appropriates \$28,670,000 -- \$924 more dollars on top of that -- in 2003 and 1992 bond act monies for loans, dam restoration, and repair projects for inland water projects. Very meritorious bill.

Do we have any people who wanted to testify on that?

MR. HANSEN: A few.

SENATOR SMITH: OK, so, for the record, Ed Potosnak -- in favor, no need to testify. Anjuli Ramos -- in favor, no need to testify. Frank Marshall, New Jersey League of Municipalities -- in favor, no need to testify. Ed Potosnak put the slip in twice?

MR. HANSEN: Yes, I think so.

SENATOR SMITH: Yes, all right -- also in favor, still not needing to testify.

So, the only person who looks like he wants to testify is David Sciocchetti. I may be mispronouncing that -- in favor, but you would like to testify.

Take it away, sir.

And, you're from Lake Garrison, Inc.

DAVID SCIOCCHETTI: That's correct, Senator.

SENATOR SMITH: What is that?

MR. SCIOCCHETTI: Small recreational lake in South Jersey, Elk Township, Gloucester County.

SENATOR SMITH: OK.

UNIDENTIFIED SPEAKER: Could you hit the button, please?

MR. SCIOCCHETTI: Better?

SENATOR SMITH: Yes; excellent.

MR. SCIOCCHETTI: Chairman Smith, members of the Committee, thank you, first of all, for the opportunity to present testimony here today on behalf of Lake Garrison -- and 16 other lakes across the state -- in support of Senate Bill 3258.

As I just mentioned, Lake Garrison is a small recreational lake in South Jersey that provides resources to a number of area residents -- swimming, picnicking, etc. And, we have about 100 residents who are there during the summer.

So, I am here today because we have some serious problems with the dam that serves our lake. We've been notified by NJDEP's Dam Safety Bureau that our dam is not compliant with the standards in place today, and that if we don't work to get it into compliance, we are at risk of being ordered to drain the lake. A number of other lakes in South Jersey have already been ordered to have their lakes drained because their dams are not compliant, and a non-compliant dam puts downstream folks at risk of a lot of water rolling downhill.

The other problem we have is that our dam was originally built in 1924; upgraded significantly in 1958; and it's nearing the end of its useful life. And, so, it needs to be replaced on a functional basis as well as a non-compliance basis. And, so, that's the reason that the funding that we're addressing here today is so important to us.

So, faced with these challenges, we went through an exhaustive process. We hired an engineer, we had a preliminary design prepared and approved by dam safety. We got to the final design phase that was also approved by dam safety. Countless hours of volunteers-- We have a

volunteer board and about \$150,000 got us to a technical solution. We're ready, from a technical point of view, to upgrade our dam.

On the financial side, we learned that New Jersey has an amazing program -- I'm assuming you're all familiar with it -- but the revolving loan fund that New Jersey has in place is just an amazing tool, even more so today with interest rates the way they are. I mean, you pay the money, you pay it back, and then another dam further down the line gets to take advantage of it. So, we were ecstatic about that, put an application in, and were approved for \$2.85 million.

So, in our situation, everything was in place; we were ready to go. And, then, October of this year we learned that -- actually, I guess we kind of knew before, but it came to a head in October -- we were ready to go out to bid. Our engineer put a bid package together, we were ready to go and bid, and the Board of Directors of Lake Garrison determined that it would be inappropriate to go out to bid without knowing that the funds to pay the contractor were actually available. And, we learned, obviously, that while we may have been approved for a loan, the money that supports those loans has not yet been appropriated.

So, we're here today to tell you that we're ready to go to fix the problems with our dam -- the public safety issues, etc. But, we need your help. We need your help to advance Senate Bill 3258 so we can solve the problems our lake might cause downstream if it failed. And, 16 other lakes in addition to ours are looking for these resources as well.

So, I thank you very much for the opportunity to testify. I would be happy to answer questions if you would like, and I think my written testimony was already supplied. If not, I have copies here.

SENATOR SMITH: It was.

Any questions from members? (no response)

If not, can I have a motion to release the bill?

Senator Stanfield and Senator Durr for a motion to release and
a second.

Let's take a roll call vote on the release of 3258.

MR. HANSEN: Senator Stanfield.

SENATOR STANFIELD: Yes.

MR. HANSEN: Senator Durr.

SENATOR DURR: Yes.

MR. HANSEN: Senator Zwicker.

SENATOR ZWICKER: Yes.

MR. HANSEN: Senator Greenstein.

SENATOR GREENSTEIN: Yes.

MR. HANSEN: And, Chairman Smith.

SENATOR SMITH: Yes.

And, the bill is released unanimously.

Next bill is Senate Bill 3928, by Senator Smith. This is a request of the State Treasurer, allowing for an Interim Executive Director under certain conditions. And, this is all about moving our Garden State Preservation money -- there was not a replacement in government, and that kind of, like, stops everything. So, this allows them to get those projects moving.

Were there any slips on this?

MR. HANSEN: A few.

SENATOR SMITH: A few.

So, Ed Potosnak, League of Conservation Voters -- in favor, no need to testify. And, another one from Ed Potosnak -- in favor, no need to testify. Ed, are you here twice today?

EDWARD POTOSNAK III: Yes.

SENATOR SMITH: Because, on every one of these bills, you have two slips in.

MR. POTOSNAK: Sorry.

SENATOR SMITH: That's OK.

MR. POTOSNAK: I love it so much.

SENATOR SMITH: Tom Gilbert -- opposed. Tom, what's wrong?

TOM GILBERT: Good morning, Chairman Smith and members of the Committee. Thank you for the opportunity to testify.

Our concern with this legislation is that -- two concerns. One, we don't think it's needed. In very recent conversations with members of the GSPT, I understand they are in the process of filling the position and they expect to have it filled before the end of the year, so, I'm not sure why this legislation is needed.

The second concern I think is really a matter of good governance. The Garden State Preservation Trust includes representatives of the public agencies -- the SADC and the DEP -- but it also includes representatives of the public. And, there's a reason for that. That's because, with voter support, we invest hundreds of millions of dollars in open space farmland and historic preservation every year, thanks in no small part to your efforts.

And, it's important that there be oversight and transparency in how those funds are spent. And, that is the purpose of the Garden State

Preservation Trust. And, so, in our view, the GSPT should hire the director; it shouldn't be hired by the Treasurer's Office. Because that would create some conflict of interest--

SENATOR SMITH: How long has the current position been open?

MR. GILBERT: I think it's been open for too long, Senator, fair point. But, I know there is a process--

SENATOR SMITH: That's not called an objective answer. How long has the position been open?

MR. GILBERT: I don't know the exact duration.

SENATOR SMITH: All right. Administration never -- *never* -- asks us to change the structure of government unless there's a real issue.

Does anybody know how long the position has been open?

DR. GURRENTZ: July 1, 2021.

SENATOR SMITH: From July 1, 2021. If the Garden State Preservation Trust had the ability to hire, and haven't, then they're remiss in their duties. And, the front office is saying, "We need a way to keep these projects moving ahead."

Now, if they're going to hire before December 31--

MR. GILBERT: That's what I hear.

SENATOR SMITH: Well, this bill is not going to be through the Legislature by December 31. It might get out of committee today, but there's time for the GSPT to actually do its job and hire the right person. But, if they're not going to do the job, we're not going to have open space frustrated.

So, I take your words in the sense that (indiscernible), which is the normal paranoia that's in this room, that state government is somehow here to ruin everybody's lives, but you've got to keep the project moving. And, this is from July 2021 -- that's not good.

MR. GILBERT: I don't disagree, Senator, but I think the problem is being rectified now, and, so, there is no need for the bill, and the best process is to have the GSPT make that selection, and--

SENATOR SMITH: And, by the way--

MR. GILBERT: --Perhaps this bill got them moving.

SENATOR SMITH: Well, maybe, but we'll keep it moving until it's filled.

MR. GILBERT: Fair enough.

SENATOR SMITH: If you get it filled by the end of December, it's not going to go anywhere.

MR. GILBERT: Fair enough.

SENATOR SMITH: But, we need to make sure the process is not frustrating.

MR. GILBERT: Thanks, Senator.

SENATOR SMITH: Thank you.

Any comments from anybody?

Yes, sir, Ed.

SENATOR DURR: To your point, you're saying that the seat's been unfilled for a long period of time, so we should bypass the normal process.

So, all the judges that had been unfilled, we should bypass the normal process and just pass a legislation to fill the judges' seats? I think that as the gentleman spoke--

SENATOR SMITH: So, you might want to make a suggestion--

SENATOR DURR: --this is an unneeded thing, and I think it's a conflict of interest.

SENATOR SMITH: OK, well, that's the great thing about this country. We can all have our own opinion. Not a problem.

Any other comments? (no response)

OK, a motion to release.

SENATOR ZWICKER: Motion.

SENATOR SMITH: By Senator Zwicker; a second by Senator Greenstein.

And, let's take a roll call vote on the release.

MR. HANSEN: On the motion to release Senate Bill 3928.
Senator Stanfield.

SENATOR STANFIELD: Yes.

MR. HANSEN: Senator Durr.

SENATOR DURR: No.

MR. HANSEN: Senator Zwicker.

SENATOR ZWICKER: Yes.

MR. HANSEN: Senator Greenstein.

SENATOR GREENSTEIN: Yes.

MR. HANSEN: And, Chairman Smith.

SENATOR SMITH: Yes.

And, the bill is released.

Our next bill is S3863 by Senator Singer. It establishes a program in the DEP for the acquisition of development easements on privately owned woodlands.

I think that kind of sums it up, but I think what we're doing here is setting up an analogous program to farmland preservation. The State of New Jersey doesn't necessarily want to own every acre, but they would like to calm down development in the state. And, woodlands certainly are precious to us, and part of the fight to mitigate global climate change.

Do we have any slips?

Ed Potosnak -- in favor, but no need to testify. No second slip from Ed Potosnak on this one. Maybe he's less enthusiastic. Ed Wengryn, the New Jersey Farm Bureau -- in favor, with a need to testify.

Ed.

E D W E N G R Y N: Good morning, Mr. Chairman, members of the Committee. Thanks for hearing this bill today.

We support the concept that's been in our policy for probably eight years or more, to have a woodland-preservation program modeled sort of after the Farmland Preservation Program, where you can take the development easements; preserve the land; and let private landowners do the maintenance work. They're responsible for keeping it either in forest stewardship or woodland management.

Our one request -- and, we've been talking to Senator Singer about it -- would be to move it from DEP to the SADC. They already have appraisers on hand; they know how to do those formulas; they have an inspection system; they already inspect all the preserved farms every year; they could easily add the woodlands to their duties and stuff.

So, we just think that SADC might be a better agency to do the program, but we support the program and the goals of the bill.

SENATOR SMITH: Thank you for your comments.

Next, Jeffrey Everett from Rutgers University -- and there's no indication whether Mr. Everett is in favor or opposed.

Mr. Everett, are you here?

Go for it.

J E F F R E Y C. E V E R E T T: Morning, Chairman, and members of the Committee; thanks for having me.

Jeff Everett, I'm the Associate Director of the Rutgers University New Jersey Agricultural Experiment Station. But, despite the title, we also engage in forestry research, and, to that end, we just -- in receipt as of last week, a three-year grant from the U.S. Department of Agriculture to study forest conservation easements.

So, I wanted to offer yourselves and your staff, if you want to reach out to us, I will provide my contact information. We're going to study all the aspects of doing that, including wood products industry, which is not as robust here as it is on the eastern shore of Maryland or Virginia or Delaware. And, then, there's other components to that; different tax incentives in other states that help with forest stewardship or woodland management. So, I wanted to offer that is actually embarking right now.

And, to Mr. Wengryn's point, typically in other states we've seen, the Department of Agriculture is the one who does administer a working forest conservation program. So, I just wanted to point that out. And, to your efforts with Preserve New Jersey Act, I didn't-- A quick purview of the bill, I did not see that tapped as a funding source. I think that, perhaps, could

be on the table for this bill, too -- specifically identifying Preserving (*sic*) New Jersey Act as a funding source.

So, I submit that. Any other questions?

SENATOR SMITH: Yes, thank you for the suggestion.

We're going to bring them both -- both ideas, SADC and the Preserve New Jersey Fund -- back to Senator Singer. It's his bill, and I'm always reluctant to modify somebody else's bill, especially without having talked to them.

So, I think today-- I think we're going to just try to get it out of committee.

Is it second reference to appropriations?

DR. GURRENTZ: Let me double check on that.

SENATOR SMITH: All right, but, in any case, it can easily be amended on the floor. But, convince Senator Singer first, OK.

MR. EVERETT: OK.

SENATOR SMITH: And, we would like you to weigh in -- hopefully at the next committee meeting, we're going to finally have the Lorax bill for a big forest stewardship bill for the State, and we'd love to hear your thoughts on it.

MR. EVERETT: I appreciate your efforts in that regard.

SENATOR SMITH: Thank you so much.

MR. EVERETT: Thanks very much.

DR. GURRENTZ: It will go to budget.

SENATOR SMITH: It will go to budget, so, the next committee it goes to, it can be amended. And, I mention that for Ed Wengryn's benefit and your benefit. You know, you want to get your cards and letters in not to

only to Senator Singer but to Senator Sarlo, the Chair of Appropriations, all right?

MR. EVERETT: Thank you very much.

SENATOR SMITH: Thank you for coming in.

Emile DeVito, New Jersey Conservation Foundation -- in favor, with amendments.

Emile.

EMILE D. DEVITO, Ph.D.: Good morning.

Thank you, Chairman Smith, and the rest of the Senate Environment Committee for the opportunity to testify.

New Jersey Conservation Foundation is in favor of this, but we would like to see a couple of changes.

One would be that it shouldn't just be forest stewardship plans; it should be any plans for ecological restoration written by certified ecological restoration specialists.

And, also, since there will be limited funds and since there's a lot of land out there, there should be strict criteria. I was glad to hear you mention something similar to the farmland-preservation program. There needs to be developed very strict criteria on how to rank the most important pieces. I would go through a whole litany of what those things would be, but I don't need to waste my time right now. We'll obviously contact the sponsors of the bill.

One other thing though: Since 2009, when you passed your Forest Stewardship Act to try to encourage people to have the much more rigorous and better forest-stewardship plans, we think that if we're going to spend public money on conservation easements that they should be forest-

stewardship plans and not woodland-management plans, because those are not very strict, and there's a lot of room for sort of mismanagement under woodland plans, we think. So, we'd like to see it restricted to ecological-restoration plans written by certified restoration specialists, and forest-stewardship plans written by foresters. And, we need to develop good criteria, just like with the Farmland Preservation Program.

Thank you.

SENATOR SMITH: Thank you, Emile.

Very good suggestions. We're going to pass them onto Senator Singer and Senator Sarlo, and it wouldn't hurt for you to send your letters to them or call them and meet with them.

DR. DeVITO: Absolutely.

SENATOR SMITH: And, that concludes our witnesses.

Any questions from members? (no response)

A motion to release by Senator Durr, second by Senator Greenstein.

Let's take a roll call on 3863.

MR. HANSEN: This is the one that had the amendments that I was talking about.

SENATOR SMITH: Oh, this is the one that has the amendments.

Talk to us, please.

MR. HANSEN: So, the amendments would shift the program from the State Forester's Office to the Office of Green Acres in the DEP.

SENATOR SMITH: OK.

MR. HANSEN: OK, on the motion to release Senate Bill 3863.

Senator Stanfield.

SENATOR STANFIELD: Yes.

MR. HANSEN: Senator Durr.

SENATOR DURR: Yes.

MR. HANSEN: Senator Zwicker.

SENATOR ZWICKER: Yes.

MR. HANSEN: Senator Greenstein.

SENATOR GREENSTEIN: Yes.

MR. HANSEN: And, Chairman Smith.

SENATOR SMITH: Yes, and the bill is released.

Next is S3909, Senator Smith and Senator Greenstein.

Establishes conditions for net metering for authorized food-waste recycling facilities.

The purpose of the bill is to try and get food-waste recycling more stimulant in the state. Right now, we have only two facilities in the entire state that are doing food-waste recycling, and, in the bigger picture, food waste is a ginormous problem for global climate change. We Americans -- all of us in this room -- waste about 40 to 50% of the food that's on our plate. It generally goes to a landfill; generally produces anaerobic -- undergoes anaerobic digestion, produces methane. Methane is 80 times more impactful on the environment than carbon dioxide. We really need to do something about food waste.

We have slips on this.

So, Ed Potosnak, first slip -- in favor, no need to testify. Doug O'Malley -- in favor, no need to testify. Second Ed Potosnak -- in favor, no

need to testify. And, we have New Jersey Rate Counsel -- opposed, Brian Dipman (*sic*), Director.

Are you here, Brian?

BRIAN O. LIPMAN, ESQ.: I am.

SENATOR SMITH: Come forward, please.

MR. LIPMAN: Good morning.

So, this bill is seeking for subsidies for authorized food-waste recycling facilities. It's going to increase net metering for these facilities. Net metering has existed since 1999, and it gives customers behind-the-meter benefits for their generation of electricity.

As you know, the generation of electricity in this case will not be clean; it will still be burning gas. So, I wanted to--

SENATOR SMITH: It won't be going into the atmosphere and increasing the temperature rise of the planet Earth.

MR. LIPMAN: Once it's burned it'll go into the atmosphere, unless there's some kind of carbon capture.

SENATOR SMITH: No, methane has 80 times the impact of carbon dioxide. And, yes, the equation for combustion produces carbon dioxide in water, but the carbon dioxide, compared to the methane -- there's no comparison, in terms of impact.

MR. LIPMAN: But, I just want to be clear, we'll be talking later about a carbon-free future, and this would not fit into a carbon-free future.

SENATOR SMITH: Not 100%, no.

MR. LIPMAN: Correct. If we're looking for a 100% carbon-free future, this would not fit into that.

But, more importantly, what Rate Counsel is more concerned about is the adder, the plus three cents for kilowatt adder, and then that metering that becomes more beneficial for this one particular type of facility than all other net metering.

First of all, we're very concerned that this is the first step, and that net metering will be changed across the board. Because, I already know that there are people who are seeking amendments to expand the definition for more net metering. Net metering -- I want to be clear -- net metering is a generous subsidy for these facilities, and the utilities don't give this away. What happens is, when the net metering subsidies provided to these facilities, the other ratepayers cover the cost. So, this is a subsidy, and what we're going to be doing is giving these particular units more generous subsidies than everybody else -- the solars, all the others who get net metering.

And, Rate Counsel believes net metering, as a whole, needs to be re-looked at, but, certainly for purposes of giving one facility greater net metering benefits than others. We are opposed to that.

SENATOR SMITH: Thank you for your comments.

MR. LIPMAN: Thank you, Senator.

SENATOR SMITH: Last witness--

SENATOR DURR: Excuse me.

SENATOR SMITH: Yes, Senator Durr.

SENATOR DURR: You're saying that it would cost more on the ratepayers. Do you have an estimate of what that would come out to be?

MR. LIPMAN: I don't off of this bill. I could probably go back to some experts and get rough estimates.

But, for every amount that's paid to these facilities, that's depending on where they're located. But, I don't know the exact location. I know there's three of these -- a couple of -- these facilities.

SENATOR DURR: But, you're saying that this subsidy would be greater than any others that we get.

MR. LIPMAN: Well, what the bill is saying is that this net metering subsidy would be greater for these facilities than other net metering subsidies.

So, you'd be subsidizing these greater than you would, say--

SENATOR DURR: So, picking winners and losers.

MR. LIPMAN: Correct.

SENATOR DURR: OK.

SENATOR SMITH: By the way, I think Senator Durr makes a suggestion in an implicit way -- why don't you give us an estimate of what you think the increased cost might be?

MR. LIPMAN: I don't have one, but I can get one to you.

SENATOR SMITH: Yes, well, I'm saying -- this is a process.

MR. LIPMAN: I understand.

SENATOR SMITH: This bill is going to go in a lot of different places--

SENATOR DURR: Why don't you table the bill until he gets us the answer?

SENATOR SMITH: No. There's six weeks left in this Legislature. We have been *not* doing any work, other than campaigning for re-election, for the last seven months -- whatever number of months.

SENATOR DURR: That was, that was (indiscernible)--

SENATOR SMITH: We're not doing our jobs. And, wherever the bill gets to in those six weeks, we generally will get that far in the following term.

And, respectfully, you know my opinion on the Rate Counsel. I don't want to repeat it again.

MR. LIPMAN: I understand, your honor, but I also want to say that to the extent anyone ever wants data from us, we're happy-- Please feel free to reach out and ask. We're happy to provide it.

SENATOR SMITH: Well, you know, I would appreciate whenever you send us letters in the future, put in your quantitative analysis. How much is it going to cost? Because, right now you're talking about two facilities that may be eligible for it in the state. And, the fact that we're not getting people -- either recycling food properly, dealing with food insecurity, and so we have plenty of waste. And, that waste is generating methane gas, which is killing us.

And, I don't want to have to go to one of these meetings where every time the Rate Counsel comes forward and says, "No, you can't do that. It might affect the rates by the 10th of a penny. Or it might do something else."

After we have the next superstorm, after the next time where we have a month where we can't breathe-- You've got to understand. I have a bill in saying that when you -- not you personally; I mean, this is not -- you're a nice man -- but your office, respectfully, is 100 years old. You have the end of the world coming, and the only thing you can look at in any of the bills and say, "There might be an increase in rates."

One of the reasons we're in the problem we're in -- and, you'll see it later on with the bill to upgrade the grid -- is because Rate Counsel has been imposed with the task of telling everybody the awful things that can happen by having a grid that works, or by having new programs that will hopefully get some of the global climate change substances out of the atmosphere.

Not you, personally. I mean, this is not a personal thing. It's just that the philosophy is wrong. You're a century old here.

MR. LIPMAN: I would have to respectfully--

SENATOR SMITH: Disagree. And, if you didn't disagree, I would say you aren't doing your job. You're doing fine.

MR. LIPMAN: And, we did submit a letter on the grid modernization. I suggest that you look at that, because we have recommendations -- we did *not* oppose it.

SENATOR SMITH: OK.

Anyway, we appreciate the comments.

So, the last -- I just noticed a slip. We have Kevin Drennan from Trenton Renewables. I saw the "in favor," but I don't see whether he wants to testify or not.

Mr. Drennan, did you want to testify, or just leave it as--

What's that?

DR. GURRENTZ: He said he would testify if it's helpful to you.

SENATOR SMITH: OK, Mr. Drennan, come on up.

KEVIN DRENNAN: Thank you, Chairman.

Wasn't planning on testifying, but just to clarify a few things.

One is, Trenton Renewables -- who I represent -- we are right here, just outside of Trenton. You pass our facility every time you come in and out of Trenton. It's next to the Trenton Sewer Authority. We do do carbon capture. We are a carbon neutral facility, and given what we *do* do to create the electricity, food waste that would otherwise be going to a landfill and creating greenhouse gases, we generate electricity through the carbon capture.

And, as far as the rate is concerned, right now we get a (indiscernible) rate, which is less than 3 cents a kilowatt hour as we are sitting right now. And, so, what the rate we're looking for -- which isn't directly identified within the legislation -- is just a fair rate, which would respect what the facility is. So, if we are thinking about picking winners and losers, that's sort of what is happening to us. We are being on the losing end because the rate by what we currently have with BPU is not a rate sufficient enough for us in a generation facility, compared to what other generators do get for the generation of their electricity.

SENATOR SMITH: Appreciate the comments.

Any comments for Mr. Drennan?

Senator Zwicker.

SENATOR ZWICKER: Not necessarily a question, but just a comment, to say that-- I just want to put on the record that the technology that Trenton is using was first invented by a colleague of mine, Stephen Paul, at the Princeton Plasma Physics Laboratory, who tragically died much too early.

And, so, grateful for you representing them with the work that they're doing to try to remove the quantity of food waste that they can out of the landfill.

So, thank you, Chairman.

SENATOR SMITH: Thank you, sir.

MR. DRENNAN: All right; thank you.

SENATOR SMITH: And, that's the end of the slips.

So, any comments? (no response)

Then let's take a vote on the release of 3909.

There's no amendments, correct?

MR. HANSEN: No amendments.

SENATOR SMITH: OK.

MR. HANSEN: Senator Stanfield.

SENATOR STANFIELD: Yes.

MR. HANSEN: Senator Durr.

SENATOR DURR: I think I am going to abstain until we get some more information.

MR. HANSEN: Senator Zwicker.

