Committee Meeting

of

ASSEMBLY TELECOMMUNICATIONS AND UTILITIES COMMITTEE

"Testimony concerning public utility and cable system reliability standards and the quality of service provided to their customers"

LOCATION: Committee Room 15
State House Annex
Trenton, New Jersey

DATE: May 27, 2004
10:00 a.m.

MEMBERS OF COMMITTEE PRESENT:

Assemblyman Wilfredo Caraballo, Chair
Assemblyman Peter C. Eagler, Vice Chair
Assemblyman Anthony Chiappone
Assemblyman Upendra J. Chivukula
Assemblyman Jeff Van Drew
Assemblyman Kirk W. Conover

ALSO PRESENT:

Edward P. Westreich
Office of Legislative Services
Committee Aide

John R. McCarvill
Assembly Majority
Committee Aide

Jerry Traino
Assembly Republican
Committee Aide

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ASSEMBLYMAN WILFREDO CARABALLO (Chair): Could we get started, please?

Could you take the roll, please.

MR. WESTREICH (Committee Aide): Assemblyman Wolfe. I'm sorry, Assemblyman Conover.

ASSEMBLYMAN CONOVER: Here.

MR. WESTREICH: Assemblyman Chiappone.

ASSEMBLYMAN CHIAPPONE: Here.

MR. WESTREICH: Vice Chairman Eagler.

ASSEMBLYMAN EAGLER: Present.

MR. WESTREICH: Chairman Caraballo.

ASSEMBLYMAN CARABALLO: Present.

Good morning, everyone.

As indicated in the notice, we're not going to be voting on any bills today. This is an informational session. It will be made up of two parts. The first part will involve hearing from the President of the BPU, with respect to our Clean Energy Program, and any questions that we might have in that area. And the second part will be my attempt to bring us all up to speed on where we are with respect to the reliability standards in the program, to go forward on the reliability standards.

Before we begin, I just have a couple of announcements. I'm really very, very sad to inform everyone that today is the last time we will have John McCarvill sitting with us as the staffer to this Committee. John will be leaving us, not for better fair but certainly for bigger fair. With a couple of kids now, he needs the bigger fair.

Those of us who are in the Legislature know how important our office staffs are to us, obviously. But once we get down here, we know that our lives are either made much easier or very complicated by the quality of the staff that we have working with us. The John McCarvills down here can either make us look very good or make us look very bad.

John, I can honestly tell you that while everyone else is free to judge how you've made me look for themselves, as far as I'm concerned, I feel great about the way I've come off. And that's really in no small part due to you. So this Committee is going to truly miss you. This Chairman is going to truly miss you. And I wish you well in your next job.

So, John. (applause)

Do you want to tell everybody where you're going?

MR. McCARVILL (Committee Aide): I'm actually joining the fine folks at Verizon. So I will not be so far away. I will just be sitting at a separate table, I believe. I hope those warm feelings continue to resonate. (laughter)

Thank you.

ASSEMBLYMAN CARABALLO: It will be hard, but I will try. (laughter)

The other announcement I want to make is that June 14 is scheduled as a day where committees will be meeting at the call of the Speaker. I have already asked the Speaker to call this Committee into session. So this Committee will be meeting on June 14. We will be-- There are a couple bills that -- and I'll put you on notice about two or three of them right now. I believe Assemblyman Van Drew has indicated that he has met with everybody

who has been involved in his bill, with respect to spam -- is ready to be heard. Hopefully, I am portraying this accurately.

The efficiency standards bill is just about ready, and will be ready by that date. And it is also my intention to have all of the final pieces together, with respect to the One Call bill that we've -- many of us have met about. I have not received everyone's comments yet. I have received most. But the bill will be finished by next week, with or without comments. And it's my goal to have it marked in next week and heard on the 14th. So we will be meeting on the 14th. That's already been arranged for.

So, with that, why don't--

ASSEMBLYMAN CHIAPPONE: Excuse me, Mr. Chair.

ASSEMBLYMAN CARABALLO: Sure.

ASSEMBLYMAN CHIAPPONE: If I may-- As many folks know here, my colleague Glenn D. Cunningham passed on the day before yesterday, from my district -- 31st district. He was a fine individual. I know that many of you here knew him, as he served in the Senate. I would ask if we can observe, in his memory, a moment of silence, Mr. Chairman.

ASSEMBLYMAN CARABALLO: I've never been asked to do this, but there's no reason why we can't, absolutely. (pause)

Thank you, all.

My wife took my bike away from me, by the way, Tony, as a result. She said, "Wait a minute. You might be in as bad of shape, here. We don't know." It's terrible, isn't it, riding a bike and then having to--

ASSEMBLYMAN CHIVUKULA: You have a motor bike, Mr. Chairman?

ASSEMBLYMAN CARABALLO: Yes, I'll be going on a motor bike from now on.

At this point, I'd like to ask the President of the BPU, Jeanne Fox, to come up.

Jeanne, you said you wanted Lance and--

J E A N N E M. F O X, ESQ.: Yes, I thought Lance Miller, who's the Chief of Staff; and Mike Winka, who is the Director of the Clean Energy Office. He reports directly to Lance.

ASSEMBLYMAN CARABALLO: Okay, I was asked before the meeting to follow a new protocol with respect to the number of people that we have up here.

MS. FOX: Oh, I can get rid of them then. (laughter)

ASSEMBLYMAN CARABALLO: No, no, stay. Apparently, there's a problem picking up more than two at any one time.

MS. FOX: Okay, so if they're going to talk--

ASSEMBLYMAN CARABALLO: That's what I was going to say. Let's make sure that we can then get both picked up if you have anything to say. And I'm sure Madam President will tell you when you have something to say.

Thank you.

Good morning, Jeanne.

MS. FOX: Good morning. And I'm really very happy to be here.

I'd like to thank the Chair for inviting us here, and the Committee for your interest in renewable energy and energy efficiency.

As you all know, the Electric Discount and Energy Competition Act was signed into law by the Governor in February, 1999, and it did many things.

Some of those, though, are establishing requirements for energy efficiency and renewable energy in New Jersey. And the Ratepayer is now, through the Societal Benefits Charge set up by EDECA, now funds about $124 million a year. And the law says at least 25 percent has to be for renewable. So it can be more than 25 percent, but a minimum of 25 percent for renewable energy.

EDECA also authorized the Board to determine the appropriate energy efficiency and Class I renewable energy programs to come out of the funding, and also the level of the funding.

When I became President of the Board in January '02, the Governor asked me, as one of his priorities, to make sure New Jersey has a comprehensive, streamlined Clean Energy Program that can fulfill its mission effectively. We created, at the Board, the first-ever Office of Clean Energy, which Mike Winka directs. And I stole him from DEP after many years there. Brad didn't get over it for a while, but he's okay now. And we're working very closely with DEP on this effort.

We also reached out to stakeholders and established a Clean Energy Council. These are 20, and myself. The other 20 are mostly experts that come from diverse areas, and they've helped us develop a really good road map for the future of renewable energy and energy efficiency in New Jersey.

Last July, the Council recommended an administrative and fiscal management structure for the administration of our Clean Energy Program, and the transfer of that administration from the utilities to the Board. And the Board of Public Utilities adopted that recommendation last September. I Chair the Clean Energy Council and we're doing a transition from the utilities to the Board to make it smoother.

The Council works closely with the Board staff, mostly the Clean Energy staff, but also our communications staff and others. And the Council helps in assessing and recommending, to the Board, what actions should be taken. The Council has three committees: Renewable Energy, Energy Efficiency, and Outreach and Education. And they're chaired by different council members. We've made the process transparent for funding and for what the program involves. And we have information on the Web site regarding that information, and when we meet. And those meetings are open to the public.

In the Governor's first year in office -- on December 11, '02, we held the first-ever Governor's Energy Summit, where Governor McGreevey articulated his three main goals in the energy arena: to make energy use cleaner and more efficient; secondly, to use and develop more renewable sources; and third, to make energy more affordable.

In line with those objectives, our Clean Energy Program is one of the nation's most aggressive, in terms of both scope and its mission. We've been working to increase the use of energy efficiency technology; to increase the use of the LEED program, which is the Leadership in Energy and Environmental Design Standards, which is a Green Building program of national scope; and also to push for the Energy Star program, which comes out of the Federal Department of Energy and EPA, regarding energy efficiency products, which will help reduce overall energy demand. We're also developing more renewable energy power to generate more electricity, especially during the peak summer periods of July and August.

Clean Energy is crucial for our future because it reduces pollution. And as we all know, we still have not good air quality here. It helps protect the

environment and the public health, it creates jobs, and it helps decrease our dependence on foreign oil. It also makes us safer because it decentralizes energy supply, lessening the risk of cascading power outages like happened last August nationwide, and reducing the grid's vulnerability to terrorism or accidental damage.

Our Clean Energy Program provides incentives, both financial and otherwise, to residential customers, businesses, schools, and other governments to help install high efficiency or renewable energy technologies.

We want to transform the market. The major goal is to transform the market for energy efficiency so that quality installation of high-efficiency equipment is the norm. In fact, we've also been quite successful in saving millions of kilowatt hours of electricity and cubic feet of natural gas with what we've done so far.

The state uses about 73 billion kilowatt hours of electricity and 60 billion therms of natural gas per year. Our energy efficiency programs for residents and businesses has saved 300 million kilowatt hours and 15 million therms, which is enough to light, heat, and cool about 33,000 average New Jersey homes for a year. So it's a good step, but we have a ways to go.

Over the last two years, we've invested about $243 million to promote energy efficiency and renewable energy. And that saved about a billion dollars in future costs. Last year, we exceeded our Clean Energy savings and customer participation goals. And last year, over 350 homeowners, schools, municipalities, and businesses received about $30 million for renewable energy grants and rebates.

And we also provided about $100 million for natural gas and electricity energy efficiency measures. That benefited 55,000 homeowners, schools, municipalities, and businesses. And it will save residences and businesses in the state about $400 million over the life of those products.

