STATE OF NEW JERSEY
BOARD OF PUBLIC UTILITIES
NEWARK, NEW JERSEY

PUBLIC HEARING

DATE: TUESDAY, JULY 26, 2011

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IN THE MATTER OF THE

NEW JERSEY ENERGY MASTER PLAN
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BEFORE: PRESIDENT LEE A. SOLOMON

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I N D E X

STATEMENT PAGE

I N D E X C O N T I N U E D:

I N D E X C O N T I N U E D:

E X H I B I T S

NUMBER	DESCRIPTION
Neubauer-1	Statement by Franklin Neubauer
Brown-1	Statement by Jeffrey Brown
Sare-1	Statement by Diane Sare
Wood-1	Photograph
Wood-2	Photograph
Wood-3	Photograph

PRESIDENT SOLOMON: All right. I know it's a little late. We're going to try and get started. If everybody could sit down, settle down, or take a spot, we'll try to get more chairs in here. Hopefully, everybody will be seated.

Just a couple of preliminaries.

Good afternoon. My name is Lee Solomon. I'm President of the New Jersey Board of Public Utilities in case you didn't know. I'll be serving as the hearing officer for today's hearing.

We're here today to take comments of New Jersey's Draft Energy Master Plan which was released by the Governor on June 7th. This is the first of three hearings that we will host.

The draft 2011 Energy Master Plan is a strategic vision for the use, management, and

development of energy in New Jersey over the next decade. The specific recommendations in this 2011 plan focus on both initiatives and mechanisms which set forth energy policy to drive the state's economy forward, but do not lose sight of environmental protection imperatives.

Efforts to promote economic development will include increasing in-State energy production, improving grid reliability, and recognizing the economic and

environmental and social benefits of energy efficiency, energy conversation, and the creation of clean energy jobs.

Specifically, the plan contains five overarching goals:

First: To drive down the cost of energy for all customers. New Jersey energy prices, as I'm sure you all know, are among the highest in the nation. The New Jersey's economy growth cost must be comparable to the cost throughout the region. Ideally, these costs should be much closer to U.S. averages.

Second: Promote a diverse portfolio of new clean in-State generation, developing sufficient in-State generation while leveraging New Jersey's infrastructure will lessen dependence on imported oil, protect the State's environment, help grow the State's economy, and lower energy rates. Energy diversity is essential. Concentrating New Jersey's energy future in any one form of energy is ill-advised. Picking winners and losers should not be the State of New Jersey's job

but formulating incentives to foster the entry of both conventional and renewable technologies is required when market-based incentives are insufficient.

Third: To award energy efficiency and energy conservation and reduce peak demand. The best

way to lower individual energy bills and collective energy rates is to use less energy. Reducing energy costs through conservation, energy efficiency, and demand response programs lowers the cost of doing business in the State, enhances economic development and advances the State's environmental goals.

Fourth: Capitalize on emerging technologies from transportation and power production. New Jersey should continue to encourage the creation and expansion of clean energy solutions while taking full advantage of New Jersey's vast energy and intellectual infrastructure to support these technologies.

And, five, maintain support for the renewable energy portfolio standard of 22.5 percent of energy from renewable sources by 2021. New Jersey remains committed to meeting the legislative targets for renewable energy production. To achieve these targets, New Jersey must utilize flexible and cost-effective mechanisms that exploit the State's indigenous renewable resources.

Implementation of the plan will require the support and cooperation of all State agencies, together with energy developers and suppliers, utilities, power plant owners, PJM, FERC, all levels of government, and ratepayers.

The BPU has served as the lead implementing agency for this plan. In doing so the BPU will, among other things, coordinate with appropriate State agencies, energy providers, and other stakeholders, track and report on progress and develop or modify existing and future programs that support the goals of the plan.

The Board has also established four working groups comprised of subject matter experts from various industries in order to provide the Board with feedback on the following topics: Clean energy funding; alternative fuel vehicles; innovative technologies; and biomass. The recommendations from these four working groups will also be evaluated and considered by the Board in reviewing the Draft Energy Master Plan.

Before we hear from you, we set forth a few expectations for the hearing so you know what we're hoping for and you can try to stick within the guidelines so everybody gets a chance to speak.

We have quite a few people already registered to speak and I expect many others in the audience, they wish to speak as well. Please make sure you've signed in at the table in the back of the room to place yourself on the speakers' list to provide an opportunity for all, and judging by the numbers here,

all may not be provided an opportunity today. Please limit your remarks from 5 to 7 minutes. Keeping within

that time limit will help ensure that everyone has an opportunity to speak today.

I understand that that is a relatively short period of time so I ask you to try and focus on a couple things we're interested in. If there's a portion of the master plan that you take issue with factually or as a matter of policy, state it, state your recommendation. If you have a written statement that will be provided to the Board, it's okay to give us a synopsis, no need to repeat or read it. We're going to all read them. We're going to digest them. We're going to debate them.

So make sure if you have something to say, in addition to the written comments, give us both a synopsis and hitting the issues not covered in the written documents. Try to keep it within 5 to 7 minutes and try to stay focused on those two areas. What about the master plan you have an issue with or, frankly, do you agree with specifically that you want to bring to our attention and, secondly, what are your recommendations.

All speakers and attendees are welcome to submit more detailed comments. Comments are due to the Board by August 25th. Instructions for submitting such

comments on the Energy Master Plan, the web page can be reached at www.state.nj.us./emp/.

And for all those staff who didn't think I knew what a backslash was, you're wrong.

For participants planning to attend more than one hearing, I ask that you limit your comments to only one hearing. I am suggesting this may be our

biggest crowd. So if you're signed up to speak at another hearing, let Greg or Rhea or Christie know and we'll pull you out of this one and wait for the next one.

Everybody will be given a chance to speak. And, if necessary, if we don't get to everybody today, and I know we're starting late, that's my fault, I take responsibility. We're going to go at least to 5:30. And if we can go longer to finish up, we will.

If we need to schedule an additional hearing, we will do so, so that everybody who wants a chance to comment will comment.

If comments made by a previous speaker reflect those you plan to make, please indicate that and try to keep your comments short. We're here to listen.

I know Commissioner Fiordaliso is here, Fiordaliso is here, Commissioner Fox is here. We have quite a number of staff people here to hear and digest

what you have to say. So we are here to listen.

No decisions will be made at this or any of the other hearings. We will keep questions to a minimum, limited to only those required for purposes of clarification and they will come only from board staff or me.

The board staff be careful. I don't want you to take up the speaker's time.

We will post all comments made at the hearing and those received in writing to the EMP website. Once again the address for that website is

www.state.nj.us/emp/.

As for the next steps, we have two more public hearings scheduled August 3rd from 1:00 p.m. to 5:00 p.m. at the State House in Trenton, Committee Room 11, which is in the annex. That is considered the annex. August 11th from 1:00 p.m. to 5:00 p.m. at Stockton College at the student center. Written comments can be submitted until August 25th, 2011.

Following the deadline of the 25th, BPU staff will begin reviewing all comments received and the process of revising the draft plan will be planned. We do not have any deadline announced regarding when the Energy Master Plan will been finalized. We will need some time to see the full extent of comments and have

internal discussions after we digest and make sure we understand those comments. Once we have done that, we will provide a time frame for finalizing the plan.

Now, I have a list of speakers and we've put them on cards and shuffled them up and kept them in a mayonnaise jar. A lot fancier. For those who are Johnny Carson fans or is that before everybody's time?

No.

Erich Stephens, Offshore Wind.

Eric, you here?

Hi, there.

Take your time. We do have a court reporter and I will give you --

Where is Christie?

I will give you the cards with the name and spelling on it.

Christie, you want to come up here and have a seat right there and you can grab the card and give it to the court reporter.

Go ahead, Mr. Stephens.

MR. STEPHENS: Thank you, President.

My name is Erich Stephens. I'm the President of Offshore MW. We're one of the offshore project development companies that hope to do business here in New Jersey, just as we are today at work in

Germany.

Governor Christie, quite frankly, has made job creation his job. The Offshore Wind Economic Development Act signed represents a few opportunities to bring a new industry to New Jersey. The Offshore Wind Economic Development Act in turn represents the Energy Master Plan in setting targets for offshore wind. The Offshore Wind Economic Development Act also has a rigorous net benefit itself to ensure that offshore wind will bring the promised benefit to New Jersey.

Therefore, we would recommend an aggressive and specific target for offshore wind in the Energy Master Plan. New Jersey is already ahead of other states in permitting these projects and is already identified as an environmentally appropriate area sufficient for 3000 megawatts for offshore wind. This kind of scale, 3000 megawatts, is also the sort of scale needed to attract machine manufacturing and infrastructure development in the State, leading to job creation of permanent jobs, in addition to construction

jobs here in New Jersey. We would suggest that 3000 megawatts be the target for offshore wind in the Energy Master Plan.

Let me add that any plan is only as good as those who will implement an aggressive, and specific

target for offshore wind needs an energetic and thoughtful implementer with the administration, especially if we are to maximize job potential for New Jersey.

Fortunately, we have Assistant Siekerka with the DEP. We hope to have the opportunity to work with her and all the other stakeholders in building a significant offshore wind in accordance with the EMP that fully recognizes the importance.

PRESIDENT SOLOMON: One question, how are you blood-related to Michelle Siekerka?

There's Michelle right there.

MR. STEPHENS: Thanks. And I'm done.

PRESIDENT SOLOMON: Thank you very much.

That was less than five minutes for those that were taking note.

Ed Graham, South Jersey Industries.

Mr. Graham.

MR. GRAHAM: Good afternoon, President Solomon, also Commissioners Fiordaliso and Fox.

My name is Ed Graham, and I'm Chairman, President, and CEO of South Jersey Industries.

Thank you for the opportunity to testify today.

SJI is a publicly traded company and is a

parent of South Jersey Gas, South Jersey Energy Solutions, comprising of specialized services from combined heat and power, thermal plants, large solar, as well as serving residential and commercial HVAC services.

Clearly, the State's Energy Master Plan is a guiding document to our critical business and industry in the State, as well as most important for our customers.

I would like to start by thanking the leadership that you exhibited in the update of the plan. I would also like to thank Governor Christie and Lieutenant Governor Guadagno, as well as DEP Commissioner Martin for their help as well.

Your efforts through this plan will have pointed and lasting impact on the safety, reliability, and affordability of our state's effort. The energy efficiency is the backbone for the Energy Master Plan.

SJI remains committed to supporting and advancing the goals that the State has set forth. We stand as a resource and able partner in pursuing the State's overall commitment to the State's 22.5 percent to the renewable energy portfolio standard by 2021.

Also, we've engaged in specific strategies advocated by the Energy Master Plan surrounding

renewables. Our involvement includes solar energy, biomass, cogeneration, and a proliferation of CNG

vehicles. We also strongly support these options and responsible strategy for extracting reliable, abundant, and cost-effective natural gas resources that are contained in Marcellus Shale.

As you may be aware, our nation's reliance on additional energy sources, such as oil, coal, and nuclear are expected to decline over the next several decades. Oil prices and our dependency on foreign supplies impact on the air quality, and the cost to build new nuclear facilities drive the shift to more reliable environmental energy sources such as natural gas and renewable energy.

As far as an impact to the environment, natural gas contains low levels of pollutants and emits low carbon relative to other fossil fuels. It is also very efficient in production, transmission, and use. When natural gas is used very little fuel is wasted from the point of production through consumption.

A recent comprehensive study of the future of natural gas conducted by an MIT study group concluded that natural gas play a leading role in reducing greenhouse gas emissions over the next several decades, largely by replacing older, inefficient coal plants with

high efficiency combined cycle gas.

As the demand for natural gas increases, we are fortunate to have a significant resource easily accessible to our region from the Marcellus Shale. From a utility perspective, gas prices in our market area will surely benefit both the closeness and abundant supply and that's great news for our customers.

The drilling process recently has drawn a lot of attention. We know that when done properly and responsibly drilling has been proven safe. And we believe that the regulators in PA will provide required oversight to ensure public safety.

In addition to the positive impact on gas prices, accessing gas on the Marcellus will greatly reduce the risk of supply interruptions due to weather in the Gulf region. Marcellus gas will also reduce the need for foreign imports.

We are encouraged by the Energy Master Plan's inclusion of Marcellus Shale resources in our future energy strategy. Although New Jersey has no shale, we applaud the Energy Master Plan's focus on safe extraction during the drilling process so that New Jersey will yield the many great benefits.

Based on attributes of natural gas, the availability of supply, price stability, environmental

benefits, we firmly believe natural gas can and should be the centerpiece of New Jersey's Energy Master Plan.

In addition, renewable energy sources must play a part and supplement the benefits of natural gas and gas-fired generation, in particular CHP. It's a very highly efficient approach CHP. In fact, the way it utilizes waste heat through steam or water for manufacturing is a perfect solution for different facilities that are 24/7, including manufacturing, campus settings, data centers, casinos and hospitals as well.

Some of the benefits of natural gas-fired CHP are elimination of interruption risks which strain New Jersey's electric system and reduced need for expensive new transmission lines and also improve the carbon footprint.

As a New Jersey leader in combined heat and power, through our subsidiaries, Marina Energy and Energenic, we have advocated the benefit of using clean-burning cost-effective natural gas over the past ten years in Atlantic County. In fact, today we provide all energy services to the Borgata Casino and Spa in Atlantic City and, in fact, have recently added a 7 megawatt CHP facility there as well.

Looking at renewables as a whole, the market

is driving our state to the forefront. In the renewable arena South Jersey Industries is committed to solar and landfill gas for its electric generation.

Our solar projects in Atlantic, Cumberland, and Middlesex Counties total 11 megawatts and likewise in several counties we have more than 20 megawatts of generation from landfill gas. Also, importantly, our regulated utility, South Jersey Gas, places great emphasis on saving money for our customers and helping the environment by promoting energy efficiency. And thanks to the progressive thinking of our State government and the New Jersey Board of Utilities, New Jersey is at the forefront of our country in terms of energy efficiency.

Through our conservation incentive program and our energy efficiency program, we encourage

customers to use less natural gas through their own actions, including the purchase of high efficiency equipment. Since our programs have been in place, customers have reduced their usage of gas, enough to heat, in fact, 54,000 homes annually and save customers $250 million.

Also, in focusing on CNG South Jersey Gas is one of the first in South Jersey, in fact, or maybe in the State, that is focusing on a public CNG fueling

station. We expect that to come online in the fourth quarter in Glassboro. In fact, a number of other fueling stations are starting to be proposed or actually built throughout South Jersey to again take advantage of natural gas.

Again, we applaud the Energy Master Plan for being so supportive of that. In fact, current studies show from the U.S. Department of Energy, compressed natural gas in our region cost $1.24 less per gallon based on a per-gallon equivalent basis than gasoline. So, again, we applaud the Energy Master Plan for focusing on this great benefit.