SENATOR ZWICKER: Yes.

MR. HANSEN: Senator Greenstein.

SENATOR GREENSTEIN: Yes.

MR. HANSEN: And, Chairman Smith.

SENATOR SMITH: Yes.

The bill is released.

Next bill is Senate 3996, Smith, Greenstein, and A2810 by Assemblyman Calabrese. It directs the DEP to establish a leasing program for State-owned land to be used and managed as pollinator habitat.

Do we have any slips?

OK, Mike Egerton, New Jersey State Chamber of Commerce -- in favor, no need to testify. Ed Potosnak, first slip -- in favor, no need to testify. Ben Graziano, New Jersey Green Industry Council -- in favor, no need to testify. Anjuli Ramos, New Jersey Sierra Club -- says no need to testify, but it doesn't say in favor or opposed. I assume it's in favor.

UNIDENTIFIED SPEAKER: Yes.

SENATOR SMITH: OK.

Rick Wright, New Jersey Recreation and Parks Association -- in favor, no need to testify. Second Ed Potosnak slip -- in favor, no need to testify. And, two witnesses who want to bring some concerns or some amendments.

Let's try Emile DeVito first, New Jersey Conservation Foundation -- in favor, with changes.

DR. DeVITO: Hello, thanks once again, Chairman Smith, for the ability to testify.

I haven't been able to look over the weekend at the latest draft, but I just want to say that the bill needs to emphasize that it has to be native plants and native pollinators. Because, if it doesn't specify that, it could end up that the DEP could be leasing land for just a purely agricultural system like clover and honeybees, which don't help native pollinators at all -- they actually detract from native pollinators.

So, we have to make sure that if we're going to do something for our native pollinators, that the bill is specific to native plants and native pollinators. That's the only thing that I need to say.

Thanks.

SENATOR SMITH: Thank you for your comments. Let's hold that thought.

Ed Wengryn -- with concerns, not in favor or opposed.

Ed.

MR. WENGRYN: Mr. Chairman, members of the Committee. Ed Wengryn, New Jersey Farm Bureau.

Our concern is, currently State lands are leased back to farmers, mostly through Fish and Wildlife; a few Green Acres parcels. But, well they are Green Acres parcels, even though they're Fish and Wildlife managed. And, a lot of -- in the acquisition of Green Acres lands -- prime ag. soils were acquired, and what we're looking for is to make sure that when it's ag. soils, the program leans towards agricultural production. And, when there's marginal, that's where you can do the pollinator habitats.

So, still protecting the prime ag. soils, and working with the Department is the collaborative thing we would like to see the program reflect, so that DEP, working with the Department of Agriculture, to sort of prioritize agriculture and the prime ag. soil areas could be something we've been looking for.

That's it.

SENATOR SMITH: Appreciate your comments. Thank you.

So, read it into the record. You're going to see something you never saw before in a minute.

We just received a communication from the DEP, which says, if you'd read it into the record.

DR. GURRENTZ: Sure. So, the DEP comments on the bill S3996.

They say, "The Department has concerns with the bill. The current lease program is already at or beyond capacity in terms of acquisition and maintenance of existing acquisitions. Additionally, the Department believes there are better ways to increase pollinators through existing projects, as opposed to establishing a new program just for pollinators. The Department undertakes its land-management duties in an effort to balance numerous, at times, competing needs. Habitat sequestration, public access, which requires a deep and nuanced analysis, unable to be reflected through a mandatory pollinator leasing program. The Department's existing management of wildlife and wildlife areas also includes pollinator species. The Department notes that the program applies to all State-owned lands, not just those under Department management. It would be difficult for the Department to establish and maintain a leasing program for lands that are owned, managed, or controlled by other agencies. The Department notes that it is regularly audited under the current lease program, and must comply with certain legal structures like public bid; fair market value; State House Commission review; term limits unless pursuant to Ogden-Rooney Law; and receive a fair market value rent. Many of these additional safeguards are not captured by the bill."

SENATOR SMITH: And, this was Senator Greenstein and I and Assemblyman Calabrese.

It sounds to me like the Department is not in favor of this. I mean, I could be mishearing it, but, for the sake of everybody in the room, we just got this -- what's the date?

DR. GURRENTZ: Thursday.

SENATOR SMITH: Thursday of last week, all right. And, we don't want to be redundant; we don't want to overwhelm the Department.

So, you know what? I think we should hold the bill. Hold the bill, and maybe we have a final discussion with them. Listen, if it's not needed, unlike what some people believe, we don't just pass bills to pass bills. So, that's held.

All right, last one before the big one. We have it listed "for discussion only." Grid modernization. And, by the way, the bill will not pass this session.

But, the issue needs to be raised, and the issue is this: We have a grid that doesn't work. I mean, it works for some things, like, yes, when you get home today you're going to be able to turn on your lights. But, the massive amounts of renewable energy that we're going to need to get us any chance of survival can't be handled by our grid. Our grid is bubble gum and bobby pins. And, that's -- that conclusion is as a result of having, at every Environment Committee for the last two years, a speaker on global climate change. And, independently studying it -- the grid is a mess.

If you want to put a grid-scale solar facility into the grid, it'll take eight months to a year to get an approval, or longer. Interconnections are impossible in New Jersey, and one of the reasons is the utilities -- the distributors of energy in the state -- being responsible entities, say that, "We can't put a load into the grid that the grid can't handle. Otherwise, you're

increasing the probability of blackouts.” So, it takes them months and months and months and months and months and months to figure out what needs to be done to upgrade the grid so it can handle the renewable electricity and figure out a cost for the developer to interconnect with the grid.

The year has gone by. The deal is gone; the project is not going to be built. And, the DEP, I think, has semi-recognized the problem. They’re currently doing studies on how we can make our interconnects better and faster. And, the answer, as it always is for my good friend the ratepayer advocate -- if he’s still here -- is money.

We had an opportunity when Sandy hit New Jersey to actually upgrade the grid substantially. And, a utility that I will not name, they actually, when the BPU gave out notice to everybody, “We want you to have a sustainable grid, a grid that’s going to work,” and they put in a request -- a rate request -- the BPU cut it in half.

And, by the way -- I think kind of arbitrary -- when they came back to me and they said, “What kind of advice would you give them?” I said, “The advice I’d give you is you should scream like stuck pigs. You should say, ‘This is not enough to fix the grid, it’s not going to work. The next disaster is going to be a disaster and the grid is going to go down.’” And they said, “We can’t do that, we have a rate case. We have to go before the BPU every year with the rate case, and we don’t want them to be mad at us.”

As a result, the opportunity that Sandy gave us to upgrade the grid never occurred. Our grid stinks. So, that’s-- And, by the way, that’s one of the big problems with getting us to a situation where we in New Jersey can survive and we in New Jersey are not making the global climate change problem worse.

So, this bill -- which is a next-year bill -- this bill says, let's take \$300 million from the Societal Benefits charges, money that's already there. So, it's not an increase. I want to make sure that the ratepayer advocate--

SENATOR DURR: It's still taxpayer money.

SENATOR SMITH: It's still taxpayer money, but we've been using Societal Benefits charges for other purposes.

SENATOR DURR: I mean, don't get me wrong, I agree -- the grid needs to be--

SENATOR SMITH: Correct. Well, then, also, too, this is the money-- When that bill was passed, this was the money that was supposed to go into doing projects to make us renewable, etc. etc. And, over the last number of years-- And, I voted for every budget--

SENATOR DURR: It could be a bureaucracy problem.

SENATOR SMITH: No, it's not a bureaucracy problem, it's a budget problem. We legislators and the Governor are the biggest thieves in the universe, because we take money that's intended for one purpose and use it on another purpose.

So, take \$300 million from Societal Benefits, which are already collected -- it's not a new charge -- and devote it to grid upgrades. You have the IRA law -- Federal -- that could easily leverage that to another \$200 million. So, you get the 40% discount if you started to aggressively do projects to upgrade the grid. And, that's what this bill is about: Trying to put a fund together to upgrade the grid.

It's not going anywhere besides this Committee, but the issue had to be raised. We talk to you every day, or every time we have a

committee meeting, about how we're doing all these good things -- the grid, the grid, the grid, the grid. Otherwise, none of it's going to work.

So, on that note, we have a lot of people -- or we have a lot of slips. Ed Potosnak, first slip -- but he would like to testify.

OK, so, listen. Everybody should take into account here that the bill is *not* passing this year and be brief, because we want to get to the big stuff that may pass this year.

So, why don't we talk to -- let's give Lyle a chance. But brief, brevity-- Oh, I'm sorry, Ed's here.

MR. HANSEN: He's the first.

SENATOR SMITH: You have only one slip on this one? OK.

Anyway, Ed, brevity is the soul of wit, and we are talking about the for-discussion-only 3992.

Ed.

MR. POTOSNAK: Thank you Senator Smith, members of the Committee. Ed Potosnak, Executive Director of New Jersey LCV. We represent Republicans, independents, and Democrats who support protecting our environment for future generations.

And, I also want to thank you for the coffee this morning. I'm not sure who is responsible for that, but much appreciated, which will help me testify quickly.

SENATOR SMITH: Good.

MR. POTOSNAK: So, grid modernization is a vital component of meeting New Jersey's climate, air quality, and equity goals in the years to come. And, of course, our efforts to combat climate change, as you mentioned.

The goals of the bill are to increase resilience; decrease risks of outages; and improve electric capacity, which will greatly help the added demand for our grid as motor vehicles and appliances come online using electric instead of dirty fossil fuels. And, of course, we need a plan to do that. So, it's always good to have a plan as you move forward.

So, having the public utilities develop and implement these plans quickly is a top component of these efforts to combat climate change, and goes hand in hand with the State's goal, which, you can see by my button, to transition to 100% clean energy by 2035. By creating the Modernization Ratepayer Relief Fund, we will ensure the funding of \$300 million is available through the BPU to support these company efforts.

I will say, too, I would like to see it go with reducing or eliminating the Clean Energy Fund raids. They were trying to, last budget, an ongoing sort of perennial issue to \$72 million -- now it's being taken from the Clean Energy Fund, and hopefully we can use that towards this \$300 million. Twenty percent of the monies will go to help the BPU set aside support for programs designated to reduce electricity demands or costs for electricity that customers in urban areas would be paying as a key part of the environmental and social justice.

So, we think that the modernizing grid is long overdue, and we stand with you to make that happen, you know, further the conversation.

So, thank you.

SENATOR SMITH: Thank you.

Ray Cantor, NJBIA.

RAYMOND CANTOR, ESQ.: Thank you, Mr. Chairman, members of the Committee.

My name is Ray Cantor with the New Jersey Business and Industry Association.

We are happy to support this bill here today. As you mentioned, Mr. Chairman, “It’s the grid, it’s the grid, it’s the grid.” Regardless of our clean energy goals, we need to modernize our grid, and, especially, given the fact that we need to decarbonize and achieve more solar, more wind, in our state, we need to upgrade the grid. We’re not going to achieve those goals without upgrading the grid.

We normally oppose bills that use the Societal Benefit Charge for various purposes, because we believe the SBC is already too high. I think we pay the 11th highest electricity rates in the nation, in no small part because the SBC is so high. However, this money is already being syphoned out for other purposes. We’re not increasing what the charge is, we’re just using this money for its intended purposes. And, at the end of the day, ratepayers will be saving money, because this money will be used to offset existing charges that otherwise would have happened.

So, we thank you for putting this bill in today, Mr. Chairman. We know it’s not being released, but we look forward to you looking at it in the future.

I will just mention a couple of quick amendments we would like to see to the bill. One is in Section 2 B-5, it says, “The money can be used for national hazards associated with climate change.” We believe that the money can be used for *any* natural hazard protection, not just those associated with climate change. I’m sure that was not your intent to limit the use of the money, but there are natural hazards that occur, even action

climate change. It should be natural hazards “in addition to” those associated with climate change, not just “limited to.”

Also, we have been (indiscernible) about the deemer provisions in here. While, normally, we like deemer provisions, when we’re dealing with DEP permit requirements, when we’re dealing with large infrastructure projects that are grown to impact ratepayers, we don’t think that a deemer provision is appropriate in this circumstance.

So, otherwise, we’re supportive of the bill and we look forward to working with you in the future as it moves to the Legislature.

SENATOR SMITH: Thank you.

Lyle Rawlings, MSSIA/Advanced Solar -- in favor.

LYLE K. RAWLINGS: Good morning, Mr. Chairman, and members of the Committee.

This is a very important bill and a great bill. We strongly support it.

And, by the way, Dave Pringle says I can speak on behalf of Clean Water Action as well.

I met one on one with BPU President Fiordaliso a month before he passed, and he asked me what our biggest concerns were. And, the first one I mentioned was grid modernization and interconnection. Because already, the rate at which their refusals to interconnect on our grid is accelerating tremendously -- it’s a hockey stick-shaped curve. So, we’re already behind. At the end of the meeting, I asked him what *his* top concern was, and he said the same thing -- grid modernization and interconnection. So, I’m very worried about that.

The BPU has been doing a great job on this issue. Paul Heitman, Abe Silverman -- who is here today -- they have crafted a proposed rule that will put New Jersey in the forefront of the nation in grid modernization, but it needs funding. And, we believe this bill will be a great step in that direction.

The source of the funds, I'm sure that there's going to be potential sources that we look into, but it's an important thing to do now.

We had a study done of the value of distributed solar, what it delivers in monetizable form. We included the cost of modernizing the grid in that, and the cost benefit analysis was strongly positive for distributed solar, and the cost of modernizing the grid was only a fraction of the value.

So, thank you for this bill, and that concludes my testimony.

SENATOR SMITH: Thank you for your comments, Lyle.

Oh, Senator Zwicker, go right ahead.

SENATOR ZWICKER: This has come up a couple of times, and given how you were a quantitative person, I thought I would just ask you this question.

Which is -- I'm all for, of course, grid modernization -- the cost is a big question. There are estimates nationally that this will be trillions of dollars. And, so, I'm curious -- not New Jersey, nationally, right?

MR. RAWLINGS: Yes.

SENATOR ZWICKER: I'm curious if any of your models you have looked and tried to estimate what it would cost just for New Jersey to have a modern grid.

MR. RAWLINGS: Yes, we have -- I do not have that number at the top of my head, so I've got to get back to you on it. But, the study we

did was done by Clean Power Research, which at this point is the world's top consultant on this.

And, I can see the graph in my head. The cost was somewhere around a 10th of the value delivered, in monetizable terms, by solar. I'll get you dollar figure -- I can get back to you on that.

SENATOR ZWICKER: Sure, thank you.

SENATOR SMITH: Thank you.

For the record, slips were turned in by numerous people who had positions on the bill.

Bill Caruso, on behalf of Sharon Segner, LS Power -- opposed, no need to testify. Alex Ambrose, New Jersey Policy Perspective -- in favor, no need to testify. Doug Hritz, Coalition For Community Solar Access -- in favor, no need to testify.

Oh, man, now we've got Doug Hritz turning in a second slip. You and Ed have to talk.

And, then Dave Pringle, Clean Water Action -- in favor, no need to testify.

DR. GURRENTZ: Dave Pringle (indiscernible)

DAVID PRINGLE: One sentence?

SENATOR SMITH: So, you send a slip, you say one thing, and then you change your mind.

Come on up.

MR. PRINGLE: You'll appreciate it because it doesn't happen every day.

I just want to state for the record that Clean Water Action and BIA have the same position on this bill at this point.

SENATOR SMITH: You didn't just put a stick in the eye of Ray Cantor, did you?

So, anyway, Eve Gabel-Frank fom ChargEVC -- in favor.

Ms. Gabel-Frank, if you'd come forward.

EVE GABEL - FRANK: Hi, everyone, I am Eve Gabel-Frank.

I am Senior Associate at Gabel Associates. We're an economic and policy consulting firm in Highland Park, New Jersey. We've been doing this work for about 30 years.

And, I am also here representing ChargEVC. We advocate for transportation electrification in New Jersey. We represent about 40 members, utilities, environmental organizations, vehicle OEM, charging companies, labor organizations. We're a really broad group.

Gabel has done a good amount of work and analysis on this issue of grid readiness, so we understand the importance of this bill. We really support this bill. We also wanted to give some additional insight.

So, to set the stage quickly -- which I think you all know -- having a really strong, resilient grid isn't important just for EVs, but for all of the clean energy solutions that New Jersey is committed to. So, this legislation is going to be really instrumental in achieving that.

So, thank you all for introducing and discussing this bill.

I really want to just briefly emphasize three points here. First, that we need to be proactive. This change in energy consumption is happening right now. But, based on the way that we're looking at it and the research that we've done, we think the grid *can* be ready, we just need to be really proactive. Utilities have started this work, but it's a really big job. A lot of these upgrades are going to take five to 10 years to plan and then to

implement, so it's really critical that we're making those investments now. And, that's kind of the single most important impact of this legislation.

Next, this is a really complex process, so there are going to be multiple phases of investment here. So, one of the recommendations that we make is that the legislation anticipates those multiple phases and acknowledges that, which will, A., spread out cost impacts and B., allow us to learn as we go.

Third and final point, storage is a critical element here. I think the importance of storage here really can't be overstated. It has the ability to significantly reduce the level of feeder and substation upgrades that we'll need to accommodate all of these changing loads.

So, another thing that we recommend is that this legislation recognize the need for storage as part of this effort. And, that should be on the utility side *and* on the customer side of the meter.

So, just quickly to conclude, this legislation really has the ability to establish regulatory rate making, funding, planning processes that we need to ensure that there are effective and proactive investments in the grid and to achieve these clean energy goals that New Jersey has.

So, we really look forward to working more with you on this.

SENATOR SMITH: Thank you for your comments.

Brian Dipman (*sic*), New Jersey Rate Counsel.

Brian. Seeking amendments.

MR. LIPMAN: Hello again.

My name is Brian Lipman, and I am the Director of the Division of Rate Counsel. We represent the state's utilities ratepayers.

First, I want to commend Chairman Smith and the Committee for beginning an important discussion regarding grid modernization. I know, I saw the look of shock on your face.

While Rate Counsel does have concerns about the implementation, Rate Counsel is generally supportive of the concepts set forth in the bill. Rate Counsel believes this is a good starting point to discuss an important issue, and, importantly, the funding of grid modernization.

First, I want the Committee to understand the scope of the undertaking. Many of our electric utilities have not kept up with the growing needs of our system, and the grid-modernization project will likely have to be two-fold. First, to get the grid where it needs to be, and then, to get it where it needs to be in the future.

The work is extensive, and it is costly. As you're probably aware, JCP&L just filed a grid-modernization plan with the Board last week for almost \$1 billion -- \$900-plus million. PSE&G has spent billions -- with a b, *billions* -- on grid modernization, and I would like to point out that all of those billions are spent subject to settlement agreements they reach with Rate Counsel and Board staff.

The Board has authorized \$1.2 billion in transmission upgrades to support only one portion of the upcoming offshore wind that we hope to bring into New Jersey. This is going to be a long process, and will cost us here in New Jersey not hundreds of millions, but billions of dollars. These costs cannot fall all on ratepayers.

The bill attempts to assist ratepayers with the establishment of a grid-modernization ratepayer relief fund. And, it says that it's going to be appropriating \$300 million from the general fund to establish this program.

This is appreciated; however, as you know, \$300 million is going to be a drop in the bucket. The fund should be required to seek Federal money when available, and, to that end, the utilities should be required to demonstrate as part of their grid-modernization plan how they will be applying for any available Federal funds. It is everybody's benefit to seek and recover Federal funding, and the utilities should be required to demonstrate that separate to obtain that funding. The fund should not solely remain, in the future years, on the SBC -- we can't afford billions of dollars out of the SBC. You need to be seeking additional sources of funding.

Rate Counsel is supportive of the efforts to find financial relief for ratepayers, and appreciates the desire to find funding sources other than ratepayers. However, if you view the letter that we submitted, we have some suggestions on how to better use that money, rather than give it directly to the utilities, but to create a different way of working with it. By giving it to utilities, it actually -- they then have to spend some of that money to then distribute the money, and we lose some of the benefit of the value. There are better ways to distribute it, but we do think it's a good idea. We just have technical amendments on how to do that.

As far as a plan from the utilities, we think this is a good idea. It has been our experience, however, that many of the plans filed with the Board are incomplete or not as thoroughly vetted as they should be. Rate Counsel suggests either including in the bill or allowing the Board to establish some more technical requirements for the plans, so they are more fully developed when they're actually filed.

Moreover, the Board should be given a 30-day period in which it determines whether a submitted plan is administratively complete before we

get any comprehensive review of the plan. With regard to timing, utilities get a year. Right now, the bill is only giving 120 days for the Board to approve. That's just not enough time given the complexity of the issues and a need for interested parties. And, as you can see, it's not just going to be Rate Counsel that will be involved and interested in these cases, so there needs to be some time. We suggest at least 180 days for the Board to approve.

With regard to implementation, the Board requires an electric public utility to begin implementing within 90 days. If a utility fails to implement in that time, or does it not achieve the stated objectives, there is no consequences or penalty. The utility must simply provide written notice to the Board. Rate Counsel suggests that there be some consequence to a utility not properly implementing the plan or achieving the results the plan is supposed to achieve.

Rate Counsel is concerned about the recovery of costs in implementing the plan by the utilities. Notwithstanding the lack of an obligation on the part of the utilities to fill its obligations to deliver results, under its own designed plan, each utility is entitled to a full and timely recovery of *all* costs incurred in the implementation of the plan. Although the costs are subject to review of the Board, the (indiscernible) does not explicitly require the plan implementation cost be reasonable or prudent, nor does it provide consequences if the plan does not achieve the contemplated results. This puts customers at risk of overpaying for imprudent or unreasonable costs. Utilities are in the best position to control their own expenses and ensure that grid-modernization plans achieve results that are beneficial for ratepayers and the State.

Rate Counsel suggests that each plan also be required to include performance metrics that must be met prior to recovery. As the Committee is aware, the goal here is not simply to build out the electric grid, but to ensure that we are doing so in a prudent and cost-effective manner. The utilities will provide a plan of how to do so, and should be held to results they promise as a condition of recovery. Without proper review as to the reasonableness and prudence of the implementation, the bill would allow utilities free reign to overspend at ratepayers' expense.

Thank you.

SENATOR SMITH: Thank you for your comments.

By the way, I don't know if you noticed, but everything is being recorded. There's a court stenographer. When this bill comes back next year, you want to be saying the same thing you said today, all right?

Not for you personally, I'm talking about anybody who is--

MR. LIPMAN: To be honest, I hope that we're not saying the same thing as today, because I hope that we work together more--

SENATOR SMITH: Right, and you're going to say it's the most wonderful bill ever, I got it.

Ed Wengryn, New Jersey Farm Bureau.

Ed, are you here? Yes, he is. With concerns.

MR. WENGRYN: Mr. Chairman, members of the Committee.

We think it's a great idea. We know it's needed. We have been working on solar on farms in rural areas for over a decade. And, connectivity to the grid has been one of the biggest enduring factors in making that program successful.

The pilot program-- To do solar on farms, BPU finally issued the (indiscernible) proposal, but the work Rutgers started doing with its appropriations from the department in parts of the state that have reduced the size and scale of their program because of the connectivity issues. It costs them more money to connect, and they did it on less ground than they were able to do in other parts of the state.

This is a crisis. You're not going to hit your goals and targets. As you move on to your conversation about changing the portfolio standards, the grid can't handle your ambitions. You've got to work on it, got to fix it. I think everything we've heard from everyone today, we want to get there through this program. We agree the Feds are putting a lot of money on the table, and New Jersey's energy companies aren't taking advantage of it. We're losing out.

So, thank you very much, and I will take any questions.

SENATOR SMITH: Thank you for your comments.

Doug O'Malley.

MR. WENGRYN: Wait, just -- now, I'm going to put on my resident of Trenton hat.

It's an urban issue as well. I mean, the rural areas near the end of the grid, our urban infrastructure is not up to speed to handle additional loads. So, that's homes trying to put solar on rooftops that are being denied because grid and the urban areas can't handle them.

So, thank you.

SENATOR SMITH: Thank you for your comments.

Doug O'Malley, Environment New Jersey -- in favor. Doug.

DOUG O'MALLEY: Good morning Senator, good morning members of the Committee.

Doug O'Malley, Director, Environment New Jersey.

I wanted to come here before the Committee this morning -- I've already submitted my testimony -- but just to highlight the cover of *National Geographic* this month: "The Race to Save the Planet: Can Technology Help Fix the Climate Crisis?" This is a good issue, but one of the big things they need to focus on more is modernizing our grid *everywhere*.