Last June, Governor McGreevey had a landmark Business Energy Conference, which was set up working with the different associations -- business associations -- to teach business owners ways they can take advantage of our programs and save themselves money. This is, obviously, helpful to the State's health -- economic health -- and also the individual company's bottom line.

We also started a joint program last year with the Economic Development Authority. We're leveraging $15 million, from our Clean Energy moneys, with private funds. That's set up by EDA through banks, for low-interest financing and some grants made available to small- and medium-sized businesses for energy efficiency and for renewable projects.

And last fall, we funded and participated in a nationwide campaign called "Change a Light, Change the World." It was a success. We worked -- our staff worked with manufacturers, utilities, and store owners, and cut the prices for Energy Star light fixtures, the lightbulbs, lamps to -- and the bulbs were as low as 79 cents in some stores, a dollar in many others. I went to a dollar store in Newark, on Broad Street, and I bought about 14 of them.

If every American home installed Energy Star lighting in just one room, a trillion pounds of greenhouse gas emissions would be saved.

And the program was a success in New Jersey. One-and-a-half million compact fluorescent lightbulbs were sold statewide. So we're very

excited about this program, and we'll be doing it again this fall to help save more energy.

And last month, we started two other Energy Star rebate offer programs for customers. They can get up to -- or your can get up to a hundred-dollar rebate on any one of 88 selected Energy Star clothes washing machines purchased from April 15 to July 15. All you need is a receipt and a rebate form. And they're available at the stores. And also there's a $25 rebate on Energy Star air conditioners purchased between April 1 and September 15.

On the renewable side, our Clean Energy Program has, I think, a comprehensive approach to developing solar power as affordable alternative energy. And obviously we know the price of natural gas and electricity is running at an all-time high.

Solar power is basically photovoltaic power. It comes from solar PV, for photovoltaic cells, which generate electricity, normally located on grooves, sometimes on landfills.

Photovoltaic energy provides many benefits, most notably producing electricity when you have peak demand. And, again, in New Jersey, that's July, August, beginning of September when all the air conditioners are cranked up. Photovoltaic power is very reliable, it's very easy to operate, it's emissions free, and I know it creates a lot of jobs.

The national Solar Energy Industries Association recently lauded us for our solar initiatives and its growth. And they called it historic and said that we are the solar capital of the nation. That includes all the states.

In New Jersey in the last two years, we've had a really serious increase in solar, a 550 percent increase in solar production, and an 800 percent growth in solar business.

Two years ago, we had only two photovoltaic installation companies. We now have 90. And each company employs between two and 12 staff people. And since last year, we've funded over nine megawatts of PV systems. This is equivalent to 1,500 average New Jersey homes receiving 100 percent of their electricity from solar power. And just last week we accepted applications for over 8 megawatt hours of solar for our schools, municipal offices, and recreation centers. When these systems are constructed, they'll result in about 170 new installation jobs.

And many businesses, large and medium sized, are taking advantage of these funds: Johnson & Johnson's facility in Warren Township; BJ's Wholesale Club, down in Deptford; Jansen Pharmaceutical, over in Hopewell; and BP, down in Paulsboro. And the BP one is on a landfill, and it serves their facility there.

School districts are also getting into the act. Bayonne, I note, is embarking on the largest solar project under construction on the East Coast; 1.8 megawatts of PV panels atop nine of the city schools. This will save an equivalent of 100,000 barrels of oil, or 50,000 tons of coal being burned. And that's funded by a $6.5 million grant from the program.

Howell Township is installing solar power systems on two of their gymnasiums in two of the new schools. This is providing about 5 percent of those buildings' energy needs. And it's funded by $1.3 million from the program.

The Governor wants schools to be constructed that are a model for energy efficiency and, obviously, to help save local taxpayers money. The Governor issued Executive Order Number 24, on the LEED school initiative, which is the Leadership in Energy and Environmental Design, a Green Building program. And that executive order requires all new school designs to incorporate the LEED guidelines. And that's made New Jersey a national leader in this area. So the schools are built safer, more efficient, and less costly. This will help taxpayers by providing lifetime cost savings through operation of the schools.

Now, as I said, we have renewable portfolio standards. That was set up by EDECA in '99. Last year, the Governor created the Governor's Task Force on Renewable Portfolio Standards, and charged them with strengthening, if possible, our RPS standards. The RPS requires all energy suppliers to obtain a minimum percentage of their power from renewable resources such as wind, tidal, biomass, or solar.

The Task Force unanimously recommended doubling the renewable reliance by 2008 from 2 percent, as set up in EDECA, to 4 percent, establishing a new, long-term goal for our state of: 20 percent of our energy supply: should be coming from renewable by 2020. The Governor asked the Board to implement these changes. And in implementing them, they make New Jersey's RPS the most aggressive in the country.

The Board adopted the first recommendation, raising it to 4 percent of renewable by 2008. Because of the long-term efforts, of the 20 percent by 2020, we've asked Rutgers -- the Bloustein School for Energy, Economic & Environmental Policy to do an economic analysis to see if that's doable. They'll be reporting back to us this fall.

I should note that Scott Weiner, who some of you know -- who's the former DEP Commissioner, former BPU President, former Counsel for the Governor -- is now the Director of the new Center for Energy, Economic & Environmental Policy at the Bloustein School at Rutgers.

Scott and his colleagues at Rutgers are assisting our program by performing economic evaluations of the impacts of these programs, like the study I just mentioned, along with various market assessments and overall policy review.

We've also made it simpler and cheaper for energy suppliers to comply with the RPS standards.

We have created Renewable Energy Certificates, which are known throughout the country, by anybody who knows this stuff, as RECs. So if you ever hear of a REC, they're talking about renewable trading certificates. Suppliers use these to comply with the renewable portfolio standard. And it is a funding source for those who put in renewable. A REC is the green attribute that is separated from the electricity itself. And you can trade that REC, and you can sell the electricity. It's two different economic deals.

We've developed a system so that when renewable energy is generated, a correspondent Renewable Energy Certificate, or REC, is issued. Energy suppliers can buy their certificates separate from purchasing the megawatt hour of actual energy, allowing the buying and selling of Renewable Energy Certificates, which is called *trading*, separate from the electricity or the electrons themselves. It helps foster a fluid market for renewable energy as a trading commodity.

For example, if an individual installs photovoltaic, it will generate a REC for every megawatt hour of electricity that their system produces. That REC is sold or traded to suppliers.

We estimate that the RECs are expected -- the solar RECs are expected to trade at approximately $200 per megawatt hour. So a homeowner who might typically have a 5kw solar system can sell their RECs for about a thousand dollars per year. And a small business with a 50kw solar system can generate about 10,000 a year for photovoltaic RECs. And coupling that REC dollar amount that you can get with the up to 70 percent that we can fund on installation incentives, more businesses and schools will be able to install solar.

This is a free-market approach, and it not only helps meet New Jersey's goals in a more business-friendly manner, but it also encourages increased investment in Clean Energy. For example, over the last year, more than 50 solar energy companies have set up shop in this state. That's in just the last year.

Aside from the obvious environmental and economic impacts of renewable, an added benefit is the creation and dissemination of knowledge. For instance, in the school systems, they'll have science teachers teach about renewables.

In this day and age, the ability to generate ideas and thrive through innovation is important. Renewables stimulate the market through cutting-edge technology, which in turn will attract Clean Energy business and their related jobs to New Jersey. But we aren't only extending financial incentives to expand renewable and energy efficiency, we're also helping to educate the public and

businesses, creating programs where real people can use this in their daily lives and during their businesses.

I want to touch briefly on reliability. As you know, another benefit of increased efficiency and using distributed resources of generation is the impact it can have on transmission grid performance. Since your Committee hearing last February on reliability, there have been several important developments I just wanted to mention to you.

We've been working on three main reliability initiatives. Obviously, the August 14 blackout, where 50 million people in Canada and the U.S. were without electricity-- That final report came out in April. And we're continuing to work with our sister states, and within the PJM region -- the Pennsylvania, Jersey, Maryland grid system -- to make sure that they're in conformance with the recommendations. And they appear to be. They've continued to do a good job.

Secondly, the July 4 weekend -- the July 5 outage down at the Seaside-Lavalette area -- that peninsula-- Three new subtransmission lines are being constructed by JCP&L to provide adequate service and reliable service to avoid any future outage problems. So far, one new line has already been completed. Two other new lines are certainly expected to be completed within the next two weeks.

We are requiring Jersey Central, as well, to do accelerated improvement programs for their entire distribution system. That's the shore region, as well as the Morris area.

And then finally, regarding the Conectiv transmission line that runs from Oyster Creek to Galloway Township -- it's about 50 miles of line. The

northern portion of the line has been approved by the Board and is now under construction. As a result, Conectiv should be able to provide additional power to LBI this summer, which is crucial to LBI.

The Board will be acting on the southern part of the line, which is really the lower 35 miles, early this June -- probably on June 9 -- so that that upgraded transmission line, the fall line, will be up and running next summer, which is the summer we could have some serious problems if it wasn't finished.

So these improvements are putting the state in a better situation for reliable supply for the shore community, but also statewide.

In conclusion, I just want to say again that I'm proud of what we've done at the Board in the last two years. We have reshaped and improved our Energy Efficiency and our Renewable Energy programs. These Clean Energy programs and initiatives save everyone in New Jersey money, because it helps eliminate the need to build future new transmission lines, distribution systems, and expensive powerplants.

New Jersey needs and deserves a progressive energy policy that powers our lives, grows our economy, protects our environment, and saves consumers hard-earned money.

Clean Energy must be increasingly a part of a diversified energy portfolio, as there is little doubt it can help power the modern world. In fact, we have enough renewable energy now in the United States that could run all of New Jersey's industries or power all of our computers in our schools.