In closing, South Jersey Industries remains committed to supporting the Energy Master Plan. I think it's a great benefit to many customers throughout South Jersey. Again, we look again for our partnership to help the Board of Public Utilities and the rest of the State to implement this plan.

Thank you.

PRESIDENT SOLOMON: Thank you, Mr. Graham.

Vince Maione, Atlantic City Electric.

Mr. Maione.

MR. MAIONE: Thank you, President Solomon.

How are you?

It's like walking the gauntlet.

PRESIDENT SOLOMON: Everybody who has spoken is sitting in the back so far. See what happens.

MR. MAIONE: Well, thank you, and thank you for the opportunity to share some comments.

I am Vince Maione, President of Atlantic City Electric. We are an investor-owned --

THE COURT REPORTER: Could you -- could you slow down a lot.

PRESIDENT SOLOMON: It is being taken down by a court reporter. She has to type in shorthand everything you say so take your time because if she kills over, everything stops.

MR. MAIONE: We would like to first recognize the leadership of Chris Christie and his administration, you President Solomon, Commissioners and staff of the Board of Public Utilities and the many other State agencies whose dedicated staff participated in the creation of the draft EMP. We applaud the open and transparent process under which the revision process has occurred.

The Draft Energy Master Plan presents a balanced and diverse array of energy policy recommendations. Atlantic City Electric supports the overarching goals of plan and its efforts to promote economic development by improving grid reliability and

recognizing the economic and environmental and social benefits of energy efficiency, energy conservation, and creation of clean energy jobs.

The master plan addresses many of the key goals and areas that have a focal point of Atlantic City Electric. To that end, we support the Energy Master Plan goals, such as advanced metering and related technology and infrastructure, capital investment and infrastructure support; among other things, transportation efficiency and emission reductions, new demand side management programs, innovative rate design, such as dynamic pricing.

Continuing with the inverted tariff price system is inconsistent with achieving the benefits of smart grid infrastructure. Implementation of AMI and the smart grid infrastructure will facilitate the development of dynamic and critical peak pricing, along with other flexible pricing options. This will be more efficient in controlling demand and energy usage.

To permit utilities to run pilot programs to advance the smart grid and set up an appropriate cost recovery mechanism to pay for these pilots once they go into service. Support AMI which is an enabler of the smart grid and is necessary to support the higher penetration of renewables that will be required to

support the ambitious EMP renewable goals.

Development of transmission facility will

play a key role in achieving objectives of the EMP. The transmission facility delivery of renewable energy resources, wind and solar and new nuclear, into and throughout New Jersey.

In support of your appropriateness and reasonableness of providing additional incentives for the EDCs for capital investments for the transmission of distribution systems, including:

One, a surcharge mechanism that enables the EDCs to receive full recovery of and on investments without filing base rate cases; two, an after-the-fact true-up to reconcile estimates with actual costs; and, three, other recovery mechanisms acceptable to the EDCs.

It's also important to ensure that the ambitious offshore wind goals that are required in the EMP be supported by improvements to the transmission infrastructure to maintain the reliability and ability of the electric transmission grid effectively to deliver the energy produced to offshore wind resources to customers in New Jersey; ensure the risks associated with the variability of intermittent renewables, such as wind and solar, are properly mitigated so as not to have an adverse effect on reliability of the transmission and

distribution systems.

Support legislation regulation that permits renewable products to receive SRECs if connected to 8 or 69 kV or below transmission systems.

Energy efficiency conservation of all the utilities, the Energy Master Plan should not limit the utility's role in participating in energy efficiency and

energy conservation initiatives. The close relationship utilities maintain with their customers enhance that ability to support the implementation of energy efficiency and energy conservation initiatives.

Electric decoupling must be brought in the pilot program for two New Jersey gas utilities. Innovative rate design, such as dynamic pricing and critical peak pricing, consideration should be given to deployment of AMI systems that can be used to support energy efficiency behavioral change programs and would support PJM market-based dynamic pricing. Dynamic pricing could be in the form of rebates to customers at the peak time -- at the time peak load reductions are achieved.

Compare the supply alternatives should be analyzed to acquire energy capacity or renewable energy credits to assure that the obligation to provide customers with reliable cost-effective supply is met in

the most effective manner. The analysis should not be limited just to long-term power supply contracts.

So on behalf of Atlantic City Electric, I sincerely appreciate the opportunity to present those comments before you this afternoon.

Thank you.

PRESIDENT SOLOMON: Thank you, Mr. Maione.

Thank you.

Terry Sobolewski and Katie Bolcar, I believe are both representing Solar Alliance and Mr. Sobolewski is also with SunPower. Correct?

MR. SOBOLEWSKI: Correct.

PRESIDENT SOLOMON: They'll be testifying together I think.

MS. BOLCAR: Thank you, President Solomon.

PRESIDENT SOLOMON: Maybe not.

MS. BOLCAR: Pardon?

MR. SOBOLEWSKI: I will be up second.

PRESIDENT SOLOMON: You can slide one up if you need to. This is NJIT. They have the technology.

MS. BOLCAR: Thank you, President Solomon.

Thank you for allowing us the opportunity to present at today's Energy Master Plan stakeholder meeting. The Solar Alliance commends the Governor, his staff, and the BPU staff with the substantial effort

invested in the 2011 Draft EMP.

THE PUBLIC: Speak up, please.

PRESIDENT SOLOMON: Just speak a little closer to the mic.

MS. BOLCAR: We appreciate the administration's continued support for solar and renewed focus on the economic and environmental benefits that solar can have for residents, businesses, and government entities in New Jersey.

The Solar Alliance is a group of approximately thirty solar companies with members representing the entire valued stream, from manufacturing to investment and financing to development and installation. Our members range from local installation companies, such as Trinity Solar, to large manufacturers, such as Sharp Solar.

The Solar Alliance works with state policymakers and regulators to establish cost-effective and successful solar policies program that capture associated economic development opportunities. We strive to increase --

THE COURT REPORTER: Can you slow down? It's just very hard when somebody reads.

I'm sorry.

PRESIDENT SOLOMON: I'll make sure I yell at

them. Hold your ears.

Take your time.

MS. BOLCAR: We strive to increase the number and capacities of solar installations of all types ensuring the market is vibrant, competitive, and diverse.

During today's testimony, we will present our concerns and recommendations of the Draft EMP. We will submit detailed written comments by the last -- by the last date, August 25th. We are eager to provide data and other assistance as the Governor and staff continue the process of revising the Draft EMP.

I will now turn the floor over to Terry Sobolewski.

PRESIDENT SOLOMON: Mr. Sobolewski.

MR. SOBOLEWSKI: Thank you.

We would like to address really three primary points with respect to the Energy Master Plan. First, the importance of understanding and effectively utilizing market-based programs to advance the

beneficial --

PRESIDENT SOLOMON: You may want to turn one of those off. Top button. That button.

MR. SOBOLEWSKI: First, the importance of market-based --

PRESIDENT SOLOMON: Push it back.

MR. SOBOLEWSKI: I apologize.

PRESIDENT SOLOMON: I'm sorry. I just don't want it to reverberate around the room.

MR. SOBOLEWSKI: So three key points.

First, the importance of market-based programs. Second, the need to quantify the cost and benefits of solar, as well as distribute generation. And, third, the value of maintaining balanced policies to promote broad and efficient economic development.

Regarding the first point on market-based programs, the administration has stated a clear preference to market-based approaches for solving our energy challenges. The EMP specifically goes further to formulate incentives to foster the entry of both conventional and renewable technologies is required when market-based incentives are insufficient.

This perspective is evident in the framework that has been established to support new in-State combined cycle gas generation under LCAPP and is evident in the BPU's long-held commitment to transition away from static rebate programs to more sustainable market-based SREC programs and revolving loan programs.

However, this commitment to market-based programs also carries an important responsibility to

exercise discipline in letting those mechanisms function with minimal intervention even when the results seem to be suboptimal in the short-term. We believe, for example, that the solar market is now at a critical tipping point. Ran previously high spot SREC prices had the anticipated effect of driving incremental generation, 40 megawatts last month, as noted in the recent press release and then such -- as a result of such market activity, the market is quickly coming into balance and we've already seen SREC prices decline dramatically.

In it's current form the Draft EMP appears to overlook certain important aspects of the solar market. For example, it states that the Solar Energy Advancement and Fair Competition Act guarantees -- and this is, quote, guarantees high and expensive subsidies for solar. Yet, the current law only creates a framework for market-based competitive incentives administered by the BPU serve to support the development of in-State generation. There is no administratively set SREC price in statute or regulation and no guarantee of the future availability of specific incentives to solar developers or market participants.

The Draft EMP also assumes that SREC prices will always follow the solar alternative compliance

payments, or SACP. Perpetuating the misconception that this is a price setting mechanism. It is true that spot

prices were close to the SACP in 2010. However, in that same year and since long-term contracts created at 200 to $450 per SREC, on average more than 45 percent below the SACP.

The most recent, JCP&L, ACE, and RECO long-term SREC procurement further establishes this trend with the weighted average being $342 per SREC for those contracts. And, additionally, 2012 spot price -- energy year 2012 spot prices are now below or $400, declining by more than $250 or 40 percent from last year, while the SACP declined by only 2 and a half percent.

Various sources report that future SRECs, energy years '12 through 2013, are now trading below $300 or less than half of the SACP in stark contrast to the assumptions in the Energy Master Plan.

Finally, the Draft EMP seemingly supports market-based technologies specific incentives and initiatives for things like combined cycle gas and CHP, but then similarly competitive programs related to solar and wind and the distinction is difficult to reconcile.

Secondly, we would like to address the cost and benefits. I'll try to work through these quickly.

I will make five quick points.

PRESIDENT SOLOMON: Don't speak too quickly.

MR. SOBOLEWSKI: I will try.

The first concern we have is with respect to the EMP's inclusion of exaggerated rate impact -- an exaggerated rate impact assessment. One part of the EMP claims its solar policy, quote, account for

approximately 25 percent of the cost associated with the State and federal policy component of the average residential bill. Yet, the section that details those costs shows the solar policy is actually less than 5 percent of the State/federal policy component.

The Draft EMP suggests that SRECs are an expensive program accounting for .09 cents per kilowatt hour or less than 1 percent of the average residential billing, while it glosses over transition charges that together account for 1.69 cents per kilowatt hour or 9 percent of the average residential bill.

The second concern, the EMP includes outdated and erroneous estimates of the cost of solar technology relative to conventional generation under renewables. The EMP indicates the LCOE, the levelized cost of energy for solar at $390 per megawatt hour. However, the widely started, cited LCOE analysis shows that rooftop solar is now between 136 and $190 per

megawatt hour. Round mounted systems can cost less; that is, less than half the value.

Third, the EMP has questionable estimates on future compliance costs. Looking ahead, the EMP projects SRECs priced at 75 percent of the SACP. This is a questionable assumption given the fact that SREC price data cited previously shows SRECs are now clearly decoupled from the SACP and a balanced market would be expected during the coming years.

The most appropriate method for stating SREC prices in a competitive market in our opinion is the

forecast capital costs, not some derivative of the administrative consent of the SACP. And in the absence or the more reasonable assumption, the claims, of the Draft EMP regarding impact on ratepayers may be wrong.

Fourth, the EMP is inconsistent in its quantification of solar benefits relative to other technologies. The EMP acknowledges that approximately 2000 megawatts of in-State combined cycled gas under LCAPP would provide a net economic benefit to ratepayers of $1.8 billion over 15 years, primarily due to lower wholesale energy prices.

The EMP fails to mention how 4500 megawatts of solar called for in Solar Advancement Act would have a similar effect amplified by the fact that solar

generates more during hot sunny days when electricity prices at their highest.

And, fifth, we believe the EMP is incomplete in its identification of solar benefits that accrue to all ratepayers and New Jersey citizens. Solar is left out of the discussion on distributed generation and the associated benefits of reduced congestion charges, as well as deferred transmission distribution estimate.

And to be clear, the benefits of solar are known and quantifiable. A recent study by Richard Perez of the University of Albany indicated that approximately 3000 megawatts of solar in New York could yield an annual benefit between a half million and a billion dollars from combined effects of distribution loss savings, distribution capacity savings, fuel hedge values, environment and health cost reduction and

increased tax revenues.

PRESIDENT SOLOMON: Who was that the study by?

MR. SOBOLEWSKI: The study by Perez was for 3000 megawatts.

The Draft EMP recognizes some of these benefits when it comes to districted generation and CHP, not in particular, but it does not seem to consider these same benefits for distributed solar.

It is noted below, consistent with the Draft EMP's call for a full accounting of the cost and benefits of solar, the final EMP should address this analytical gap.

The last area that we will address is the importance of balance of policies to promote a diverse industry and broad based economic development.

The Draft EMP and the Governor's comments signal a focus on installation that provide economic -- and this is a quote -- installations that provide economic and environmental benefits.

Of course, all solar installations provide such benefits. But the detail does not communicate a clear shift towards larger projects. While it may be true that larger projects can cost less on a capacity basis, dollars per watt, there are broader benefits that must also be taken into consideration.

Residential projects afford taxpayers the opportunity to directly participate in the energy market, expanding consumer choice and competition. All

behind-the-meter projects carry the benefits of distributed generation, producing peak demand, driving down wholesale energy cost, and deferring otherwise necessary transmission and distribution investments.

Now, in the context of these observations

and concerns, the Solar Alliance plans to deliver specific recommendations which we'll address in detail in our formal submitted comments.

I will just broadly address them with the following comments.

First, the Solar Alliance generally support the concept of a net economic benefit test to help policymakers determine the optimal energy portfolio for New Jersey and to guide their planning and decision-making and their development of programs to achieve the portfolio.

That said, we will encourage the Board and the administration to ensure such tasks and fully consider all relevant costs and benefits which for solar should include benefits associated with distributed generation, savings to ratepayers from additional in-State peak generation, and public health benefits that may be derived from the use of renewable energy.

Second, the Solar Alliance will suggest policymaking approaches and standards should be fairly applied when considering various technologies. For example, if long-term contracts are deemed important and valuable for the development of in-State combined cycle natural gas plants, similar consideration should be given to long-term contracts for the development of

in-State solar generation.

If incentives are deemed necessary for the development of CHP resources, this should not be cast as transference of wealth when applied to solar. And just for the benefit of new in-State gas generation or CHP projects do accrue to all New Jersey taxpayers and ratepayers, we will argue similarly that many benefits for solar accrue to all New Jersey taxpayers and ratepayers and not just those who install the systems.

Lastly, we will provide recommendations for how these benefits can be further distributed through aggregated net metering, community solar, and initiatives to site solar on otherwise unusable lands, such as landfills and brownfields.