And, this is why, Senator Smith, your work on this is so critical. You've already heard this morning -- there is violent agreement from Rate Counsel--

SENATOR SMITH: Everybody.

MR. O'MALLEY: --from the business community, environmental community, to get this done.

Now, obviously, we need to ensure this bill is for next session. There is work by BPU that is moving forward; there is rate filings by the utilities that are over a billion dollars. We need to be investing these dollars, and we need a commitment from the Legislature and the Murphy Administration to make these investments. Because, we often talk about saving money for a rainy day -- well, what happens for a grid when that rainy day comes in the form of extreme weather, and suddenly the grid is down, and then people are saying, "Why is this so?"

And, Senator Smith, you made the point of we missed an opportunity during Hurricane Sandy. Just a couple of points I wanted to stress, and not to be -- to be duplicative here -- clearly, the low changes associated with the transition to a clean-energy future means that we're going

to have a difference in the load curve. And, this is also where battery storage, which ChargeVC was testifying-- We would strongly urge the legislation to recognize the need for storage as part of modernization and codify the storage. It will need to be implemented in multiple levels in the system at both utility and customer sides.

We heard a little bit from Brian Lipman on the importance of tying Federal rebates in. The IRA is our biggest opportunity; the best time to do this is now, because there is more than \$3 billion from the IRA. Without a bill, we can't leverage that money. So, if New Jersey is applying for those billions of dollars, it only works if we have this here.

So, obviously, members of the Committee -- and, you get this, Chairman -- this is where we hope that this violent agreement at the Committee reaches a greater level.

I did just want to end just by emphasizing some of the amendments that I attached, amendments that were drafted by NRDC and EDF regarding EV infrastructure and making sure that we are incorporating EV infrastructure. And, just to quickly summarize, we want to ensure we are applying utilities to construct the utility side infrastructure for EV charging between the grid -- between the meter and the grid -- where it's necessary to charge EVs. We want to make sure that we're requiring utilities to offer customers equitable and sustainable rates for charging, and also to implement EV grid-integration programs that take advantage of the flexible nature of EV charging, which obviously happens primarily at nighttime.

And, then, finally, we want to ensure that we have accountability in those timelines. So, one, we have timelines, and the accountability from utilities to meet those timelines, because there was a nature of (indiscernible).

Thank you so much, Senator.

SENATOR SMITH: Thank you for your comments.

Karla Se-ra, and Eric Miller. Karla, I don't know if I got the last name right. From Environmental Defense Fund and Natural Resources Defense Counsel -- in favor.

KARLA SOSA: Good morning.

My name is Karla Sosa from the Environmental Defense Fund. And, I am New Jersey's state (indiscernible) Project Manager. I am joined here by Eric Miller, NRDC's New Jersey Energy Policy Director.

We want to thank the Senate Environment and Energy Committee today for bringing up this bill for discussion, and we also want to thank Senator Smith and his staff for addressing the pressing issue of grid modernization and grid readiness.

All New Jerseyans rely on the electric grid. It is deeply embedded in the fabric of our lives. And, therefore, we need to keep investing in the grid, as we always have, and ensure that those investments support the needs of today, including the need to meet New Jersey's climate, clean energy, and equity goals. Electrifying our cars, trucks, buses, and buildings, can dramatically lower household energy expenditures, freeing consumers from the batteries of the world oil market.

And, electrification done right can also improve the utilization of the grid, putting downward pressure on electric rates to benefit all utility customers. Most of this can be done using existing spare grid capacity, but we need to make some strategic grid investments to ensure New Jersey's progress towards its climate air quality and equity goals is not frustrated by

delays in building the necessary infrastructure, while always maintaining a safe and reliable grid.

We need to start today to build the grid we need tomorrow. Grid buildout doesn't happen overnight, and its infrastructure typically lasts several decades. So, it is critical we commit to a path now that will lead us to the modern and ready grid needed to support a clean, healthy, and economically vibrant New Jersey. The longer we delay in strategizing investment, the harder and costlier it will be to course correct down the line.

SENATOR SMITH: Thank you.

ERIC MILLER: There's a benefit of following Doug O'Malley, who previewed some of our recommendations. I think we are just like everyone else who has been up here today, and that's why Resources Defense Counsel and Environmental Defense Fund strongly support this bill and this concept -- of course with some modifications that we think we can work through with many of the other folks who already testified, and I'm sure will testify.

Just a brief preview of three of them -- and I believe you've seen some materials from us on this -- is, Number 1: Require utilities to offer customers affordable, equitable, and cost-reflective rates for residential, commercial, and public EV charging. This mitigates the problem of unjustifiably high bills.

Alongside of this, we should require utilities to implement grid-integration programs, so that we can use the batteries inside electric vehicles to support the operation of the electric grid. We should require utilities to meet their obligation to serve, and make grid investments necessary to meet our climate, air quality, equity goals, laws, and regulations. And, as others have said, this bill should hold utilities accountable to meet set timelines for

interconnecting customers, and require utilities to train and hire the workforce necessary to make these strategic investments.

Finally, we recommend requiring utilities to plan for and construct the utility side infrastructure necessary to charge EVs as part of their normal course of business, and include the associated cost of doing so in their rate base without relying on customer contributions in aid of this construction. This will provide a more predictable foundation, upon which private and public investments can be made to install charging infrastructure and can pay for itself with additional electricity load that it facilitates.

Thank you again for holding a hearing on this topic. We look forward to working with this Committee; with you, Senator Smith; and with everyone else who testified today to have something great in the next session.

Thank you.

SENATOR SMITH: Thank you for your comments.

Last witness, Josh Lewin, Helios Solar Energy -- in favor.

Josh, are you here? OK.

J O S H L E W I N: Thank you for letting me speak today.

I just want to say that this bill is very important to my company, and, I think, to the state as a whole. This is something that is very much needed, and we appreciate you bringing this up as a topic.

Thank you.

SENATOR SMITH: You win the brevity award for today.

Just FYI, the purpose of today's hearing on this was to get to some of the criticisms that might be about the bill, or suggestions for improving it on the table.

As I said, we've been recording everything, and I asked Joey if he thinks we can get the new and improved version for a January filing. With a little luck, this will be the first bill on the first Environment Committee meeting in the new session. It's that important.

OK, now, for the main event. And, I don't want anybody to hurt anybody. The main event is 2978 -- revises the State renewable energy portfolio standards.

By way of background, the Governor of this state -- one of the greenest governors in the United States of America -- adopted, by Executive Order, a renewable portfolio standard for the State. And, that is 100% renewable energy by 2035. You may or may not be aware of the fact that an Executive Order is only the rule as long as that executive is the executive. There are no guarantees that the next governor will be as green as the current governor.

So, the purpose of the bill -- the original purpose of the bill -- was to put that standard into law. And, the reason you want to do that is when State government is making decisions about investments, what we should be doing or not doing, we need a guiding principle. The guiding principle is the Executive Order -- again, as long as the executive is the executive. But, we thought that making it the law of the State of New Jersey means that it will be the law. And, the only way it can be overturned is if a subsequent legislature decides that the standard is incorrect. And, maybe some day it may need to be upgraded -- who knows? But, probably not.

In any case, as the bill -- we've been working on this bill for two years. As the bill moved through, a lot of other issues came up. So, we basically have four or five different stakeholder groups. One are the people

in the renewable energy industry; we have a lot of concern from the environment justice community; we have other environmental groups, not necessarily environmental justice, as a stakeholder; we have the utilities; we have everybody involved. So, it's gotten to be a little bigger than it started to be. And, as a result, on November the 20th, three days before Thanksgiving, you're all here. And, that's great, because hopefully it can be the best bill it can be.

Is there anything else I want to say in way of summary? Or, let the testimony begin? You think we got it?

DR. GURRENTZ: I think you got it.

SENATOR SMITH: And, actually, you know what? I think our first witness to set the stage is Professor Jesse Jenkins from Princeton.

So, if you'd come forward, Professor, who has been waiting very, very patiently. Let me give you a little introduction to Professor Jenkins.

First of all, he's at Princeton, and he's doing the-- What's the name of your group again?

J E S S E D. J E N K I N S, Ph.D.: ZERO Lab.

SENATOR SMITH: ZERO Lab. And that's all, hopefully, getting us to the finish line as a species to our electric policies.

But, the rest of the introduction: Two summers ago, I went to Harvard for a short course on small modular reactors. And, the course was three and a half days long. Guess who got the most mention in the seminar, because he's internationally -- or at least nationally -- very prominent in the energy world as being able to analyze these energy issues so well? And, he wasn't a speaker. Other speakers -- several different other speakers -- mentioned his work.

So, Professor, the good news is we're getting your help without you sending us a bill. So, we would appreciate if you'd tell us a little bit about the bill and what you think we should be doing.

DR. JENKINS: Thank you for the generous introduction, Chairman.

Honorable members of the Committee, I appreciate the opportunity to submit testimony today on S2978, the New Jersey Clean Energy Act of 2023.

It's my professional assessment that this proposed legislation offers an opportunity for the State of New Jersey to reestablish itself as a clean energy leader nationally; to continue to expand the state's clean electricity sector; help meet our climate goals; and all while maintaining affordability and reliability of New Jersey's electricity supply.

I am Jesse Jenkins. I am an Assistant Professor at Princeton University and a macro-scale energy systems engineer. A full description of my experience and affiliations is available in my written testimony, and I have to note that my views expressed here are my own as an individual, and I do not represent or speak officially for Princeton University.

The New Jersey Clean Energy Act of 2023 would build on New Jersey's established clean energy policies and take full advantage of substantive Federal incentives to transition the State's electricity supply to 100% clean electricity by 2035. The proposed law would require New Jersey's electricity suppliers to procure enough qualified clean electricity to supply all of our annual electricity sales by 2035, with interim targets from 2027 onwards.

It's important to note that this law would build on and incorporate, not replace, the clean energy contributions from all of our current state policies that support Solar PV, offshore wind, and existing nuclear power plants. The law would also establish a new goal to secure 65% of New Jersey's electricity supply from clean generators within the state. Which, my group, the ZERO Lab at Princeton, estimates would support about 24,000 family sustaining prevailing-wage jobs, building and operating clean electricity facilities in the state by 2035.

All projects over 1 megawatt in size would be required to pay prevailing wages and employ apprentice labor, which also, importantly, ensures that these projects can take full advantage of Federal tax incentives provided by the Inflation Reduction Act of 2022, which require these sorts of standards to be met.

In fact, the Federal Inflation Reduction Act effectively puts clean electricity on sale for New Jersey, saving our electricity consumers billions of dollars, and setting the stage to increase our ambitions with the passage of S2978. The renewed and expanded production tax credit and investment tax credit will reduce the cost of offshore wind and both distributed and utility-scale solar by approximately 30-50%. The law also establishes a new tax credit to establish or to preserve our existing nuclear power plants, including New Jersey's sale of the Hope Creek generators to supply about a third of our electricity.

Beginning in 2024, this tax credit from the Federal level will pay New Jersey's nuclear plant owners up to \$415 million annually, which should be sufficient to reduce the ZEC payments from our state support to zero, while maintaining -- as long as this Federal tax credit is in place -- saving New

Jersey ratepayers up to \$300 million each year from 2024 to 2032. So, these are the benefits we're seeing from the Federal government.

We also recently completed detailed modeling of the potential impacts of this New Jersey Clean Electricity Act of 2023, and we estimate that under the proposed law, New Jersey electricity customers would pay less for their electricity supply in 2035 than we did in 2019. This is their bulk supply, putting aside distribution network costs. The law would ensure more clean electricity would be generated in the state in 2035 than is generated by *all* resources, both fossil, power plants, and clean sources today. That ensures a steadily expanding market for clean energy investment and jobs in the state. We estimate approximately 8,600 megawatts of large-scale solar, about 5 megawatts in size; 2,500 megawatts of small-scale solar; 7,500 megawatts of offshore wind; and 1,600 megawatts of storage capacity would all be built in New Jersey by 2035.

That would mean the law supports about 24,000 jobs building, operating, and maintaining electricity generators in New Jersey by 2035, including 10,300 in large-scale solar; at least 3,300 in distributed solar; and 7,000 in offshore wind, while -- importantly -- preserving all employment at our existing nuclear plants, and about 96% of employment at natural gas plants across the state.

And, I know there's sensitivity about the role of out-of-state resources in the bill, and I want to stress that our estimates are that over 90% of the subsidies provided by state programs would go to generators within New Jersey supporting investment and jobs in the state.

It's also important to note that even as the state relies more heavily on wind and solar power, this act would ensure continued reliability

of the State's electricity supply in three key ways. First, the proposed law preserves the state's existing nuclear power plants, ensuring they continue to provide reliable emissions-free electricity for New Jersey, and a foundation for more rapid emissions reductions.

Second, the legislation permits the use of existing natural gas power plants to meet reliability needs. It does *not* require natural gas plants retire until clean, reliable replacements are available. The new clean electricity standard established for the act requires renewable and carbon-free sources to supply 100% of our demand on an annual or volumetric basis. But it does *not* require that electricity consumption in the state is met by clean generation each and every hour of the year. This is true, by the way, for all clean electricity standard laws at the state level across the country. As such, S2978 would permit existing natural gas plants in the state to operate when necessary, called upon by the grid operator to meet reliability needs while substantially reducing their generation overall, and therefore, their pollution. Power generated during those periods would be claimed by electricity suppliers in other states, while suppliers in New Jersey would procure additional clean electricity in other time periods to meet their annual requirement. This flexibility -- I think -- should be considered a feature, not a bug in the legislation, as it allows us to transition rapidly and confidently to 100% clean supply on an annual basis in just 12 years. Without waiting for the commercialization and large-scale deployment of more nascent firm zero-carbon technology, such as advanced nuclear, clean hydrogen, or long duration energy storage.

But, third, the act establishes a first-in-the-nation commitment to phase out these polluting gas generators entirely, and meet 100% of our

reliability needs from carbon-free resources by 2045. And, we don't have to wait until 2045 to get started, as the legislation authorizes the BPU to create new programs that would support the early -- the new near-term deployment of innovative, carbon-free electricity technologies, which would help meet our reliability needs, including long-duration storage, advanced nuclear, and green hydrogen.

I want to stress that this commitment is truly historic. It would raise the bar for state action across the country. No other state with 100% clean electricity requirement has committed to meet all of our reliability needs with carbon-free resources.

So, I thus commend Chairman Smith and Senator Stanfield for proposing to seize this historic opportunity and transition faster to 100% renewable and carbon-free electricity resources while, importantly, preserving affordability and reliability for New Jersey electricity consumers and businesses.

I thank the members of the Committee for considering my testimony. Happy to answer any questions you have.

Thanks.

SENATOR SMITH: Senator Zwicker, you have some questions?

SENATOR ZWICKER: Sure.

Thank you, Professor Jenkins, I appreciate your testimony.

A couple of different questions for you. You alluded to the fact that there's certainly been a lot of discussion about the proposal to have two-thirds of the energy come from in-state, the other third come from out of state. First of all, is that a technical thing, or is that an economic thing?

What's -- from your perspective and your models -- what's the reason for the two-thirds, one-third?

DR. JENKINS: Yes, so, New Jersey is a reasonably sized state with a much larger regional grid, the PJM Interconnection, which spans many different states. That's to our advantage in terms of reliability and affordability, and when it comes to meeting a target like this, it's good that if we have-- If we run into constraints within the state, the pace at which we can build out clean resources here, that we can throw ourselves open to a much broader and competitive market.

So, I think it's very important that the last increment of that 100% that we're going to have to meet can be competed across the whole region. That's really important to maintain affordability of the law, otherwise we hit constraints in the state and the prices could skyrocket and we may not meet the goals.

So, the in-state requirement is there to ensure that we also have a minimum amount of expanding generation and reliance within the state. So, we're balancing these two goals of affordability and broad access to the whole region with the need to drive steady investment and expansion of jobs and clean-energy investment in the state. I think that that in-state requirement really helps (indiscernible) that, it puts a floor on the contribution from in-state resources. Now, it's just a floor; it could be larger than that if in-state resources are able to expand fast enough and affordably enough, but I think that strikes the right balance between investment in the state and affordability for ratepayers.

SENATOR ZWICKER: Does your model quantify that floor that you're talking about right now?

DR. JENKINS: Yes.

SENATOR ZWICKER: Meaning -- if you went down to 55, you're up to 75, whatever it might be.

DR. JENKINS: Yes, so we estimate -- again, this is all quite uncertain, because we don't know the future perfectly -- but about two-thirds of the generation would come from within state in an unconstrained context in our modeling. So, this floor basically codifies that and ensures that, if we were wrong, that we're still going to get some amount of expanding investment in the state.

SENATOR ZWICKER: How do you define affordability? So, let's say that we just randomly pick 75 or 80% -- any other number. Do you quantify then how that drives cost upward, or reliability downward?

DR. JENKINS: It does drive cost upwards the more we rely on in-state resources. The challenge is going to be whether or not we can expand large-scale solar more than the roughly 8.5 gigawatts that we see in our modeling. It's already a substantial effort, and we're just starting to stand up our utility-scale solar industry thanks to the Solar Act of 2020 that this Committee worked on.

So, if we can do more than that, then that would be an opportunity to more cost effectively reach those goals in state. And, again, that's a floor and not a ceiling, (indiscernible) happen. Otherwise, we're going to be relying on small-scale solar or offshore wind, which are quite a bit more expensive than the resources that we have across the region.

SENATOR ZWICKER: Got it.

And, my last question was -- and, you said it quickly, but just come back.

So, nuclear right now is a little bit under 40%. The reason for not (indiscernible) advanced nuclear -- too risky technically, too risky economically?

DR. JENKINS: No, it would be fully permitted under this statute to meet the 100% carbon-free electricity requirement, or the clean electricity requirement. Both the reliability goals and the annual volumetric goal.

SENATOR ZWICKER: I thought there was a cap on nuclear--

DR. JENKINS: There's a cap on *existing* nuclear contributions, yes--

SENATOR ZWICKER: On existing, OK--

DR. JENKINS: --that does not apply to new nuclear. It's designed, effectively, to ensure that the ZEC Program -- if it were to terminate -- would be replaced by clean electricity attributes. So, basically the existing plants can be assured to contribute to the 100% goal.

We really-- Given that it's a short timeline, 12 years, there's no way we can meet that goal if we're also trying to replace all of the existing nuclear plants at the same time. It just wouldn't be possible.

SENATOR ZWICKER: Right. Thank you.

Thank you, Chairman.

SENATOR SMITH: So, is there another question?

SENATOR DURR: Yes.

SENATOR SMITH: Senator Durr.

SENATOR DURR: You said earlier that energy wouldn't have to always come from clean energy. And, why is that?

DR. JENKINS: So, the way the law is written -- and, this is true for the renewable portfolio standard as well -- basically, utilities have to purchase these clean energy attributes at some point in time, generated at some point in time, summed them up over the course of the year and have those meet the target.

SENATOR DURR: It wouldn't be because--

DR. JENKINS: So, it's an annual goal, not an hourly, hour-by-hour operational requirement.

And, what that means is that it doesn't interfere with the grid operator's job, which is to keep the lights on. So, if they say that we need a natural gas plant running in New Jersey to meet those needs, then that plant will operate.

SENATOR DURR: And, these providers outside of the state -- are they clean?

DR. JENKINS: Say that again?

SENATOR DURR: You said we're getting outside-of-the-state providers, also.

DR. JENKINS: So, when a gas generator in the state is operating, effectively it's electricity to be claimed by suppliers and other states that don't have such ambitious clean-electricity targets, and then we would make that up by purchasing more solar and energy at a different period of time.

SENATOR DURR: All right, thank you.

SENATOR SMITH: Maybe the clarification is that when the grid is stressed, every air conditioner in the State of New Jersey is on -- which, by the way, is coming, part of global climate change -- the utilities or the

generators are going to be able to flip on gas-powered plants as peaker plants. If they don't do it, the grid would fall.

So, there's not an outlaw of gas plants, it's just they'll have a different role.

DR. JENKINS: Yes, exactly, and you have to remember--

SENATOR DURR: Why don't we just invest -- you spoke earlier of it -- the SMRs? Why don't we pass that bill and investigate that?

SENATOR SMITH: SMRs, I believe, are in our future.

SENATOR DURR: They're clearly in our future. Nuclear is--

SENATOR SMITH: And, by the way--

SENATOR DURR: --nuclear is the way to go--

SENATOR SMITH: --when we have that hearing, they'll have three times as many people here. We're going to need the War Memorial for that hearing.

But, nuclear is definitely -- I think nuclear is in the future.

DR. JENKINS: And, it would qualify for this legislation as well.

SENATOR SMITH: So, the elephant in the room is the impact on labor. I'm sure we're going to have some witnesses saying, "We are very concerned about this because we're afraid we're going to lose labor jobs in New Jersey." I heard you use a 24,000 employment figure -- 24,000 families that would be participating in this economy.

Tell us more about that. Why are you so confident that that's the case?

DR. JENKINS: So, the bill would rely largely on large-scale solar and offshore-wind projects. Those are greater than a megawatt in size; those

would be required to be met by prevailing-wage jobs, and the bill would add apprenticeship requirements that match the Federal requirements as well.

So, between the requirement to meet those standards to get the full Federal tax credit in this law, we can be assured that all of those jobs are going to be prevailing-wage jobs and create pathways into employment through apprenticeship. I can't guarantee those are all union jobs, but there is certainly a requirement to pay prevailing wages that allow union labor to be competitive in those contexts, and we know that unions are actively involved in the deployment of large-scale solar and offshore wind today.

So, what's important to note is that this is the motivation for the grid modernization act. Demand for electricity is going to be growing steadily from here forward as we electrify vehicles; as we produce hydrogen; as we run heat pumps to heat our homes and businesses. So, we're coming out of an era when demand has been basically flat, into one where we're going to see sustained growth and electricity demand going forward.

So, if you combine that sustaining growth with a requirement to increase the amount of generation from clean sources -- including those within the state -- we're going to see a steady expansion of employment opportunities and investment within the clean energy sector in New Jersey. So, that should be positive news for labor and for employment generally in the sector.

SENATOR SMITH: Appreciate your comments.

SENATOR GREENSTEIN: Mr. Chairman, I have a question.

SENATOR SMITH: Yes, Senator.

Go right ahead.

SENATOR GREENSTEIN: Professor, thank you for your testimony.

One question I have: We've all agreed that the grid needs a lot of work and it's going to be very expensive. We don't have all the money yet for it, even though we're going to try to make a start.

How does that dovetail into meeting these goals? Because, I don't see how it's going to work.

DR. JENKINS: Yes, so, it's an important compliment to this. I mean, I think it's important to note that the State can only do so much in that regard. I think the Grid Mod. Act is an opportunity to do more in that regard.

But, ultimately, it's the utilities, the BPU, and the PJM Interconnection who are responsible for ensuring that we expand the grid, that we meet all of our reliability needs, that we can connect new resources affordably and rapidly. There's been a lot of effort along that front, a lot at the regional level; and more at the state level as well. And, so, this would provide further direction and clarity to the grid operators and to the State as to where we're going as a state and our role within the regional grid, and I think more motivation to solve those issues going forward.

SENATOR GREENSTEIN: But, there's no guarantee, like, it doesn't--

DR. JENKINS: There's no guarantee. I mean, this statute itself addresses the supply side, it doesn't address the transmission and distribution side. Again, the Grid Mod. Act can help with that in the next session.

SENATOR GREENSTEIN: And, I just want to make sure I understood. You said that-- the way I read the bill, there was a 40% cap on the use of nuclear facilities.

DR. JENKINS: From existing nuclear facilities. Effectively the, the--

SENATOR GREENSTEIN: So, new ones would have 100% nuclear.

DR. JENKINS: Yes, the new ones don't-- The new ones are upgrades to our existing plants that increase their generation, are able to qualify for the new supply that is needed to meet the standard.

What it's basically trying to say is that if we -- if the current ZEC Program continues, you would basically take a ZEC and you would use that to reduce the requirements under the clean electricity standard. If the ZEC Program goes away, then basically the same amount of generation that we get from our nuclear plants today, existing plants, could qualify instead for clean energy attribute payments. So, it basically would transition right into helping meet the clean electricity standard directly instead of through the ZEC Program. So, that cap doesn't apply to new generators.

SENATOR GREENSTEIN: Thank you.

SENATOR SMITH: Thank you, Senator.