It's quite simple. Our state's peak demand occurs on those hot, sunny days when we're all cranking up the air conditioners. If more of these air conditioners were Energy Star energy efficient, then we would need less power.

And if we had more solar units in place that are generating electricity, we would need less power from fossil fuel plants and their resulting environmental harm.

New Jersey's ambitious Clean Energy Program is one of the nation's most aggressive in scope and in mission. In fact, just last month, the Mid-Atlantic Solar Energy Industries Association told the Governor that New Jersey's renewable programs and policies are the best in the entire country.

I want to recognize and thank those most responsible for our efforts: Mike Winka, who's to my right, who's our Director of our Clean Energy Program and has been doing this stuff for many years; Cassandra Kling, who is our former Renewable Energy Program manager; Mona Mosser, who is our Energy Efficiency Program manager; and then the other staff at our Office of Clean Energy, which is a very small staff who do a lot of work; Scott Weiner and the people at the Rutgers Bloustein School; and then our free experts from the Clean Energy Council, who have spent a lot of hours on this. They meet on a very regular basis.

We will continue to evaluate and improve the program. Nothing is ever perfect. And as we consume energy at an ever-increasing rate, we have to all share responsibility for ensuring the availability of our natural resources, keeping costs down, and preserving the quality of life that we enjoy in this state.

I want to thank you for dedicating this hearing to the Clean Energy Program, and for your support, both personal and the Committee, for the programs that we're trying to do.

Obviously, we'd be happy to answer questions.

And you have a copy of-- This is our report from '02 -- this is our '02 report, which has-- Mike's very good in charts and stats. This is, through

here -- as well as some pictures. One of the pictures I want to note-- There's a picture of a wind turbine, which is a small one. We have a number of small wind projects. For instance, farms would put them up where it would serve the energy for just that facility. There's a picture of that in there, as well.

ASSEMBLYMAN CARABALLO: Thank you, Madam President.

Does any member of the Committee have questions?

Assemblyman Chivukula.

ASSEMBLYMAN CHIVUKULA: On Page 2 of your testimony, it talks about -- the last -- I guess fourth paragraph from the bottom -- it talks about, it also makes us safer by decentralizing our energy supply, lessening the risk of cascading power outages, reducing our grid's vulnerability to terrorism.

My understanding of Clean Energy is that you -- even though you produce clean energy, you are connecting to the grid, so that way whatever excess energy that you are not using you can put it in the grid. How is that decentralized, is one question? And then how do you see that -- if there is an outage, there is a sharing -- power sharing starts taking place-- How are you going to prevent that? Just for clarification.

MS. FOX: I'm trying to think of how to do this in a short time frame, not a big one, because I'm thinking about the cascading event last August.

ASSEMBLYMAN CHIVUKULA: Right.

MS. FOX: If you have enough energy being generated in a local area, they can basically save themselves from the rest of the region. For instance, the Borgata has their own-- South Jersey Gas got an electric generating station. It's not regulated by us. That is a distributed generation source. It's

gas, which is not renewable. But that supplies the Borgata. So if, God forbid, the region goes down -- Conectiv -- I'm not saying that they would -- but if Conectiv goes down, Borgata could still stay in business. So that's distributed generation. You can do that also with wind. So if a farm has a wind turbine that powers some of their crucial equipment for the farm, they could still operate.

So renewable energy is a form of distributed generation, which is located around the area. And therefore, if the whole system goes down -- the grid system goes down -- those places would still operate.

It also helps with the grid system, because in the case of New York state -- New York state and city went out in August. They didn't have enough generation going on in New York. One of the things that helped us is PJM. They're not part of the PJM system. The PJM system is New Jersey, Pennsylvania, Maryland, Delaware, northern Virginia. There was enough generation at PJM -- which requires at least 16 percent more capacity than they project they need -- that the rest of New Jersey stayed up. We didn't go down.

So having generation distributed around an area -- either a region, a grid system, or just a general area -- can help that area stay up. The system will shut down where it has to shut down. But if you have enough energy, that can be closed off.

ASSEMBLYMAN CHIVUKULA: It's a very technical question. I don't think the new technology has come up with a new way of sharing, but that's--

MS. FOX: It helps bring the grid back up. New Jersey's PJM system helped bring New York City up much faster than otherwise would have

happened. We were shipping electricity in there like the dickens, because the nuclear power plant took five days to get back up, I think.

ASSEMBLYMAN CHIVUKULA: Thank you for that.

Next question is that, on Page 4, you talk about 550 percent in solar production and 800 percent growth in solar business. Can you give me some base numbers? What is this -- 550 percent of what?

M I C H A E L W I N K A: That's of solar manufacturing panels, the number of panels that were manufactured. We only have one manufacturer in New Jersey. But the 800 number is the PV installers and the number of installation companies that have grown in the State of New Jersey. As President Fox said, we had two installation companies, now we have 90 companies that employ anywhere from two to 12 folks.

ASSEMBLYMAN CHIVUKULA: This is not in terms of the actual installations, but the number of companies that grow, not the installations.

MR. WINKA: Right, correct.

And if you do installations, the number of jobs based on that is probably in the couple of hundreds.

ASSEMBLYMAN CHIVUKULA: Also, on Page 5, you have the long-term goal to get 20 percent of the energy from renewable by 2020. What are the intermediate goals? Now we are in 2004. Where are we? Are we on track? I know you're going to get a report from the Rutgers Bloustein later on. But at least, where are we--

MR. WINKA: We're well ahead of track, in terms of the PV set-aside for this year, this energy year, which we start June 1. Why we do that -- it's just based on the BGS auction. But for this energy year, we have a goal of

four megawatts. We already have funded eight megawatts, and have almost two megawatts in the ground. We just brought in, as President Fox said, applications for another eight megawatts. A number of them will be constructed over this summer. So we'll be well ahead of schedule of the RPS that we have for the PV set-aside.

And when you look at overall, on that 20 percent by 2020-- Maryland just passed a renewable portfolio standard, Pennsylvania is looking at one. There are a number of facilities throughout the PJM region that are coming on line that will help meet -- keep us in line with meeting that goal by 2020.

ASSEMBLYMAN CHIVUKULA: Just a clarification -- this is 20 percent of the overall energy consumption, or consumed in New Jersey?

MS. FOX: Of all energy in New Jersey. And it's very doable. I mean--

ASSEMBLYMAN CHIVUKULA: No, no, I just wanted to know what -- 20 percent of what. That's all.

Thank you.

ASSEMBLYMAN CARABALLO: You were going to say something. It was very doable because--

MS. FOX: Oh, it's very doable. The Clean Energy Council has utilities, it has environmentalists, it has other people who know this business. And they agree, by consensus, that we can make that number. In fact, some of the members thought we should go farther than that, but we've decided to be a little conservative.

ASSEMBLYMAN CARABALLO: Assemblyman Chiappone.

ASSEMBLYMAN CHIAPPONE: Thank you, Mr. Chairman.

I'm glad to say that my town, Bayonne, has taken the lead in PV power. And hopefully, as I also sit on the school board of (indiscernible), we're hoping to see the savings reflected in the budget.

I did have a question to one of the stats that you provided on Page 5, in which you state -- in regards to Bayonne -- that we're seeing the equivalent of 100,000 barrels of oil, or 50,000 tons of coal being burned. What time period -- what time frame would that be under -- that that stat applies to?

MR. WINKA: That's over--

MS. FOX: The life.

MR. WINKA: --the life of the PV system. So we look at it as a 25-year life.

ASSEMBLYMAN CHIAPPONE: Okay, so generally about 25 years.

The other question I had, in regards to grant programs for homeowners: Has any thought been given to applying special grants for those homeowners, especially multi-dwelling building owners who might benefit for such PV power?

MS. FOX: They can apply now.

ASSEMBLYMAN CHIAPPONE: They can?

MS. FOX: Yes. And, actually, for the smaller systems, which run on 10 megawatts--

MR. WINKA: Less than 10kw.

MS. FOX: --10kw, they can get up to 70 percent of the cost of installation paid for by the program. Plus, they will be able to earn their REC --

the certificate, trading certificate -- in addition to that. So, economically, it makes a lot of sense. But they can apply-- And Michael's office, which is located in Trenton, can give people the very specifics on their own situation.

ASSEMBLYMAN CHIAPPONE: And I know we're talking percentage, but ballpark for a multi-dwelling building-- What are we talking about, the average cost of installation?

MR. WINKA: Well, right now, let's just use a single-family home -- about a 5kw system. You're talking about a price per kw in the $7000-$8000 range. So $56,000 -- we pay 70 percent of that. The payback period on that, based on the energy savings of about a thousand dollars a year, would have been about 14 years before you pay back that system. Now, with the REC system that we developed, and depending on the price that they sell, you could probably generate about another thousand to maybe $1,600 worth of revenue, based on the REC. So your payback period almost becomes half. So you look at -- again, on a single-family home -- about a 5kw system -- getting somewhere in the range of a payback of seven years, which becomes pretty substantial.

MS. FOX: And, Assemblyman, if you want, we'll get you that information.

ASSEMBLYMAN CHIAPPONE: Sure.

And on a system such as that, which you quote as a 5kw system-- What could be expected to be the percentage of savings off our typical homeowner's electric bill?

MR. WINKA: That would cover about-- They're designed to net out -- zero out their electric bill. So they would -- during peak periods during the summer, they're moving the meter backwards. During the winter, when

there's less sunlight, they're paying for that. Averaged over the year, it's designed that the homeowner pays zero on that bill. So they would save-- On average, a homeowner is paying about a thousand dollars, so they would save that thousand dollars over the year. Again, that goes into the capital cost to pay off the capital of that PV system.

ASSEMBLYMAN CHIAPPONE: Okay, you also mentioned that, currently, there's only one PV solar panel manufacturer here in the State of New Jersey, correct?

MS. FOX: We're working on others.