And then, third, the Solar Alliance will reiterate its recommendations regarding the SACP schedule, SREC securitization and other key market mechanisms for solar in New Jersey consistent with the comments we previously submitted in various stakeholder forms and processes.

More, specifically, we'll address and stress the urgency of establishing an SACP schedule immediately to provide clarity and encouragement for market-based long-term contracts. And we'll stress the importance for extending JCP&L, ACE, and RECO SREC finance programs

to provide avenues for such contracting in the near term while the market regains competence it needs to resume

such contract terms.

Again, we hope our comments today and information provided in our written submission will be useful in advance of the dialogue and finalizing the Energy Master Plan.

Thank you very much.

PRESIDENT SOLOMON: Will your comments include a proposed SACP schedule and basis?

MR. SOBOLEWSKI: Our previously submitted comments to the SACP committee have included those recommendations.

PRESIDENT SOLOMON: And the basis for them.

MR. SOBOLEWSKI: Absolutely.

PRESIDENT SOLOMON: Please include that so we can make it part of the record.

MR. SOBOLEWSKI: We will. Thank you.

PRESIDENT SOLOMON: Michael Raftery, Steven's Institute of Technology.

MR. RAFTERY: Thank you. President Solomon.

I'm a research engineer at Stevens Institute of Technology. And during the last seven years I was working there, I've been researching ocean energy and I've processed known buoy data. And the data suggests

that we have over 9000 megawatts of wave power over our continental shelf on an average day. So this rather vast resource is an indigenous resource to New Jersey within 100 miles of our coastline. The farther we get from shore, the greater the wave energy resource gets. So we need to move forward and the State needs to join in in developing this technology.

So what I'm suggesting is that the State look at the options for test sites where we can vet developers and technologies in a controlled environment where the State has done the environmental impact statements, the EPA requirements, the U.S. Coast Guard navigation requirements, and the State runs a site. Developers run a test at the site. And once the technology is imbedded, then the State gives a recommendation to the Federal Energy Regulatory Commission and the Department of the Interior to grant leases to do commercial sites.

I think it's irresponsible to let people just deploy without this adaptive management process. So I think big money wins out.

The fact that if we do allow developers to do this, it's just going to be people with the big money. They're going to win this project. It levels the playing field if the State gets involved.

I have one technical comment on the EMP on Figure 8. The plots should use the same energy units to compare PSE&G and the Tetco M3 prices. I suggest converting the Tetco M3 energy prices a dollar per megawatt hour on that particular figure, Figure 8.

Basically, I also looked at some of the tidal power resources in this area. New Jersey has significant tidal resources on the order of at least a hundred megawatts.

I'm basically here to inform people about our wave energy resource. First generation technologies

have not been considered viable in our wave climate. The work we've done at Stevens says if we're able to use platforms that tune these waves, we can triple the efficiencies of existing technologies which begins to make them viable.

So the advantages of hydropower, wave power is seven to 900 times more concentrated than wind power, depending on the humidity in the air. That hydropower -- traditional hydropower has been on the report of 4 cents a kilowatt hour. I believe wave energy can go that direction because of its concentrated feature and the ability we have learned at Stevens on power take-off systems.

We've also been developing platforms on the

order, the design is 300 kilowatts of energy storage per unit. And our wave resource area is on the order of 30,000 square kilometers with low use. That's a low use area from approximately 30 kilometers offshore from Cape May to Sandy Hook.

So I just want to basically inform the public of our vast wave resource. The fact that its on the order of the amount of power that the entire state of New Jersey uses. It's a Naezon (phonetic) technology, but without state support and adaptive management process developing to testing development -- developer systems, it's going to be very difficult for wave energy to become a part of our portfolio.

That's all I have.

PRESIDENT SOLOMON: Thank you.

Stefanie Brand, Rate Counsel.

Good afternoon.

MS. BRAND: Good afternoon.

I can speak so that everyone can hear me.

PRESIDENT SOLOMON: And slowly.

MS. BRAND: And slowly.

I'm Stefanie Brand. I'm the director of the Division of Rate Counsel and, as you know, we represent the ratepayers of the State of New Jersey.

I want to start off by saying that I think

this process is extremely important. Things change so much in this industry that reassessing our priorities every three years is an essential part of the process. It takes a lot of work and a little bit of pain, but it's all a very healthy debate and it's all a very important debate.

With that said, I think this plan is actually a very natural progression from the 2008 plan. I don't see it as a radical change. I see it as a natural progression given changes that have occurred since 2008.

The first of those changes is that an issue has emerged about whether or not New Jersey has sufficient capacity to meet our needs in the years to come with the delay of the Susquehanna/Roseland line the closure at Oyster Creek, the possible closure of other coal plants given EPA regulations and the failure of the reliability pricing model to incent new generation.

We are being told that we are okay after the next year or two; but after that, it's not clear whether

we will have enough capacity to meet New Jersey's needs. So rate counsel very much supports the EMP's emphasis on ensuring adequate supply to New Jersey ratepayers.

We can't keep paying high capacity prices or keep paying to keep old coal plants running. When we

do, we end up paying more and we end up relying on dirtier sources of electricity.

A second major change that has occurred since the 2008 Energy Master Plan is that natural gas prices have dropped significantly. So this provides us with a very good juncture at which to reconfigure our resource mix.

The EMP calls for increased offshore wind or development of offshore wind, continued increases in solar, energy efficiency, and demand response. And we very much need to continue to promote all of these resources and make sure we get full credit for them in capacity markets of PJM.

However, they will not be sufficient to meet all of our needs in the coming years so we also need to continue our efforts to incent new gas-fired plants and to reduce our reliance on coal.

I personally believe -- I believe that it's unlikely that the economics will work for any new nuclear to be built in New Jersey, but gas is feasible, it's cheap, and it's cleaner than coal.

I'd like to talk a minute about renewables. I've read the plan several times and I've been reading the newspaper a lot and the Internet a lot in the last --

PRESIDENT SOLOMON: So have I.
MS. BRAND: -- few weeks. And, frankly, I've been scratching my head a little bit because I personally think that our solar story is a very positive one.
Since BPU's market transition order that was issued at the end of 2007, the BPU has approved several programs to spur a solar market and get us to be at the point to meet the RPS. Guess what? It's working. We will be meeting the RPS this year. We'll be getting more and more installations. Competition in the market is bringing SREC prices down and the market is spurring innovations that hopefully bring down the cost of solar.
The ratepayers' investment in solar and it's a substantial investment and the BPU's policy direction has been working which means this is the time to take a look and see what works best and what can we improve upon.
Instead of arguing over a role that will hopefully be exceeded a decade from now, we should be looking at how we can improve our current accomplishments. We believe that the redirection for residential solar, which does favor the wealthy, to municipal buildings, brownfields, and landfills which provide added societal benefits, in addition to the

benefit of having solar makes sense. We believe that increasing participant contributions both for solar and

EE through the use of revolving funds also makes sense.

We think that participants may very well continue to invest in these projects even if they have to repay a portion of it into a revolving fund and that more projects will be able to be funded through these revolving funds.

We also think that nurturing the markets so that the cost and SREC prices continue to fall makes a lot of sense. And we're hopeful that by 2021 the debate over whether the goal should have been 22.5 percent or 30 percent would be moot.

I do also want to talk about the portion -- I call it -- the things at the end of the plan that deal with advanced meters, dynamic pricing, submetering, and I really urge the Board to be very, very cautious.

Listening to some of the testimony we've already had today, everybody said, well, if you have dynamic pricing, then people will use less. But that works for some people and not for others. If you have a small supermarket or a bodega up the street in Newark that rely very heavily on their refrigeration and their energy needs, and if you increase their prices at noon, they are just going to go out of business. They're

operating on the slimmest of budgets. It doesn't work for everyone. And in terms of advanced meters right now for residential ratepayers, the cost of the meter is greater than what you're going to save.

So we very much urge the Board to tread very very carefully with respect to these programs and also with respect to the new ratemaking mechanisms that are

not in the Energy Master Plan but have been discussed today because for each one of them, for example, with the advanced meters, they provide a source of income for the utilities going forward that will certainly make them money but may or may not benefit the ratepayers.

We very much urge the Board to tread very very carefully when it comes to the advanced meter infrastructure proposals and the dynamic pricing proposals.

And that's all I have. We will be submitting very extensive written comments.

PRESIDENT SOLOMON: Your comment about advanced metering infrastructure, does that relate to the stranded cost issue?

MS. BRAND: It's a combination. It's a stranded cost issue because if you're replacing meters that we're still paying for because they have not yet withstood their useful life, you will have a significant

stranded cost. But in addition, the cost of these meters is quite significant and many of the cost savings that are cited by the proponents of these meters actually have to do with laying off meter readers or being able to do remote shutoffs. There are cost savings but not to everyone.

PRESIDENT SOLOMON: Thank you.

Thank you.

Anne Hoskins, PSE&G.

Good afternoon, Ms. Hoskins.

MS. HOSKINS: Good afternoon. I'm Anne

Hoskins with Public Service Enterprise Group and I have just submitted written comments that can be used and actually I have a set here.

PRESIDENT SOLOMON: Make sure you speak up and closely to the microphone so they can hear.

MS. HOSKINS: Certainly. I just want to give a set to the other commissioners as well.

I am Anne Hoskins with Public Service Enterprise Group. And thank you very much for holding this hearing today and giving us all an opportunity to comment on the Energy Master Plan. I submitted written comments and will be submitting much more detailed comments in the near term so I'm just going to summarize.

In summary PSEG supports many of the Energy Master Plan's initiatives, particularly those that support reliable, affordable, and environmentally sustainable energy and we support energy efficiency and new energy technologies.

I think, as we just heard from Stefanie, we're seeing a nice progression from what we've seen in the past and we believe that that kind of continued focus in that area is very important for our state.

It should come as no surprise that PSEG has a fundamentally different view on how best to encourage and new conventional electric generating facilities.

However, today I'm going to focus my remarks on five key areas where we think the State should focus energy policies and where PSE&G is ready to advance the EMP's goals by investing in New Jersey: Solar energy,

energy efficiency, natural gas infrastructure, nuclear energy, and transmission.

On solar energy PSE&G's Solar 4 All and solar loan programs have helped make New Jersey a leader -- a national leader developing solar energy. We can help achieve the EMP solar energy objectives by expanding our Solar 4 All program target in government facilities and warehouses throughout the PSE&G service territory. And we do believe that there is great value

in using underutilized sites and putting them to productive use. We believe with increased investment by PSE&G, we can develop up to 120 megawatts of additional solar energy, create hundreds of job, and drive additional economic development, and make productive use of underutilized sites.

Energy efficiency: Energy efficiency offers the greatest opportunity to reducing the cost that businesses and residents pay for energy and reducing environmental impacts. They are great social benefits from the investments that it has made in energy efficiency through the utilities and other venues. PSE&G has played a key and effective role in delivering energy efficiency to residential and commercial and industrial customers, such as small businesses, government buildings, multi-family, and senior citizen housing and healthcare facilities and prepared to expand on many of these initiatives.

By extending its investment model to energy and efficiency upgrades for large C&I customers, PSE&G

can reduce operating costs and increase competitiveness and help businesses retain and add jobs. Expanded efficiency programs targeting these groups can save an estimated $1.3 billion, our experts tell me, in energy costs over the life of the efficiency improvements. So

we really believe that energy efficiency should be a priority in the new version of the plan.

Natural gas infrastructure: There is a need and opportunity to modernize the State's natural gas distribution infrastructure and the Board recently did approve some additional work within PSEG on its front and we are prepared to accelerate additional investments to further modernize our gas distribution system.

In doing so, we believe we can create up to 500 construction jobs a year and additional jobs and related jobs and services businesses. These improvements will reduce methane emissions caused by leaks and older infrastructure, reducing greenhouse gas emissions by an equivalent of 30,000 tons of CO^2 a year and will support increased use of natural gas for emerging technology such as residential fuel cells, combined heat and power equipment and compressed natural gas vehicles.

Nuclear Energy: PSEG supports the EMP's recognition as important of nuclear energy as a leading source of clean energy in New Jersey. In the past month PSEG Nuclear received NRC approval for 20-year licensing extensions for the Salem and Hope Creek units. And last year PSEG filed an early site permit application and is exploring building a fourth nuclear plant at Salem.

50

PSEG is positioned to provide New Jersey with economical and carbon-free electricity from its nuclear plants well into the future.

Electric Transmission: In addition to generation and energy efficiency, continued investment in a reliability based electric transmission infrastructure is essential to achieve the EMP goals. PSEG looks forward to working with the BPU, the DEP, municipalities, and a range of stakeholders to review a number of critical transmission projects that will reenforce the electricity network in New Jersey. These projects support the reliability and efficiency of the electric system and are significant economic drivers.

PSE&G transmission projects in the 2009 through 2010 time frame created more than 500 jobs in New Jersey. Over the next five years, we anticipate investing more than $3 billion in transmission projects and creating hundreds of additional jobs in the State.

Now a few words about subsidized conventional generation. Since 2007 existing market structures have resulted in more than 5,560 megawatts of increased generating capacity in New Jersey and almost 2000 megawatts of in-State demand response resources providing a lower cost alternative for new generation.

There is no generation adequacy problem in

51

New Jersey. We don't believe ratepayer subsidies or other market interventions are necessary to encourage

investment in conventional electric generation in New Jersey. Instead, adjustments can and should be made within the market system to facilitate additional investment, including generation, when and where it is needed and in the most efficient way.

Specifically, PJM's reliability pricing model, known as RPM, after market can be improved by allowing capacity providers to lock in prices for multiple years. This will provide additional certainty and we believe yield increase investment.

It can also be improved by increasing the length of the capacity procurement planning process to coincide better with the transmission planning process and, thereby, making investment decisions on a common playing field.

In addition, PSEG believes changes can be made to simplify the transmission interconnection process so that when generators are ready to build, they can get through that process in a quicker fashion.

PSEG stands ready to work with the BPU to achieve these adjustments and believes that this should be reflected -- this approach should be reflected in the Energy Master Plan.

So in closing I want to reemphasize that PSEG is committed to supporting an energy future in New Jersey where energy is reliable, affordable, and environmentally sustainable. We look forward to partnering with New Jersey government leaders to fuel New Jersey's economy by achieving this energy future.

Thank you again for the opportunity to

appear before you.

PRESIDENT SOLOMON: Just I have one question. When you talk about longer terms for contracts, locking in price, how many years are you talking about?

Currently it's three.

MS. HOSKINS: I think that and we have an expert back there working with PJM. I think they're looking around five to seven. But I think that's -- there's PJM working groups are going on now and our sense is that if we can get people together and really understand what the investors are finding to be their barriers that the best approach is to try to make adjustments to the systems, both by giving more certainty in the length of the time that they can count on the price, as well as the interconnection to the transmission as well.