And, I appreciate all the help; we're going to need more.

DR. JENKINS: Yes, happy to help.

Thank you very much.

SENATOR SMITH: Well, what I'm saying is don't take a position at the University of Minnesota. Stay here, please.

DR. JENKINS: (laughter)

Not going anywhere.

SENATOR SMITH: OK, so we have a -- let me get rid of a whole bunch of slips of people who have a position but they don't want to testify.

So, for the record, Kevin Hennessy, Mainspring Energy -- in favor, no need to testify, written testimony has been submitted. Crystal Pruitt, Atlantic Shores Offshore Wind -- in favor, no need to testify. Rob Gibbs, NRG Energy -- in favor, no need to testify.

Ben Ghiano, Mid-Atlantic Renewable Energy Coalition and American Clean Power -- in favor, with amendments. Oh, he may want to testify, we're going to keep that one around.

Christine Clarke, just individual -- in favor, no need to testify. Rosemary Grace, Empower New Jersey -- in favor, no need to testify. Jennifer Nielsen, Empower New Jersey -- in favor, no need to testify. Tom Gilbert, Rethink Energy New Jersey -- in favor, no need to testify. Doctor -- oh, she wants to speak.

So, for those were the only ones with "no need to testify." And, we do have people both in favor, opposed, and neutral. So, I'll try to do one from each so that we get a little view.

Ray Cantor, NJBIA -- opposed.

Ray.

MR. CANTOR: Thank you again, Mr. Chairman, members of the Committee.

Ray Cantor, NJBIA.

We were opposed to releasing this bill here today because we have significant concerns with doing this bill at this point in time. We only received the bill last Thursday, by the way, so I'm reserving my rights to raise

more technical amendments later on after we go through the bill in a bit more detail to see how it actually would work on the ground.

We understand the bill is going to be second referenced. If that's the case, we definitely support that; the bill needs more consideration. But, we would ask that this Committee not release the bill here today.

We have concerns, generally, with setting artificial deadlines to meet artificial goals in a period of time that may not be practical or implementable. When you do that, you end up making decisions that may not be the most cost effective; the most technologically feasible; and the best public policy. You're driving decisions based on deadlines put in law and not necessarily what's realistic economically or on the ground technically.

I think the lessons of the last several weeks with Ørsted canceling their projects; what we're seeing in Germany where they're actually de-industrializing their economy and actually bringing more carbon, because they're relying on wood now and other carbon resources and more coal, because they have set up artificial deadlines and tried to meet them, and it just doesn't work on the ground.

So, we caution this Committee to be more circumspect; to be more -- to take its time, and to make sure that we get these things right. We have the opportunity right now -- again, I notice the Chairman, you hate the term "to slow down" -- but we think we should be slowing down a bit to make sure that we get it right. We had a bill right before, and we realized, to your point, Senator Stanfield, "it's the grid, it's the grid, it's the grid." Setting up a system right now that's going to accelerate renewables, theoretically in New Jersey, when we don't have the grid to deal with, when we just had two major wind projects pull out, is not the time to be putting the pedal to the metal.

It should be the time where we stop; we analyze; we plan; we allow technologies to develop. We have our cost estimates in mind so we know what this is going to cost. Again, 12 years is a very short period of time, especially when we're talking major infrastructure projects.

Again, we have concerns with moving jobs out of state. And, I think, despite the provisions in this bill which seeks to have more jobs in-state, if we don't have the infrastructure to be able to hook up those solar developments, we are really just driving those jobs, monies, everything else out of state.

I will point as well -- and, I will be -- correct me if I'm wrong -- but the bill does not require that gas power plants in New Jersey close down or be only for peaker plants. Those gas power plants -- which are here right now, and more can be built -- sell directly to the grid, not to utilities. So, we're not even sure what this will do from a carbon perspective.

You know, additionally -- and, it was just mentioned by the Professor -- we are going to have to double or triple our amount of electric generation moving forward. Once you put in a 100% renewable standard, not only are we going to have to meet our existing needs, but also our double and triple-- Again, we just don't think it's feasible. So, what we ask this committee to do is to pause. Let's take a step and plan things better; let's take the step to analyze cost better; and, we will eventually have a decarbonized and clean-energy future. But, setting artificial deadlines to get there just doesn't work.

Thank you very much.

SENATOR SMITH: Ray, thank you for your comments.

More slips that don't need to testify, but for the record.

U.A Plumbers and Pipefitters Local 9 -- opposed, no need to testify. Mark Longo, EUEC 825, Operating Engineers 825 -- opposed, no need to testify. New Jersey State Council of Sheetmetal Workers -- opposed, no need to testify. Jen Godoski, New Jersey Natural Gas -- submitting amendments; opposed, no need to testify. Abby Adams, Associated Construction Contractors -- opposed, no need to testify. New Jersey State Association of Pipe Trades -- opposed, no need to testify. Carol Katz, WIN Waste Innovations -- written statement submitted, opposed; wants amendments, no need to testify.

OK, in the category of the plus side, Dr. Rebecca lu-bot -- lu-boat? New Jersey Sustainable Business Council -- in favor.

Dr. Lubot, are you here? Am I saying the name right?

R E B E C C A L U B O T, Ph.D.: Dr. LeBot, but anything within reason.

SENATOR SMITH: OK, thank you.

DR. LUBOT: Good afternoon Chairman Smith, Vice Chair Greenstein, distinguished members of the Committee, and staff.

My name is Dr. Rebecca Lubot, I am with Lubot Strategies, and I am testifying on behalf of the New Jersey Sustainable Business Council.

NJSBC is a state affiliate of the American Sustainable Business Network. ASBN and its association members collectively represent over 250,000 businesses nationally. While these companies reflect a diverse mix of size, geography, and industries, they all share a commitment to advancing the combination of market innovation and policy change to create a more just and sustainable economy. The businesses in the network are leading the transition from a narrow focus on maximizing short-term profits for shareholders to a broader definition of success that creates value for all key

shareholders within a triple bottom line framework of people, planet, and profit.

The transition goes hand in hand with the transition to a clean-energy economy. Both transitions are addressing increasingly urgent needs. Both are creating opportunities for shared prosperity, improved public health, and a cleaner environment for our families and future generations. That's why NJSBC is a proud member of the Clean Energy Jobs New Jersey Coalition, and shares the Coalition's policy position on S2978 to support a 100% clean energy standard that improves air quality by reducing emissions, supports in-state job creation, provides cost savings, and improves public health.

The Coalition supports, one, strong job and labor provisions to support the creation of in-state jobs, and a high in-state generation requirement; and, two, a strong definition of clean electricity production facilities that excludes facilities that emits co-pollutants or engage in trash incineration. Public health must be central to the meaning of clean energy, and the bill must prioritize the protection of environmental justice communities. No new facilities or additional pollution should be allowed in overburdened communities.

In short: Clean *must* mean clean. New Jersey Sustainable Business Council applauds the Legislature's efforts to codify New Jersey's nation-leading goal of 100% clean energy by 2035, which is critical to climate-change mitigation. This codification will create policy certainty, ensuring that New Jersey continues to be a competitive place to do business. It will send a clear message that the State is open to clean-energy investment

over the long term, thereby attracting both new investment and innovation. And, it also will promote energy efficiency throughout the supply chain.

The New Jersey Sustainable Business Council supports S2978, and appreciates Senator Smith's leadership and the Committee's efforts towards creating value for all stakeholders within that triple bottom line framework of people, planet, and profit.

Thank you.

SENATOR SMITH: Thank you for your comments.

In the category of neutral, I think Ed Potosnak, I'm going to put you in that category. I think you're saying amendments.

MR. POTOSNAK: Thank you, Senator, I really appreciate your tenacious leadership on addressing climate change for all the reasons we know -- more frequent intense storms, and the damage and the cost that comes to our families.

We are strongly supportive of the legislation, but also we're seeking amendments around the definition. And, some other partners have concerns, and we'll work with you sort of offline in the process, and we appreciate the opportunity to do that.

This bill will reduce pollution, create good local jobs, and, as you heard from Professor Jenkins, that our prevailing wage, predominantly union jobs here in the State of New Jersey and improve our public health, reducing asthma and cancer. And, as we saw with the Canadian wildfires, a lot of folks rushed to the emergency room: trouble breathing; heart problems. Pollution is really affecting our communities, and with the Canadian wildfires we could see the pollution. There are communities in New Jersey that have that pollution all the time, but you can't see it. And, those health effects,

predominantly people of color in low-income communities, are real, and that's why the asthma rates are much higher. And, this has an opportunity to pass, to change that, and boldly address climate change.

I want to just be clear about this: This legislation will save lives. There's no doubt that people in New Jersey are suffering, and, in fact, a number have perished because of climate change. So, to set the stage, I'm going to build on what you said, Senator. New Jersey is on tap to, in law, to get 84% of its energy from clean-energy sources by 2030 already. So, we're just talking about the last 16% in this legislation and how we get there. And, how we plan, today, for a predictable, reliable future for tomorrow. And, that's important. And, that's roughly 6% more clean energy every year to get to that 2030 number.

In addition, the Governor said, as well as you mentioned, to 100% clean energy by 2035, we need to get that in law. So, again, businesses know exactly where we're going, but that's something that's important. And, this legislation is really dealing with the last five years of 2030 to 2035. And, what it would require is 3% more clean energy over those remaining five years with the 6% for the preceding years on our way.

The way I see it, is if this bill is not passed, then we could see good local union jobs be lost. Currently, there are some minimum requirements for in-state electric generation, but there's not as specific a relation to that, and this legislation wants to change that. So, energy could be falling currently, under law, for that 84% from other places. And, I love New Jersey, so I want those jobs here as much as anybody else.

And, just to give you a sense of how many jobs that is -- I'll just put it simply: 600% more jobs than solar currently employs under this legislation. And, that's a big number. And, that's important.

So, in the last 10 years, New Jersey experienced the three hottest years on record, with frequent, intense storms battling our communities. I have neighbors in my community still out of their homes from Hurricane Ida. And then, in addition, Hurricane Ida tragically lost four lives in Elizabeth, New Jersey. These are people of color with limited mobility who were living in low-income housing who couldn't get out in time because of the flooding.

And, so, I just want to go back to the fact that this legislation will save lives, and I am ready to continue to push forward and bring everyone together so we can protect New Jersey for future generations from what we know is already happening in the climate space, but also in the public health arena and save the lives of every New Jerseyan so they don't have to become a victim.

Thank you.

SENATOR SMITH: Ed, if you wouldn't mind, maybe send us your background information for the comment that you made, that you see 600% more jobs than we currently have.

MR. POTOSNAK: That could be (indiscernible) math, but I'm happy to do that.

SENATOR SMITH: What is the projection based on. OK?

All right, next witness: In opposition, Jennifer Mancuso, New Jersey LECET and New Jersey Laborers - LIUNA. In opposition.

Jennifer.

JENNIFER MANCUSO: Thank you, Chairman.

So, good morning; my name is Jennifer Mancuso, and I am the Director of Government Relations for New Jersey LECET, which is a labor management fund representing the 25,000 members of the New Jersey Laborers, and our signatory contractors here in New Jersey.

I am here today to express our concerns that we have with the bill, but I want to begin by saying that we certainly support the goal of transitioning away from fossil fuel use and achieving genuine decarbonization in the State.

We commend Senator Smith and the members of the Committee for all the work that we've done in this area thus far. We certainly have taken very meaningful steps to achieve that goal.

We are concerned, however, that this bill, as written, is not going to achieve a genuine decarbonization of our electricity production, and we are concerned that it does not adequately prioritize a generation of in-state clean energy.

I want to provide a bit more details about the specific positions that we're concerned with. This bill creates a mechanism, ZEC, that requires providers and suppliers to cure and retire credits to meet their clean energy and carbon-free goals. The current bill requires 65% of the State's electricity demand to be met from in-state, clean electricity production facilities -- but, the remaining 35% may be met through the purchase of ZECs from out-of-state facilities. But, there are no requirements that these facilities produce *new* sources of clean energy. These facilities are permitted to have been in operation for years. So, we're eliminating reductions and overall carbon emissions through the production of clean energy sources.

So, in effect, providers and suppliers would be committed to meet their clean energy goals without assurance that we're creating new additional sources of clean, renewable energy. And, by allowing for the purchase of ZECs from out-of-state providers, the bill is *not* prioritizing the development of clean sources of energy here in New Jersey.

So, we're concerned about job suppression and job growth in New Jersey. What we also find troubling is that the bill provides considerable discretion to the Board of Public Utilities to procure additional electricity from out-of-state production facilities if BPU determines that the State is not able to meet that 65% target of generation of in-state clean-energy production. Again, we are very concerned about job loss and diminished opportunity for economic growth from out of state.

We are also concerned that this bill could inadvertently deter the development and utilization of new sources of energy that emit significantly less carbon emissions than traditional fossil fuel sources but may not meet the very strict definitions and energy standards that are outlined in this bill, such as hydrogen.

Again, I just want to stress that we certainly want to achieve our state's clean energy goals; we truly want to decarbonize. Please don't take anything as I'm saying that we don't want to achieve those very important goals that we've laid out here today. But, we want to do so by prioritizing in-state clean-energy sources of clean-energy production.

So, thank you very much for listening to our thoughts. Thank you, Senator, for meeting with us, and I look forward to our continued discussions.

SENATOR SMITH: Questions from Committee members? (no response)

So, one thing we have to get resolved is two different kinds of testimony here about jobs. One kind is, we're going to have more jobs than we'll know what to do with as a result of the clean-energy industry, and the testimony that you're now presenting which is, we're going to have less jobs -- or, less union jobs. Either way.

Maybe what I need is the octagon, you know the octagon in cage fighting? We'll put the union guys and the environmental guys in one room, and we're going to lock the door, and somebody is going to come out with an answer.

But, I really would appreciate anybody's actual background. What is the basis of your -- the thematic that we're going to lose union jobs? I mean, I've talked to like, 75 experts, and they're all of the same opinion, we'll have more electricians, more pipefitters, more everybody than ever before.

So, I'm not quite sure what it's based on, other than fear of the unknown. But, I do appreciate your point of view. It's out there.

MS. MANCUSO: And, I would certainly like to engage in those discussions. I would like to get in more comfortable shoes before I get in the octagon, but, you know, (indiscernible).

Thank you.

SENATOR SMITH: Yes, five-inch high heels, I think was the phrase.

OK, so, in favor -- NRDC, Eric Miller. Mr. Miller.

And, by the way, what time is it?

DR. GURRENTZ: Twelve fifteen.

SENATOR SMITH: Twelve five -- five-oh? Twelve one-five -- oh, it's early.

Come on in, but be succinct.

MR. MILLER: I will be succinct.

Chairman Smith, members of the Committee, thanks for the opportunity to testify today.

My name is Eric Miller, I am the Director of New Jersey Energy Policy for the Natural Resources Defense Council, or NRDC. NRDC is an international environmental nonprofit. We spent decades working on clean energy policy with dozens of states, and at the Federal level. We have a lot of experience with these types of policies -- most recently in Illinois and Michigan, which passed similar legislation, obviously with their own in-state flavor, because every state is different.

I am very excited to be here today on behalf of our more than 3 million members across the globe -- 10,000 in New Jersey -- to voice our strong support for this legislation. And, I want to make sure I focus on things today that might be new, that are supported by NRDC's analysis.

So, I will note that NRDC strongly supports the testimony provided by Dr. Jenkins, as well as the supportive testimony from other environmental organizations. After evaluating this bill, NRDC has concluded that, by every measure -- jobs, affordability, the economy, the climate, and public health -- New Jersey is better off *with* this legislation than without it.

And, I know that folks in this room came here with different understandings of what the status quo of electricity generation is, as well as the potential impacts of this legislation. One of the most important things I

urge this Committee and others to keep in mind when evaluating this bill is this: New Jersey is not -- and, never has been -- a traditional energy powerhouse. With this legislation, we could be a clean energy powerhouse, though, and that's something to consider.

To explain this more, New Jersey is part of a 13-state regional grid called PJM. PJM coordinates the wholesale electricity market, and ensures that we have sufficient resources to keep the lights on. We derive immense value from being part of PJM, by way of costs, affordability, and reliability. However, as I said, we're not a big player in the PJM energy markets. And, I don't mean that as a dig, but it's something we should think about when we're looking at legislation like this.

As it stands, New Jersey is a net importer of electricity from all sources. That means whenever we flip on a light switch, a portion of that power comes from PJM fossil-generated electricity and clean electricity. We also extract no fossil fuels inside our border. Contrast that with our closest neighbor, Pennsylvania. They're the largest electricity exporter in the country. They are the second-largest producer of natural gas in the country. They produce about 20% of it. In a purely competitive free market, anything you could ever want to build in New Jersey, you can build in Pennsylvania for a lot cheaper.

And, I'm not proposing that we do that. Like everyone else here today, NRDC cares deeply about building the clean-energy economy here in New Jersey, and providing jobs here in New Jersey. The reason I say that is to bring light on something that is pretty clear to me, and I hope will be clear to everyone else: Is that, but for policies like this legislation that we're considering, or legislation we've already passed, like the Clean Energy Act of

2018 or the Zero Emission Credit Program for our nuclear fleet, we would produce even less electricity in New Jersey. A purely competitive market, we buy from PJM almost every time. The only way to shift that needle back into New Jersey is through policies like this legislation.

And, so, the thing I think we're all trying to balance here is, how do we keep affordability and reliability at the forefront, but maximize our in-state job creation, or economic development, and having resources within the borders of New Jersey? We strongly believe that this legislation finds that balance. It utilizes a technology-neutral regulatory framework to achieve 100% clean electricity standards, and it's fairly simple in its function. If you can generate clean electricity, you can get credit for it. It's a very flexible approach to this type of target, and it will encourage new and emerging technologies and, very importantly -- and, this wasn't a point I was looking forward to make, but it needs to be made -- is this type of standard is durable; because it's technology neutral, no single project -- and, I'm sure you can infer the single project that I'm talking about -- makes or breaks our ability to achieve this, *and* achieve this affordably. And, importantly, it sets a 65% in-state generation target. I understand folks think this might not be enough, but it is a *massive* increase from our current level, which is only 25% in-state clean-energy generation.

So, to state all of this very simply: If clean energy is a pizza, New Jersey gets a much larger pie at a much lower price, and we get a lot more slices than we do today. And, I know we're looking for information to underpin these conclusions, so I am happy to say that NRDC did its own modeling run using our integrative planning model, as well as modeling done

by the Rhodium Group, looking at the impact of the Inflation Reduction Act on clean energy build-out across the country.

Here are the top-level conclusions from that -- and, I'll also note, we conducted this modeling run *after* the Ørsted announcement. So, this is without, or with a delay in, our first couple of wind projects.

So, we found that 100% clean electricity targets *can* be met through a diverse set of resources, and will decrease CO2 and (indiscernible) emissions over the next 10 years. We found that our current renewable portfolio standard of 50% by 2030, as well as our nuclear fleet, make us very well-positioned to take the incremental step to reach 100% clean electricity. As stated earlier by Dr. Jenkins, we keep our existing nuclear fleet, and -- this pains me to say as an environmentalist, but it's true -- we keep our gas fleet online for reliability and affordability purposes.

Now, to address head-on the point that maybe this won't reduce CO2 as much as we want: Could not disagree with that more. Every megawatt hour of clean-energy generation displaces a megawatt hour of dirty generation. So, even if it's running at night; during the day; on a Tuesday, on a Wednesday; less pollution, less carbon with every additional megawatt of clean electricity on the grid.

Our modeling also found that this legislation would increase our total in-state generation. And, this is the kicker; this one surprised me when we looked through these numbers: This legislation reduces our total electricity imports. I don't just mean clean energy, I mean the amount we import from PJM. At any given time, that's like 15%, 20% -- some years, it's been closer to zero -- but, historically, we import power; this brings that

number down. It also reduces our imports of out-of-state clean electricity, as I already said.

I guess the last parting thought -- and, I will provide this analysis to the Committee and anyone in the room who wants to see it -- I want to state that affordability and in-state generation are not binary; it's not a yes-or-no proposition; we don't need to choose between all out-of-state or all in-state. It is a spectrum. And, we can get the balance right, and tilt the scale in favor of New Jersey benefits, New Jersey jobs, and, also, the environment carbon reduction. We think this bill is probably the best we've seen in the country to achieving that, and we have the opportunity to achieve that with once-in-a-generation investment from the Inflation Reduction Act.

And, for that reason, NRDC strongly supports this bill and is happy to take any steps necessary to assuage fears or answer questions.

Thank you.

SENATOR SMITH: Thank you for your comments.

SENATOR DURR: Excuse me.

SENATOR SMITH: Yes, Senator Durr.

SENATOR DURR: Correct me if I'm wrong. You said that anything New Jersey could provide, we can get it out-of-state cheaper, right?

MR. MILLER: Yes, that's correct.

SENATOR DURR: Because Jersey is unaffordable.

So, basically, what you're saying is we need to pass legislation to force everybody to buy Jersey.

MR. MILLER: I would disagree with the framing of that, only to note that Pennsylvania--

SENATOR DURR: Is cheaper--

MR. MILLER: --has probably the most unique geologic outcroppings in the world, in terms of the Marcellus shale and long history of coal that very few states in the country have, and very few states are competitive with, and probably every state on the eastern seaboard cannot compete with Pennsylvania on--

SENATOR DURR: --But, you agree we should keep the natural gas.

MR. MILLER: I agree that we benefit from being next to Pennsylvania, but that we need to take careful policy steps to essentially derive the benefits we want to--

SENATOR DURR: What about expanding nuclear?

MR. MILLER: Yes, that is an option we should consider, and we should consider the cost of doing so.

SENATOR DURR: And, you said you did this study even after Ørsted pulled out?

MR. MILLER: Yes.

SENATOR DURR: What about when Atlantic Shore pulls out unless we give them another billion dollars?

MR. MILLER: We did not do the modeling, the hypothetical, if Atlantic Shores does not move forward. But, as designed, we're pretty confident this legislation could absorb, again, a land war in Europe, the global pandemic -- we're fairly confident it's resilient enough to meet our targets.

SENATOR DURR: All right, thank you.

SENATOR SMITH: Senator Zwicker.

SENATOR ZWICKER: Thank you.

I know you said you just did your modeling recently, so I don't know whether you'll be able to answer this question, but a couple of things.

Number one, this is an economic model? Or, it includes an economic component--

MR. MILLER: It does include economic components, yes.

SENATOR ZWICKER: Have you, in any of the preliminary results, compared it to Professor Jenkins and his team at Princeton's model? Do you see consistency?

MR. MILLER: We see, actually -- and, this is further back in time, not this most recent run, our bigger modeling run that our science team did -- came out pretty much lockstep with Dr. Jenkins and the ZERO Lab's modeling. And, that had nothing to do with inputs or looking at his study then doing our study; our data scientists at NRDC who worked on this just happened to come to the same conclusion, and hold the ZERO Lab work in very high regard as well.

So, they are very, very similar; they might be off by a couple hundred megawatts here or there; but they look functionally the same.

SENATOR ZWICKER: Got it.

And, then, a question echoing some of Chairman Smith's comments. You said something that I thought was really important to say, "Currently we're at roughly 25% in-house generation." This gets us to 65%, so that's obviously an enormous step upwards towards saving jobs, etc.

In your modeling, do you -- I asked the same question to Professor Jenkins -- is this roughly two-thirds, one-third the both technically and economic sweet spot? Is that where you conclude? Is it -- where would you put that when we're trying to balance all these competing factors?

MR. MILLER: I would say, based on everything we have seen, 65% seems to be the level that doesn't give me tons of concern that we're going to wake up one day and have very expensive electric bills. Every percentage we start to go over that, we need to be a lot more mindful of the potential costs on ratepayers.

And, again, I do agree with Dr. Jenkins' points that a lot of this also depends on, does this bill not go smoothly as we thought? Maybe we underestimated that floor and it is higher. But, I think we're confident today that that's a pretty good number to target.

SENATOR ZWICKER: Thank you; thank you, Chairman.

SENATOR SMITH: OK, thank you for your comments.

I think in the category of neutral, I think it's neither in favor or opposed, is Debra Coyle, New Jersey Work Environment Council.

Are you here?

DEBRA COYLE: Good afternoon; Debra Coyle, Work Environment Council; I'm the Executive Director. We're a coalition of labor, community, and environmental organizations.

We're very supportive of moving towards a clean-energy future in the bill. Thank you, Senator, for all your work on this.