ASSEMBLYMAN CHIAPPONE: The question I had was, are there any incentives that you can create that would encourage other solar panel manufacturers to come to the state?

MS. FOX: We have done that, and the program with EDA is part of that.

MR. WINKA: We have a program with EDA that will help finance some of that, and looking, with EDA, to bring in the manufacturer. We're talking to a number of the manufacturers to look at locations in New Jersey -- not only just manufacturing, but assembling. So there's various stages of that manufacturing process.

We also have, within our program that was approved by the Clean Energy Council and the Board, the development of a manufacturing incentive. So if they're manufacturing in New Jersey, on top of the rebate that we provide, we would provide an additional rebate for renewable energy technology that's manufactured in New Jersey. And that's incentive to bring companies in to the State of New Jersey.

Again, as the rebate -- as we look at that rebate structure, more people would be likely to buy that renewable energy system manufactured in New Jersey. They're going to get a higher rebate.

ASSEMBLYMAN CHIAPPONE: And in relation to that, because there is just one manufacturer, I'm wondering, is there more of a demand than the supply at this time?

MS. FOX: There's a production place in, I think, Maryland. The photovoltaics in New Jersey -- most of them are being made elsewhere. But I've had a number of discussions with a number of companies who manufacture the big ones -- BP, Sharp, there's a number of big ones who manufacture who aren't located here, now. We're working to do that -- working with Commerce, EDA, and others to try to get them in here.

ASSEMBLYMAN CHIAPPONE: Thank you, Mr. Chairman.

ASSEMBLYMAN CARABALLO: Just one follow-up question.

Assemblyman Chiappone asked a question about Bayonne, and your response was that a photovoltaic panel has a 25-year life, and that saves -- that would save 100 barrels of oil or 50 tons of coal. Is that the consistent standard? I mean, would we be able to say that for 1.8 megawatts of photovoltaic panels that last 25 years, we could save that?

MR. WINKA: If you want, we could put a chart together for you, giving you -- on a homeowner's scale, this is what it saves; on a small commercial scale, this is what it saves.

ASSEMBLYMAN CARABALLO: I would really love to have that. That would be very helpful.

Before we get back to--

Assemblyman Eagler.

ASSEMBLYMAN EAGLER: Thank you, Chairman.

Mike, just two questions. Are there grant programs available for non-homeowners -- for, like, religious institutions and cultural groups, or for schools? Can we get that information?

MS. FOX: Yes, and we can get you that.

Do you want us to send it through you?

ASSEMBLYMAN CARABALLO: Yes, send it through me, and I'll distribute it. No problem.

ASSEMBLYMAN EAGLER: And in addition, how do you feel we're--

MS. FOX: And, actually -- excuse me -- our Web site has been very much improved over the last year. And you can actually go right to the Web site and find that. But we'll also get it through the Chair.

ASSEMBLYMAN EAGLER: And how do you feel we're set for this summer's heat, or non-heat?

MS. FOX: Cautiously optimistic.

ASSEMBLYMAN CARABALLO: With everything crossed. Is that the-- (laughter)

MS. FOX: Well, no, I'm optimistic, but cautiously, because who can ever tell. I mean, there's always a chance that Mother Nature might cause an outage. And we've had that happen. And we've met, had a number of meetings with all the utilities, and they know the seriousness of getting everybody back up as soon as possible. We've worked out all kinds of-- Or

they're getting new people to come in, and all that kind of stuff, with all the utilities. But that could happen.

Putting that aside, though, the problems that happened last summer on the peninsula, Seaside peninsula, should not happen again. Jersey Central, last year, had three subtransmission lines going onto that island. I think all of them failed at one point in time. They are now installing three new ones. One new one, which is much larger than the other one, comes down to the center -- from the top of the peninsula down. It's a bigger capacity line than the last one that they replaced. It's like a real serious subtransmission line.

And there were two coming across the bay. They will remain there. One of them will be used, one of them will be basically dormant. They're bringing two brand new lines across the Route 37 bridge. That's where they're almost done. They were supposed to be done by Memorial Day, by actually today or tomorrow. They probably will not be done until June 9, 10, somewhere around there. They're stopping construction sometime today. The bridge will be cleaned off. It's the westbound lane. The bridge will be cleared off. They won't start again until the day after Memorial Day, and they should have that finished by the 9th or 10th.

So that's really good news for the people down there, Seaside and all. And the rest of the company's very much on top of it. So I'm pretty hopeful. But you can never tell with nature.

ASSEMBLYMAN EAGLER: With the violent thunderstorms we've been having up North the last few days--

ASSEMBLYMAN CARABALLO: Excuse me. My conversations with a couple of utilities also have indicated that -- assuming they're able to get

their permits and everything that they're supposed to have in place, so that they can actually do the work that they're supposed to do -- they feel pretty confident that, with the exception of nature, they will have -- they won't have anywhere near the kinds of problems we've had in the past. But, again, they caution on two levels: one is the permitting process, so that they can get the work done; and the second being nature.

MS. FOX: The permitting is basically done, except there is a minor issue for the Conectiv transmission line -- that last stretch -- which is being knocked out as we speak. And I'm fully confident-- And that's a Pinelands issue, and I'm fully confident that will resolve within the week.

ASSEMBLYMAN CARABALLO: Yes, there's been some concern about that one last piece.

MS. FOX: And DEP has been responsive when we go to them on this. The utilities talk to us. If there's a mid-level or low-level problem, the guys at the top deal with it.

ASSEMBLYMAN CARABALLO: Anyone?

Yes, Assemblyman Conover.

ASSEMBLYMAN CONOVER: It's a pleasure to hear *free market* and *incentives* in a BPU report, and I'm very pleased with what I heard here today. I do have a few questions.

If I do the math backwards, to install PVs on a normal home would be about $7,000?

MR. WINKA: Yes.

MS. FOX: Their cost.

MR. WINKA: About that cost for the entire system, on a per-kilowatt basis, $7,000 or $8,000.

ASSEMBLYMAN CONOVER: And how much room does it take up inside and outside? I mean, I'm trying to understand the practicality of it for the average homeowner.

MR. WINKA: It's usually--

MS. FOX: Actually, come to Brigantine. There's a home or two that have it. It's hardly noticeable.

MR. WINKA: It's usually about 25 square feet per kw. So, depending on the orientation of the house -- and our application looks for southern orientation -- and we discount if you have shading. So we're not putting PV systems on orientations that aren't going to generate electricity or that have shading.

They usually fit on a typical size home. They'll carry, again, the entire load. An average home might have a load of about two or three kw. So you're building seven, eight, 10 kw on somebody's home, depending on their load. But it's designed to take that home off the grid. But they're taking those electrons as they generate them, put them on the grid, and they pull them back when the sun's not shining at night, or, again, during the winter time.

MS. FOX: Describe the rest of the system that's not the roof.

It's very easy, mechanically.

MR. WINKA: There's a simple inverter system. So what the panels are generating are DC power. You can take that and put that into the grid on DC power. You need to get that into your house. You need to convert that from DC to AC. That goes into your box. It's a power converter called an

inverter. It goes back and forth. It's a small unit that sits in the basement, or it can sit outside. And then the typical connections and the disconnects in the basement-- All that-- When you add up all that cost -- not just the panels, but all the electrical hookups and the labor that goes into that -- runs into, that, about 7,000, 8,000. We've been seeing that price decrease over time. The more we put into the system--

And, again, the larger systems -- as we go to-- What we've seen in the initial part of the program -- more homeowners were applying. Now we're starting to see businesses -- and businesses that were on hourly pricing -- starting to see the advantage of putting a PV system that they can start to generate electricity at peak hours, when they would be paying peak prices -- are getting peak returns on their dollars. So they're starting to make a whole lot of business sense. And we're seeing, again, schools starting to come in. They're not in session in the summer. They're generating the most amount of their electricity -- makes an advantage for the schools and the municipalities. And we're starting to see large businesses do that.

ASSEMBLYMAN CONOVER: So it's a pretty practical retrofit to an existing--

MR. WINKA: It's easy. There's no penetrations into the roof. Usually they just sit on the roof. They're wind shear tested for hurricane-scale wind shears.

Again, most of the installations are on top of a roof. You don't see them. They're not -- they, sort of, lay flat on the roof -- flat panels. And usually they're black, sometimes they're translucent. So, again, sitting up

against the roof, you hardly see them -- not an aesthetic issue, a zoning issue, or that.

MS. FOX: Actually, Whole Foods in Edgewater -- it's a great store -- but on top of its roof, they have these beautiful photovoltaics that they set up right overlooking the Hudson, and they have specks of blue. They're very pretty. (laughter)

ASSEMBLYMAN CONOVER: Now, as far as new construction, are your incentives available statewide for new construction?

MR. WINKA: Statewide new construction and retrofits. The application, as we said, is on the Web site. A residential customer can come in, a commercial customer. And that incentive is based on the size of the system. So as you're putting larger kws, usually the price goes down for that installation. So our incentives design up to one megawatt of installation.

ASSEMBLYMAN CONOVER: It sure seems easier to do it on new construction.

MS. FOX: Yes, then you can site it south facing, and you can design it.

And the School Construction Corporation has been involved in this for the schools -- for instance, the Bayonne and Howell schools -- that they know all about this new involvement.

MR. WINKA: But it's just as easy on an existing home. You're right, you can plan it in -- on the orientation is better to make that choice. On an existing home, you have to deal with whatever the orientation is. But the construction is relatively simple.

ASSEMBLYMAN CONOVER: And has the State government put these systems in to some of our buildings?

L A N C E R. M I L L E R: We're working on it.

MS. FOX: We're working on it. The Treasurer is interested in it. As you probably remember, the State buys a certain percentage of their electricity from renewable, at the Governor's and the Treasurer's direction. And we're working with them for certain buildings, but I don't want to announce them--

MR. WINKA: What was the key factor is, we developed the financing program with EDA for public entities, including the State. So we'll provide the rebate up to whatever size, and then there's a financing structure that will work with EDA. We put in a certain amount of dollars to guarantee a low-interest loan. EDA goes and finds private capital to match on that. And we get, on a private sector match, a 5 to 1 match. So if we put a dollar, they go out and get private venture on that loan or bond issue at a 5 to 1 match.