Thank you.

PRESIDENT SOLOMON: Scott Schultz, Advanced Solar Products.

Good afternoon.

MR. SCHULTZ: Hi there.

Can I be heard?

Can you hear me back there?

THE PUBLIC: Yes.

PRESIDENT SOLOMON: No hands are up so you're okay.

MR. SCHULTZ: Good start and I will try to focus slowly.

I'd like to start by flashing back to the earliest years of the solar program, 2003, when we had six solar installations in the State and we were looking at how we can possibly grow that marketplace.

Flash-forward now eight years and we've just successfully completed over 40 megawatts of solar last month, as well as 10,000 installations in that brief period of time.

What I'd like to start out by saying is that the solar program in the State has worked. The solar transition of 2007 with its intention to wean us off of rebates and move to a market-driven program has worked. And it has continued to grow and thrive during that time. We've seem to have lost sight though of some of

the purposes that we did this. In particular, the idea of the value of distributed generation in helping to reduce grid congestion and the benefits that solar provided in that regard.

And, in particular, I would go back to a study that the BPU referenced back in 2001, market study, that talked about the benefits to ratepayers, I believe the ratepayer advocate supported that, and showed what benefit was to all ratepayers by reduction in demand charges because of the peak generation that solar provided. And I would point to our last week of triple digit temperatures, and if anybody bothered to take a look at what those demand charges would look like, they would be ill right now, as much as a hundred-fold higher than the regular prices --

PRESIDENT SOLOMON: I'm not feeling too good

myself now that you bring it up.

MR. SCHULTZ: So it works. Solar has worked. It has become one of the largest drivers for employment in the State.

I recently read some documents that showed that the clean energy, both energy efficiency and renewable energy, has become one of the largest market drivers in the United States here in New Jersey for jobs creation.

We no longer have rebates. In fact, as of June, we no longer offer any form of rebates in the State. We are fulfilling the dream of the solar transition and moving toward a market-driven marketplace and that the SREC pricing is working.

One of the reasons that it's working and it's stimulation and demand that has resulted in this SREC market-driven product was the use of long-term contracts.

In fact, I might point that from the time of the solar transition in 2007 till now we have just geared up those long-term contracts, particularly from the solicitation program of JCP&L, RECO, and ACE. We are for the first time in the last solicitation oversubscribed; that we've seen significant reduction in SREC values. And I think that one of the reasons that we're seeing overall reduction in SREC values is not just the overstimulation and the overbuilding in the marketplace that is taking place, as a result, I might add, of this successful program, but also because there

have been vehicles where the financial industry and assuredly invest and know approximately what their return on investment can be for SRECs.

Those long-term contract models are reaching the end of their life now. And without the continuation

of those long-term contracts, I think that we're going to see a market that again will depend on higher spot prices, and ultimately will cost the ratepayer, and we will see a downturn in construction because of the two higher risks in the unknown paybacks that SREC values can bring.

So I do highly encourage that we look at the solar loan program and the long-term solicitation programs and look at creating some sort of vehicle, particularly in regards to long-term contracts that would allow people to continue to invest in solar.

I'd also like to note that we've seen a number of people talk about the erroneous assumptions and bad mathematics that have been derived from the Energy Master Plan. Looking at the underlying numbers, the actual cost of solar to the ratepayer works out to be about 63 cents a month. That is not a high cost. It is not outrageous. That is something that is extraordinary reasonable in considering the amount of benefit that all of us have been able to derive from that, I think it's extraordinarily reasonable.

Also, I would like to make one more comment. The EMP talks about migration from small solar to large solar. Let us not forget that 40 percent of the SBC fund is paid by residential installations. And although

we've heard people say solar for homes is only for the rich, I might point out that there are vehicles, particularly power purchase agreements, that have become very commonplace in the solar marketplace, the residential marketplace, in particular, and that there is an increasing demand and those are not just wealthy people that are putting solar on their roofs. These are people who are putting solar on their rooftops where no upfront investment is required at all and they are reaping the benefits of distributed generation and reduced energy costs.

In conclusion, I just want to say if it's not broken, don't fix it. If the intentions of the solar transition are being realized, and I think all facts point to that, let's continue to accelerate this commitment and invest in what has become one of the truly great success stories here in New Jersey.

Thank you.

PRESIDENT SOLOMON: Thank you.

Karen Alexander, New Jersey Utilities Association.

Good afternoon.

MS. ALEXANDER: Good afternoon, President Solomon and to all of those in attendance.

I just remarked to someone that we're all

very fortunate that it's not 103 degrees outside today.

PRESIDENT SOLOMON: Go a little closer to

the microphone so they can all hear how hot it is.

No. A little closer to the microphone.

MS. ALEXANDER: Good afternoon, President Solomon.

I'm Karen Alexander, President and CEO of the New Jersey Utilities Association. We are the trade association for all of the investor-owned utilities doing business in New Jersey, including the seven energy utilities that are regulated by the Board of Public Utilities.

I'm here to offer very brief remarks in the nature of general comments on the Draft EMP. And first and foremost would like to congratulate the Board and board staff and administration for taking a good hard look at the plan and doing some serious work to update it.

We are all working with our member companies to develop a consensus position on many of the key elements of the Draft EMP and hope to be able to do so in written, if not further oral testimony, during this public process. But, as I said, today my comments will be very general.

The electric and gas utilities operating in

New Jersey have been an integral part of the State's successful economic and environmental past and will be an important part and essential part, I would suggest, of its success in the economic energy and the environmental realms in the future, including where it makes sense, in the delivery of energy efficiency and renewable energy as many of the companies have done

heretofore.

We appreciate that the administration has taken the time to review the underlying assumptions and goals in the EMP in light of the circumstances that have changed rather dramatically since the 2008 plan was finalized. Utilities like all other companies need certainty in order to make their business plans so we look forward to having a clear direction from a finalized revised plan very soon.

We continue to believe as an industry that the goals for the plan must be realistic and balanced and take into account a number of competing factors and interests; that the draft plan places additional focus on job creation and lowering cost for customers are among the factors that must be balanced and we are glad to see that the plan does so; that the revised plan modifies the goals for renewable energy to be consistent with state law at 22 and a half percent rather than the

aspirational and laudable 30 percent is appropriate. Goals can be stretched goals; but in order to have meaning, they need to be realistic and achievable.

We continue to feel strongly that New Jersey's energy policy must be, one, balanced in terms of a mix of fuel sources; two, look to maximize a significant investment already made and to continue to be made by utilities; and, three, ensure that the facilities upon which the State depends for reliable energy supply can and will be developed on a level playing field, sited within reasonable time frames and

appropriately emphasized on not only the environment, but also the economy and what ratepayers are ultimately asked to pay to achieve the State's goal.

Thank you for this opportunity. We look forward to working with administration and all stakeholders to the conclusion of a successful process and revised EMP.

PRESIDENT SOLOMON: Thank you, Ms. Alexander.

Fred DeSanti, Soltage LLC.

Better put your coat on it's a little cold up here. Just kidding. It's really not for those of you who are cooking in the back.

MR. DeSANTI: I just want to dress up.

PRESIDENT SOLOMON: I wouldn't have recognized you without your sports jacket.

MR. DeSANTI: I know that.

PRESIDENT SOLOMON: We also have -- make sure -- are you Anne Marie?

MS. STEWART: Vanessa Stewart, Soltage.

Good afternoon.

PRESIDENT SOLOMON: I knew you weren't Fred DeSanti.

MS. STEWART: Yes. Good guess. I knew that too.

President Solomon, Commissioners, and members of the New Jersey Energy Master Plan review commission, my name is Vanessa Stewart, COO and co-founder of Soltage, LLC. Soltage is a full service renewable energy company that finances, develops, and

operates solar energy projects nationally and our firm is proud to be headquartered here or nearby in Jersey City, New Jersey.

We appreciate the thorough analysis that went into this draft plan and we believe the desire to create renewable energy resources can best be sustained and achieved when the rate of development of these renewable resources can be matched to our public support structure and when it does not outrun our ability to

finance it.

The overarching goal of our remarks today is to ensure that the public policy framework that supports New Jersey's solar industry will sustainably carry us through our ultimate goal of achieving the levels of solar capacity envisioned under the current statutorily mandated renewable portfolio standard through 2026.

We believe the goal in creating 5000 megawatts of solar capacity, roughly, within the next 15 years represents a most significant dedication to solar energy and one that can be attained if, and only if, the ratepayers of New Jersey can be provided with the value from their investment that they deserve developed at a growth rate that they can afford.

We agree with the Draft Energy Master Plan findings and recommendations in the following areas:

The current statutorily defined renewable portfolio standard is trackable, very aggressive, but also realistic in terms of its free-market approach to managing the development of the marketplace over an

extended period. The free market system, as currently established, can stand without modification or alteration of any kind so that the financial markets can become more confident in the permanent nature of this public policy and that is beyond the reach of any

attempt to manipulate either the short or long-term markets for solar renewable energy credits in New Jersey.

Since 2007 the marketplace has enjoyed the significant incentives needed to spur the development of solar energy in New Jersey that has now taken place. Our industry has now matured. Supply and demand is coming into balance in accordance with RPS market design and we recognize that current lower SREC prices are a necessary element to a sustainable future for our industry.

The master plan also proposes to reduce the solar alternative compliance payment schedule beginning in 2017, first by 20 percent and then by 2.54 percent annually to continue the current annual reduction.

While it is true that capital cost of solar installations have come down considerably since 2007 when the SACP was first structured, I would, however, offer the following for your consideration.

First, I believe the spot market in 2012 and 2013 will be sharply reduced from the current levels by market forces emanating from the natural market pressures to close the gap between expected long three-year SREC contract market and the valued spot market product. Clearly, the current divide between

64

long-term and short-term products will disappear in 2012 as supply and SRECs exceeds the demand of the renewable portfolio standard.

Secondly, it now appears very likely that the 30 percent investment tax credit will revert back to a tax credit in January of 2012 resulting from the current federal budget and debt ceiling debate. This change to the Federal 1603 program will likely also have a considerable dampening effect on our product financials going forward. Of even greater concern, the Federal 1603 cash grant is currently scheduled to completely expire in 2017 and may not be extended even at the tax credit at the current level.

I would recommend, therefore, is that these elements be appropriately factored together with the proposed 20 percent reduction in the compliance payment schedule.

I would, finally, like to point out that the current statutory trigger injecting 20 percent of additional SRECs could already result if prices were to continue to decline for three consecutive years of SREC pricing. And I would hasten to add that the confidence of the marketplace would be bolstered immediately by your early action in developing the remaining alternative compliance schedule.

65

One side of the cost of solar is certainly the cost of equipment and labor, and the other side is

the capital cost. I do think it's important, therefore, to spend a minute or two with the changing demands of the financial communities as prices have recently drastically changed.

I think this is important in the shifting perceptions of risk and return in the financials. In particular, debt in New Jersey projects -- New Jersey solar projects is difficult to structure. The banking markets in general lend against contracted cash flows with high credit card rates. In light of the various aspects of market uncertainty the market for any long-term SREC contract is very tight with two- or three-year contracts being the only contracts widely available at volume.

As the SREC revenues, the line share of the cash return to these projects, this implies the typical plan will finance only a small portion of the overall capital requirements, and if they will even get involved in the relatively small deal factors which distributed solar finance presents.

Second, equity which is subdivided into sponsor equity and tax equity. Isadona (phonetic), of course, of Capital is currently financing solar projects

in New Jersey. Equity is certainly more willing to wear risk of market uncertainty and merchants or uncontracted revenue streams but is looking for a higher return in exchange for the risk assumed. Conversationally, equity is looking for mid-team returns to place capital into these markets which projects are increasingly unable to support as the SREC market declines.

From a financing perspective, stability is the fundamental tenet of growth and the means by which we could reduce our costs as capital deployed to financing the assets required by the State's legislative mandates. With a stable and long-term market, which an advancing community can understand, rational decisions around capital deployment, supply and demand and deal structure can follow.

This growth and efficient capital deployment will result in further production and installation costs and predictable SREC values.

All of this translates into achieving our goals and the development in the State at the lowest possible social cost.

In the interest of time I'll limit my comments today to those related to solar energy and the Draft Energy Master Plan and the impact on our industry going forward.

PRESIDENT SOLOMON: Can I ask you a quick question?

MS. STEWART: Yes.

PRESIDENT SOLOMON: Do you have a suggestion to create that long-term stability? There are contracts out there but, obviously, they are out there and they're being done by the utilities, financing is not necessarily the issue.

Is it there a proposal or is it something you want to come later?

MS. STEWART: We will also be following up

with written comments and providing more specific recommendations.

PRESIDENT SOLOMON: I would be interested from anybody what those proposals might be to create that long-term certainty which would generate the ability to create debt to finance the projects.

Thank you.

MS. STEWART: Thank you.

In general, we see the continued support for the RPSs run by the utilities as an effective financing tool as well and will be following up with written comments.

Thank you for your careful review, thoughtful approach, and appropriate concern for the

balancing of all interests in the EMP -- in the Draft EMP and for giving us the opportunity to reflect upon the long-term interests of our industry and New Jersey energy policy goals.

On behalf of Soltage I very much appreciate your time and consideration of our comments and look forward to working with you in the future toward achieving these important goals.

Thank you very much for your time.

PRESIDENT SOLOMON: Thank you.

Mr. DeSanti.

MR. DeSANTI: Yes.

Thank you, President Solomon.

We're going to shift gears very quickly and talk about propane.

PRESIDENT SOLOMON: Talk about what?

MR. DeSANTI: Propane. Yes, sir.
As you well know --
PRESIDENT SOLOMON: You said propane.
MR. DeSANTI: As you well know, New Jersey propane industry serves over 250,000 households and businesses throughout the State of New Jersey which can generally be defined as being only gas. Propane, as you well know, also is close cousin to natural gas, a very clean burning fuel, and we are proud to be counted among

those fuels whose burning characteristics closely match those which constitute the cleanest burning hydrocarbon sources available.
At the outset I would like to commend the work of the Board of Public Utilities and those who worked with the review commission in producing this important milestone report. Clearly, there existed the need to revisit the economic undertensions of the earlier 2008 report to best reflect today's current energy market and to integrate this information with the economic data reflected in the realities of our now fragile economy.
Overall, we think the report far better reflects the realities of our current energy marketplace and sets forth recommendations that are practical, actionable, and in line and what is affordable for New Jersey residents and ratepayers going forward.
We also believe that an appropriate balance has been struck lending renewable energy resources, energy efficiency, and clean burning fuel, such as

propane into a portfolio where alternate resources can be productively employed to achieve our overall energy goals.

We commend the Board and the review commission and wholeheartedly agree that our energy

goals can best be achieved through carefully balancing the utilization of all available clean technologies.