But, as some of our partners, have stated earlier, we do have concerns about the in-state and the jobs piece. We want to make sure that we take this opportunity as we're moving to a clean energy economy to make sure we're putting as many New Jerseyans to work as possible, and careers into clean energy. We want to make sure that they're good paying jobs.

So, we are very supportive of the goal, but we think there needs to be a little more work on the jobs and the in-state generation piece.

Thank you.

SENATOR SMITH: Thank you for your comments.

Gus Escher, in opposition, from MSSIA.

G U S E S C H E R: Good morning.

SENATOR SMITH: Morning.

MR. ESCHER: Chairman and Senators, thank you for the opportunity to speak this morning.

My name is Gus Escher; I am on the Board of the MSSIA -- Mid-Atlantic Solar and Storage Industries Association. We're the leading trade association here in New Jersey and in Delaware and Pennsylvania. We're Mid-Atlantic.

I am here, really, to talk about one thing -- and it's been touched on by others who preceded me -- is the issue of in-state and out-of-state, which is a very critical issue. One of the things I also do is -- founded a nonprofit about 10, 12 years ago, and we've done a lot of work in the nonprofit on policy issues and working with members of this Committee, actually, and trying to broaden the impact on renewables here in New Jersey for everybody. And, that's really the everybody part of my comments this morning, have to go to be sure that the benefits of the programs stay here in New Jersey.

My role this morning is really a small one: it's to speak about five points. And, these five points are just examples for you all that the benefits here in New Jersey are a lot more than just jobs. And, it's really, if you add it up, the five programs -- the five possibilities that I'm going to mention -- you'll begin to see why this program really does want to be, I would say, limited to New Jersey investment, and it should be totally

(indiscernible). Setting aside what the professor has said, it's just a question of policy. And, policy gets pretty quickly back to people.

Five points. First point is community solar. It's probably better here in New Jersey than it's been in any other state. We can thank this Committee and this Governor. Community solar goes-- It's a facet of the solar PV generation that a facility will be built in a certain area, say on a rooftop of an existing factory, and instead of all the benefits that go to that project, will be in that building by that owner who could live in New York. Community solar says, "Wait a minute, we're going to take some of the benefit that's going on in that building, and we're going to tell the owner, 'you have to distribute those benefits to the low- and moderate-income folks in your neighborhood.'" You can choose the municipality, you can choose the municipality-plus -- whatever. And, it's a great program; it's worked extremely well, and the BPU gives you priority if you're a community solar project. And, you do it by application, and you have to do it by award.

By 2035, we estimate that if we do that kind of project, community solar, here in New Jersey -- New Jersey, New Jersey -- we will be benefiting 50% of the low- and moderate-income households in New Jersey.

SENATOR SMITH: Gus, why does that affect-- Why is this bill affecting them? We are increasing community solar in this state--

MR. ESCHER: Yes--

SENATOR SMITH: --much bigger numbers than the bill that's currently before the Legislature; it's going to go up by triple.

MR. ESCHER: Great.

SENATOR SMITH: Why does this prevent community solar from going forward?

MR. ESCHER: Why is it preventing--

SENATOR SMITH: Why does this bill prevent community solar? I'm trying to understand--

MR. ESCHER: No, no, this bill doesn't--

SENATOR SMITH: -- why it's relevant to the bill.

MR. ESCHER: I'm trying to give you five points about why we want this activity here in New Jersey.

SENATOR SMITH: We're committed to community solar. We voted for it 10 times already.

MR. ESCHER: Well--

SENATOR SMITH: We're talking about *this* bill. What are your concerns about this bill?

MR. ESCHER: I'm sorry -- in the bill, it allows for the satisfaction of the requirements here in New Jersey to be solved by going to other states--

SENATOR SMITH: By *some* out-of-state--

MR. ESCHER: It's an out-of-state problem--

SENATOR SMITH: Well, it's not an out-of-state problem.

MR. ESCHER: Well, it is for me.

SENATOR SMITH: Well, it shouldn't be.

It's 65% in-state generation, and our in-state generation currently is at 90% and they stay that way, just because we have location, location, location.

But, above and beyond all that, it's not relevant. If you're saying the electricity-- It doesn't matter where the electricity comes from community solar--

MR. ESCHER: Well, let me ask you--

SENATOR SMITH: The only thing that matters is we give the discount to the low- and moderate-income people.

I'm just trying to get you on the bill.

MR. ESCHER: I'm trying to speak to the bill, and thank you.

The 65% is an invention, OK -- it's not a requirement. It's an estimate by the gentleman who was before me, and by the professor. And, I respect that--

SENATOR SMITH: But, how does community solar get hurt by this bill? What's your point?

MR. ESCHER: The point is, the bill should require a certain amount to go in-state. Some people say 100%; you said that if you leave everything alone, it's going to be 90%. Why can't we say we're a bill--

SENATOR SMITH: We're discussing what the appropriate percentage is. But, don't use community solar as a reason to do or not do it; that program is being pushed very hard in this state, and it's irrelevant to the bill.

Next point.

MR. ESCHER: I guess I was going to give you five points. Micro grids is another one this bill doesn't touch on. But, what happens is, if you do things in New Jersey, you'll get the benefits of dual-use, tons of-- I'm trying to demonstrate to the Committee that the benefits from in-state are much more than just simple, simple -- very important -- employment; jobs.

So, my task here is to try to say this, the program as it is, does some tremendous things. Let's keep it in New Jersey. And, it's worth -- New Jersey work is worth a lot more than just jobs. That's my pitch.

SENATOR SMITH: OK.

MR. ESCHER: And, if that's sufficient, then it's sufficient.

SENATOR SMITH: Got it.

MR. ESCHER: But, I just-- We're concerned, and that's our job as a trade association. We're concerned that all of the activity could go to Georgia, because it's so cheap down there. So, we're going to get other players in this, and it's going to-- All these benefits that I wanted to tell you about, all of those would go to Georgia--

SENATOR SMITH: We're committed to them. We're committed to all the renewables that we can get into the state as quickly as we can get them. And, we do so because we love the wonderful impact that this new energy future has on our state.

So, you don't have to tell us about how good the programs are. That's not going to win any prizes.

MR. ESCHER: OK, so we all like the programs.

I guess my final point is percentage. Where, as you said, this really comes down to what we want, and the percentages that have been mentioned, I'm just saying, are estimates by professionals. That's wonderful; I do that myself.

SENATOR SMITH: OK.

MR. ESCHER: But, there's no guarantee there, and it would be great to have that in the legislation.

SENATOR SMITH: Thank you for your comments.

MR. ESCHER: Thank you very much, Senator.

SENATOR SMITH: I think-- Any questions? (no response)

OK, I think in favor--

MR. ESCHER: Thank you--

SENATOR SMITH: --with amendments, Anjuli Ramos-Busot -
- New Jersey Sierra Club.

A N J U L I R A M O S - B U S O T: Is it still the morning, or is it the
afternoon? I don't know.

SENATOR SMITH: I think it might be--

DR. GURRENTZ: Afternoon.

SENATOR SMITH: And, by the way, I forgot -- I forgot to be
critical of the National Defense Resource Council for talking about pizza at
12:15. Outrageous.

(laughter)

MS. RAMOS-BUSOT: Thanks, Eric.

SENATOR SMITH: Go ahead.

MS. RAMOS-BUSOT: Good afternoon, Chairman Smith, Vice
Chairman Greenstein, members of this Committee; thank you for the
opportunity to speak.

My name is Anjuli Ramos, and I am the Director of New Jersey
Sierra Club. Today, I am speaking on behalf of over 80,000 members from
the support (indiscernible), that, above all, are eager and demand a future
that we no longer rely on fossil fuels.

Thank you, Senator Smith, for your incredible leadership in
tackling climate change head-on.

The New Jersey Sierra Club supports the New Jersey Clean
Energy Act of 2023 with the addition of amendments. But, I'll get to that;
first, I'll give you a little bit of background.

As we all know, New Jersey is on track to achieve 75% of its annual energy usage by 2025, and 84% by 2030 through renewable and nuclear energy. While these are impressive goals and achievements to be proud of, it is essential to take it to 100%. One hundred percent of the electricity we consume should come from renewables and clean energy sources so that we can continue to displace fossil fuels and pollution in our grid. It is also imperative to do this while maintaining affordability so that low- and medium-income households are not disproportionately impacted by unaffordable energy burdens. Our state is already one of the most expensive states to live in this country. Therefore, New Jersey must maintain an intentional balance where in-state jobs and affordability are achieved and benefit many.

New Jersey Sierra Club strongly agrees with the inclusion of co-pollutants in the definition of clean-electricity production facilities, as well as the exclusion of resource-recovery facilities -- a.k.a. incinerators. These actions truly provide meaning to the term “clean.” It is well understood that some communities, but not all, bear the burden of pollution by having heavy industrial facilities like refineries, incinerators, and field tank farms in the proximity or in the actual community itself. Focusing on transitioning to energy sources that do not emit co-pollutants is the fair thing to do.

We also strongly support the New Jersey DEP, determining *de minimis* levels of co-pollutants at the point of generation, and in the fuel supply chain. As a former DEP air quality scientist, I can attest that New Jersey has the ability *and* the authority to be more stringent than the U.S. EPA, to which, as a result, the DEP is one of the most protective and comprehensive departments in the country when it comes to tackling and

regulating co-pollutant emissions. The Department is able to do this because its approach to co-pollutants is based on health standards that are frequently updated independent of rulemaking. New Jersey DEP's approach to the *de minimis* levels of co-pollutants, prequalifying an energy source as a clean electricity production facility, will be based on health impacts to our community and *not* technology; how it should be done, and the most productive way to tackle pollution.

However, New Jersey Sierra Club disagrees with this approach for carbon emissions. Carbon emissions do not have a direct health impact; therefore, its regulation and approach is always technology-based. There are no health standards for carbon dioxide, for example. Therefore, carbon must be zero -- not a *de minimis* level based on technology. If we do this, we're not really moving the needle.

This is the amendment that we're asking for. While New Jersey Sierra Club advocates for zero carbon emissions, we also recognize that there must be flexibility for grid reliability purposes while, of course, being protective of human health. The ultimate goal is not to rely on fossil fuels, and this bill does just that. The New Jersey Clean Energy Act of 2023 will provide, in statute, a requirement of in-state jobs -- something that New Jersey does not currently have for all clean-energy sources. Thousands of jobs, as mentioned before, in the clean-energy industry -- which is one of the fastest-growing in the country, to which New Jersey is the fourth fastest growing state in terms of jobs. It takes us to 100% clean electricity consumption while displacing dirty energy generation in our regional grid; protects the health of our communities; does *not* incentivize the burning of

trash as a clean-energy source; and makes us energy independent. In today's world, energy independence is essential to be achieved.

The New Jersey Clean Energy Act of 2023 is one step closer to less volatility in our utility bills; more jobs; better health; and curbing the impacts of climate change.

Thank you.

SENATOR SMITH: Thank you.

OK, next witness: Maria Lopez Nuñez -- Ironbound Community Corporation.

Maria.

M A R I A L O P E Z - N U Ñ E Z: Thank you; thank you so much, to the Senator, for even sponsoring this bill.

I heard a lot of testimony today from a lot of (indiscernible) groups and industry advocates. What I find interesting is, I come from the Ironbound -- a neighborhood in Newark. We have three gas plants in our neighborhood; we're only 4 square miles. We're also home to the largest garbage incinerator and the largest sewage-waste treatment facility in New Jersey. That's all in a neighborhood that kids can walk to.

It's no surprise, then, that we have one of the highest asthma rates, not just in the State of New Jersey, but in the country-- One out of four kids in Newark has asthma.

So, when I'm thinking about clean energy, for me, it's really important to get clean energy correct. Because, I would say that the general public -- we've had clean energy standards on the books for a while, but it's included a lot of things that harm our communities. I myself have a chronic cough; I'm not sick, but I'm always coughing, and it's from living in

environmental justice communities my whole life. During COVID, we saw the real-life impact. We're talking about real people here, not just-- We might get lost in, "ratepayer," "utility," "the grid," "industry," but there's people in communities that are being impacted by the decisions you all are making. And, so-- My mom is on a respirator coming out of COVID; she barely made it. But, that's because in her community, it's one of the highest levels of particulate matter -- 2.5.

So, when we're talking about co-pollutants, I want to see it threaded through the whole bill. Right now, it is there in the definition section, but then it kind of disappears, and then we go back to just greenhouse gases. Climate change is real, obviously, and that's what we're talking about -- making New Jersey the first in the country to really define it in a strong way; not in a way that just makes us act like we're doing something. We feel good, but we're not doing anything.

Because, communities like ours-- The reason I (indiscernible)-- It's kind of a weird thing to be involved with a clean-energy standard. I see that there's not many people from community organizations, community-based organizations, here, and I think it's because it's a really technical matter.

But, I learned about it because the garbage incinerator was burning purple -- so purple that CBS News picked it up, because they were worried about people on the Turnpike. So, we went through the emotions with our good friends at Earth Justice, and tried to get BPU to stop subsidizing it. Because, in your last definition, you said, "The highest environmental standards." And, I thought that meant something. So, I went to BPU, I tried to get those incentives -- because, you are all talking about

needing money; I thought it would be good to give the taxpayers their money in a good way, not to subsidize something dirty in our communities. And, BPU said, “We can’t do it, go to DEP.”

So, that’s why I am a little worried about the final agency action, because that took two and a half years to get something that was insignificant, really. And, at the end of the day, it’s not making much of a difference. But, it’s a really arduous administrative process that takes a ton of lawyers and industry fights. It’s not reflective of the over 1,700 violations that this particular industry has had over the last time of these (indiscernible).

So, I would urge you to be stronger. I think it’s really important, again, to (indiscernible) co-pollutants throughout, because what you’re doing-- I’m being supportive of it. It *will* lead the country. My colleague, Dr. Nicky Sheats and I, we sat on the White House Environmental Justice Advisory Council, and it’s amazing to always be hearing from across the country the role -- the role modeling that New Jersey has made with the (indiscernible) bill. And, I think you have another opportunity for the whole country to look up to you. But, it’s only if we get-- I think we’re almost there, also; I don’t think we need to hold this up. But, I do think that there’s some key things that you just need to fix so that it’s consistent with the intent of the law. Otherwise, we’re creating massive loopholes that render it a great idea, great intentions, but when it comes to our communities we just won’t feel it in the same way.

So, I am urging you, the strongest protections possible; (indiscernible) co-pollutant throughout; and, make sure that we can actually hold them -- the people -- accountable. Don’t make such a high bar with final agency action; that’s something that DEP hardly ever does, as for the record.

And, then, let's hold them accountable together. And, like I said, there's real people behind y'all. If this was not in the beginning of the day, on a work day, I would have my whole community out here supporting this. And, I promise to keep supporting y'all, not just in the community in Ironbound, but in all low-income Black and brown communities throughout New Jersey. Because we're on that (indiscernible). Impacts from climate change *and* impacts from the way we built society up 'til now.

So, please, as you're building the future, don't build it dirty. Make it real squeaky clean.

Thank you.

SENATOR SMITH: Thank you.

(applause)

SENATOR SMITH: Mike Egenton, New Jersey State Chamber of Commerce.

MICHAEL E G E N T O N: Thank you, Chairman, and members of the Committee. I will be brief; we've heard a lot here today.

Chairman, I might have the common denominator that you're looking for when it comes to the question of jobs -- is it going to grow jobs, or eliminate jobs? One thing that we haven't discussed is workforce development, and that takes a while for academia to get involved with the new sectors that we're talking about, to bring them on board. That's an important component as we're looking at new jobs in these new sectors.

I've testified before you and this Committee about where the State chamber is on this issue. I've been through every iteration of the Energy Master Plan since Governor Florio, Governor Whitman, and on, to where we are today. When I was always asked, "Well, you've got to pick and choose,

what energy sector do you want? Do you embrace wind, solar, natural gas, nuclear?” Obviously, we want it all in the business community, because our mantra has always been, “If you’re going to grow jobs and grow the economy, you need to have all different sources of energy available.”

The buzzwords are there; you heard them all today, Chairman: certainty, reliability, resiliency, sustainability, affordability. We agree with all of that. This is something that we have to prepare for, and, also, as I told you before, I served on the Clean Air Council at DEP. We’ve done a lot of great work with our stationary sources, our companies over the years, and reducing air emissions. We want to be self-reliant here in New Jersey, and I embrace future technologies: Fuel cell technology; hydrogen; anything that Senator Zwicker might be working on in Princeton that we don’t know about would certainly be acceptable.

We have concerns over the deadlines and whether it’s realistically achievable, and, obviously, cost. I don’t want to be the harbinger of things to come. What I worry about is, I always look at things in the bigger picture, and what’s coming down the road in the next year or two. This was a \$54 billion budget; we gave a lot of money out in this last budget that we cannot sustain. I worry about that, that’s what keeps me up at night, and how this next cycle -- as you’re listening to the budget deliberations coming around the bend again -- individuals that the Legislature gave money out to, we’re not going to be able to sustain that. So, I always look at things in the bigger picture.

The last thought I’ll leave with you is an interesting little tidbit, 30-second story. Right before the pandemic, our famous Walk to Washington Congressional train trip was down in D.C. before the pandemic,

and there was a big storm down in D.C., knocked out the whole electricity-- No trains were leaving. Our train left, and we actually took some New Jersey people back with us who were going to take a different train. I got an inquiry from one of the Congressional members of the New Jersey delegation. They asked me, "Egenton, how did your train get back, and we were all stranded in D.C.?" I said, "We had diesel; a diesel engine." Moral of the story is, you don't put all your eggs in one basket. Be prepared.

Thank you, Chairman.

SENATOR SMITH: Thank you for your comments.

Brian Lipman, our Rate Counsel, with some requested amendments.

MR. LIPMAN: And, this time, it's good afternoon.

SENATOR SMITH: Yes, it is.

MR. LIPMAN: Thank you. My name is Brian Lipman; I am the Director of the New Jersey Division of Rate Counsel.

Rate Counsel has several concerns about this bill and its potential for impact on the finances of our ratepayers. I'm going to skip ahead a little bit, but we did submit a letter with the suggested amendments. I'm not going to go over all those amendments now; I don't think we have the time or, quite frankly, the stomach for it, literally and figuratively.

But, I do want to highlight a couple, and I want to start with talking a little bit about affordability, because I think we said the word "affordability" a lot of times. I want the Committee to understand what's on the ground here in New Jersey. There was a recent report by the United Way -- 37% of households are living in functional poverty. That means even these New Jersey residents who are working are not earning enough to pay for their

food, shelter, and utilities. And, to be clear, with or without this bill, electric prices are currently going up, and will continue to do so. One of our utilities just provided me with a chart that demonstrates in the next six months, their bills will go up \$5 a month. That's just for (indiscernible); that's not counting the base rate cases. Three of our four-- The three major electric companies in 2023 will file for a base rate case and an increase in rates.

In addition, I said before, JCP&L filed for a \$935 million infrastructure program. The BPU has approved \$1.2 billion in infrastructure. I think you get the picture. The rates-- I could go on, but the rates are going up. And, we're not just talking about residents here. We're not talking about the question of, do I ask this question: Am I going to eat? Am I going to buy my medication, or am I going to heat my home this winter? We're also talking about businesses, and the rates are going to go up for the businesses as well, and they're going to ask that important question: Do I cut jobs, do I cut my profit, or do I just move out of state?

So, I want to understand that affordability isn't-- And, it's for that reason that the first amendment I want to highlight is, we asked for a cost cap on this. And, Professor Jenkins and other testimonies are correct: There shouldn't be an increase in rates to electric, so a cost cap *should* be workable under this bill. The existing cap on costs for New Jersey renewable portfolio standards provides *some* protection, but it has environmental benefits included in it. And, while the environmental benefits are real, environmental benefits aren't going to buy medicine; they aren't going to pay the rent. There should be a cap; it should make it affordable; it should be known. And, we're willing to work with people to talk about a cap that would work in this case.

It's important to keep in mind that since the proposed ZEC Program will be layered on top of existing requirements, the bill will *not* reduce costs that are already being borne by ratepayers to support non-(indiscernible) generation, which includes subsidies for solar, nuclear, and the future subsidies for offshore wind facilities that will come online.

And, with regard to offshore wind, I need to be clear about two things. First, I think it's pretty clear New Jersey *will* build offshore wind. Second, it will cost more than what we've already seen. The cost of-- The recent-- I'm sorry -- Ørsted projects have been canceled; the new ones that are coming in *will* be more expensive.

Any discussion of affordability must include the other costs ratepayers are going to be paying. You can't just look at one cost individually; we need to look at the whole bill holistically.

On the topic of offshore wind, the near future for New Jersey has changed dramatically. That change, however, is not reflected in the bill. Although legislative (indiscernible) in this bill state that clean electricity standard will be affordable because it allows for a mix of in-state resources and lower cost regional resources, the finding rests on the assumptions that appear to be unrealistic. First and foremost, the recent cancelation of Ocean Wind I and II and 11,000 megawatts of in-state non-emitting generation will almost certainly make both the ZEC requirement overall and the in-state ZEC physically unachievable in the timeframes provided in the bill.

Again, I want to be clear that there *will* be offshore wind; it's just unlikely there will be a time to meet the initial goals of this bill. With insufficient resources to satisfy the ZEC Standard, and specialty in-state (indiscernible), ZEC prices could reach unaffordable levels. A related issue is

that the ZEC Program is intended to rely on an efficient, competitive market to keep costs down. Based on the State's experience with the legacy S-REC program, this is not a foregone conclusion. When S-RECs prices fell with increased solar development, industry lobbyists repeatedly went back to the Legislature to increase the solar renewable portfolio requirements, and S-REC prices remained high despite decreasing costs. While the bill includes a provision requiring the board to implement a market-powering monitor and mitigation measures, it is not clear that these efforts could be effective in the face of repeated legislative changes.

At a minimum, any market monitor should be independent. When establishing a market monitor at the Federal level, FERC has repeatedly emphasized a need for an independent monitor. Our market, however, must be allowed to function without constant interventions. Even with an independent monitor, our history in New Jersey does not support reliance on market forces to keep prices down.

Another amendment that Rate Counsel suggests deals with the alternative compliance payment. We believe this helps in keeping prices from escalating too high -- it's sort of a safety valve. The current bill says that the Board *may* establish an ACP. We feel this is an important protection that should be mandated. There should be an ACP, and it should be a reasonable amount so the generators have-- The EDCs have an ability to pay an affordable amount if generation becomes too high.

Finally, Section 9 of the bill appears to be contrary to the goals of the bill. It allows research and development funded by ratepayers. This is inappropriate. Research and development is used to generate future projects, and hopefully profits. This should be funded by private industry or

governmental grants. Ratepayers should never fund research and development. They will not own the technology developed, nor will they reap any of the profits earned should the technology become marketable. This places all the risk and none of the benefits on ratepayers.

Second, and perhaps more troubling, this language appears to allow ratepayers to fund efficient fossil fuel generation. If the goal is, in fact, to reach zero emissions, lower-emitting sources cannot be part of the mix. Ratepayers are already paying a lot; asking them to fund both lower-emitting generation while also funding zero-emitting generation is simply too much. Ratepayers are not a bottomless source of money. We must make sure that we are using ratepayer money wisely. Subsidizing low-emitting generation on our way to zero emission is not cost effective, and it's overburdensome. Rate Counsel recommends deleting Section 9 of the bill.

As I promised, I did not go over all the amendments, and (indiscernible), but we highly recommend that you -- or, encourage -- that you read our letter, and of course if you have any questions about the amendments, we are more than happy to discuss those with you or any other stakeholder in the process.

SENATOR SMITH: We won't hesitate to call.

MR. LIPMAN: (laughter) I wish that was true.

SENATOR SMITH: But, let me just point -- if I can -- put your testimony in some perspective.

You're absolutely right. We want our rates to be as low as they can possibly be for all of our ratepayers.

But, you're absolutely wrong when you say, "Don't go forward with stuff because it means any increase in the rates, it's a problem." We're

about to have no insurance available at the Jersey Shore, for our properties, because of the way the world is. When the 29 people died from flooding in Ida, because we had flooding where it never occurred before, maybe if we had set an example in New Jersey for the rest of the country, maybe that wouldn't have happened. We had three weeks this summer where people couldn't breathe -- not from New Jersey forests, from Canadian forests, but we have a million acres of forest here and it's getting warmer, and warmer, and warmer, and we're getting more and more fires. So, all of the ratepayers who you're talking about also breathe, and they want to breathe clean air; and they want to be able to get insurance on their property; and they don't want to drown in a flood.