And that's what we've put together. And now you're starting to-- That's why you're seeing schools starting to take advantage of this, and municipalities. And we have a whole list of State facilities that are looking at that entire package -- the incentive, and then-- What you do is, you're paying that capital cost off with operating dollars. So you're not increasing the capital expenditure, and not increasing the debt service that you would incur on that capital expenditure. You're taking your capital payment out of your operational budget, and you're also getting your operational savings out of that. So it's a win-win, overall. There's less tax dollars being spent, you're not seeing an

increase in the capital budget debt service, and you're eventually lowering your operational budget.

ASSEMBLYMAN CONOVER: And the emphasis, I guess, would be on the photovoltaic cells versus, say, windmills. I mean, we're going to a thing tomorrow about windmills.

MS. FOX: Yes, a big event tomorrow at noon, Atlantic City Utility Authority. Be there.

ASSEMBLYMAN CARABALLO: Noon, not 2:00.

MS. FOX: At noon, definitely at noon, unless they tell me something different when we leave.

The Department of Energy, the Federal Department of Energy did a wind map for us, and we don't have the-- We're very small, and we're densely populated, which is part of it. The wind map for DOE shows that it's really along the coast and a little bit up in the mountains -- Sussex area -- which we have a National Park, and there's aesthetic considerations. So, I think, for maybe farms in those areas it might make sense -- the gigantic ones.

We have a project that is moving ahead down through Atlantic County Utility Authority, which will be four or five wind turbines near the Borgata. But there's a study being done -- actually, several studies being done about off-shore. We're nowhere near anything yet with siting off-shore. There's probably a possibility of other wind turbines, other -- but they're probably smaller ones, because they're getting better. You can have less wind power now. You actually get electricity by designer blades that they've done much more smartly and more economically.

Pennsylvania, New York, West Virginia, Texas, California, Arizona all are doing big wind projects. I think the Dakotas have decided -- and Montana -- they want to do it, but they had to figure out to get the power from there to where people are.

But I think in New Jersey, we'll be buying wind, and we're buying wind from nearby states. And there's a lot of development going in. We don't have that much wind capacity, plus we also have the aesthetics. I think they're sculpture, I think they're art. Other people might not think that.

Pennsylvania -- the closest, big farm is Pennsylvania, out the Turnpike past Harrisburg.

ASSEMBLYMAN CONOVER: I only mention that because we, sort of, went through this in the '70s. When I built my house in 1979, I had all these alternative energy theories. And when I brought up the windmill, my neighbor said, "No way," because of the aesthetics and so forth.

Final question would be, what is the benefit to the utility companies for buying the RECs? I didn't quite understand their incentive to buy them.

MS. FOX: Well, the Legislature, in 1999, said they have to buy -- there's a renewable for portfolio standard. So a certain percentage of their energy that they buy -- because now, they don't generate themselves -- EDECA changed that -- so they have to buy it from suppliers -- has to be renewable. And so they have to do that under the law.

So the RECs just make it an easier thing, so people who are supplying electricity, owning their own solar or wind-- They're required -- the utilities are required to buy a certain amount, so they'll by it from them. And that currency would be the REC.

Correct?

MR. WINKA: Right.

ASSEMBLYMAN CONOVER: I'll just make one final closing comment.

I think looking at solar power is the way of the future. If you look at science, all our energy on this planet emanated from the sun, whether it be oil, through photosynthesis -- plants die 10,000 years ago and the pressure of the plates created the oil -- whatever. So I think we're heading in the right direction.

Thank you.

ASSEMBLYMAN CHIVUKULA: Mr. Chairman.

ASSEMBLYMAN CARABALLO: Assemblyman Chivukula.

ASSEMBLYMAN CHIVUKULA: Thank you, Mr. Chairman.

I think somebody has-- Maybe you want to turn it off. (referring to PA microphone)

ASSEMBLYMAN CARABALLO: Go ahead, try again.

ASSEMBLYMAN CHIVUKULA: He had it on.

ASSEMBLYMAN CONOVER: I had mine on. I'm sorry.

ASSEMBLYMAN CARABALLO: Oh, I'm sorry.

ASSEMBLYMAN CHIVUKULA: Just in terms of -- maybe you want to touch on the education program. I see that there is a school education. There's also consumer education, in terms of the Energy Star Program, as well as the Clean Energy Program. I notice the budget numbers. You had -- 2002 budget was $965,000, and only $436,000 were expended. I just want to understand what kinds of programs you have, and what can we do to educate

people. It looks good, Energy Star. But you need to educate the people. I just want to know more about it.

MS. FOX: Previously, most of the education and outreach was done by the individual utilities within their own franchise areas. And I felt strongly that you needed a statewide program so we can market statewide. We're now going from the utility-run programs that are four individual -- or actually seven individual ones, to a statewide program.

Michael just got an education and outreach person on staff a month ago.

MR. WINKA: Less than that.

MS. FOX: Less than a month ago. It's a long process for civil service.

And we are working -- we have an Education and Outreach Committee chaired by Fletcher Harper, who's with the--

MR. WINKA: Partnership for Environmental Quality.

MS. FOX: --which is a religious coalition who does environmental work. He chairs that. And they're working hard on that.

We also have put out a request for proposals for a comprehensive plan on how to do this education and outreach, as well as -- specifically on renewable -- one specifically for renewable, one specifically for energy efficiency, one for homeowners. Both of those are for homeowners.

MR. WINKA: Right.

MS. FOX: So those RFPs are being put out there. We expect to have a really good plan in place. Right now, we have a -- Citizen Action had a contract with the utilities, doing education and outreach to community groups.

That is still continuing. That will end when the RFP is handled, which is, I guess, the end of this calendar year. So that's in place, but we want to have a more comprehensive one. And so we have a professional organization that's actually going to -- the bids are already in to develop the single RFPs.

ASSEMBLYMAN CHIVUKULA: Okay, thank you.

ASSEMBLYMAN CARABALLO: Assemblyman.

ASSEMBLYMAN CHIAPPONE: Thank you, Mr. Chairman.

This is exciting technology, one that helps us practice conservation, as well as impact on our budgetary concerns.

As a Committee, Mr. Chairman, I would ask that we encourage the Governor to have the State House set the example for this type of energy conservation. You know, we talk about it here in Committee, but I think there are things we can do to show the public that we're supportive of this -- going from the very lightbulbs that shine down upon us. Are they Energy Star products? So I would ask the Governor's Office, and our Committee, to see if we can practice what our departments are preaching, if we can.

I did have a question in regards to -- on a municipal level with State contracts. Is there a way we can encourage, under bidding process, municipalities to order products that are Energy Star compliant?

MS. FOX: We've talked about that. We haven't actually--

Go ahead, do you have an answer?

MR. WINKA: On the executive order?

MS. FOX: No.

We're working on it. (laughter) It's actually a great idea. We need it. There's a lot that we need to do, and that's one of the things we wanted to

do, so they can save more money. We wanted to get the solar and renewable system up for them because of the School Construction Program. That was really of paramount importance, because the construction was going, so we had to spend time on that.

ASSEMBLYMAN CHIAPPONE: But items as simple as Energy Star lightbulbs is an area where we can start, if the savings are both financial and in regards to using electricity. You think of the energy that we use right here in this room. How many lightbulbs do we have above us? Shouldn't they all be Energy Star compliant?

MS. FOX: We have two programs I should mention: Highland Park, New Jersey -- I don't know if Frank, the mayor -- are working on a sustainable community. Part of that is solar energy efficiency, that kind of thing. And they have a whole plan. We've given them some money for that.

Also Jim Polos -- Freeholder Jim Polos, from Middlesex County, took advantage of our programs and is working within his county. He's the, I guess, the "stuff guy." He's in charge of the buildings -- whatever the committee is with all the equipment, and buildings, and all that. Freeholder Polos has that. So he has an effort in Middlesex County to do that, that he could then shop out to other counties.

Our goal is that energy efficiency should be able to -- because there's so much available energy to save, without changing our quality of life -- should be able to really change the energy needs of the state. So we don't have -- Michael has charts -- but don't have the energy needs going that (indicating) way, because of energy efficiency. And then, renewable can then -- between the

two of them, we should have a level generation from the facilities that generate pollution. That's our goal, and I think it's doable.

MR. WINKA: And just on the Highland Park project, the end result of that is to help them develop the land use development ordinances that would be green ordinances. So those sort of things would go into the ordinance development to say, "You have to build energy-efficient, and put those products in as you're constructing."

ASSEMBLYMAN CARABALLO: I don't know if civil service could handle setting up a title of "stuff guy." (laughter)

Assemblyman Van Drew.

ASSEMBLYMAN VAN DREW: Sorry to be late. Glad that you're here. Obviously, good work. And we certainly appreciate it.

I would just like to echo Assemblyman Chiappone. It would be wonderful if State government could really be leading the way and setting the example. We can almost effectuate some of this more easily than the private sector can, sometimes, and certainly show them -- one of those rare instances, show them how it can actually be done.

On a lighter note, my son, my daughter, and their friends -- because we live by the shore -- are all at my house. And I have been amusing myself about ways of producing my own energy, because the quantity of energy that we're using at my house currently -- the hot water alone -- we definitely need to do better.

So I applaud you on this work. I think we need to go forward with it. And I would love to see if we could do something, as a Committee, to really encourage the State to do what it needs to do.

ASSEMBLYMAN CARABALLO: I want to thank Emily Rusch, by the way, from New Jersey PIRG, because a couple months ago I had asked Emily to give me a breakdown, or a little composite of what it might cost to actually get this done on a private home. And she provided me with that information about two months ago.