We would, however, like to point out the report's obvious oversight of propane as a clean burning fuel that can work together with other clean transportation fuels, such as compressed natural gas to create a cleaner environment and save New Jersey consumers by utilizing domestically produced propane that is also far more attractively priced than conventional gasoline and diesel fuels.

We all understand that propane as a transportation fuel is a market segment largely focused on fleet vehicles, much like compressed natural gas and would never completely replace other more traditional hydrocarbon transportation fuels. However, we would like to spend a few minutes to provide details that hopefully can be incorporated into the Draft Energy Master Plan to reflect appropriately the use of propane, along with compressed natural gas, as a clean transportation fuel for New Jersey.

Let's begin with an environmental match-up of natural gas and propane in order to compare the carbon footprint of these two very similar fuels and quantify the environmental reductions associated with propane as a potential replacement for gasoline and

71

diesel fuels, particularly for fleet transportation uses in New Jersey.

Propane is a nontoxic, clean burning fuel. When compared to conventional gasoline vehicles, propane generally experienced substantial reductions in both particulate matter and greenhouse gases, including carbon monoxide, carbon dioxide, and nitrous oxides.

Propane has an emission benefit comparable to compressed natural gas and ethanol and produces significantly lower emissions than gasoline and diesel and even electricity on a BTU basis. Overall, propane fleet vehicles produce an average 19 percent lower greenhouse gas emissions than gasoline. More specifically, automobile initiatives for propane produce carbon monoxide that is 23 percent less than gasoline, carbon dioxide that is about 11 percent, and most substantially about a 42 percent reduction in nitrous oxides over conventional gasoline. Significantly, in terms of fleet transportation and freight, large trucks can realize 78 percent less nitrous oxide than traditional gasoline.

With respect to pricing of propane, the average price for gasoline in the study that was conducted in 2010 cited gasoline at 2.60 a gallon, which I wish it was today, and by pricing that against propane

72

we find it was a $1.20 less. When you add to that the 50 cent federal tax credit that applies to the use of

propane as a transportation fuel, we have about a 40 percent cost advantage of propane over traditional diesel and gasoline.

With respect to safety, propane has the lowest flammability range of alternative fuels. Propane tanks are 20 times more puncture resistant than gasoline tanks and can withstand four times the pressure when compared to conventional gasoline fuel vehicles.

Propane, as you well know, is nontoxic unlike gasoline, diesel, methanol, and ethanol. Propane is nonpoisonous. And even on the occasions of rare accidental releases, propane will dissipate quickly into the atmosphere. There is no harmful contaminant to the air, soil, or water. When compared to natural gas operating pressures results are significantly less, burning at 170 PSI compared to about 3,000 PSI in natural gas.

And, finally, in conclusion, I would like to say that the infrastructure cost of refueling stations proposed propane and compressed natural gas are very different. In terms of propane we can service refueling stations, 30 to 40 vehicles for about $15,000 for completing limitation. That compares to approximately

350,000 for high speed pumps for natural gas.

So in conclusion, propane is an important resource that deserves to be included in New Jersey's clean energy resource portfolio. Any way you measure it -- from environmental impact, consumer price, safety, infrastructure, investment to bring it to market -- it deserves appropriate consideration.

We hope that the commission and the Board of Public Utilities will include propane in the Energy Master Plan document to mirror the support that compressed natural gas now enjoys.

We would be happy to work with your staff towards providing information necessary to amend the current document, as well as to provide the metrics necessary to update costs and environmental and other appropriate quantifiable inspirations.

On behalf of the New Jersey Propane Gas Association, we very much appreciate the time you provided us today to discuss some of the advantages associated with propane as a transportation fuel. And, again, we are prepared to offer any additional information or documentation that may be necessary to assist you in your favorable consideration to amending the draft document to include propane as an additional clean transportation resource.

PRESIDENT SOLOMON: A couple real quick questions.

MR. DeSANTI: Certainly.

PRESIDENT SOLOMON: Where do we get propane?

MR. DeSANTI: Domestically produced. Sixty percent of it is domestically produced in the United States and a small portion in Canada. A lot of it now is coming off of Marcellus Shale.

PRESIDENT SOLOMON: So they are deep horizontal wells.

MR. DeSANTI: Yes. And also a by-product of

traditional refining.

PRESIDENT SOLOMON: Is its life cycle essentially the same as natural gas, it can be stored for a long period of time in a similar manner?

MR. DeSANTI: I believe that is true.

Yes.

PRESIDENT SOLOMON: The answer is yes.

MR. DeSANTI: Yes, sir.

PRESIDENT SOLOMON: And is the utilization as a fuel for vehicles or fleet vehicles the same, that is an engine will use natural gas or use propane in the same way?

MR. DeSANTI: Very similar in terms of combustion characteristics. It has more energy content

than natural gas so in terms of volumetrics it's a little bit different.

PRESIDENT SOLOMON: In other words, you can take a natural gas engine and somebody can put propane in it.

MR. DeSANTI: Generally speaking, yes. Carburetion is a little bit different.

PRESIDENT SOLOMON: I don't know that much about carburetors but thanks. Thank you.

Anne-Marie Peracchio, New Jersey Natural.

Good afternoon.

MS. PERACCHIO: Good afternoon, President Solomon. I'm Anne-Marie Peracchio, the Director of Conservation and Clean Energy Policy for New Jersey Natural Gas. It's a pleasure to be here today to share some of the company's initial responses to the Draft

Energy Master Plan.

As requested, we'll keep our comments brief for this afternoon and we will be submitting more detailed written comments.

NJNG would like to acknowledge three core concepts within Draft Energy Master Plan: The importance of continued infrastructure investment; the increased use of competitively priced, domestic natural gas to achieve economic and environmental goals; and the

overall commitment to the efficient use of a variety of energy sources. NJNG shares those commitments fully.

Regarding the first point, the Draft Energy Master Plan properly recognizes the importance of utility investment in infrastructure development to ensure the safe and reliable delivery of lifeline services in a cost-effective manner. It further recognizes the role that robust utility infrastructure plays in supporting and stimulating economic activity which, in the long run, can lower costs for New Jersey residents and businesses.

PRESIDENT SOLOMON: Speak a little closer to the microphone, I'm getting a couple hands popping up.

MS. PERACCHIO: Sorry. I was concentrating on slow.

PRESIDENT SOLOMON: Slow is good. Louder is better.

MS. PERACCHIO: Second, NJNG is pleased that the Draft EMP recognizes that an increased reliance on natural gas which is both abundant and domestically

available, will improve the economics, efficiency, and environmental profile of the State's energy portfolio in comparison to the current source-fuel mix. In addition, by promoting the assessment of evolving technology, in particular, gas-fired distributed generation and

compressed natural gas transportation applications, as well as conversions from more expensive fuel sources, the EMP acknowledges the economic and environmental benefits of increasing the use of relatively low priced clean natural gas. While we support the increased use of natural gas, we also acknowledge that in the interest of reliability and efficiency, the State must ensure the availability of a diverse portfolio of source-fuels to meet New Jersey's energy needs.

Last, the Draft EMP clearly recognizes the need for programs, resources, and information that can help customers understand both energy efficiency and conservation opportunities and how investments in energy efficient equipment can result in longer term savings.

Further, for the EMP, it recognizes that utilities play a unique role in the advancements of such efforts due to their ongoing relationships with customers, their interactions with local contractors, their connections to local nonprofit agencies and community groups, their relationships with local government agencies and contacts with manufacturers and distributors of efficiency technologies.

As I previously mentioned, NJNG will file more detailed written comments, but today I want to note two areas we consider particularly important.

78

First, while the Draft EMP has a strong focus on pursuing lower energy costs in the State through new generation, enhanced infrastructure, and the promotion of energy efficiency programs that provide efficiency and cost-saving benefits to all residents and businesses, it is also important to consider also cross-program impacts as a way to lower energy costs.

A specific example would be the societal benefits charge funding for energy efficiency programs that serve low-income customers. Those can actually generate significant ongoing savings for all customers because they would help reduce the level of recurring financial assistance that's needed for low-income customers through the universal service fund, which is also funded by the societal benefits charge.

Second, any transition of energy efficiency, conservation, or renewable programs to an alternative form of management must be carefully considered to avoid delays in program offers, a decline in participation and uncertainty in the marketplace. These programs have not only provided benefits to participants but have increased job opportunities in New Jersey and helped to attract and retain businesses.

As noted earlier, utilities communicate with their customers routinely and have direct experience in

79

providing educational and informational materials to a wide audience. Moreover, through involvement in current

energy efficiency programs, the utilities have also been able to directly connect with and influence local Realtors, manufacturers, distributors, big-box stores, and many local contractors about ongoing program opportunities and also support in the outreach by programs run by New Jersey's Clean Energy Program and the ARRA programs as well.

Uncertainty, regarding the future of the programs or a poorly executed transition process could result in increased project costs and dampen short- and long-term prospects for job growth. Accordingly, any proposed transition should be conducted through a deliberate and reasonable process.

New Jersey Natural Gas is pleased to have had the opportunity to share our initial thoughts as to how natural gas can help achieve the core goals of the Draft EMP, as well as to share our insights in educating customers about reducing their energy bills.

We look forward to continuing to work with the BPU, the Division of Rate Counsel, other State agencies and stakeholder groups in the review and implementation of the policies that the State wishes to pursue through the EMP.

Please feel free to reach out to me or any of our colleagues for any support that we can apply.

Thank you.

PRESIDENT SOLOMON: Thank you, Ms. Peracchio.

Chris McDermott, Hartz Mountain.

You don't have to run.

MR. McDERMOTT: Thank you very much, Mr. President. I'll keep my comments short.

One of your officials once said to me, the biggest issue with solar is that he said 99 percent of the time, talking about 1 percent of the electricity supply. And I can certainly commiserate with those comments.

My name is Chris McDermott. I'm from Hartz Mountain. We're one of the largest privately held real estate companies in New Jersey with 38-8 million square feet of floor space.

Since 2008 we've embarked upon a very aggressive sustainability program. Energy efficiency measures bring our staff inventory and lead certification of our buildings. The biggest flagship element in our program has been solar. We currently have 7.5 megawatts in service and another 10 megawatts under construction.

What makes us a little bit different than most of the solar guys who you speak to is that we're in this for the long-term. We develop, finance, own, operate the assets. And, therefore, we take the long-term performance SREC price risk and regulatory risk.

I would just like to come back to a few comments and echo those that have been said before.

First of all is with respect to the cost of solar that are referenced in the Energy Master Plan.

The world has changed very significantly in

SREC prices since June 7th when the Energy Master Plan was released. SREC prices on the Energy Year 12, as of yesterday, were off 30 percent where they were on June 7th. And I just got an e-mail from a broker during this hearing, Mr. President, that SREC prices were traded at $295. So they are coming down. They are coming down quickly. And when you evaluate the policy response in your final plan, I would encourage you to update your analysis with some current SREC prices.

The second issue which concerned us in the plan was there seemed to be some references to moving the goal post retroactively. We talked about revisiting the SACP retroactively. We talked about revisiting the solar RPS retroactively. We talked about revisiting

some of the property tax exemptions, exemptions that we enjoyed retroactively.

There's two issues. One is the legality of that given a lot of these things are already enshrined in legislature, and the second is the uncertainty created in the market by making references.

In terms of the next steps I think there are a few things we need to work on. First of all is the longer term SACP schedule. The second issue, which the Energy Master Plan made reference to, which not many of the solar interveners today have mentioned, are the farms, and this is putting glass on farmland and the Energy Master Plan rightfully I think was very negative in that respect, but I think it needs to be more negative.

Let's remember that the RPS schedule, the

current RPS schedule in 3520 basically calls for about 120 to 150 megawatts of solar every year for the next five years or so. These large ground based -- 20, 30, 40, 50 megawatts in the ground, that will completely fill the entire RPS with just a few projects. There needs to be more equitable distribution.

And so I know that on the legislative branch underway to put the system size cap, 10 megawatts. We certainly support that. We think on the ground it

should be kept small and the future in New Jersey is still very much net metered systems and routes.

The second issue and the final issue is just come back to make the SREC market work a little bit better. We still need to work with the Office of Clean Energy a little bit more on transparency of data and market pricing so that the SREC market can function properly and become self-regulated from a supply perspective. I still think it happens, I still think we can go an extra mile there.

Thank you very much for time, sir.

PRESIDENT SOLOMON: Let me put to rest a couple of issues, one issue in particular.

When you talk about making changes retroactively, I agree that the Attorney General would want to take a hard look at that because there's some serious legal issues. I'm not expressing a legal opinion. I don't think I could have been more clear in everything I've said that the BPU carries out the policies set by the officials elected to make policies,

legislators and the Governor.

So if anything like that was ventured and I've never heard it being suggested, I've never heard it internally, I've never heard it externally, I don't know where it comes from, I don't know who makes it up, but

if that was ever to be done during my tenure, it would not come from the BPU. It would have to come from the legislature. So let me just put that issue to rest.

As far as I know, that issue of retroactivity has been made up out of whole cloth. I don't know why. I heard it before. I think it's outrageous. And I have very clearly said over and over and over again, just as I said with regard to our 22 and a half percent target of renewables, that is a target. That's a policy set by the legislature. If that is to be changed, that will be a legislative enactment. If they're going to do anything to effect anything in the manner you suggested, it's not coming from the BPU as long as I'm here. Period. In case anybody had any questions.

MR. MCDERMOTT: Thank you very much, sir. That's a very helpful clarification.

PRESIDENT SOLOMON: Let me mention the next couple of three people that are on the list here in case somebody was to take a break, be back in time to testify, Franklin Neubauer is next, Tim Maurer is after him and Ted Michaels is after him.

Mr. Neubauer.

MR. NEUBAUER: People hear me?

PRESIDENT SOLOMON: I can.

MR. NEUBAUER: I'm --
PRESIDENT SOLOMON: Put your hand up if you can't.
MR. NEUBAUER: I'm Franklin Neubauer of Core Metrics. For six years my job was to project consequences of energy planning decisions by Bonneville Power Administration. Using DOE models, I projected conservation policy impacts for many scenarios, working with --
PRESIDENT SOLOMON: Please be slow.
MR. NEUBAUER: -- working with utility experts.
My statement deals with energy efficiency, major ways the plan is incomplete and some impacts that can be foreseen. A written copy of my statement is available, including literature I've cited.
The draft lacks sufficient information for readers to understand changes to energy efficiency goals one and two of the 2008 EMP. Clear goals are needed to ensure progress. The administration must issue a clear long-term energy saving goal, either reaffirming the 2008 goal or fine-tune it based on a new load forecast.
The draft then revises the peak load reduction goal but required explanations are left out. The corresponding graphs, Figures 11 and 10, are

confusing with impacts that appear much larger than the numbers. Readers will see the gap between forecasts and

goals and will draw wrong conclusions. I will be available to a BPU staff member to explain these problems.