So, the perspective that you need is: Our investments need to be good investments. They need to be the one that gets us the biggest bangs for the buck and, hopefully, gets us out of this global catastrophe that's coming. And, every day you're seeing witnesses of it in the paper, and on the television. It's like, the movie, "Don't Look Up" is there. It's not coming; it's here. And, you're going to be the first person two, three, five years ago when New Jersey is underwater, and said, "You know, those legislators didn't do enough to get us out of this problem." You're going to be one of them -- and, by the way, you're going to be right, because we're *not* doing enough, and the State's not doing enough, and we're in serious trouble.

So, I take your comments the way you meant them, which is, "I'm doing my job as the ratepayer advocate, let's keep the rates as low as possible." But, I think people have to look at the bigger picture, which is why I'm going to change your role, the ratepayer advocate, about how you should consider your positions. You really do need -- not you, personally; Brian, it's

not about you and me personally -- but you really need to take into account the impact of us not doing enough about climate change, and (indiscernible) there is a request for improvements to the grid, whatever it is we have in front of the BPU. You need to take them into your thinking, because you have only one way to think. Based on statutory requirements -- I totally have it; I got it; I understand it. But, you're going to be just as mad as every other citizen when we don't protect them from what's already here.

MR. LIPMAN: Well, I have to respond to a couple things.

First, with respect, I didn't say, "Just say no to this." What I said, if you--

SENATOR SMITH: It was a very soft, "No, no, no, no, no."

MR. LIPMAN: It wasn't -- it was more, "We need to consider the costs." And, let me give you a very good example.

We've talked earlier about air conditioners running all the time because people need to have their air conditioners. If you raise utility rates to the point where people can no longer afford their utilities, those air conditionings in the poorest parts of our state will not be running -- those places are heat sinks as they are -- and the people *will* die because of utility rates being too high. There needs to be a balance; there needs to be an understanding that you can't just throw all the utilities' money into a pot and take everything and hope that we get something that works. There needs to be a reasoned approach to this--

SENATOR SMITH: That's the only way we do business.

MR. LIPMAN: And, that is-- If you read the amendments, one of the things I put in there was everyone saying this isn't going to increase utility bills. Perfect, let's put that in the bill, that it can't increase utility bills.

I don't think that's an unreasonable thing to ask for if that's truly the basis for this bill.

SENATOR SMITH: Appreciate the comments.

OK, Ken Dolsky, Empower New Jersey.

Mr. Dolsky, are you here? Ken Dolsky?

K E N D O L S K Y: Here.

SENATOR SMITH: Would you like to speak?

MR. DOLSKY: Yes.

SENATOR SMITH: Come forward, sir.

MR. DOLSKY: Good afternoon; thank you for the opportunity.

I'm Ken Dolsky, and I'm on the Steering Committee of Empower NJ, a Co-Leader of the Don't Gas the Meadowlands Coalition, Vice President at New Jersey Forest Watch.

SENATOR SMITH: You know what? Then why don't we get-- Because I think Don't Gas the Meadowlands Commission is already here. Paula Rogovin? Is there anybody else from any of those groups, and we'll put you together.

Any other guys with you?

MR. DOLSKY: No.

SENATOR SMITH: OK, take it away then.

MR. DOLSKY: There may be others from Empower New Jersey.

So, I wanted to talk for a couple of minutes about the dangers of net zero emissions, because the bill does contain allowance for some net zero emissions, and we heard today and expect that you will probably be receiving pressure or requests to add more sources of net zero emissions.

The core issue of climate change is greenhouse-gas emissions, and the buildup in the atmosphere. In order to mitigate these, we must stop emissions and reduce greenhouse-gas levels in the atmosphere. Therefore, net zero emissions -- emitting as much greenhouse gas as is removed -- is not a climate solution; it's only a mathematical milestone on the way to zero emissions, and it is very dangerous to talk about it as if it solves our climate problem.

The language used by the IPCC in the 2018 IPCC special report, global warming of 1.5 degrees centigrade, regarding the 2050 target, is "limiting warming to 1.5 degrees centigrade implies reaching net zero CO2 emissions globally around 2050, *and* concurrent deep reductions in emissions of non-CO2 forces, particularly methane." Because, as we all know, methane captures 86 times more heat than CO2 over a 20-year period.

So, one immediate problem is that the fossil fuel industry, and the gas industry, is largely ignoring the second part of this requirement from the IPCC. It is only focusing on achieving the first part, net zero carbon emissions, through schemes like (indiscernible) RNG, or hydrogen. Yes, at some point, the world has to achieve net zero CO2 emissions. But, alone, it is completely insufficient to address the climate change problem for two reasons.

First, it does not address the methane problem. Since about 2010, the global rate of methane emissions has been accelerating every year with no signs of slowing down. Using the 20-year global warming power value for methane, methane is responsible for over 30% of U.S. climate-warming emissions.

Second, even if we stop adding CO₂ to the atmosphere today, the world will continue to warm for centuries, and the impacts of climate change will continue to become more severe since CO₂ stays in the atmosphere for hundreds of years or more, and will continue to increase the Earth's temperature.

Therefore, we must reach net zero by only using zero-emissions technologies, which will reduce total atmospheric carbon. I mean, we must *not* use technology such as RNG to achieve net zero, as they only make it more costly and take longer to convert to zero-emissions technologies. And, the problem is not just CO₂ and methane. NO_x -- nitrous oxide -- is a powerful greenhouse gas with a lifetime of about 120 years that captures almost 300 times the amount of heat as CO₂, and is produced by burning hydrogen. So, achieving zero emissions means no burning of hydrogen as well. In fact, based on those numbers, we may be better off continuing to burn methane than burning hydrogen.

Lastly, mitigating climate change requires reducing greenhouse gases in the atmosphere for real, not just mathematically. This will be best accomplished through the use of true zero-emissions technologies, such as wind; solar; hydroelectric; heat pumps and storage; and protecting natural carbon sinks in the wetlands and forests. And, we look forward to your Lorax bill if we can possibly hear it next month.

SENATOR SMITH: It would be nice.

Laura. I'm sorry, Paula. Vision is not as good as it used to be.

P A U L A R O G O V I N: Hi, I'm Paula Rogovin; I'm a retired public school teacher for about 44 years, mostly kindergarten and first grade. But, I've been involved in some successful efforts to stop the Meadowlands power

plant in North Bergen, and I've been working with people in the environmental justice communities to stop the New Jersey Transit gas plant in Kearny, and the PVSC plant in the Ironbound -- both, each at communities-- And, I've learned a lot, and I wanted to share a little bit of what I've learned.

S2978 is basically good legislation; positive legislation. However -- and, I'm not sure exactly the status of some of the amendments that you've talked about with people over the last several weeks -- however, it is absolutely essential that this legislation provide a clear, correct, and honest definition of clean energy. To me, clean energy has only one definition: It must not emit climate pollution or toxic co-pollutants -- NOX, particulate matter, lead, etc. Any other definition of clean energy would be false and harmful to our health, and would worsen climate impacts.

I urge you not to include subsidies for the following falls, or fake schemes, such as trash incinerators. They're one of the most toxic, expensive, dangerous, and climate-polluting ways to generate energy. They perpetuate environmental racism -- roughly 8 out of 10 U.S. incinerators are in environmental justice communities. They are major contributors to climate change, emitting 68% more greenhouse gases per unit of energy than coal plants.

Dirty gas, or "renewable, natural gas" is purposely misnamed, and it perpetuates fossil fuel use; increases climate and other hazardous air pollution; and it's extraordinarily expensive.

Hydrogen burning facilities-- They produce seven times more NOX pollution than gas-fired power plants. They contribute to smog pollution, a primary cause of poor air quality across New Jersey.

And, carbon capture and sequestration-- I plead with you to trash these dirty energy schemes from the legislation. Do not subsidize these schemes; remove them from your legislation. These schemes will put *your* health, and the health of your children, your grandchildren, and the people of New Jersey -- and, particularly, the health of people in environmental justice communities who are already overburdened by health impacts from pollution. It would put people at greater risk.

Thank you.

SENATOR SMITH: Thank you for your comments.

(applause)

Barbara Blumenthal, New Jersey Conservation -- in favor.

BARBARA BLUMENTHAL, Ph.D.: Good afternoon.

Thank you very much, Senator Smith, Vice Chairman Greenstein. I am Barbara Blumenthal with the New Jersey Conservation Foundation. I'm the Research Director.

Thank you for the opportunity to testify this afternoon. First, I want to thank Senator Smith for his leadership on this bill.

It's not an easy thing, and we enthusiastically support this legislation, which is a carefully constructed and pragmatic and achievable 100% clean electricity standard. It reduces co-pollutants and greenhouse-gas emissions; it creates substantial local, prevailing-wage jobs; and is beneficial to ratepayers. So, it's threaded the needle very carefully, and is a very realistic and pragmatic bill.

I want to speak about a couple of things that I've heard, and the biggest thing that I think I keep hearing is, "Is it doable? Can we achieve this?" And, I want to start by saying one of the reasons why it is achievable

-- there's many reasons -- is, New Jersey doesn't -- plays no direct role in managing the electric grid. We don't have our own electric grid; we're part of a regional grid. And, the clean electricity standard does not impact how the grid operates, and it doesn't impact how reliability is provided. So, those systems continue to operate exactly as they do today.

There is a connection, and I'll get to that. And, one reason why this is very-- One hundred percent clean electricity by 2035 is very easily, not just achievable, it's easily achievable for New Jersey, because we're a small part of a very large regional grid. It means that we buy clean electricity credits to offset all of our consumption. So, 8% of the regional grid will be clean because of what we're doing today. And, when we work with other states -- which we plan to do in the aftermath of this -- to increase their appetite, it will be a far, far, growing larger percentage of the entire regional grid that will become clean.

The other thing is, you've probably-- Many people don't know that by 2030, we are already responsible for cleaning up 85% of all of our electricity. The 50% renewable portfolio standard gets us a large way there; nuclear gets us another 35%. We're at 85% clean electricity. This bill is about getting that last 15%; that's what this bill does. That's why it's achievable. We're not starting from nothing; we're starting from existing laws that is already relying on a large range of clean energy resources throughout the region and in New Jersey to provide the credits to offset our consumption.

So, we can achieve 100%, it's not a big lift. And, the thing I wanted to get to is, we can maintain a reliable electric grid. How does that work? So, modeling shows that even when we're at 100% clean electricity on an annual basis -- those credits are matching our annual consumption --

there will be periods when there's not enough clean electricity to supply all of our needs. And, the grid operator will dispatch any resources they have at their disposal to make sure the lights stay on; that's their job.

Reliability is baked into the current operation of wholesale energy markets. Run by organizations, whose primary responsibility -- their number one job -- is to keep the lights on. This is the Federal Energy Regulatory Commission, you all know that's FERC; there's also NERC, which is responsible only for reliability; and there's regional transmission operators like PJM; that's ours. And, that's their job -- they plan for reliability far in advance, and they create systems to ensure that the right mix of resources will be available, not just today and next year, but five, 10 years down the road. That's what they're doing, they've been doing it for a long time; and nothing in this bill changes that.

Their job is to make sure that the mix of resources keeps the light on, even during extreme weather conditions. And, there are sufficient reserves so that even when a nuclear plant fails -- which it has in New Jersey -- it trips and goes offline, and transmission lines go down, and gas plants aren't running -- whatever it is, there is sufficient reserve so that the grid stays up, and there are no rolling blackouts, even with multiple unexpected outages. So, we should put that idea to rest that, somehow, New Jersey is going to not be able to keep the grid reliable. It's not our job, and other people do it, and they do it well.

A key job with PJM is to respond to State policies, and take them into account as they plan for grid reliability. Particularly, in the wake of the IRA, states *are* stepping up their game. We hope that this bill will provide additional leadership to Michigan, which just passed an important clean-

energy, clean-electricity standard; Illinois; Maryland; Delaware; Virginia. There are a lot of states that are looking to up their targets, and PJM has to plan for a future with high levels of renewables. They have been doing that, and that will continue.

So, the link between what we do here and grid reliability is, they have to adjust to what we're doing. So, we will-- This legislation will deploy significant amounts of new solar (indiscernible) resources. They are variable, and they're not always available, and their job is to plan to make sure there's a mix of resources that keep the lights on and react to the policies that we and other states are adopting.

SENATOR SMITH: Thank you.

Any questions? (no response)

All right, Bill Mullen, New Jersey Building and Construction Trades.

Bill, are you here? In opposition. (no response)

How about--

UNIDENTIFIED SPEAKER: He went to get pizza.

SENATOR SMITH: Pizza sounds good.

Andy Wall, Ad Energy -- in opposition.

A N D Y W A L L: We're four of us from MSSIA, would you like us all to come at once, at the same time?

SENATOR SMITH: Yes, I would love that.

So, who are the other three?

MR. WALL: Lyle Rawlings, Josh Lewin, and Bill Hoey.

SENATOR SMITH: OK, I know Lyle.

I am going to take out these slips.

And, are they listed as MSSIA speakers?

MR. RAWLINGS: I believe so.

And, Mr. Chairman--

SENATOR SMITH: Yes, sir.

UNIDENTIFIED SPEAKER: --we bought copies of slides that I can hand out, and we will also submit to the Committee.

SENATOR SMITH: That will be great.

OK, I have Lyle's slip. Who else--

B I L L H O E Y: Bill Hoey.

SENATOR SMITH: And, Bill, what's your affiliation again?

MR. HOEY: NJ Solar and MSSIA.

SENATOR SMITH: OK, got it.

And, who else? I'm missing one.

MR. RAWLINGS: Andy Wall, did you get his?

SENATOR SMITH: I actually called him first. I think it's--
Didn't you come up before?

MR. LEWIN: I did.

SENATOR SMITH: So, you're taking two bites of the apple?
Why not? Go ahead.

MR. LEWIN: Different apple.

SENATOR SMITH: Go ahead; different apple.

MR. RAWLINGS: Yes, thank you, Mr. Chairman, and hopefully you'll get the slides.

We're not going to go through all the slides, just some of them in the interest of time. And, that's why we wanted to come up together, to try to do it more efficiently.

SENATOR SMITH: Go for it.

MR. RAWLINGS: So, I think this is the first time that I ever testified before this Committee where I'm having trouble controlling my blood pressure.

There has been a lot of misstatements that we've heard from proponents of this bill. We're opposed to the bill in its current form. We're not necessarily unalterably opposed with amendments that protect solar, but we're here to tell you that this bill provides zero support for any more solar from today forward -- to 2035. And, I'm going to walk you through the numbers that show that very clearly.

So, it doesn't necessarily mean we won't have more solar, but it provides no support. So, it means that *maybe*, according to the whims of whoever is at the BPU, that we might have a solar program, but we might not; there would be no support in law for continuation of solar.

SENATOR SMITH: So, let me challenge your basic assumptions. Why should it have support for solar? This bill is about a renewable portfolio standard. It wasn't the "support for solar bill."

MR. RAWLINGS: Yes, well, I'll give you two reasons.

SENATOR SMITH: And, also, to the same comment, environmental justice-- The bill started out as a renewable portfolio standard, and now everybody is jumping in because they have a different agenda.

So, your agenda is to get more support for solar--

MR. RAWLINGS: Right--

SENATOR SMITH: --and, FYI, it was never the intention of the bill to do that--

MR. RAWLINGS: And, to benefit--

SENATOR SMITH: --that's separate legislation--

MR. RAWLINGS: And, to benefit the New Jersey public.

SENATOR SMITH: Well, *all* bills are to benefit the New Jersey public.

MR. RAWLINGS: Well, we're going to demonstrate why solar does that--

SENATOR SMITH: Go ahead.

MR. RAWLINGS: --in a way that out-of-state solar does not.

SENATOR SMITH: OK.

MR. RAWLINGS: So, first of all, the first thing I said, that there's no support; I want to walk you through the numbers. And, there's good news in this first slide as well, what the numbers mean.

We've heard that 65% would allow for growth of solar -- it does not. So, first, we look at what the total load is, and we've done analysis on that. And, I won't go through it in the interest of time, there's more behind that that we can provide. And, a footnote here that will tell you something about it, but it lances, we believe, at about 80 million megawatt hours per year in 2035.

So, how does the in-state that is already in the plan stack up beside that 80 million? Nuclear generation is about 27.8 million megawatt hours per year. That's about 34.8% of the total in 2035. That's *existing* nuclear generation. Wind -- if we do the 7,500 megawatts that's already in the plan for 2035 -- that's 27.9 million megawatt hours per year. And, then, we keep building wind after that in the current plan, out to 11 gigawatts. But, just (indiscernible) -- 7,500 megawatts, 7.5 gigawatts, gets us to 36% of that 80 million megawatt total. A little bit of in-state Class I gets in there,

just 3.5%, and then solar. If we build solar according to the Energy Master Plan's least-cost scenario, that would be 17.2 gigawatts of wind by 2035.

Now, it has to be stated that the Energy Master Plan then goes to build additional solar -- up to 32 gigawatts by the time we get to 100% renewable. So, what we are asking for is just give us the Energy Master Plan up to 2035 and stop at 17.2 gigawatts. Where does that leave us? That's another 19.8 million megawatt hours per year, or 24.7% solar. Now, the Energy Master Plan said we go to 34% solar. So, we're stopping well short of that. Still, with nuclear, wind, and solar, per the Energy Master Plan's least-cost scenario, we're at 97.9% in state renewables. So, 65% doesn't get us anywhere close to building solar. It means *no* solar.

So, what are we as an industry to think? Now, it's not in the slide, but I'll tell you that twice in recent months, the BPU has published, in writing, a plan that they called, "Achievement of the Energy Master Plan." And, they stated the following: "After 2026, procure solar through generic PJM purchases rather than the SuSI Program." Now, as you all doubtless know, the SuSI Program is all of the solar incentives for New Jersey. So, they're saying, "We'll end all of the solar incentives after 2026." That's what they have published. So, what are we to think? That's a gun pointed at our face.

So, without legislative support, we can't be confident that there will be any solar program.

SENATOR SMITH: But, does it have to be in this bill?

MR. RAWLINGS: It doesn't have to be in this bill, it can be in another bill but it-- This bill also does another thing.

It establishes, in law and approach, where cost is the only thing that matters. Now, that is disadvantageous for solar, because solar costs more than other clean-energy purchases, but it also delivers more. Now, if you have in law a cost-only approach, then value doesn't matter. We have slides in here where we will like to present some of the reasons why solar delivers a lot, including the fact that every time we spend \$100 on incentives for solar in the state -- distributed solar -- that money comes right back, broadly shared with the public in the form of savings.

So, for instance-- And, I'm jumping ahead here because I know time is tight. We have slides, and I hope you'll let us go through them, but if not, an example: A study we did of 40 schools that recently, through the AVI program, did solar, for which we were able to get public information about the contracts and the bids-- It turns out that for those schools, for every \$100 of incentives given to those solar projects, the schools would get \$150 back -- \$150 cash back -- for every \$100 spent. That alone should tell us that this is where we should be putting our money, even before you talk about roughly 10,000 jobs in total.

The depression of locational marginal pricing on a wholesale level here in New Jersey; the reduction in local pollutants. And, Federal investment, private investment, all these other benefits -- before, we didn't have to talk about those. We can talk about the fact that that cash that we put in New Jersey comes right back, in cash, into the pockets of New Jersey people, schools, municipalities, farms, and businesses.

So, the cost-only approach, we think, is not rational, because if it doesn't say, "What are you buying?" If you walked into a store to buy a product--

SENATOR SMITH: You're doing Gus Escher's analysis. You're saying, "What I do is more wonderful when New Jersey people are building it and doing it in New Jersey. That's why everything should be sourced in New Jersey."

We've indicated to you that the numbers are 90% of the subsidies are all going to New Jersey facilities now, the incentives, and we have the advantage of location, location, location. And, all the wonderful things that you're talking about -- people working in New Jersey. You heard an estimate of 24,000 new jobs.

This is a bill about a renewable portfolio standard. It's not necessarily about more support for solar, or more support for wind, or anything else. So-- We have supported solar on a hundred occasions, all those solar bills came out of here. We're very supportive of what you do.

MR. RAWLINGS: But, here's an occasion where you can--

SENATOR SMITH: You're attempting to hijack a bill in a -- That's the nicest way I can say it.

MR. RAWLINGS: Yeah, the problem is, the bill establishes a cost-only approach, and we lose when there's a cost-only approach. We have to start looking at other states to go and take our businesses. I can't hire new people, which I want to do right now, when it's, *maybe* there will be support for solar; some indications from the BPU that maybe *not*; so, it doesn't have to be this bill. This bill is a good place to put it, and we've suggested very simple amendments that would do that. But, we need a pathway to the future, and we don't have that this bill.

So, we have a lot of slides here that talk about value. It sounds like you don't really need to hear that--

SENATOR SMITH: We want it. Anybody here-- Who is against solar? Raise your hand. Who is against solar, raise your hand. (no response)

We're all for it. We love solar. And, we've done everything over the last 200 years -- or 20 years, maybe -- to incentivize it; to make it happen here. And, it has happened. We'd like to see more of it.

This is a renewable portfolio standard bill being hijacked by a whole bunch of people for a whole bunch of other reasons.

SENATOR DURR: Chair.

SENATOR SMITH: Yes.

SENATOR DURR: If I may, I think what he's feeling is that this bill is kind of picking winners and losers; they're being left out.

MR. RAWLINGS: Well, every--

SENATOR DURR: I don't know if that's the case.

SENATOR SMITH: Well, and we disagree with that premise. We think there are 24,000--

SENATOR DURR: That's what I think is a point is--

SENATOR SMITH: --new jobs in New Jersey--

SENATOR DURR: --that you feel you're being left out in the cold.

MR. RAWLINGS: Well, right, nuclear--

SENATOR SMITH: Well, they're also saying, "Take care of us, too."

MR. RAWLINGS: Nuclear's deal is set. Wind's deal is set.

SENATOR SMITH: Nuclear's deal is *not* set. We start to get the money from the IRA-- Their ZECs are gone.

MR. RAWLINGS: Well, then-- But, they're taken care of one way or the other.

SENATOR SMITH: Our job is to take care of *everybody* in the state.

MR. RAWLINGS: OK, but, you know, nuclear is set; wind is set; but we're not. We're the ones who have been delivering for the last 20 years.

And, another thing, Senator, the past RPS bills *did* have a solar carveout. That's why we've been able to invest in this state.

SENATOR SMITH: Right. And, you now have a BPU that is not as friendly as it was years ago. I mean, how many bills have we tried to do to change the level of subsidy for various programs that started promises made; promises not kept? We could go through that whole list. But, that doesn't mean you should use that to hijack this bill.

There may be the need for separate legislation on solar, but you don't have a committee here that's anti-solar.

MR. RAWLINGS: I don't think you are either.

SENATOR SMITH: No, I don't think so.

MR. RAWLINGS: And, we've succeeded in the past *because* of you, and *because* of this Committee. And, we're grateful for that.

SENATOR SMITH: And, this is not a threat to your livelihood, really.

MR. RAWLINGS: It feels like it.

SENATOR SMITH: We have a whole bunch of people in here who don't necessarily agree with your point of view, but are saying, "We're going to get much -- many more new jobs in New Jersey." The number was 24,000 -- maybe it's 12, I don't know what it is, but we're going to get more information on it. And, many of those will be solar jobs. I mean, we want more renewables.

But, you can't -- respectfully, and this is to everybody in the room -- you can't tell us how to do our bills. You can tell us when we're making mistakes; we'll listen to what you say and then maybe we'll make the changes. But, hijacking is not a great thing.

MR. RAWLINGS: Yes.

SENATOR SMITH: And, I don't-- I'm sure you're not happy with the term hijacker -- but the truth is you're trying to say, "Let's go over here, let's go over there." There's a whole bunch of people testifying today not about the bill, but about things they'd like to see happen.

MR. RAWLINGS: Well, that's what we are--

SENATOR SMITH: We try our best to make them happen -- the good things happen -- but you can't get everything into a bill.

MR. RAWLINGS: Right.

SENATOR SMITH: The bigger a bill is, the less the chance of success.

MR. RAWLINGS: As you've said, this bill did not start out as the Clean Energy Bill. Back in August, it was the Renewable Energy Bill. So-

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SENATOR SMITH: And, we're hoping to keep it that way.

MR. RAWLINGS: Yes, and, there have been a lot of changes to this bill requested by other people.