MS. FOX: I just thought that the State Treasurer's Office does have, on contract, an emergency efficiency contract with Steve Gable Associates (phonetic spelling) on how the State an save money by energy efficient ways. And he's doing work for the Treasurer on that. So I expect something will be happening later this year.

ASSEMBLYMAN CARABALLO: President Fox, I thank you very much for, once again, coming before the Committee, sharing your thoughts with us, sharing your time with us. This has been very informative, very helpful. And the only thing I would say to you is that if there's anything that you think we as a Committee could do to help in the legislative arena to help you accomplish what your goals are in this area, we stand ready to help out.

MS. FOX: I greatly appreciate, as do the people with me, that offer. And, obviously, from the good questions that we got, and the interest, I think that this is only going to lead to better things for the state, helping to protect people's health and the environment by reducing the need for the electricity.

Thank you.

ASSEMBLYMAN CARABALLO: Thank you.

All right, we've got-- Oh, now we get to the second part of this agenda. And as I indicated at the beginning, this is really more my giving you information than anything else. However, if anyone wishes to speak to any

issue involved in this area, or if anybody has any questions, we can do this formally by you coming up. I've got a couple people who've indicated that they want to say some things. Or you can simply ask a question, assuming you can get the question -- well, you might have to come up.

We all know that we've got this reliability bill that's being worked on, and I had indicated to everyone early on, at the previous meeting back in February, that I would speak to some of you along the way and then I would come back and give you a timetable. Well, this is the time. Let me indicate what the timetable is.

Is Lance -- there you go.

Lance, we talked about starting our meetings in July. You indicated specifically that you would be heading -- Lance Miller from the Board of Public Utilities -- that you would be heading this project, directing the project. I believe two other people from your office, Grace--

MR. MILLER: Grace Strom.

ASSEMBLYMAN CARABALLO: Grace Strom, and?

MR. MILLER: Suzanne Dice-Goldberg.

ASSEMBLYMAN CARABALLO: Come up for a second. Actually, why don't you sit there for a couple minutes, please. (laughter)

MR. MILLER: In addition to myself, it will be Grace Strom, our Legislative Liaison; and Suzanne Dice-Goldberg, who is our Legal Specialist on this activity; and then whatever technical staff we need for specific issues being discussed.

ASSEMBLYMAN CARABALLO: All right, we will be meeting starting in July, the first week in July. And what we've decided to do is to do

this in groups, so that we're going to break it up. We're not going to try and deal with reliability standards by bringing everybody together and just dealing with reliability standards in the abstract, trying to make it concrete for everybody. Instead, what we're going to do is we're going to meet by areas. We'll meet in the area of electricity, we'll meet in the area of telecommunications, we'll meet in the area of cable -- so that we will have separate and distinct meetings, so that -- and the goal being, to address the issues of reliability as they relate specifically to that particular area.

I want to address a couple of questions -- and please stay there, because you'll be helpful in this process -- that have been asked of me over the last couple of months, as it relates to the standards.

First of all, a draft bill had been prepared back -- what was it, Lance -- November sometime?

MR. MILLER: Yes, sir.

ASSEMBLYMAN CARABALLO: Back in November, we had a draft which was, in fact, supposed to be a draft, but which a whole lot of people managed to maintain, and which a whole lot of people managed to react to very violently, to put it mildly. And I've been asked where are we on that draft. And I want to give as candid and honest an answer as I can to that question.

And, Lance, if what I say, in any way, deviates from what our conservations -- please state so.

To pretend that there wasn't a draft would be silly, right? (laughter) That draft, actually, highlights just about all the issues that most of us can think of, as they relate to the question of reliability. And to say that -- I mean, not to be able to look at the fact that this draft, at least, pinpointed the issues, again

would be disingenuous. And the fact is, some folks like some aspects of what was contained in that draft. I see all your faces. You're all saying, "No way, nobody did." Yes, there are.

But as Lance has indicated, one of the things that people should know is: that was, in fact, a very early draft. It's been worked on repeatedly. What some folks may have in mind looks nothing like that initial draft.

My goal is to approach this by focusing on the areas that we know are contained in this whole issue of reliability. You're all free to see what -- and read, and have your comments about -- what the draft says. But we're going to try and pretend, as much as possible, that while the draft focuses in on the issues that we need to resolve, nothing is set in stone with respect to what the draft says will be the ultimate outcome.

And I don't know if that helps you any, but that's been our conversation.

MR. MILLER: Yes, that's correct.

The only thing I would add for, maybe, clarification for everybody's benefit is, when the Board started to talk about the issue of developing reliability legislation, or the need for it, what we did was, we started to go through the existing legislation and identify what changes we thought were necessary. It gave us the ability to identify the issues that were important to us. We never intended to say that this was what needed to be introduced and made into law without the obvious process that has to go forward.

So it was our attempt to organize our thoughts. And now we'll be going forward with the process that you've outlined, to get everybody's input on

it. It's the Legislature's responsibility to do law, not the Executive Branch. We know that very well.

ASSEMBLYMAN CARABALLO: I think you can see that we've been talking, and we've actually been not just talking at each other, but trying to make sure that we're all, at least with respect to the process, on the same page. I made a commitment. I know President Fox has made a commitment, as well, that this would be an open process, that people would have an opportunity to give their input. And I assure you that what is being reflected here -- and we're doing this quite intentionally -- is the fact that it will be an open process, and that everybody will have an opportunity to put their two to five cents in. You're limited to a nickel. (laughter)

The timetable is as follows. We're going to have meetings over the summer. We will set up a specific calendar over the next couple of weeks so that everybody will have notice. But the meetings will be taking place in July and August with a view towards having a good, solid draft by sometime in September, giving folks another opportunity to react. I may even have -- not even may -- but will have another one of these kinds of meetings, where we're not voting. So, folks, don't feel that the tension of having to try and convince us at the meeting not to do something that they think is terrible -- will be hanging over everybody's heads.

We'll have another meeting sometime in the fall, after this draft has circulated and people have gotten an opportunity to react to it. We'll have an open hearing again so people can, once again, react. We'll have another couple of meetings if needed. The goal -- and I don't want anybody having any misconceptions about this -- the goal is to come up with a product which makes

it clear to everyone that on the one hand, we really are serious about making sure that the consumers of this state have the reliability to which they are entitled. At the same time, those of you who are in the business of producing what you produce are not in this just for the fun of it. You're in this because you, in fact, at the end of the day, have an economic stake in all of this. And we want to make sure that the profit to which you are entitled is also reflected in that particular process. Not everybody will be happy, but hopefully everybody will at least know that they were heard.

I want to address one last issue, and then anybody who has a question or wishes to say something is free to do so. I had asked John a couple of months ago to reach out to everyone about incentives. Remember, we first had this discussion -- and one of the fears that everyone has articulated to me is the fact that, when we talk about reliability standards, we're always talking about the penalties that are attendant with -- or attendant to the fact that if someone fails to satisfy a standard, then there's a punishment connected with it.

That's obvious, and we're not going away from that. If you're expected to meet a standard, there's got to be a consequence for not meeting a particular standard. It's as simple as that.

On the other hand, what I said to folks -- and we've been discussing this, just the other day -- we really want to see if there isn't some way to build some incentives into this so that folks are not only trying to meet the standards, but also, in some creative ways, go beyond the standards, with an incentive to do so.

Now, one of the problems that has come up in my discussions with a lot of people is the fact that there are always two things. One, folks are always concerned about going beyond the standard, because they're afraid that if you go beyond the standard, what happens? That becomes the standard. We're going to try to avoid that, that being the way things function.

Secondly, when we talk about standards -- I mean incentives, we're not just talking money, in the sense that sometimes there are some things that are just as important to you -- like paperwork and other kinds of things that will help in your bottom line -- without necessarily meaning that you get to pass it along in a rate increase to the consumer, something that we all have to be sensitive to.

So I've asked everyone to think about incentives, be creative about them, not to limit themselves with respect to that. You are all in the best positions possible to tell us what would be a good incentive for you, and how we could avoid making that incentive turn into the new, next category that everybody has to satisfy.

So we're continuing to talk about that. I've been having conversations with folks. And I exhort you to get as creative as you can. Don't be hesitant in any of this.

There are a couple of people who had signed up. Does anybody have a statement that they want to make?

We have Bob Marshall and Fred DeSanti.

Hello.

R O B E R T K. M A R S H A L L: Good afternoon -- good morning, still.

ASSEMBLYMAN CARABALLO: Good morning. This is one of those times the Committee might still be in the morning mode. We're going to keep it that way, too.

Go ahead.

F R E D D e S A N T I: Good morning, Mr. Speaker -- Mr. Chairman. (laughter)

ASSEMBLYMAN CARABALLO: Wait, wait, wait. This is like getting the announcement that we're having a Committee hearing. In fact, we're not having a Committee hearing with Assemblyman Van Drew being the Chair. (laughter)

MR. DeSANTI: I guess what I was about to say was, we have a meeting with the Speaker at noon time. I don't want to be late for it. It's about Bill 1771.

ASSEMBLYMAN CARABALLO: And I would suggest you not be, in any way, late, yes.

MR. DeSANTI: Right. So I thought I would maybe just come up and make a few comments, just generally, about this issue. We've already testified on this.

Generally, when you look at the ability of a utility to produce goods and services, it's fundamentally related to the cost of those services. I mean, right now, if you look at an eight-and-a-half by eleven piece of paper, this is the universe of what we can provide -- goods and services for the cost that people are now paying.

Certainly, within the context of those costs, people should have certain expectations as to what service reliability, what quality of service should

exist. But I think, as a simple tenet that everybody has to agree with -- is that technology can change the size of this piece of paper, new materials can change the size of this piece of paper. We can certainly urge everybody to work harder to provide better goods and services.

But, fundamentally, if we're looking at making major changes in the existing levels of reliability that PSE&G might provide, or another utility, we're not going to do it without making very significant changes in our investment philosophy, or changes in the number of people that we have providing those services. I mean, that's really the bottom line with this.