The demand growth targets of minus 0.8 percent sounds reassuring. But it provides zero information about how aggressive energy efficiency is. That's because unrelated factors like economic growth can cause swings in demand forecasts. So using the new target may actually destabilize the program planning.

In 2009 the Clean Energy Program saved less than 1 percent of New Jersey's annual electric energy consumption. Because ratepayer funds were diverted in 2010, the pace of savings slowed. That pace will slow even more due to withdrawal from RGGI and because ARRA funding will end.

Instead of accelerating energy efficiency to meet the challenge, administration decisions undercut long-term energy plans. If trends persist, we will be seeing energy at a rate of less than 1 percent in 2014 and unable to meet the old 20 percent energy reduction goal, failing to gain benefits of New Jersey projected at $16.8 billion. Because we have goals, cutting energy efficiency budgets does not cut program costs but

postpones cost for the next administration to deal with. What's worse is cutting budgets for some programs will lead to bigger budget needs in future years as described in my EMP comments submitted September 28th. Past cuts have been counterproductive.

A green portfolio ought to include a high proportion of energy savings because it's the cheapest

and most environmentally friendly resource, but the plan lacks basic data on conservation supply to inform readers how much energy efficiency programs can save and what market segments savings will come from. The plan lacks clear commitments to pursue energy efficiency throughout New Jersey's buildings, industry, and transportation sectors. It settles for making state buildings more energy efficient which is a small fraction of New Jersey's potential savings.

These omissions signal an administration unprepared to accelerate toward strong goals. Policymakers need to be more visionary, harnessing the steps taken by previous administration. I believe the 2008 energy efficiency goals may still be achievable provided that funding, the commitments, and priorities are supportive.

Expertise can help New Jersey avoid mistakes in its programs. In that spirit I found research on the

performance of the residential sector programs that rely on loans and financing to promote energy efficiency in homes. Since the Board seems inclined to jump on the bandwagon for revolving loan programs, my remarks are timely.

In research for California Institute for Energy and Environment a 2009 study of over 150 loan programs across the U.S. found many limitations to residential financing programs. The biggest problem, their typical impact is tiny, quoting from the report: Most of the programs reached less than 0.1 percent of

their potential customers. End quote.

But low participation is just one of the documented performance problems. A switch from traditional rebates to just loans in the residential sector would be a losing proposition from consumers who benefit from energy savings now and a losing proposition for clean energy. However, it would be a winning proposition for banks. Then consider the economy. Household mortgage debt is holding back economic recovery but loan programs ask households to struggle under more debt.

PRESIDENT SOLOMON: Are you talking about private loan programs, private banks, private financing? You're not talking about BPU or EDA financing, are you?

MR. NEUBAUER: No. I'm talking about a wide range of financing programs that were surveyed in this 2009 report and as to, you know, whether it's the specific source of the financing --

PRESIDENT SOLOMON: I believe it was private, was it not?

MR. NEUBAUER: No. Some of these are public.

PRESIDENT SOLOMON: Really.

If you have that information, please give it to us.

MR. NEUBAUER: I do have the reference.

PRESIDENT SOLOMON: That's okay. Give me the reference so we can look at it.

MR. NEUBAUER: Let's see.

When considering such a drastic change, it's

important to ask what will happen to funding previously allocated to residential programs. Consumers won't see that funding for energy services again.

Experts in program evaluation and program design agree that restricting programs to loans and finance reduces effectiveness in achieving energy efficiency goals. And they have written about this in reports listed in my written statement.

One way or another, switching to loans will

fail to serve New Jersey homes. I hope the Board will stick with effective programs rather than invite certain failure. I am skeptical about merits of loan programs in all sectors, but these conclusions and research reports are limited to the residential sector. I urge the Board to find comparable research on commercial and industrial programs. Program design needs to be practical so that programs can serve all customers, not just a few.

In conclusion, a truly green future for New Jersey requires aggressively ramping up energy efficiency efforts no later than 2012. Budgets for 2012 are being developed now. For actions to be consistent with its green rhetoric, the administration must find ways to do that and to achieve a much higher savings rate by 2014. There are many resources to assist New Jersey in that effort, including Northeast Energy Efficiency Partnerships and many knowledgeable people here in New Jersey.

Thank you.

(Neubauer-1, Prepared Statement by Franklin Neubauer, attached.)

PRESIDENT SOLOMON: Make sure you send me that documentation. Give it to the court reporter and we will make sure it's attached so we can review it.

Tim Maurer, Peri Software Solutions.

Next up is Ted Michaels.

Up next is Mr. Maurer.

How are you?

MR. MAUER: Hello, sir.

PRESIDENT SOLOMON: I'm skipping Steve Gable at his request.

MR. MAURER: Good afternoon, President Solomon, Commissioners. Thank you for the opportunity to speak.

I'm Tim Maurer from Peri Software Solutions located here in Newark which was once the home of Westinghouse Meter Manufacturing and which we hope will someday be the home of our manufacturing of advanced energy technologies.

It's also nice to be here in NJIT's building because our CEO Rob Peri's son is a graduate of NJIT.

We would like to commend the BPU for its commitment to assuring that both participants and ratepayers benefit from the deployments in energy efficiency, demand response, and the smart grid, and for addressing RPS intermittency and charge on sound basis.

New Jersey is indeed smart in seeking rigorous quantitative and qualitative analyses of direct and indirect benefits of these programs.

At Peri we want to encourage the rampant testing of the holistic set of solutions that leverage energy efficiency measures, as new wireless technologies, as well as technologies that will simultaneously support demand response and price response and even onset renewable intermittency and EDP charging.

In fact, we believe it will only be through the deploying holistic solutions across energy efficiency, demand response, price response, meter data management, renewable intermittency, and EDP charging that optimum program efficacy and payback will occur.

We'd like to applaud the commission's fiduciary oriented planning and scrutiny and encourage that this be immediately matched with defined pilot tests where holistic solutions that can deliver rapid ROI for participants in the rate base overall and prove out these new energy technologies.

As an example, I'd like to quote the draft. It says: The potential economic burden of aggressive peak demand reduction in particular must be tested.

Consider the smart grid's goal of addressing peak by helping customers better understand and manage usage and cost. Some other states have incurred huge costs for smart metered deployments that have yet to

provide actionable energy information or peak load control to the ratepayers who have received the new

meters.

AMI can be helpful in providing realtime usage and support, but it has to be backed by behind-the-meter controls that can actually manage load based on price and demand response signals.

So we suggest strongly that this layer of infrastructure be provided with support from energy management devices and timed with demand response and price signals. This is not to discourage ultimate smart meter deployment but to rather suggest that there may even be a first step that New Jersey can take prior to large scale deployments to prove out the efficacy of AMI. Before engaging in wide area deployment of meters, we recommend that the master plan include working with existing meter data capture through wireless gateway impulse initiators and then capturing these pulses and translating these pulses into realtime meter information that can be acted on for controlling usage and cost. And we've actually done an installation in California that added this to a smart meter to speed up the provision of value to rate base.

In regards to behind-the-meter controls, we strongly suggest that the energy efficiency programs be

leveraged to engage the demand response and smart grid payback timed meter data, together with wireless energy management systems that can be smart metering and in support of smart metering and also efficiency reductions.

These new wireless energy management systems can produce yields of 30 to 50 percent savings on energy

overall and they can be addressed to respond to price signals through the use of a portal that has analytics in it that takes in the pricing data for the demand response signals from the grid.

So we really encourage that be deployed. In particular, we would like to recognize the draft's focus on C&I facilities, 60 percent of which are considered done buildings today and present great opportunities for energy cost reduction. And these wireless energy management systems can quickly and on a low-cost basis make these buildings smart buildings and responsive to price signals and demand response requirements.

Importantly, these demand response solutions can also help offset renewable intermittency and can be used to work sites to mitigate the EDP charging loads.

Another consideration that we would like to suggest is that there needs to be a holistic training program to educate all members of the ecosystem to

recognize that energy efficiency should be integrated with demand response and with realtime meter and with dynamic pricing.

As an example, lighting retrofit vendors can go into a building and assess load reduction through the use of advanced lighting systems. And after they've reduced the load, can actually specify what remaining load can be addressed for demand response in an integrated energy efficiency and demand response audit and M&V which would really be helpful in proving the payback on the EMS devices and providing the facility

owners and managers with the best solutions for their dollars and would really drive the impact to the rate base as well.

So that type of training of having a holistic, fully integrated approach is something we think is very necessary and would be happy to support as well.

Overall, we do think the State is taking a very prudent approach to managing a holistic area of need in the State to manage down energy usage and cost and we would like to be encouragers in this process.

Thank you very much.

PRESIDENT SOLOMON: Thank you.

Ted Michaels, Energy Recovery Council.

Mr. Michaels, good afternoon.

MR. MICHAELS: Good afternoon. Thank you very much for the opportunity to be here today. My name is Ted Michaels and I'm president of the Energy Recovery Council which is the national trade association representing the waste to energy industry. We represent companies and local governments that are engaged in the waste management energy sector in New Jersey; that includes facility operators and owners, including Covanta Energy, Wheelabrator Technology, the Union County Utilities Authority, and the Camden County Financing Authority.

They produce about -- they have a base load capacity of 176 megawatt hours based on the processing of some almost 6400 tons of household trash per day in the State and that is through five facilities: In

Newark, Camden County, Union County, Warren County, and Gloucester County.

I'm here to support the provisions of the draft's plan with respect to waste energy. We think that the plan has done a very good job of anticipating the growth opportunities and the contributions that waste energy can make in the State of New Jersey.

When you look at household trash, it is an abundant homegrown fuel source and it's going to be here

for a while. To spite all opportunities to recycle --

PRESIDENT SOLOMON: You've met my children.

MR. MICHAELS: And mine as well.

To spite all the best efforts to recycle and assuming an increase in recycling, there's going to be a lot of trash leftover for years and years to come.

We think that -- not just the Energy Recovery Council, take a look at the U.S. Environmental Protection Agency said that after reduce, reuse, and recycling waste energy is preferable. And that the draft master plan certainly comprehends that. It notes it in a very strong and meaningful way. Landfill is not sustainable technology, especially in the State of New Jersey where land is scarce.

And we think waste energy will provide much more opportunity for energy recovery than the alternatives. Based on the fact that if you take one ton of trash and you send it to a landfill with methane recovery systems in place, on average you're going to extract about 100 kilowatt hours of electricity from

that ton of trash. If you send it to a new waste energy facility, you're going to get approximately 700 kilowatt hours of electricity from that same ton of trash and at a much reduced impact all around. So we are very supportive of harnessing this homegrown fuel.

And when we look at New Jersey's waste patterns, as I mentioned, 6400 tons of trash per day being processed in five facilities, but New Jersey is still one of the largest exporting states of trash in the United States. Plenty of trash is being sent out of state by trucks or trains at a significant energy cost, not an electricity cost, but think of all the fuel that's being used to send garbage to faraway places, such as Michigan and South Carolina, and can be saved and that energy can be harnessed and utilized right in New Jersey where it is needed the most.

I also wanted to mention the fact that in Europe waste energy is the preferred technology. We look at European -- progressive European countries, they have a recycling rate of 55, 65 percent and compare that to the U.S. national average of 30 percent. There's significantly more recycling. I'll note that not 100 percent. You hear a lot of people advocating zero waste. Nobody is recycling a hundred percent.

But even so, they've focused on recycling, they've minimized land-filling to only in 2 percent, and they're using waste energy for everything else. That is in part, like New Jersey, they recognize that land is scarce. They have an unwillingness or an inability to site new landfills. We recognize the greenhouse gas

99

benefits of processing garbage in a waste energy plant rather than a landfill. And they want to harness the renewable -- clean renewable energy.

So we think that New Jersey can be very much similar in that, if they put incentives in place to keep it here.

The investment in these technologies are following the policies that promote them. And, frankly, there's a lot of domestic capital that has gone overseas because in either China or in Europe there are policies that are much better at supporting and promoting these types of development opportunities. If those types of incentives and policies were put in place in the United States, I think the capital would stay here and the jobs that would be created would be significant. These are sophisticated -- with respect to waste energy, these are sophisticated power plants, good paying jobs. On the average is about 60 -- after construction which would be a thousand jobs over a few year period, on average there's about 60 full-time employees, good paying jobs at these waste management facilities for decades.

So we certainly hope to see the waste energy provisions in the master plan stay in place. As I was suggesting, that new incentives be put in place to harmonize waste energy incentives with other renewables,

100

including landfill gas. We certainly support that.

I'll note that other states are doing

similar things. Maryland Governor O'Malley on May 19th signed into law a bill that moved waste energy from Tier 2 renewable to a Tier 1 renewable in that state. Similarly, in New Jersey where waste energy is a Class II, we would certainly love to see it on par with the other renewables and we think that would have a significant impact on the ability to develop new projects in New Jersey and to harness the electricity from the biomass waste resources that are being generated here.

And we will submit further comments for the record. I appreciate the opportunity to be here today.

PRESIDENT SOLOMON: Thank you, Mr. Michaels.

Jeffrey Miller, Energy Solutions Group of Lee Associates. Blake Harvey is after him. James Finne is after him. And Ellie Gruber is after him.

Mr. Miller, how are you?

MR. MILLER: I'm doing well. Trying to say cool.

PRESIDENT SOLOMON: You and me both.

MR. MILLER: Hi. It's Jeffrey Miller. I'm Executive Vice President of Energy Solutions Group of Lee Associates.

PRESIDENT SOLOMON: Make sure you speak up close to the microphone so they can hear you in back.

MR. MILLER: We're a real estate corp. and we want to salute the legislative adult leadership of New Jersey for having gotten the renewables industry to where it's at currently. I think we are the third inning and we have a nine-in-one lead. We shouldn't

give it up.

PRESIDENT SOLOMON: I'm a Philly's fan. You're never secure with a nine-in-one lead.

MR. MILLER: But that means you're always coming back.

So I fully endorse some of the notions written up in the Energy Master Plan, specifically the energy efficiency goals. We waste more energy in the environment than any other sector in the energy field and we use more energy inside the buildings than we do inside transportation.

Now, one of the unsaid things so far today seems to be the transportation sector. I think we need to encourage cleaner fuels for trucks and other transportation.

We want to support behind-the-meter projects. Specifically, we think there's a value add to the projects to New Jersey Commerce writ large where we

can supply savings to companies in New Jersey and those are people that provide jobs and that either will be sustained or supported by the savings that they can generate or by increasing their profits directly.

So I want to close in saying that the renewable sector is smart property management and it adds to property values and real estate industry endorsement.