We're just asking for one more change. And, we don't think it's a huge one. It's one that will produce, by far, the most economic outcome.

SENATOR SMITH: And, what's the specific change you want?

MR. RAWLINGS: Basically, numbers for solar, not as a percentage. Because, as you can see, we're already at 98% with the Energy Master Plan solar. So, we'd like to take the Energy Master Plan, as you stated earlier today, a change in the government can change it if it's in the law.

So, just take the Energy Master Plan solar ramp-up and put it in law.

SENATOR SMITH: OK.

Anything else you want to tell us?

MR. RAWLINGS: Guys?

MR. WALL: We greatly appreciate everything the Committee and everyone here has done, and we understand that this is a very complicated process. There's a lot of messy middle, I guess you could kind of say--

SENATOR SMITH: Kind of.

MR. WALL: And, we're grateful for everything that has happened. We just don't want this field that we've spent so much time in don't want to be left in the cold.

That's all, Senator.

SENATOR SMITH: Got it; thank you.

MR. RAWLINGS: Now, these guys have a lot of other things that they were prepared to talk about, and I will--

SENATOR SMITH: If it's on the bill, we would like to hear it.

MR. HOEY: Well, I would like to-- Real simple, I heard some numbers about the jobs, and I think that is a concern about the Committee.

The thing about solar development that you have to understand is the bill, that you have in front of us today, has *all* large-scale development, OK; roughly 3,300 small systems over 12 years. So, that's 300 systems a year, which is nothing.

MR. RAWLINGS: You might want to tell them which slide--

MR. HOEY: No, I was listing Mr. Jenkins' numbers from before.

And, if you take the scale of where the New Jersey jobs are today and historically, they've been in the smaller jobs. They've been in the small commercial residential schools -- mostly New Jersey companies have been large employers such as myself.

You really eliminate that control over that when you move to larger systems. And, what I mean by that is, you're going to see -- we already see it now, it's happening today -- large out-of-state developers, out-of-country developers; people will be coming in from all over the world into New Jersey to drop systems into our grid. It's happening today; the grid is already being shut down at a much faster pace because of hundreds of megawatts of jobs that came in over the last few months. And, we can't even get an application through. So, the industry right now is currently stalled. There's no-- That's a fact; you can talk to anyone in utilities. They're taking months to even look at an application.

SENATOR SMITH: Interconnections.

MR. HOEY: Interconnection is a nightmare--

SENATOR SMITH: --we've got an interconnection bill; we have the BPU studying interconnections; we're rallying about interconnections, saying we need to put \$500 million more into our grid so we can do interconnections.

We don't disagree with any of that.

MR. HOEY: But, the large systems--

SENATOR SMITH: But, it shouldn't be in *this* bill.

MR. HOEY: --can't be the only focus of this bill.

In other words--

SENATOR SMITH: What do you want for the smaller systems?

MR. HOEY: If you set a bill that the goal is to be everything in a megawatt and above, just so you can get prevailing-wage jobs -- which is what was said before -- I heard it. That was the goal. And, then, that's when you start getting larger systems, which is what you're pushing for, because you want to create prevailing-wage jobs. OK, that's what I heard; I heard it more than once from numerous people.

I think we should be concerned about *all* jobs.

SENATOR SMITH: We are--

MR. HOEY: That's not what I heard. Every person who came before here -- not the Board -- was talking about prevailing-wage jobs.

We don't have enough union people in the state right now to do what we've got. We've got a huge issue on our hands. Not a bad problem, because we're--

SENATOR SMITH: I don't necessarily disagree with you.

MR. HOEY: It's a big--

SENATOR SMITH: I'm trying to alleviate the paranoia in the labor community.

MR. HOEY: They don't get it yet, because they haven't seen the projects--

SENATOR SMITH: Well, there's more jobs--

MR. HOEY: --come through yet, right?

SENATOR SMITH: --than we can currently handle, and there's going to be many. One expert said 600% -- I think it was Potosnak, and we asked him for his background -- but he said there's going to be a 600% increase in the jobs in the renewable field.

MR. HOEY: Right.

SENATOR SMITH: And, again, I would like to physically hand that to all of my labor friends, because nobody believes anything.

MR. HOEY: Well, listen--

SENATOR SMITH: Including yourselves.

MR. HOEY: --we're going to have to help them through that process, there's no doubt about it.

But, you have to do both. You can't do one or the other. You've really got to get a broad-based approach to this and say, listen, we have to have--

SENATOR SMITH: So, we have the broadest-based approach. We're saying that New Jersey should be 100% renewable by 2035. That's the overriding policy.

You guys are in the renewable business. That *has* to be good for you.

MR. RAWLINGS: One hundred percent by 2035 *is* good for us.

But--

SENATOR SMITH: That's what the bill is all about--

MR. RAWLINGS: The details matter. The details matter.

SENATOR SMITH: That's where it started.

MR. RAWLING: Yes, but details matter, and they are currently not in our favor anyway.

SENATOR SMITH: Well, again, you want more support for smaller scale solar, I get it.

It's not in this bill.

MR. RAWLINGS: For in-state solar, yes.

MR. HOEY: Well, in-state solar is really what we're pushing for, and that's all levels.

If you do more in-state development, you have more in-state jobs; if you've got larger scale development, the odds of those jobs being elsewhere goes up. You lose control over that. The engineering jobs, the project-management jobs, the high-paying career jobs that we were talking about -- don't have to be in New Jersey, they can be anywhere in the world.

SENATOR SMITH: Right, but that hasn't been our experience.

MR. HOEY: Right, but--

SENATOR SMITH: Ninety percent of the subsidies are going to New Jersey companies.

MR. HOEY: Right, but that's the difference.

The shift that you're proposing -- which, I understand it--

SENATOR SMITH: It's not a shift.

MR. HOEY: It's a major shift.

SENATOR SMITH: It's actually, if you wanted to look at it, you'd say, "At least there's a minimum here that you can get."

DR. GURRENTZ: (indiscernible)

SENATOR SMITH: Yes, a clarification would be helpful.

DR. GURRENTZ: Just on the point with the one megawatt provision -- the bill provides that *any* clean electricity production facility greater than one megawatt in capacity will be required to be built using prevailing wage. Anything under that would not be subject to the provision.

So, it doesn't limit the incentives to any size of facility. It's *just* saying prevailing wage must be over a certain capacity.

MR. HOEY: Right, but that's the current law.

SENATOR SMITH: Yes.

MR. HOEY: That's no different; that's really no change. That's just the current law.

SENATOR SMITH: One of the things we're thinking about is dropping it to \$750 as opposed to a million.

MR. HOEY: Then you really won't have enough workers.

SENATOR SMITH: Convince my labor friends of that.

MR. HOEY: Oh, the labor friends -- I think the labor unions themselves, when you talk to them privately, are very happy about this, because they are-- They're going to get a lot of jobs.

SENATOR SMITH: You're not talking about the same people.

MR. HOEY: Well, I've spoken to a few of them recently, and they all don't get it, the different unions. The IBEW certainly does.

SENATOR SMITH: You're not talking to the same IBEW people.

MR. HOEY: There's different IBEWs--

SENATOR SMITH: (indiscernible)

MR. HOEY: --chapters, right.

SENATOR SMITH: Anyway, I got your point.

MR. HOEY: Yes, OK.

SENATOR SMITH: Anything you wanted to add?

MR. WALL: Yes, please.

I guess my largest concern with the current proposed bill is the amount of fossil fuel generation that will still be happening when we are at 100% clean energy in 2035.

SENATOR SMITH: How can you not have peaker plants?

MR. WALL: No, according to my analysis, because the way the Class I RECs work, is we generate fossil fuel power in state and then buy a Class I REC from the PJM system.

If you look at the last three years, 80% of those Class I RECs have been in Illinois, Indiana, Ohio -- very far away. In other words, have little to no impact on the power in New Jersey.

SENATOR SMITH: You're talking 80% of the 10% that goes away.

UNIDENTIFIED SPEAKER: That's 80% of the total RECs.

MR. WALL: Eighty percent of the Class I RECs.

SENATOR SMITH: Yes, the money -- 90% of the money stays in state; 10% goes out.

MR. WALL: But, the Class I RECs-- So, the generation we are funding is, on average, 800 miles away, and has little to no impact on New Jersey power. And, in fact, if you take the one minus -- or, the 65%, which is

35% -- and assume that the same behavior continues-- Because this bill *is* continuing that kind of REC program, you can safely assume that 35% will be fossil generation in state, or maybe just across the border in Pennsylvania.

SENATOR SMITH: You know, you have to look at the bigger picture.

We have legislation currently that would, by means of a constitutional amendment, would say, “No more fossil fuel plants in New Jersey.” As they retire, they have to be replaced by renewable. It’s out there; it’s waiting for the next catastrophe.

MR. WALL: This bill claims 100% clean--

SENATOR SMITH: Not in this--

MR. WALL: --energy--

SENATOR SMITH: I understand--

MR. WALL: --and, the effect--

SENATOR SMITH: I understand--

MR. WALL: --because there’s 35% of an increased load. The effect is, essentially, no reduction in existing fossil fuel generation as a result of this bill.

SENATOR SMITH: I don’t think that’s true.

MR. WALL: That’s what my analysis says.

SENATOR SMITH: OK.

I’m going to put you and Jesse in the octagon and see who comes out.

MR. RAWLINGS: Well, and, I want to be in the room, too. Because--

SENATOR SMITH: That would be unfair--

MR. RAWLINGS: Fundamentally--

SENATOR SMITH: --that would be unfair, (laughter) we can't have two--

MR. RAWLINGS: Fundamentally, there's a false theory behind the bill that says that the lowest cost source of clean energy is the best. And, that's not a rational approach. If you don't--

SENATOR SMITH: So, separate octagon, I'm going to put you and Brian, the ratepayer advocate, in a separate octagon. You guys can fight that out.

MR. RAWLINGS: Poor Jesse.

MR. WALL: Senator, you can tell Jesse I accept.

SENATOR SMITH: OK.

MR. RAWLINGS: We have a lot of testimony about how to quantify the value in New Jersey of doing solar--

SENATOR SMITH: We accept that.

MR. RAWLINGS: OK, but we--

SENATOR SMITH: That's why we've been so supportive of solar over the years.

MR. RAWLINGS: It is important, because it hasn't been studied. The value-- *We've* studied it, but it hasn't been studied. The value of solar that's been done for wind hasn't been done for solar.

So, there is no clue out there for how much is being delivered; how much value is being delivered -- including in cash. We have some of those numbers, and we'd like to create an understanding about it.

SENATOR SMITH: All right--

MR. RAWLING: Another time--

SENATOR SMITH: Yes, because the first page was enough. I had three people snoring on this side. And, remember, the public doesn't even have the slides. They don't know what we're talking about.

But, yes, why don't you send in your best evaluation of the value of solar. We're happy to look at it. But this is a renewable portfolio standard bill -- just FYI.

MR. RAWLING: Yes, we understand.

SENATOR SMITH: I appreciate you coming in.

All right, opposed -- Josh Lewin. Did I get you up Josh, already?

MR. LEWIN: I just--

SENATOR SMITH: That was you, OK.

Ben Haygood from Isles. Ben, tell us who Isles is.

In favor.

BEN HAYGOOD: In favor; correct. Will do, Senator.

Thank you, Committee.

I am aiming for brevity here; I have to leave in quite a bit.

So, when someone brings back to this specific bill here, we appreciate the complexities involved in the portfolio bills here, and do support 2978.

ISLES is a community development organization right here in Trenton. For 40 years, we've been doing nothing else other than making sure families have a safe and healthy place to live. This includes healthy homes and integration of green energy training and connecting almost 4,000 local residents with clean energy and healthy homes and jobs.

Thank you, Senator, for your leadership on this public health and workforce-development initiative that reduces pollution while still creating good, local prevailing wages and predominantly union jobs.

Isles strongly supports this legislation because it is essential to the long-term public health of our community. And, like Ed said, it will literally save lives. I'm not saying that lightly. The cumulative burdens of pollution disproportionately harm communities of color, and we see this firsthand in Trenton. A Delaware Valley Regional Planning Commission report states that asthma rates for Trenton communities are four times worse than the rest of Mercer County, and they have a life expectancy of 13 years less -- 13 years less than just up the road, 8 miles, in Princeton Junction.

Unfortunately, these disparities not only exist in Trenton, but they remain prevalent amongst low-income communities throughout the state.

SENATOR SMITH: And, throughout the country.

MR. HAYGOOD: And, throughout the country -- thank you.

We do strongly support 2978, like I said; however, to date, most energy policies have not been explicit about the nature of these co-pollutants. And, like Maria from Ironbound said, we need to go beyond just defining this. Equity requires that these policies address co-pollutants to the greatest extent possible.

And, I'm just going to say some numbers one more time, and then I'll be done. S2978 will bring about 24,000 jobs directly in building, operating, and maintaining electrical electricity generators by 2035, including about 10,300 in large-scale solar and 7,000 in offshore wind, while preserving all the employed in N.J. nuclear.

So, thank you for this critical step for our children and our community.

SENATOR SMITH: Right, and let me just clarify the comment.

First of all, you're absolutely right on the environmental justice issue and the impact on our urban communities all over the country.

But, this originally was not in the bill either. And, the comment I made is, "Everybody is jumping in," which has made it as complicated as it can possibly be. The issue is legitimate, there's no question about it, and the asthma rates -- horrible. So, we understand your position.

Ben, we appreciate you coming in.

MR. HAYGOOD: Thank you.

SENATOR SMITH: Matt Smith, Food and Water Watch -- no checkmarks anywhere. He's a mystery speaker, neither for nor against.

M A T T S M I T H: Thank you, Senator and the Committee for the time today.

My name is Matt Smith, I am speaking on behalf of our 73,000 members and supporters across the State of New Jersey who want to see a rapid and fair transition off of fossil fuels, in line with what the science demands of us and the reality of our climate crisis.

I want to thank the Senator and this Committee for the leadership on this bill.

I didn't put opposed or support, because we think that the latest amended version addresses some of the concerns that have been raised, but doesn't go far enough to really make sure that ratepayer dollars are going to truly clean-energy sources and cannot be diverted to false solutions that will

keep us hooked on dirty fuels that will continue to exacerbate pollution problems with the worst impacts to low-income and communities of color.

So, it is clear we do need to do something, but I would strongly suggest that we look at the language in the bill around “*de minimis*.” I know some of the testifiers here think that it’s fine to leave that up to the DEP. What I would suggest is that the DEP, right now, today, issues major polluters permits who exceed Clean Air Act thresholds for what are the safe upper limits of criteria pollutants -- particulate matter, NOX, all of the primary things that contribute to our high and horrible asthma rates. Leaving this decision -- these decisions -- up to DEP to certify what “*de minimis*” is, is frankly not good enough. They have given polluter after polluter ozone credits to continue to build and operate new polluting facilities in overburdened communities, and this Clean Energy Bill must not perpetuate that injustice.

We need strong limits with definitive language put in the bill. Because, in addition to the way that DEP handles these decisions now with credits and offsets and trading schemes, which basically create paper that makes us *look* like we’re reducing pollutions, but that doesn’t change the reality of the air quality in Newark, or in Camden, or in Kearny -- the communities who are on the front lines of this crisis. So, we can no longer allow DEP to do that, or subject this bill to the whims of future administrations, which might even take, perhaps, weaker positions than our current DEP.

So, we need *zero* emissions when it comes to co-pollutants; *zero* emissions when it comes to greenhouse gas emissions. Net zero on the same side as its perpetuating environmental injustice with co-pollutants on the

greenhouse gas side can actually sabotage and hijack our clean-energy and climate goals, because, if you look at what the industry is pushing for with things like carbon capture and sequestration; more pollution trading offsets and credit schemes; even things like hydrogen, which produces, again, six times the amount of NOX. NOX is a greenhouse gas that's 30 times more potent than carbon. And, more importantly, hydrogen is a trojan horse for the fossil fuel industry to not have to decommission any of their existing infrastructure; their pipelines; their power plants; which is really what they want. They want to perpetuate their business as usual at the expense of our clean-energy future, and it's, frankly, unacceptable.

So, I want to thank the Committee for this time. I don't need to take any more time, but I would say that this Committee is the committee with the sophistication, the leadership that needs to make sure that this bill does not allow for a vague, broad definition of pollutants, that can qualify as clean energy; and make sure that we have real strong language in the bill to prohibit the perpetuation of environmental injustice and fossil fuel in New Jersey.

Thank you.

SENATOR SMITH: Thank you for your comments.

(applause)

Tom Fote. Is Tom here?

Mr. Tom, from the New Jersey Coast Angler's Association and the New Jersey State Federation of Fishermen?

T H O M A S P. F O T E: New Jersey State Federation of Sportsmen's Clubs.

SENATOR SMITH: Oh, OK. I didn't know what the abbreviation-- In favor.

Go ahead, Tom.

MR. FOTE: My name is Tom Fote. For the last 40 years, I've been dealing with fisheries management in New Jersey. Thirty of that was spent as the Governor's Appointee, or Legislative Proxy to the Atlantic States Marine Fisheries Commission. That's part of my background. I'm a volunteer for all the jobs I have; it's a volunteer hat.

When I started talking about clean energy and renewable energy, it was in the '80s. Not looking at global warming, but looking at the resources of New Jersey. I represent sportsmen; they've always been out in front of environmental issues.

If you look at the environmental issues that we have from NOX, from the pollutants coming from Ohio and Pennsylvania, every one of the lakes, rivers, streams, and any little puddle of water in New Jersey -- and, not only that, every piece of farmland and garden that we have in New Jersey -- has mercury contamination. Where does it come from? Ohio and Pennsylvania. And, we've been dealing with that for 130 years.

So, when the Sportsmen looked at that, we said, "We need to clean up that," because it's an environmental justice issue. Because, we look at the poor, now, cannot go to a lake, harvest a fish, and take it home to eat -- which I did as a kid, and I did it at Fort Dix many years later because I was stationed there in the hospital, and I was eating polluted fish from every lake at Fort Dix. But, that's beside the point. So, that's one of the things I look at, is how do we get rid of the pollutants in the atmosphere, in our land, in our water, and everything else?

Now, global warming -- I deal with fisheries. In 1955, the commissioner, again -- commissioner, I was a Head of Bureau of Marine Fisheries, was then under the Department of Commerce -- decided that recreational fishing was going to be worth more in New Jersey than hunting, fishing, commercial fishing, and a few other things. So, spent a lot of money back then that we never spent again -- no other state has spent that much money -- looking at an economic and a fisheries research project from New Jersey. It was finished in '55. It showed all the fish that we were harvesting back then. If you look at the fish that were important to the recreational fishing industry *and* the commercial fishing industry back then, they're no longer here. Those fish -- Boston mackerel, scup, winter flounder -- have all disappeared. Why? And, in the commercial fishery, we've lost an industry worth \$239 million to the State of New Jersey with surf clams, because as the water warmed up, the fish moved out.

It has now cost us, with regulations, we got a dumb -- I won't say what I usually call it -- regulation on striped bass that only allows a 3-inch fish to be harvested. And, the Atlantic States Marine Fisheries Commission just put out a thing on striped bass that they're going to make the party boats and charter boats a bigger slot than we have for the private people fishing on land. Again, another environmental issue. It shouldn't be how much money you have to catch a legal fish; you should be all allowed the same opportunity to catch a legal fish.

So, New Jersey Coast, the Federation of Sportsmen's Clubs, support this bill. We support any bill that will start cleaning up the environment and renewed energy.

And, we start talking about solar panels -- as Senator Smith knows, I've got 40 of mine on my roof; I've had them there for 15 years. I don't pay electric bills. I now have a Tesla backup battery because when the lights go down, I still have electricity. And, when I do get rid of the two Priuses, one of those cars will be an electric car. And, that's what people-- I hear people arguing against wind, arguing against this. I say, what is your alternative? How do we get rid of the global warming? Because, I'm not going to see it. I'm fighting for the next generation or, truthfully, now, the generation after that. It's not only our kids, but it's our grandchildren or our great-grandchildren. Because, it's going to take that much more to clean the environment.

And, thank you all for the job you do, because you're the people who look out. And, this Committee has been great, because I've been testifying before them almost 35, 40 years.

So, anyway, I'll cut it short there.

SENATOR SMITH: And, you don't look a day older.

MR. FOTE: Thanks.

SENATOR SMITH: Thank you, Tom.

So--

SENATOR DURR: Excuse me, Chair.

SENATOR SMITH: Yes, sir. Senator.

SENATOR DURR: I just wanted to first applaud you.

Although we probably don't agree, I want to at least applaud you, because you not only talk the talk, you walk the walk. You have solar panels; you say you're going to go with electric vehicles.

I guarantee you there's people in here who have testified who do not have an EV car. I don't think you have one, Senator.

SENATOR SMITH: Not yet.

SENATOR DURR: So, if you're going to talk the talk, walk the walk.

So, I wanted to at least commend you for that.

MR. FOTE: Well, Senator, I am going to say one more thing.

In New Jersey, whether it's any environmental issue, it's both Republican and Democrat. I mean, my closest friends were Congressman Saxton and Congressman Pallone -- both sides. They'd be seated at a table. Congressman Hughes used to be from Cape May. We'd all sit at a table, it didn't make any difference if you were a Democrat or Republican in New Jersey -- you were an environmentalist because we realized we have to protect people--

SENATOR DURR: But, I was agreeing with you that the Sportsmen are the best environmentalists.

MR. FOTE: Thank you.

SENATOR DURR: They care about the environment, and they want to see it survive.

MR. FOTE: I actually -- I've served, I just figured it out, 15 years as the Governor's Appointee under Democrats and 15 years under Republicans. So, I've been bipartisan for many years.

Thank you.

SENATOR SMITH: Thank you, Tom.

(applause)

So, let me ask two people to come up together; you're both from the same organization.

Brooke Helmick and Dr. Nicky Sheats from NJEJA. I assume the EJA is Environmental Justice Association, right?

DR. GURRENTZ: Alliance.

SENATOR SMITH: Alliance.

UNIDENTIFIED SPEAKER: (indiscernible)

SENATOR SMITH: I can't hear you, ma'am.

UNIDENTIFIED SPEAKER: There's actually four of us (indiscernible)

SENATOR SMITH: A party? Come on in.

And, if everybody would introduce themselves, that would be appreciated.

BROOKE HELMICK: Absolutely.

SENATOR SMITH: Yes, take it away.

MS. HELMICK: Thank you.

Good afternoon, all, it's a pleasure to be here. And, thank you for the opportunity to speak today.

My name is Brooke Helmick, and I am the Law and Policy Manager with the New Jersey Environmental Justice Alliance. We are an alliance of New Jersey organizations and individuals committed to creating healthy, sustainable, and just communities by eliminating environmental injustices in low-income and communities of color.

I am here today to share with you and expound upon our perspective on co-pollutants, as first introduced by Maria Lopez-Nuñez with the Ironbound Community Corporation earlier in the day. We want to

emphatically stress the necessity of ensuring that co-pollutants are not only included, but seen as an integral component of this bill. Because engaging in mandatory emissions reductions not only supports climate-change mitigation policies, but it provides real and immediately felt impacts to communities disproportionately impacted and overburdened by pollution. We see co-pollutants in numerous areas of our everyday life, whether that's breathing in particulate matter 2.5, or NOX, or multiple heavy-duty and diesel-burning vehicles that drive through our communities. Or, it's living near power plants and incinerators that emit these dangerous and harmful pollutants.

For us, the bottom line is that clean energy laws must account for co-pollutants. If we don't do this, we run the risk of missing a key opportunity to protect front-line communities and exacerbate an already existing problem, making the situation worse for our over-burdened environmental justice communities.

We do not accept an argument that these pollutants are relatively small in emissions compared to greenhouse gases. There are serious health risks for the communities who live around plants that emit these co-pollutants, and it's imperative to recognize that fine particulate matter has no lower threshold for health benefits. PM2.5 has been linked to a number of negative health outcomes, including premature death; cardiovascular disease; lung cancer; and pulmonary disease. Driving down concentrations of fine particulate matter and other co-pollutants in tandem with greenhouse gases has an immediate relevancy and health benefit to EJ communities. And, when we factor these co-pollutants into the discussion and the definition, we bring EJ communities to the table.

Many times, these are communities that are the most impacted, as we've heard today, and they face a disproportionate burden. Yet, they are consistently missing from the conversation. And, furthermore, factoring in co-pollutants demonstrates our acknowledgement and awareness that any and all climate-change mitigation policy, including this bill, must include and address centering co-pollutants.