We're very proud of the reliability. As you know, we've testified in the past that, for the last two years, we've had the best reliability in the mid-Atlantic. And that's based upon the level of investment that people have made in our system. We have a loop system that's much more expensive than radial systems. Our customers pay for that, so they should expect that it's going to have a higher degree of reliability.

But I just wanted to keep that one principle in tact, that we should have standards, we should have expectations. We want to provide quality services. But it's really tied to cost and our ability to do that.

The second issue is with respect to the kinds of things that we want to measure. Reliability is understood nationally, in terms of things like -- their called SAIDI, CAIDI, MAIFI. There's all these acronyms. But, essentially, what they are, are how quickly we can restore systems when they go out, and how frequently those systems go out. And, again, as I said, we score pretty well in those areas.

It's very easy for people to come up with the metrics. When you look at national standards, when you look at geography, we can set a statewide minimum and say, "You shouldn't fall below this level." That's easily done, and I think we can all have a great constructive dialogue about that.

When you get into the area of quality of service -- is where I think we really need to spend some time in understanding what quality of service means to different people, because it means different things to everybody. We're not so sure we understand it. It may be that a customer can call and want the phone answered in three rings. Now, we can do that. But remembering that we have a universe of paper here, and a universe of what we can do at that cost, if we put more people on the phones so that we answer it in three rings, maybe something else is going to suffer that's going to get other people angry.

So I hope that, when we get into the discussion of quality of service, that we try to take the broadest approach possible and that we really spend the time so that we come up with metrics that are going to be meaningful for people, that are going to actually introduce the notion of quality of service -- and people feel, generally, that we've exhausted that possibility. Because the last thing I want to do is move resources to accomplish what we think is right, because something else is going to fall off the shelf, which we don't want to have happen.

Just basic cautions -- that I hope we can work with you. We look forward to doing that, and we think it's absolutely a good process. But we, hopefully, will go at a pace that's going to make some sense.

With that, I'll get down so I don't get--

ASSEMBLYMAN CARABALLO: Now we're going to hear from someone who hopes that, someday, you won't be able to say that you got the best -- the greatest in the mid-Atlantic.

Is that right, Bob?

MR. MARSHALL: And I always let him go first so he can get that out of the way.

I'm Bob Marshall. I'm Manager of State Relations for Conectiv.

ASSEMBLYMAN CARABALLO: Thanks, Fred.

MR. MARSHALL: We have testified before the Committee in February. I just want to reiterate a couple points.

President Fox mentioned the infrastructure projects that we have going on in southern New Jersey. They will improve reliability in the service area. We are constructing the 230kv line that's going to serve the eastern portion of the service area -- not only Long Beach Island, but down into District 1 and other places.

We are working on upgrades of our distribution infrastructure on Long Beach Island -- new substation there -- as well as a new substation in Ocean City. All these things, we're hopeful -- to be done before the beginning of the summer.

We are also working on a significant vegetation management effort, which is tree-trimming. And we have to work with the communities and the homeowners in order to get that done. And that's a major cause of distribution outages.

I think that, however, frequently our excellent service, quality record, and reliability record is overlooked. For Conectiv, over the last 10 years,

excluding major events, our average New Jersey customer is out of service for about an hour-and-a-half throughout the entire year. And that's something, I think, people take for granted. We do feel good about the performance, but we know we can do better. We are working on some investments, and we are implementing some new systems to make sure that we do that.

We do believe, though, that developing statewide standards has its challenges. Each utility, as Fred mentioned, is different, whether it's a radial system or a loop system. The geography is different, the customer mix is different, and I think, in some cases, regulatory expectations are different.

Another thing I want to point out is, meeting those standards, as Fred has also pointed out, doesn't always mean quality. Sometimes, there are events beyond our control, like storms or other things, that can negatively affect customer satisfaction.

I think it should be a common goal of everybody, as you've expressed, Mr. Chairman. We should try to improve customer service and reliability. But just let me point out to you that for any legislation to be effective, it must reflect, at a minimum, the following aspects, to allow Conectiv and other utilities to provide what it's mission is, which is reliable, safe electric service.

Those aspects are: certainty of recovery of utility investments, reasonable standards that can be attained and maintained, protection from excessive regulation in this area, and most importantly, I think, cost-effective improvements and programs that balance reliability and customer expectation.

So, in closing, let me say, we fully support reliability and customer service standards, and we'll work together with this Committee, the BPU, and

others to make sure that we get balanced, thoughtful legislation that truly benefits our customers.

And, Mr. Chairman, let us also thank you for allowing us to express our views.

ASSEMBLYMAN CARABALLO: Bob, obviously the -- our big task over the next couple of months is actually trying to figure out how we define those four areas that you highlighted.

Does somebody have something? Yes.

ASSEMBLYMAN VAN DREW: Thank you, Mr. Chairman.

Just in response to that quality of service -- and I do think -- and I understand exactly what you're saying, and I know it's different, depending upon a particular utility. But let me just state, clearly, as one Committee member, I believe that there are certain areas, without question, that we can do better because of deregulation, because of what has occurred all across the board, whether it's cable, telephone, electric service. And it's different for the different industries. And some are more problematic than others.

But it is at least my sense that there can be a higher quality of services, a more reliable service, and quite frankly, that the customer could be treated more decently at certain times. And because of deregulation, because of the competitive nature of the market -- and I know we have to be mindful of that -- we've lost some of that. I really do believe we've lost some of that.

And if you just talk to regular people, every day they will tell you that we've lost some of it. And I know that some of it isn't all of your fault. But nevertheless, that's the way it is. But I believe -- and I laud the Chairman for doing that -- that's part of our responsibility in this process, is to make sure

that we bring some of that level of quality back, being mindful of all of the circumstances that they have, as well.

And if the Chairman -- may I ask one specific question?

The Committee may not know -- I know Assemblyman Conover would know -- we're losing -- we may lose one of our major powerplants. And Rob has been wonderful in dealing with us. We have an old coal fuel power plant as you go over the bridge into Cape May County. Many of you may have noticed, it has a large pooling tower. It almost looks like a nuclear plant, but it's not. It's actually a coal fire plant. Everybody sees it, right in the great Egg Harbor.

Speaking of reliability of service -- I know I've asked you this question in private -- but as that plant goes down, if it goes down-- If we actually do close it, it is your belief that we're going to be able to maintain the quality of service and fulfill the needs of the constituents that are there, with the ever-increasing load that probably will occur in future years?

MR. MARSHALL: Yes.

If I could just give a little background. We recently made a filing with the Board of Public Utilities, at their request, to come up with some alternatives for this particular coal fire power plant, which is one of the few remaining regulated plants in New Jersey.

And it was a BPU requirement -- and I'll stress *requirement* -- of theirs, that whatever alternatives we came up with had to ensure that very point; the reliable provision of electric service, and delivery of that, under maximum conditions for that whole region. And I think, as we go through the process with the BPU, they will be most careful to make sure that whatever alternative we

come up with, whether it's an upgraded transmission line or some other kinds of things that we really have to continue to talk about, that that will be paramount. That is paramount. And it's keeping the lights on -- is really what -- the end of the day -- the Board of Public Utilities will make sure that occurs.

ASSEMBLYMAN CARABALLO: All right.

Ladies and gentlemen, thank you. The meeting is adjourned.

UNIDENTIFIED SPEAKER FROM AUDIENCE: Mr. Chairman, there was one other individual signed up.

ASSEMBLYMAN CARABALLO: Oh, I'm so sorry.

Hold it. Re-adjourn. (laughter)

I'm sorry. Mr. John Dilliplane, from MicroPlanet.

I'm sorry, Mr. Dilliplane.

J O H N D I L L I P L A N E: That's not a problem, sir.

ASSEMBLYMAN CARABALLO: Hold on. Let's make sure everybody's back to-- I've disrupted everybody. Let's get back into order, please.

ASSEMBLYMAN CHIVUKULA: Since you adjourned, do we need a roll call? (laughter)

ASSEMBLYMAN CARABALLO: We don't need a roll call.

Yes, Mr. Dilliplane.

MR. DILLIPLANE: Thank you, Chairman, and thank you, Committee.

ASSEMBLYMAN CARABALLO: Press the button. (referring to PA microphone) Do you have the red light on?

MR. DILLIPLANE: Now it is.

Thank you, Mr. Chairman, and thank you to the Assembly members for this opportunity to speak to you today.

The purpose of my being here today is to introduce the Committee to a brand new technology that is available today. This technology is patented. It's made in America. It's being distributed from the West Coast, east; and also in Europe, towards the Asian countries.

The product is manufactured by MicroPlanet out of Washington state, and I'll give you some background.

During the 1930s, the United States was electrified. The fuel resources were cheap and technology was expensive or unavailable. Getting the job done was more important than the infrastructure efficiency in those days.

By the 1950s, consistent quality service delivery was demanded. Delivered voltage, at that point in consumption, became the defacto measure of quality service. In 1954, the industry agreed on a standard that became known as ANSI C84.1. That targets delivery of voltage at 120 volt, plus or minus 5 percent. In other words, 114 to 126 volts is what the utility must deliver to the end user. That standard stands today.

The pundits, and analysts, and technology providers in the industry of 1954 lamented that the challenges of meeting these aggressive targets -- setting massive capital outlays and service disruptions around reliability concerns. But, ultimately, the industry and technology providers rose to the occasion. They stretched the capability of the available electric mechanical infrastructure equipment of 1954, and they have met ANSI C84.1. Despite pessimistic predications, the industry didn't go bankrupt. It, in fact, excelled and grew to this day.

In the 1980s, questions emerged about the efficacy of ANSI C84.1. The seminal article, written in 1982 by Dr. M.S. Chen, an IEEE fellow -- who wrote the following: "In the interest of energy conservation, it has been suggested that the utility industry consider operating their distribution circuits such that the upper 5 percent of the permissible voltage band be eliminated." The authors also note capability limits of 1982-era technology, and required capital outlays as potential obstacles to implementing this recommendation.