Thank you.

PRESIDENT SOLOMON: Thank you, sir.

Blake Harvey, First Light Energy.

Mr. Harvey?

I don't see anybody popping up.

No Mr. Harvey.

If somebody sees him come in, raise your hand.

James Finne.

MR. FINNE: Yield in the interest of time.

PRESIDENT SOLOMON: You'll yield.

Ellie Gruber, League of Women Voters of New Jersey. Those of you who don't know that's Camden County.

How are you Ellie?

MS. GRUBER: Fine. Thank you.

PRESIDENT SOLOMON: Bob Marshall is next.

Wake up, Bob.

MS. GRUBER: Thank you, President Solomon. I appreciate the opportunity to speak today. My name is Ellie Gruber. I'm representing the Natural Resources Committee of the League of Women Voters of New Jersey in my local league of Ridgewood. The guiding principles of the League of Women Voters is the active and informed participation by citizens in government. We are a public interest organization, not an environmental organization.

Our comments today directly address the impact on residents of New Jersey of the 2011 Draft Energy Master Plan. We do plan to submit written comments at a later date, in addition to these given today.

We must emphasize from the outset that it is

a fact that no source of energy exists without some costs. It takes energy to create energy. To provide for the future energy needs of the residents of New Jersey is a difficult task and we appreciate the opportunity for the public to comment on the draft you have distributed.

In 2008 our first Energy Master Plan made bold statements and had bold goals. It stated, quote, New Jersey is faced with an opportunity to transform its

current energy system from one whose flaws threaten to undermine the security of our economy to one that's responsible, efficient, clean, affordable, and reliable.

It goes on to list the money saved by residents due to these efforts, the jobs created, the investments made. The one phrase the 2008 plan did not use time and time again was the phrase cost-effective. This phrase, cost-effective, is repeated as a main concern throughout this 2011 draft. It is the goal of business to be cost-effective and have profit as its goal. The goal, the task, the mission of governments, however, is the protect its residents at all costs.

We should not be using the term cost-effective when it comes to the future of our state. The government should have sustainable goals. It can be argued that the state government is a business. It issues budgets, it has a payroll, and it has to make hard choices.

The government has a charge that is much more than that however. We rely, we depend, and our

lives, health, and welfare depend on our government watching out for us, not watching the bottom line.

The best kind of cost-effectiveness, in fact, is one that would promote energy efficiency, renewables, and the long-term jobs and careers that are

created in these industries. We would ask that the word sustainable be the most repeated word in this report when it's completed.

We are particularly concerned with your report on business friendly solutions with no outside scientific study, such as your plan to promote hydrofracking as the answer to our dependence on coal. As new information and scientific studies on the result of hydrofracking and its chemical compounds become public, there is a real danger that our water resources, both quality and quantity will be damaged.

Your plan emphasizes the benefits of natural gas with no reference to the dangers in extracting the gas from underground shale deposits. The exact nature of the mixture of chemicals used in the process has not been forthcoming and is claimed to be proprietary and thus have not been open to scrutiny.

We ask that the draft plan stop promoting the benefits of a process that must be studied before any further permission is given. We ask for a moratorium on hydrofracking in the Delaware basin until rigorous scientific studies are completed. It may be that there are ways to extract natural gas which are less harmful. We don't know that. But what we do know is that this is no time to be calling for cost-effective

106

solutions when long-term impacts are not factored in. The risks are too great.

This administration will be a distant memory in twenty years' time. That is the way of the world. But the residents of this state deserve to know that their future is not endangered because of decisions that may save dollars.

We're also concerned with your statement that solar energy costs outweighs of increased rebates and incentives. Solar energy is in its infancy in our state, yet we are second in the nation in solar installations. To state that solar is too costly, flies in the face of facts and solar subsidies are a reminded portion of the basic generation service. As we've heard today several times the program is truly cost-effective as you define it.

The 2008 master plan in its table of contents is a bona fide list for energy savings, renewable solutions, and blueprint in order to bring our state into the future.

This 2011 draft in our opinion takes a giant step backward. The 2011 plan states that its very first goal is to drive down the cost of energy for all customers. To begin with, we are not customers. We are not looking for a bargain. We are depending on you to

107

keep us safe and healthy.

You further state that both solar and wind

must show economic benefits to warrant future investments. That's a business strategy, not the task of our elected officials. This should not be the first goal. The first goal should be to encourage more energy efficient generation, more conservation, more renewable resources. The fact you list this as your first goal means that you place the most importance on money and that is not the role of the government.

There has been no real proof that energy conservation in our state will lose money. In fact, as we've heard today many new jobs have been created in green technology industries, permanent jobs. When energy costs more, residents use less.

The goal of the State should not be to reduce costs but to incentivize residents to use less energy, to consider alternative sources of energy. You correctly list measures such as smart grid, smart metering, energy efficient appliances, constant publication, and outreach as integral to the success of any energy master plan.

As you state, we have a diverse and educated population with excellent schools and research capabilities. Solutions due to collaborative

contributions at the future of any scientific breakthrough and this should be encouraged as an example by encouraging challenges to universities to identify savings, new technology, identify risks and rewards.

The League of Women Voters urges the Governor and its Energy Master Plan task force to take a step forward in promoting clean energy sources, not a

step backward in looking for inexpensive short-term solutions which in the end can result in enormous cleanup costs in the long-run. This plan must look beyond 2020 and not reduce the goals set forth by the previous plans but expand by a program of sustainable, renewable energy choices, while at the same time charge our residents to realize the true costs of energy.

Thank you very much.

PRESIDENT SOLOMON: Ma'am, I just have a few quick questions. You mentioned that in the master plan that solar is too costly.

MS. GRUBER: There was a section.

PRESIDENT SOLOMON: Where? I'm just -- give a general.

MS. GRUBER: It was talking about the -- when you listed the chart of how much of a consumer's bill is attributed to the cost of solar, I think that figure was distributed today by people who testified,

how much of our consumer energy bill was resulting from solar. You had a table. I'm sorry, I don't have the page.

PRESIDENT SOLOMON: I have that table. And I remember that testimony about that dispute on the percentage of the bill that's it's attributable to. And, certainly, we'll be taking a look at that and maybe revise it. I just don't remember anything in the master plan saying anything about solar being costly.

MS. GRUBER: It was on the table about how much it costs, percentage of our bill.

PRESIDENT SOLOMON: You're not saying those words were used --

MS. GRUBER: No. No. I'm sorry.

PRESIDENT SOLOMON: -- you inferred it.

You inferred that.

MS GRUBER: Yes.

PRESIDENT SOLOMON: And we'll take another look at those numbers.

And in the -- do you have any recollection of where in the master plan it talks about the advantages of hydrofracking?

MS. GRUBER: Yes. You talked about the enormous amounts of gas that were discovered in the Marcellus Shale. It's written word-for-word in the

master plan -- in the 2011 master plan. Those words were used.

PRESIDENT SOLOMON: Is there any mention about the advantages of hydrofracking that we need to be assured of its safety and --

MS. GRUBER: I honestly don't remember the word safety. I remember the fact that it said gas was cleaner than coal. We had an enormous supply of gas. And the process known as hydrofracking would be a good way to extract it. And I'm sorry if I --

PRESIDENT SOLOMON: If you have some time back there to find that statement about hydrofracking, you can let me know. I would just be curious to look it up. I have a recollection of where we mention it and it's specifically -- as I recall it specifically discusses that it's -- the key to that is oversight, you

know, good oversight and making sure it's done the right way. That's all I remember being mentioned. I could be wrong. If you find it.

MS. GRUBER: I'm sure you're not wrong. But as I interrupted it, you did not mention scientific study which is the way that any process can be assured to be as safe as possible for our residents.

Okay?

PRESIDENT SOLOMON: Yes. If you find that,

let me know.

Bob Marshall.

Mr. Marshall, how are you?

MR. MARSHALL: I'm fine, sir. Thank you.

I hope everybody can hear me.

I'm Bob Marshall, Executive Director of New Jersey Energy Coalition. And I want to thank you for sponsoring this process and for the opportunity to provide comments on the 2011 Draft New Jersey Energy Master Plan.

As background, the New Jersey Energy Coalition is a broad-based advocacy group whose membership includes over 100 businesses, industry, and labor organizations, as well as policy leaders from across New Jersey. Our mission is simple: Raise public awareness and generate public support for the increased production and distribution of clean, affordable, and reliable energy for our state.

We will be submitting formal written comments prior to the deadline. But here though are a

few key recommendations for your consideration today, and I will be brief.

First, the coalition strongly supports the expansion of nuclear generation. We applaud the Christie Administration for its clear understanding of

the need for carbon-free base load nuclear power and the economic benefits that would be created by the construction of new nuclear units.

Number two, the coalition urges caution in the development of offshore wind. Large scale investment and costly intermittent generation must create equally large scale economic benefits in order to benefit our state.

Number three, we support a competitive regional market for new generating capacity subsidizing unneeded generating capacity places unnecessary risks on New Jersey ratepayers and prevents the development and implementation of other cost-effective investment in demand reduction and energy efficiency.

Number four, we support utilizing cost-effective technologies to provide customers with more information so they can make wise energy choices. Smart meters and appliances coupled with dynamic realtime pricing information will help consumers save on their energy bills.

And, finally, we support cost-effective renewable energy. And we would suggest as a further refinement to a cost benefit test we suggest that solar installations that derive the most benefit for New Jersey ratepayers get priority. Lowering energy costs

for public and community facilities, such as hospitals, schools, and government buildings provide greater value since these savings are passed along to taxpayers.

Thank you.

PRESIDENT SOLOMON: Thank you, Mr. Marshall.

Deanna Mottola Jaborska.

How are you?

MS. JABORSKA: I was just about to run out of time to pick up my kids.

I'm Deanna Mottola Jaborska. I'm the Executive Director of Environment New Jersey.

I guess I want to start out by saying that I have been here since the beginning of this public hearing and I feel really strongly that we need to have public hearings at night, out all over New Jersey, at least a few because it's really hard for people to come and speak and say what they need to say. I mean we are talking about all of our energy future and especially the ratepayers who are going to pay the costs of whatever we decide to go forward with. So that's the first thing.

I guess the first thing that I want to say about this plan is that I think it creates more problems than it solves. It looks like to me, we can mix words or kind of slice and dice what the plan actually says,

but for sure by linking our future to what we're calling cheaper natural gas, we are looking to promote in some

way hydrofracking which we do think is a major threat to our waterways, especially the Delaware River. And so I would say that that's one problem we're creating with this plan.

We're also looking at I think an expansion of global warming emissions with this plan. The thing about the plan is just a lax analysis. To me, the plan's analysis is really flimsy.

So, first of all, the problem the plan does say it's going to solve, which is lowering energy rates for the State, I think the analysis on that is particularly weak.

So, first of all, where's the analysis of how much it's going to cost the ratepayers for all the power lines and the pipelines that we're going to need to build to pipe in all this fossil fuel generated energy and fuel. And then also where is the analysis of really what it would cost us if we were going to build nuclear power in the State and how will ratepayers be able suffer through the cost of building new nuclear power.

And I guess, last of all, if going to go at this plan from a rate's lens, let's go after the biggest

charge that the ratepayers in this state pay and get nothing for which is what we call a market transition cost or stranded assets. That's the first thing.

I think the whole basis of this plan which is to lower rates is the analysis that is really weak. And then next on the environment the analysis is very weak. I don't see the plan articulating how much

pollution we're saving or expanding. I look at building new power plants as an expansion of pollution because the plan does not say we build natural gas, we close coal. It just says we build natural gas. That, to me, is an expansion of pollution. And I think that we need to know not only would building a new power plant create more pollution, but what are we doing vis-à-vis the Global Warming Response Act and are we taking that law serious at all, and how does this plan move us toward accomplishing the mandates of that law which I think is important for our State.

So I think this plan is backwards and undoes a lot of progress that we've made in the State.

I have been particularly, I guess, confused and in some ways frustrated with some of the media work that's come out of the administration sort of touting a lot of the great successes of our clean energy, but then at the same time we see in this plan a dismantling of

the programs, the very programs we're touting.

So let me just go point by point in terms of what we would like to see improved in this plan in the hopes we can kind of turn it around here.

First of all, on renewable energy retreat from the 30 percent goal. Thirty percent is not a pie in the sky. Nobody created that this was the goal that was in the 2008 plan, 30 percent by 2020 renewable energy. We do not this think this is pie in the sky. I do not think it is. It is based on actual analysis.

What it's based on is looking at our goals

for wind, looking at the solar set aside which is small, and looking at the momentum of the market which is impressive, especially on solar, as well as the 20 percent cut in energy usage that the '08 plan embraced, we can actually achieve a 30 percent standard.

In fact, if we did accomplish all these goals of the '08 plan by leaving the standard at 22.5 percent, we are, in fact, capping a market and killing a market that's really on fire, that we want to continue to grow. I see no reason why we would do that, instead the whole idea behind increasing the standard was to continue the momentum because it was positive for our State, not cap the market and slow it.

Also, I don't understand why we would not be

looking at a longer window. So if we're just embracing 22.5 percent by 2020, what are we doing after that?

I think the clean energy market needs more understanding of what the next steps are going to be because now 2020 is just, what is it, nine years away. So I think it's time to start figuring out and I think in this plan we should have started to have some sort of a thinking through of what the next steps are going to be. So that's another thing.

And then, finally, I'm concerned that with the 22.5 percent standard that also lets dirty energy in, things like burning trash. We -- even the 22.5 percentage for wind and solar by letting other sources in so it's an even weaker standard than the one that is on the books today.

And, President, I think that, actually, this

is not a legislative matter. I think just as we've experienced in the State, increasing the RPS is something that administrations have done through the BPU rulemaking several times since I've been in the State working around this issue. So it's certainly something the Governor can lead on. It's not a legislative matter.

And I think that that statement was made to us about RGGI and we all know that the Governor feels

strongly, he can step out of RGGI without legislative action as well.

Next, on energy efficiency, wow, is that really missing from the plan. No mandate. Nothing concrete to drive forward energy efficiency policy in the State. I think this is a really big problem. I would think that this would be the most important part of the plan. The plan -- everything would flow from first what we could do to reduce our energy usage. That would be the first order of business. It's the cheapest, cleanest, smartest solution to our energy problems. I thought the plan was really flimsy on that. No mandates? We still don't have a mandate?

We have no funding also for energy efficiency because the next thing is funding and this plan gets rid of the funding for the Clean Energy Program which largely supports energy efficiency. We have no mandates to drive energy efficiency forward and no funding. I don't think we're going to see much happening on energy efficiency. So I'm very concerned

about that. I think it needs to be beefed-up.