So, as we develop these definitions and we continue these discussions, we believe that we can drive down concentrations of co-pollutants *and* greenhouse gases in tandem when we push forward clean energy and climate-related policies. As my colleagues before me said, "Clean *must* mean clean."

Thank you again for the opportunity to testify, and I will hand it to my Executive Director.

(applause)

MELISSA MILES: Good afternoon, Chairman, Committee members.

My name is Melissa Miles, I am the Executive Director of the New Jersey Environmental Justice Alliance.

And, I'd like to state that the New Jersey Environmental Justice Alliance-- We're a 20-year-old organization. We're the first and still the only statewide organization that is exclusively dedicated to environmental justice, and we are the only statewide environmental organization that is led and our membership is predominantly of color. So, our staff, our board -- we are from the communities that we are talking about when we say "environmental justice communities." We've been working with these communities for over 20 years. Much of what you're hearing about co-pollutants and EJ and equity really grew out of the work of Alliance members and allies over the years.

So, we're really glad to be here, and so happy that you have taken our concerns seriously. We can see it in the bill and how it's changed over the months that we've been talking about it.

So, my job is to talk very specifically about the definition of the clean-energy facilities. So, I'm really talking about, here, Section 3, where we're talking about the clean electricity production facility, which means, "Nuclear, wind, solar, or hydroelectric electricity production facility; *or* any other electricity production facility that generates electric energy in a manner that produces no more than a *de minimis* level, as determined by the department, of net greenhouse gas emissions; *or* co-pollutant emissions at the point of generation; *or* at any point in the fuel supply chain of the facility. Clean electricity production facilities shall not include a resource-recovery facility," which is, like, the best line in this whole bill to me.

But, there is a few pieces in there that we want to discuss and want to make sure that we have clarity on. So, our proposal calls for limiting the clean energy attribute credits to facilities with zero emissions. The definition allows *de minimis* emissions to be determined by the DEP. We want to make sure that *de minimis* means as close to zero in terms of pounds of emissions in any given hour as possible. The only other legal definition of *de minimis* that we know of is the EPA's definition under the Clean Air Act, which allows between 25 and 100 tons per year for various co-pollutants. So, we just want to make sure that our regulatory agency is looking at a *de minimis* definition that is as close to zero as possible.

Also, on the term "net emissions," we've heard other folks speak about this today. We tend to object to this language of "net," because a facility could produce significant pollution in an over-burdened community

and still claim zero net emissions by using offsets in other locations. So, we've already seen renewable gas producers and incinerators make claims of net zero emissions. And, so, those are what we will call "false solutions." They are reliant on markets, and they allow pollution simply to be displaced to another area, often harming the communities that are hosting this energy facility.

And, then, the last place that we want to bring attention to here is the use of the word "or" in two places in the definition. So, we need to be sure that -- 100% sure, I should say -- that the definition requires facilities to demonstrate zero GHG emissions, *and* zero co-pollutant emissions. So, it's just a minor thing, but we want to make sure that both are included there, and that the facility would emit zero emissions at the point of generation *and* at any point in the supply chain. So, we're just thinking that "and" in those two places makes more sense than the "or."

And, I think that's pretty much it for me. If there's any questions, I am happy to address them.

SENATOR SMITH: Any questions? (no response)

(applause)

Next.

T H O M A S I K E D A: Hello, Chairman and Senate Committee.

My name is Thomas Ikeda, I am the Research and Policy Development Fellow at the--

UNIDENTIFIED AUDIENCE MEMBER: Louder, please.

UNIDENTIFIED AUDIENCE MEMBER 2: Louder.

MR. IKEDA: My name is Thomas Ikeda, I am the Research and Policy Development Fellow at the Center for the Urban Environment at the Watson Institute at Kean University. Long title; sorry.

So, I want to begin by saying I'm feeling really encouraged that you all are considering a bill that incentivizes clean energy for New Jersey residents so strongly. I think this represents a major step forward for climate mitigation.

However, I also believe that there is a missing piece. Despite the bill's clean-energy procurement mandates, there are no guarantees that energy produced in New Jersey will be clean. And, this is a major issue, as many people have said already. There are several dozens of fossil fuel-burning power plants operating in New Jersey that emit massive amounts of harmful air pollutants into surrounding communities -- many of which we consider to be EJ communities. These communities have a long history of being overburdened by pollution and other environmental hazards, and this threatens to perpetuate this already-existing issue.

New Jersey climate policy *must* address co-pollutants, and it must do so specifically and explicitly in historically overburdened EJ communities. This goes beyond this bill alone; the EJ movement's stance is that this should be a part of any climate change policy, a concept we call "mandatory emissions reduction." Mandatory emissions reduction is nothing new; the EJ movement has been calling for this for a long time now, and we have advocated for this around New Jersey. And, it is the basis for a major campaign that we will be launching shortly.

So, I hope we can maintain an active dialogue on this topic of mandatory emissions reduction, and that the assembly will be -- will support our efforts.

Thank you. I will pass it down to--

SENATOR SMITH: Thank you for your comments.

(applause)

Yes, sir.

NICKY SHEATS, Ph.D., ESQ.: Good afternoon, Senator Smith, and Committee members.

My name is Dr. Nicky Sheats; I am the Director of the Center for the Urban Environment at the John S. Watson Institute for Urban Policy and Research at Kean University. And, for full transparency, I am also a member of New Jersey Environmental Justice Alliance.

So, what I've done for years now from within the EJ community is try to help the EJ community develop the best possible policy from an EJ perspective. And, I'll just make a few more points about co-pollutants that haven't been said yet.

But, first, lawyers always ask to approach the bench. Can I hand out something to Assembly members?

SENATOR SMITH: To senators, yes.

DR. SHEATS: To Senate members. I'll get to the Assembly--

SENATOR SMITH: It's OK--

DR. SHEATS: --I'll get to Assembly later.

SENATOR DURR: Just demoted you.

SENATOR SMITH: It's all right.

DR. SHEATS: So, a little bit more about co-pollutants. I am very happy -- as my colleagues said -- I'm really happy from an EJ perspective. Co-pollutants in the bill is essential. And, I am very happy to see co-pollutants in the bill, because, as my colleagues have said, we've been working on this a long time in the EJ community. We first suggested that co-pollutants should be part of climate-change mitigation policy back in 2008 when New Jersey first (indiscernible). We suggested it again in 2018, when New Jersey went back into (indiscernible). We suggested it in 2014, when EPA came out with the clean power plan. And, now, this bill is *finally* including co-pollutants as part of climate-change mitigation policy.

And, so, we think that's great, and we are grateful that you put it in. The reason co-pollutants are so important is that frequently, as you know, in EJ communities -- communities of color, low-income communities - - there's a disproportionate amount of pollution. And, co-pollutants produced by an energy infrastructure go in the making of this disproportionate amount of pollution. And, why we're worried about that -- maybe people have talked about the health impacts of pollution -- the one thing no one said is that there are health disparities in the United States that are rooted in race and income, and pollution from the energy infrastructure contributes to these health disparities that, again, are based in race and income.

So, our stance has been, because of this, that if a climate-change mitigation policy doesn't both fight climate change and address co-pollutants and address local air pollution through co-pollutants, then it should not be used. Now, that's a tough stance, but we think it's justified. Because we just want to remind you -- I said this earlier outside -- that, look, if people died

and get ill from local air pollution while we're fighting climate change, and we could have lowered local air pollution while we're fighting climate change, once we begin the fight against climate change -- and, I think we will -- those people who were killed by local air pollution, they won't be resurrected. And, those people who were made ill by local air pollution, they won't be instantly made well again because we won the fight against climate change. And, that's why it's essential to address the co-pollutants.

Now, as my colleague just said a few other people pointed out, the bill doesn't guarantee that you're going to get co-pollutant reductions in New Jersey. But, Senator Smith, as you have suggested, one bill can't do everything. And, so, we understand that. But, when we see this bill has co-pollutants in it, we think this opens the door; we see a wedge in the door now that, hopefully, we can walk through. And, as my colleagues said, we will be coming back, probably, again, talking about mandatory emissions reductions and having a bill or a rule that compliments this bill that you're talking about now would be a perfect solution to that.

And, if the ideas in this bill are combined with the ideas in mandatory emissions reduction and turned into laws and turned into policy, we really believe that we've come to a turning point -- we will have come to a turning point in both climate-change mitigation policy, *and* in local air pollution policy.

So, we hope to see you again, and we will continue with the innovative ideas around both climate change and environmental justice.

SENATOR SMITH: Appreciate your comments.

(applause)

Thomas, I want to make sure I -- are one of you Thomas Ikeda?

OK, and Melissa Miles?

OK, then I think I have everybody tracked.

Thank you so much for coming down today.

DR. SHEATS: Senator Smith, can I say one more thing?

SENATOR SMITH: Sure.

DR. SHEATS: I gave you the handout, and I didn't tell you what it was.

SENATOR SMITH: I read over it once. You were showing the concentration of impacts and minority -- on minority communities. And, it's clear that it's very high.

DR. SHEATS: As a number of people of color grew up in New Jersey neighborhoods, so does the pollution -- estimated pollution -- and the same thing for people living in poverty in this country.

New Jersey DEP in 2009, and we think that further justified your inclusion of co-pollutants in the bill.

SENATOR SMITH: Thank you for your comments.

All right, the next speaker is going to be -- there are four slips left.

Ben Ghiano, Mid-Atlantic Renewable Energy Coalition and American Clean whatever -- but you've got to hold one second. If I don't call my law office, I am going to be thrown out.

What time is it, anyway, 2:15 p.m.?

DR. GURRENTZ: Yes, 2:15 p.m.

SENATOR SMITH: Wow. Time flies when you're having a good time.

Ben -- in favor, with amendments. What amendments would you like?

BENJAMIN W. GHIANO: That's correct.

Thank you, Chairman Smith, and members of the Senate Environment and Energy Committee. It's great to be here.

I'm here on-- My name is Ben Ghiano, I am here on behalf of American Clean Power Association, which is an organization based of 800-plus wind, utility-scale solar, green hydrogen, and transmission companies; as well as MAREC, the Mid-Atlantic Renewable Energy Coalition, which is also made up of utility-scale solar, wind, battery storage organizations as well.

On behalf of both organizations, thank you for allowing me the opportunity to testify today.

I'll try to be brief here in my comments. We're still gathering feedback from our members here, but wanted to just highlight a few key points in the legislation.

First, that the legislation contemplates a significant flexibility to retire New Jersey's various clean energy certificate -- in lieu of the ZEC, while significantly increasing the overall compliance targets. We're still analyzing this and gathering some feedback, and we should have some comments to you in the next few days on that in particular.

But, generally, MAREC and ACP believe that this is the correct approach to avoid the negative impacts of any existing clean energy certificate markets that are presently incentivizing development here in New Jersey. Additionally, we support the approach to the labor requirements in the bill, aligning the prevailing-wage and apprenticeship standards with the Federal Inflation Reduction Act, making sure that these standards are consistent, both at the State and Federal policy level. It makes compliance more

straightforward for all companies, by extension enhancing New Jersey's ability to incentivize sustainable paying jobs here in the state.

The bill also places strong emphasis on in-state development, requiring that 65% of electricity sourced to meet the state's demand comes from New Jersey (indiscernible) facilities. ACP and MAREC both support this provision of the bill, as it will create an increased demand for clean energy projects in the state, while also allowing for healthy contribution to clean energy outside of New Jersey along the broader PJM grid.

That said, we do believe that the authority granted to the BPU to identify additional out-of-state resources if the in-state requirement cannot be met is critical to the success of the legislation. The current requirements and competitive solar incentive program, including the agricultural land-use restrictions and the delayed implementation status of the energy storage incentive program, may make the in-state goal difficult to attain without additional flexibility as in this bill.

And, finally, supporting the broad definition of electricity production facility appropriately recognizes the contribution of existing nuclear generation and future zero-carbon resources to the 100% clean energy target. Because the legislation envisions an uncapped contribution for the future zero-emission energy sources and significant and an immediate increase in the clean energy market in New Jersey, it is critical that this bill be amended to codify Governor Murphy's 11-gigawatt goal of offshore wind, as well as existing targets for energy storage and utility-scale solar.

New Jersey has already taken some significant steps to invest in solar; to invest in offshore wind supply chain, through the leadership of the New Jersey Wind Port; and by working with industry leaders on other ways

to keep costs low now and into the future for ratepayers. So, codifying this 11-gigawatt goal will protect that progress and send a strong signal that New Jersey welcomes a long-term supply chain investment to support the offshore wind, industry, and manufacturing.

On that, on behalf of the members, thank you for your time, and I'd be happy to take any questions (indiscernible)

SENATOR GREENSTEIN: Thank you, Ben.

Any questions? (no response)

Thank you very much.

MR. GHIANO: Thank you, Senator.

SENATOR GREENSTEIN: Thank you.

The next person is Alex Ambrose, New Jersey Policy Perspective.

ALEX AMBROSE: Thank you, members of the Committee, for the opportunity to testify here today.

My name is Alex Ambrose, I am a policy analyst with New Jersey Policy Perspective.

I really want to emphasize what a lot of our friends have already said up here, that "clean must mean clean." Ensuring a strong definition of clean energy will make sure that New Jersey is not only a national leader in clean energy, but it will also safeguard our environmental justice communities.

Black and brown families suffer disproportionately due to our state's overreliance on dirty energy. And, there's also a concept called "energy privilege." The University of California found that communities that oppose clean energy tend to be wealthier and whiter communities, while poor communities and communities of color bear the brunt of fossil fuel generation

in our state. The transition to clean energy *must* be equitable. We must ensure that a privileged few do not dictate our energy policy, but that we center the lived experience of our environmental justice community (indiscernible).

We looked up the amendment specified by Maria Lopez of ICC and Melissa Miles of NJEJA on the definition of clean-energy production facilities. This is essential to moving our state forward and attaining true equity.

We also want to lift up the importance of having strong workforce development and labor provisions. There is a balance that needs to be struck on how much energy we generate in our state and how much we procure out of state. But, we support a provision that maximizes the in-state benefits so that we induce those co-benefits that clean energy creates in our state. It is essential that those co-benefits of the green economy reach New Jerseyans -- especially those in Black and brown communities who have historically been left out of and excluded from the benefits of energy generation.

We appreciate your work on this bill, and we hope you will take these amendments into consideration to ensure the best possible future for all New Jerseyans.

Thank you.

SENATOR SMITH: Thank you for your comments.

Doug O'Malley.

MR. O'MALLEY: Thank you so much, Mr. Chairman; thank you, members of the Committee. I know we are entering uncharted territories for the length of this hearing.

My name is Doug O'Malley, Director of Environment New Jersey.

This is very appropriate, though, and I want to thank you directly, Chairman, for having this dialogue; the back and forth; the amendments. This is just an inch of the work that has gone into this bill by members of the Committee and staff. So, I just want to wholeheartedly thank the work that's happened.

We've had a lot of conversation this morning -- and, now, well into the afternoon -- on cost. I would like to talk just briefly on the cost of inaction, if we don't move forward on a truly clean or squeaky clean transition to clean energy.

And, that can be seen very simply at our coast (indiscernible) best. Because Cape May just announced they're building a sea wall, about 400 feet, on Beach Avenue -- very appropriately named. Now, the problem is, if you build a sea wall in one place you build it the next, and you can build it in the next. And, the Center for Climate Integrity has estimated the cost of building the sea walls all across New Jersey is \$25 billion -- that's billion with a "B." So, that is just an infrastructure cost; that's just a physical cost, it has nothing to do with inland flooding and those impacts.

And, then, obviously as we heard from Dr. Nicky Sheats, the cost and the externality of human health, and those impacts on lives. So, that is not included when we're talking about just pure dollars and cents. So, that's why when we talk about the value of clean energy, the value of solar, we have to incorporate the cost of fossil fuels; the cost of fossil fuels on our public health; and the cost of fossil fuels with rising sea levels -- which, by the way,

the DEP still estimates 6 feet by the end of this century, 2 feet over the course of the next 30 years. That is huge. We cannot ignore that.

I also wanted to thank the tremendous work by the New Jersey Environmental Justice Alliance and the Ironbound Community Corporation. They've proposed a set of amendments which they walked through. I won't repeat all of them, but I do just want to emphasize the importance of having a *de minimis* definition of a clean-energy production facility for co-pollutants that essentially eliminates as much as possible, co-pollutants, because the current *de minimis* definition has -- there's nothing *de minimis* about, literally, hundreds of tons of lead. So, let's be clear on the definitions and make sure they're as strong as possible.

The "and" or the "or." This seems totally semantic, but it is not, because we are talking about whether it's a definition of emitting emissions at the point of generation, *or* at any point in the supply chain -- that's hugely important. And, then, in terms of the net generation, that's also a danger, because you can still claim zero net emissions by using offsets in other locations.

I did want to testify just in a little more detail on a critical aspect on notice of violations for resource-recovery facilities, also known as trash incinerators. This, specifically on the definition -- and, this is included in the testimony I emailed to the Committee and provided this morning as well -- the definition of substantive permit violation. It needs additional quality, because, right now, this qualification needs to be premised on the violation, *not* on the final agency action. So, when you heard the testimony from Maria Lopez-Nuñez a little earlier on the purple iodine pollution -- there was only a notice violation, but not final agency action. That seems like a small

distinction -- it's not; that's years. So, when we talk about violations, we have to have not just a notice of violation; it needs to be based on -- it needs to be based *not* on the final agency action, but on the actual violation.

There also needs to be a non-discretionary process for disqualification, where DEP is required to report substantial violations to the board, and the board is required to disqualify the facility upon receipt.

And, the last item -- which has come up a couple of times -- I just want to state it clearly. When we're defining a clean production facility, we would recommend language at the very end, again, associated with the resource-recovery language, that a clean electricity production facility should not include a resource-recovery facility *or* a facility that uses as a source or helps reduce fossil fuels. That may seem redundant to some people; I think it's really critical just to have that language be crystal clear in the legislation.

I wanted to pivot quickly to some of the conversation more broadly on clean energy and the production, in-state versus out-of-state; and to discuss a language that is kind of buried in the bill -- and that's additionality. There's obviously a broad concern that clean energy credits don't require additionality, as the clean energy credits can be paid to already operating facilities, which reduces the impacts of greenhouse gas mitigation. We would recommend that out-of-state projects be eligible for the clean energy credits, the ZECs, must be placed in service *after* the effective date of the act. That would be a big step to ensure that we are dealing with the additionality concerns.

Second, BPU should also be given the authority to adjust response to changes in load growth. We know that load will increase, especially if we're able to fulfill our electrification agenda. We want to ensure

that if load increases by more than 1%, there should be an amendment to require that BPU recalculate the estimated 2035 percentages every three years, based on those changes to load growth, so that we can take steps to increase carbon-free purchases if the load growth does, in fact, increase more than 1%.

And, then, finally, most other New Jersey energy law provisions include a requirement for the Board of Public Utilities to consider in-state, economic, and environmental benefits in the Board's program administration. This legislation should also be amended with those provisions.

Thank you so much for your leadership on this, Chairman, and thank you to members of the Committee.

(applause)

SENATOR SMITH: Talk to me about that load growth and (indiscernible) again.

MR. O'MALLEY: Sure.

So, the idea here, of course, is that when-- We've talked already this morning, way back in the morning, about the grid and getting more reliability in the grid. One of the big reasons to do that is because of the growth for offshore wind. So, on Friday, the BPU moved forward on transmission.

So, the idea is that as we generate both more clean energy onto the grid, and then also we have more electric vehicles and building electrification, that the load growth could exceed 1%. And, so, we want to basically have a built-in mechanism for the board to revisit where we are on load growth. And, if we do exceed 1%, to have a provision every three years

to be able to increase the carbon-free purchases if the load growth increases more than 1%.

SENATOR SMITH: OK, thank you.

Great; appreciate the comments. The other thing that was really interesting to me is the one about--

SENATOR DURR: Excuse me, Chair.

SENATOR SMITH: Yes, sir.

SENATOR DURR: So, you're basically saying you want us to cede more power to the BPU?

MR. O'MALLEY: Well, this is really important.

The Board has--

SENATOR DURR: Shouldn't it come back to the Legislature? They aren't elected officials. They're an administration. Elected officials answer to the people, so any decision that affects the people should be through the Legislature.

MR. O'MALLEY: We believe firmly in the power of State agencies like the Board. Obviously, the Board commissioners are approved by the Legislature.

SENATOR DURR: I mean, earlier, Chairman, you were speaking about "an unfriendly BPU." And, that's because they have too much power. We don't need to give them more.

SENATOR SMITH: Well, philosophical difference; not to be resolved today.

Thank you for your comments.

We have Jessica (indiscernible)

JESSICA RAIS, M.D.: Rice -- rice, like white rice.

SENATOR SMITH: OK.

And, Jessica, you're not affiliated with anybody, but you--

DR. RAIS: I filled out an updated form, but--

SENATOR SMITH: OK, go ahead.

DR. RAIS: Chairman Smith and members of the Committee, thank you so much for allowing me the opportunity to speak on behalf of my patients and my community, as well as the opportunity to learn so much today from members who are closely involved in the environmental justice movements.

My name is Dr. Jessica Rais; I am here today as a concerned physician, and my views do not necessarily reflect those of my employer. I am also here through my affiliation with Clinicians for Climate Action in New Jersey.

As a young physician practicing in Camden, New Jersey, it has become eminently clear to me that climate change can no longer be framed as a problem of the future, but that it is one whose impacts are playing out each and every day. The Camden community that I am privileged to practice in and serve is considered an urban heat island -- a place that it remains significantly warmer than its surrounding suburban counterparts, secondary to the drastically increased amounts of asphalt, concrete, and other similar materials of the built environment. These materials absorb solar energy and re-radiate it, causing the city to be at significantly higher temperatures when compared to its suburban neighbors. As New Jersey continues to face record-breaking temperatures with a 36% increase in days over 90 degrees in the past 75 years, and we see a nationwide climb in heat-related deaths -- between 13,000 and 20,000 estimated deaths nationwide attributed to heat-related

illness between 2008 and 2017 -- communities like the one that I serve in Camden are particularly vulnerable.

As temperatures and particulate matter and pollution continue to rise, so, too, does the worry that I have for my patients. I worry about those who have trouble paying for air conditioning reliably; hoping that the forms I filled out at our primary care clinic have been filled out efficiently enough and accurately enough for them to obtain their much-needed state aid to support their utility and electricity needs. I worry about my patients who need to walk everywhere, including to work and to their much-needed doctors appointments; as well as to my unhoused patients, wondering if they are able to get enough hydration and shade to survive through the day. I worry about the many patients with COPD and asthma who I care for, hoping that the current regimens we've worked so hard to craft for them are enough to protect them from the worsening conditions and subsequent worsening exacerbations and possible need for hospitalization in the face of higher temperatures and, consequently, increased levels of ozone and particulate air pollution.

The scenarios that I have mentioned barely scratch the surface of the impact that the burning of fossil fuels and the emission of co-pollutants, and the result in climate change, can have on our communities. This is why it is vital for New Jersey to continue forging ahead in pursuit of clean energy and adopt an equitable clean energy standard.

Thank you so much for your time and consideration.

SENATOR SMITH: Thank you very much.

So, for the record: Susan Mikaitis, Food and Water Watch -- Food and Water Action -- in favor of the bill, but no need to testify.

And, our last witness is Anneke van Rossum.

DR. GURRENTZ: On-ick-ah.

SENATOR SMITH: On-ick-ah.

Van Rossum, are you here?

DR. GURRENTZ: Yes, she's over there.

UNIDENTIFIED SPEAKER: (indiscernible)

SENATOR SMITH: Oh, I'm sorry.

OK, well, just in response: The bigger the bill is, the harder to get it passed.

UNIDENTIFIED SPEAKER: (indiscernible)

SENATOR SMITH: Senator Greenstein believes that to be the case.

All right, well, that concludes our hearing. We're going offline for a minute.

All right, back to business.

So, there is a general consensus that there are some additional fixes that need to be made. So, we're -- which means all of you who came to testify, you were very effective. We listened, and we think there may be some fixes that are needed.

The plan right now would be to come back-- When is our next meeting?

DR. GURRENTZ: December 18.

SENATOR SMITH: December 18, the final bill; no testimony.

I mean, I love you all, but six hours of testimony is too much testimony. And, if you didn't tell us today, then shame on you.

So, with that in mind, we had a pretty productive day.

Meeting is adjourned.

(MEETING CONCLUDED)