However, with the growth of digital technologies and the resultant dramatic reduction in cost, with paradoxical increase in capabilities, new distributed voltage regulation techniques exist now that can make the vision of Dr. Chen's team a reality, at capital costs estimated to be significantly less than traditional approaches to increasing grid capacity. Our estimates are that we can give you one megawatt of electricity savings for 50 percent of the cost of building one megawatt of transmission capabilities.

Distributed voltage regulation offers the members of the Assembly Telecommunications and Utilities Committee, and the commissioners of the BPU the opportunity to consider modernization of the 50-year-old C84.1 standard to better match the capability of today's technology. The impact would both eliminate the wasteful and environmentally unfriendly upper 5 percent of C84.1, while improving service delivery by ensuring actual delivered voltage at the point of consumption is within the new limits of 114 volt to 120 volt, or lower, in over 99 percent of the services in New Jersey.

Broad-scale adoption would offer electric utilities capital and operating cost savings, while providing reduced electric bills and an

improvement in the life span of capital equipment deployed in the homes and businesses of electrical utility customers.

These products are available now. Next year we will introduce the product to the utilities, with intelligence on board. We have adopted the product that we can give you now -- automatic meter reading. We can give you two-way wireless communication or power line communication, if so desired by the utility, so that the utility now will have an ability to not only read the meter automatically, but to implement service, take service down temporarily or permanently. In a rolling brownout, they can control their transmission system to a house-by-house, block-by-block service if so desired.

The people at MicroPlanet are asking the Committee to discuss this new technology, and to support our efforts, and to -- hopefully, becoming part of the Clean Energy Program, implementing and developing our technology and distributing it across the entire network for the utilities in New Jersey.

Allow me to take a few minutes to explain the technology I'm speaking about. In your home, you most likely -- depending upon where you are to a substation -- have a higher voltage than necessary. Perfect voltage for a home is 114.5 volts. The lamps that we spoke about earlier are all designed to operate at that voltage. All the motors in your home are designed to operate at that voltage. Anything higher comes into the home, you're stressing the lamp and you're stressing the motor. You're, in fact, reducing the life of both. So if you can bring the voltage to perfect operations, you now significantly increased not just energy efficiency and reliability of the system, you've now just increased the life of the motor components within the home and of the lamps operating from the home.

The technology also is available to raise voltage that is lower than 114 volts. If you're living out of a new home, far away from substations -- just been purchased -- and your voltage is down to 108, the system will bring it up to 114 volts for you. It will provide you with a whole-house surge suppression if desired.

What it does is, when it takes the voltage that is being generated into the home at 126 volts, so to speak, it reduces it down to 114.5 volts. It takes the saved energy, moves it back up the line, and transfers it down the line to the next home. In essence, every single home in the drop would now have 114.5 volts available to them instead of the higher or lower, which is now the common practice; along, again, with what I said. It will have surge suppression and communication with the utility to operate many, many different functions.

Any questions, gentlemen?

ASSEMBLYMAN CARABALLO: These are boxes? These are the--

MR. DILLIPLANE: These are boxes that are installed right next to the utility meter. They will, absolutely, obsolete the utility meter in the very near future.

ASSEMBLYMAN CARABALLO: Is it just one box, or is this a series of boxes at every--

MR. DILLIPLANE: One box.

ASSEMBLYMAN CARABALLO: --at every point along the delivery stream?

MR. DILLIPLANE: It would be one box at each home that requires-- In other words, it's installed in a home that's 126, 124, anything that's higher than 114.

ASSEMBLYMAN CARABALLO: One box.

MR. DILLIPLANE: One box. The homes that have 114, we don't touch them. Then the homes that drop below the 114, we raise them. So every home, now, is 114.5.

. ASSEMBLYMAN CARABALLO: What does that cost?

MR. DILLIPLANE: The cost right now is $1,500 per unit, about $500 for the installation, for a $2,000 investment. However, our price point for next year, once we go into volume, is $500 per home, total cost.

ASSEMBLYMAN CARABALLO: What does this save the consumer?

MR. DILLIPLANE: The savings would be, minimum, 10 percent, up to 20 depending where you're located at on the substation circuitry.

The commercial units are available. The commercial units are being developed now. And McDonald's Corporation is getting ready to test them. WAWA is getting ready to test the units also, the commercial end of it. And the technology is available, and developed, and is being installed in all the Northwestern states right now. It's being installed in Scotland right now by the U.K. systems. We are talking to FirstEnergy in Ohio. We are giving them our technology for testing purposes. We're getting ready to implement a pilot program out there. And we're looking very soon to implement pilot programs here in the State of New Jersey.

ASSEMBLYMAN CARABALLO: Assemblyman Chiappone.

ASSEMBLYMAN CHIAPPONE: Thank you, Mr. Chairman.

In scanning your literature briefly, that we were just handed, and in listening to you-- One of the comments made in your literature is that the

average home we see is 122 volts of electricity, eight volts higher than needed. Consumers are paying for this.

Can you explain why it is 122 volts if we only need 114?

MR. DILLIPLANE: Well, the utility system, again, is over 50 years old -- the grid. And the utility has to guarantee a certain voltage to the last house on the line drop, so to speak. To do that, they have to send out a higher voltage than necessary because of what's called *line* (indiscernible), resistance in the line. So if you have a hundred homes, you're going to have many, many homes at the higher voltage, and you're going to have homes that have the exact voltage, and then you're going to have homes that have lower voltage because of resistance in the line drop. This product puts the voltage right back up the entire line at 114.5, by using the over-voltage coming from the system, therefore increasing the reliability of the system by putting less stress on it.

ASSEMBLYMAN CHIAPPONE: And then the second question is, that's the voltage coming in.

An appliance is not used -- of course there's no voltage coming in at that time. As soon as you turn that appliance on, you're telling me that the motor is -- should take 114, but it's stressed because now 122 volts are coming in, typically?

MR. DILLIPLANE: Correct, and the same with lamps. Lamps are designed for 114 volts, and they're being stressed at whatever higher voltage is being put across the line for them.

ASSEMBLYMAN CHIAPPONE: But where does that voltage go?

MR. DILLIPLANE: Back up the line to the transmission line and moves it back down. It just keeps moving it back down until it reads a home

that's 114 volts and doesn't need it. It just opens its circuit up and let's it pass through.

ASSEMBLYMAN CHIAPPONE: I guess, Mr. Chairman, my question would be to the utility companies. Why do they let that happen if a home, typically, just needs 114 volts -- do they provide 122 volts?

MR. DILLIPLANE: It would be a major infrastructure outlay to develop that system. This does it very, very cheaply. It does it now. It's patented technology. It's been tested and approved by EPRI (indiscernible). The utilities, right now, can do whatever is necessary to use this product to bring at least 10 percent, 20 percent more capacity from an existing system, right now, with no large capital outlay, so to speak. There's no technology available on the market right now that can do this technology -- this effect.

ASSEMBLYMAN CHIAPPONE: And your literature states that the current system places a hidden tax on consumers by charging them for unneeded and unused power. If that's the case, certainly, your equipment is desired. But if that's the case, and it's a hidden tax, I think that's something for us to take up with the energy companies. (laughter)

MR. DILLIPLANE: Well, what I would suggest-- Instead of taking it up with the energy companies, we would suggest that you develop legislation that changes the standard of ANSI C84.1 and reduce the upper level down. We simply don't need that upper level any more, and it's just a complete waste.

So if you reduce the standard down to 114, 117 range, the utility now has a tool to make that happen, whereby saving millions upon millions of kilowatts a year across the entire grid in New Jersey and the country.

ASSEMBLYMAN CHIAPPONE: And Mr. Chairman, I guess the point is that I wouldn't feel it incumbent upon the consumer to place this device in homes if, indeed, this is the fact -- that excess energy is being provided, and they're charging for it and not using it. I think it would be incumbent upon the providers to install this type of device.

ASSEMBLYMAN CARABALLO: A lot of questions have to be asked.

Anyone else?

ASSEMBLYMAN CHIVUKULA: Mr. Chairman.

ASSEMBLYMAN CARABALLO: Yes, Mr. Chivukula.

ASSEMBLYMAN CHIVUKULA: It's basically a digital voltage regulator. Is that what it is?

MR. DILLIPLANE: It's a microprocessor-based digital conservation voltage regulator with electrical mechanical parts in it.

ASSEMBLYMAN CHIVUKULA: Now, according to your PowerPoint presentation, it says *alpha build*.

MR. DILLIPLANE: It's what, I'm sorry?

ASSEMBLYMAN CHIVUKULA: Alpha -- Page 2 says it's alpha. Isn't alpha a model? Is it fully deployed, fully tested?

MR. DILLIPLANE: The product is fully tested, and we can--

ASSEMBLYMAN CHIVUKULA: Where, in the United States? Because it says that, according to this new graph -- PowerPoint presentation -- it says that one commercial product sold to convenience stores and fast food chains, and alpha build. What does alpha build mean?

MR. DILLIPLANE: That we have just designed and built the first prototypes of those three-phase units that are being--

ASSEMBLYMAN CHIVUKULA: That's what I wanted to make sure.

MR. DILLIPLANE: Right, they're being installed in different commercial facilities around the country. I mentioned McDonald's to you, earlier, and WAWA. They're setting up the tests for the alpha units right now.

The single-phase units designed for home use are beyond testing. We're now deploying them around the country.

ASSEMBLYMAN CHIVUKULA: Thank you.

ASSEMBLYMAN CARABALLO: Thank you, Mr. Dilliplane.

MR. DILLIPLANE: Thank you, gentlemen.

ASSEMBLYMAN CARABALLO: And now the Committee is adjourned.

(MEETING CONCLUDED)