Our energy efficiency program can be strategically deployed in the areas of our State that are considered congested so that we do not have to build power plants. If we had a policy and a model where we

understood and could go and look at where our areas are congested and figure out how to strategically deploy our energy efficiency program and funds, we could actually solve our problems. Our problems around reliability are very limited in scope. They're around peak demand in certain key areas. And we can solve those problems for energy efficiency.

Okay. I said funding already.

I would say a little bit more about the SBC charge and the plan's intention of moving out of that funding mechanism.

You know, first of all, we're not really relying on SBC charge for solar anymore and I think everybody understands that. But we have built a very vibrant energy efficiency market in this state with businesses that are employing people, small businesses are doing not only a really great job helping our economy to turn around, but also doing a great job to help homeowners and businesses to become green.

And what I'm concerned about is that not only are we putting that in jeopardy, but we're also putting in jeopardy any kind of future innovation. With no funding for energy efficiency and no funding -- I'm also concerned about funding for renewables. We can't really hope to see any new renewable sources come to be.

120

So we heard about wave technology, tidal technology. There's other types of solar applications that aren't being used commercially in our State yet or homeowners are not educated about that. We need the SBC charge to fund energy efficiency and we need it to continue to develop renewable energy to the point where it's ready for application. We're not done. We are supposed to be building a clean grid.

I think if you go out to the communities in New Jersey, and not just popping up, I think today was a great hearing; but if you go out and hear from the public, they're looking for us to transition to a clean grid, a hundred percent clean grid in our lifetime, maybe not in ours, but our children's. And as such, we need funding to continue to drive forward and to develop new energy sources, new clean energy sources.

And then last -- one more thing, I want to speak about the subsidies and some of the changes that the plan is looking to make. It is not equitable to be talking about subsidizing only the commercial and industrial sector and cutting the residential sector out as subsidies for clean energy. We don't buy the argument that we should only be subsidizing businesses because that adds a benefit to the State by creating jobs.

121

PRESIDENT SOLOMON: Are you specifically talking about the SREC program?

MS. JABORSKA: I'm speaking about SRECs. I'm speaking about any other place that that, I guess, philosophy would infiltrate.

PRESIDENT SOLOMON: I think that's the only place it's mentioned.

MS. JABORSKA: We think homeowners should have the right to access the subsidy because we are paying those subsidies, not just the businesses, but homeowners as well.

We don't agree that -- for energy efficiency I know the plan is considering a revolving loan for energy efficiency and I don't know what you're thinking about for businesses with energy efficiency, but I can tell you most homeowners that are, you know, working, families, trying to make ends meet, put food on the table really don't have any extra funding. They can't really afford to put more debt on their home to do energy efficiency. We actually need the subsidy to drive that forward.

And, in fact, if you look at studies, KEMA and many others, there's vast potential in the residential market for both energy efficiency and solar, but especially energy efficiency and we should not be

taking a subsidy and just giving it to the business communities saying that they're going to create jobs.

When we help families and we help them --

PRESIDENT SOLOMON: Let me just stop you a minute. There's nothing in the plan -- as I recall -- and again if people -- if you have it, point it out to me. There's nothing in the plan that talks about

limiting energy efficiency or demand response, any of those other functions to commercial/industrial business, nonresidential.

MS. JABORSKA: That's great.

PRESIDENT SOLOMON: I think the presumption is there will be programs in every area and that the amount of money saved by not just businesses -- and maybe again I don't mean -- but commercial/industrial and residential will be more than the cost of any repayment of the funds provided through the SBC -- the SBC isn't going away and that money is not going away -- that would be refunded and repaid by -- and the homeowner, the business, the 7-Eleven would end up with money in their pocket every month.

MS. JABORSKA: I'm just saying two things. Number one --

PRESIDENT SOLOMON: That's what it talks about. If there's something in there that says limiting

energy efficiency, demand response, there's all these other programs for residential, point it out to me. I'd like to see it.

MS. JABORSKA: Well, I might be mixing the philosophies of the two policy proposals, but I guess to clarify --

PRESIDENT SOLOMON: There was a specific reason why the solar -- and if we look at why and what it says -- that is a discussion we should have and I want to hear about, what's the net rate of benefit to homeowners, how we use the SREC, what's the net greatest

benefit in the State. Those are discussions we should have and should hear about. But I really would like to, as I mentioned in the beginning, hear about what in the plan specifically is it that ought to be changed and how should it be changed.

MS. JABORSKA: And I'm going to wrap up.

PRESIDENT SOLOMON: No. No.

I don't think there's anything in there about anything of the things that you're mentioning. Certainly not --

MS. JABORSKA: Certainly on SRECs, cutting out the residential sector I think is a problem because, as I said, we all pay for the SRECs in our energy rates, including residents, not just businesses. And so,

therefore, there's an equity issue and everybody should have access to putting solar on their homes and getting SRECs for it.

Secondly, on that --

PRESIDENT SOLOMON: So you dispute the equity --

MS. JABORSKA: -- we are trying to build a clean grid which means that everybody has to be in. That means businesses and means homeowners. If going to a hundred percent clean grid in our lifetime or our children's lifetime, then it can't just be all the businesses are running solar. Everyone is running on solar or everyone is running on something clean and we're all trying to move forward. So that was that.

And then on efficiency I guess just to clarify the two issues, I just think a revolving loan

program to support efficiency and not a subsidy is just really going to deflate what we've accomplished and it's going to really ruin the progress we've made.

We actually are not at the point in the efficiency market -- I'm sure that the companies who are here or others that are in the market themselves can speak to this, but I do not think that we are ready to take away a subsidy for efficiency and assume that, especially homeowners are just going to be able to

afford to take a loan to do the work. The data was already presented it's not going to work, it will fair. And it's unfortunate because it's such a smart way to clean up our grid. And it should be prioritized. And we should be promoting it like we promoted solar. We promoted solar. We moved it to the market. Now let's promote efficiency, get it up and running and then figure out what we can do next to keep it going, just like we did with solar. I don't think we're at that point yet.

PRESIDENT SOLOMON: I don't think anybody is.

MS. JABORSKA: I don't think we're at that point.

PRESIDENT SOLOMON: I don't think anybody disagrees.

MS. JABORSKA: To wrap up, I think our RPS should be at 30 percent by 2020 and we should figure out where we're going in the 2030 window right away, otherwise we face being, you know --

PRESIDENT SOLOMON: So is it your belief that 22.5 is a cap?

MS. JABORSKA: Yes, I think it's a cap.

PRESIDENT SOLOMON: Can I say for this room, 22.5 is a floor, not a cap.

MS. JABORSKA: But it provides a subsidy so if you want to build beyond 22.5 --

PRESIDENT SOLOMON: We'll have that discussion.

No, it's not a subsidy. It's a number that is a floor, a target.

THE PUBLIC: It's a poor target, poor target.

PRESIDENT SOLOMON: It's a floor.

Hold on. If you want to speak, fill out a card and come up.

It's a floor, not a ceiling. If we hit 30 percent -- I'm just -- it's a floor, not a ceiling. And if there's a misunderstanding, I'm going to correct it.

MS. JABORSKA: And then on efficiency, I think we need a policy that is not voluntary, but mandatory that drives energy efficiency forward, something like an efficiency portfolio standard or something that mandatorily drives forward a real goal that's achievable. Not just -- we need funding. And then on subsidies, it just has to be equitable, everybody's in. And I guess that summarizes my testimony.

Thank you for the opportunity.

PRESIDENT SOLOMON: Thank you.

Rey Montalvo, Consolidated Energy Design.
Rey Montalvo.
MR. MONTALVO: Thank you, President Solomon and --
PRESIDENT SOLOMON: Good afternoon.
MR. MONTALVO: Good afternoon. Nice to see you again. And, of course, thank you to the Commissioners, Fiordaliso and Fox.
Basically, I'm kind of glad I came at this time because I've been making notes the whole time everybody has been talking and changing my script. So basically I'm going to try to focus on just certain issues and then I'll follow up with a written report later.
My name is Rey Montalvo. I'm an energy consultant, a project developer, and inventor of smart grid technology. I've been in the energy business for forty years. I'm on the Board of Directors for the U.S. Green Building Council, the New Jersey Chapter, although I am not speaking on the Board's behalf today so just want to make that clear. I'm the President of Consolidated Energy Design, otherwise known as CED, and FADRS smart grid technology.
We support everything that the Board has done. We support Governor Christie and all the great

strides he has done to help the New Jersey economy to make really tough decisions. The thing I guess that

really impresses me most about yourself and Governor Christie's commissioners is the humble attitude, really, that you have shown where you have really asked the public -- you've asked the public to help you. That's something I've never seen in forty years being in the energy business so I really think that is refreshing.

Now, when money gets scarce, things get tough, we need to get creative. And I like to quote in the executive summary that says the emphasis going forward is placed upon increasing in-State energy production, improving grid reliability, and recognizing the significant economic and environmental benefits of energy efficiency, conservation, and renewable energy sources.

I think everybody agrees with that. But the problem that we have is that people don't like to put a power plant in their backyard. People might agree with that statement, but they don't like to put transmission lines in their backyard. So they know they need it, but let it be in somebody else's backyard.

So, clearly, these three new plans that are going to be generating 1,949 megawatts, two of them on brownfields, one next to an asphalt plant, are

necessary -- aren't necessarily in anyone's backyard, but there's still a lot of controversy surrounding their being built. And the new transmission lines that are being proposed for several parts of New Jersey are also encountering a major backlash.

So we need a Plan B, just in case Plan A doesn't work out. So I'm going to suggest a Plan B

today. And, again, this comes from just being in the energy business for a long, long time.

Let's talk about the new power plants. Now, it's no secret that we have peakers in the State of New Jersey. PJM counts on them -- relies on them heavily, especially when there are problems with capacity on the grid. But it's also pretty clear too that a lot of them are pretty ancient and so we suggest that prequalified third parties intimately familiar with power plants perform energy efficiency, useful life, environmental emissions, and reliability assessments for each of those peak-shavers and generate a list of peakers that should be either replaced or upgraded to the highest standards economically using today's technology. This list should be ranged from worst to best and made public as part of the Freedom of Information Act.

Now, the reason I say that is because selecting a grouping of these peakers with the worst

overall scores, such that when they get either replaced or upgraded, they can produce the amount of megawatt equal to the new aforementioned power plants being considered, plus the additional capacity and megawatts that they currently produce themselves. This new, higher capacity set of super high efficient energy savings, environmentally sound and reliable peakers will now become the new generation trend capable of handling the balance of the power needs of the State of New Jersey.

Since these peakers already exist, there

should be no siting issues. People tend to have problems with new generation in new places, but this is generation in an existing place. So that might not be a bad idea.

The second thing has to do with upgrading the existing transmission lines instead of installing new ones. There was testimony earlier today from PSE&G that they have a strong emphasis on energy efficiency and, in fact, throughout the entire Energy Master Plan energy efficiency is stressed over and over again as probably the most important thing that we can do to relieve stresses on the transmission lines.

As you know, I do a lot of work with PJM and it's clear that if we can be able to reduce the amount

of electricity we use in our building and in our homes and in our businesses that we will reduce the amount of traffic going through the existing transmission lines. And if that's true, then we don't really need new transmission lines. What we need to do is take the money that was recently approved to be spent to upgrade the existing transmission lines or repair them so that they're reliable even through hurricanes and other types of storms.

Now, the other thing that can be done is that on-site generation, such as co-generation, also discussed in the Energy Master Plan, would be super high efficient selections, power used at its source, no transmission loss, low-cost self-generated electricity, and free -- and put that in quotes -- free space cooling, space heating, and domestic hot water, and

reheat for humidity control coming from the co-gen while it's making electricity.

These buildings can also use distributed generation, essentially clean standby generators, that along with smart grid technology mentioned in paragraph 2 and page 3 -- paragraph 2 and 3 on page 10, can take advantage of all DR events from the grid, demand response events, and thus further improve the reliability and stability of the grid.

But there's something important here, there's a lot of great stuff in the Energy Master Plan, but it stops short in certain places. We just need to finish the sentence.

So if we're going to be going to an investor and we're going to say, all right, we want you to pay for this energy efficient job. The investor is going to say, okay, well, I'm fine with the chiller plant, the co-gen plant, all these things we know about, okay, and we can pretty accurately predict how much money we're going to make on that investment. But if the PJM does not give us set escalated values for more than three years, then we're in trouble with the investors. Because even though the investors can see the historical data and see that the demand response money keeps growing every year, all right, although SRECs will keep dwindling every year, they stop short at what they know. They say, well, three years is all we know. That's all we're going to go and invest on. Because the PJM can go out seven years or more, you know, with stated numbers.

It will increase investor confidence in doing smart grid technology in buildings.

And so we would definitely suggest that it somehow be implemented into the Energy Master Plan and discussions had between the Board of Public Utilities,

state government, and the PJM.

Also, I don't think anybody talked about this today, but the proliferation of solar and wind energy in New Jersey and, of course, throughout the country and the world creates a double-edged sword. The problem that is created is the frequency regulation problem because those are variable sources of energy; namely, wind and solar. They wreak havoc on the grid so instead of keeping 60.00 hertz on the grid, we end up going up and down. And FERC clearly says that you can't go above 61 hertz and can't go below 59 hertz. So the grids have a difficult time trying to accomplish that.

So one of the ways to accomplish that was talked about in the Energy Master Plan and it dealt with storage. So we can go with battery storage and then use smart grid technology to work in conjunction with the grid to maintain that consistency at 60 hertz. A little problem though. And the problem is twofold.

Number one, it talks about the Energy Master Plan monitoring that evolving technology but not doing anything beyond monitoring. I say that the technology is here today and let's try it out. Let's do some demonstration pilots. And if there's some bugs, let's tweak them and let's help the reliability and stability of the grid like doing really good frequency regulation

134

and that again becomes another problem with the investors. The investor is going to say, oh, you want $10 million to go and put in a system like that. All right.

Well, the problem is we know today that the grid is paying $315,000 per megawatt hour. Unfortunately, we don't know what it's going to be next year or the year after that. So if the PJM grid says, you know what, we are going to increase the 315 to 415, which, by the way, needs to be done and then we escalate year by year going out seven years. Then what will happen is the investors will have the confidence to go ahead and invest in that kind of a project because those are the kinds of projects that are going to mean reliability and stability of the grid here in New Jersey and, of course, create a tremendous amount of jobs in the process.

And I might add that this frequency regulation problem is not a new problem. The PJM grid has known about this problem for four years and has hoped that that technology would evolve, and people just don't do it. And I think one of the reasons they don't do it -- we know how to do it -- is because the money is not there to pay for it.

PRESIDENT SOLOMON: And I just want to

135

caution you, you're well over 5 minutes.

MR. MONTALVO: Did we? I'm sorry.

PRESIDENT SOLOMON: So if you can wind it up.

MR. MONTALVO: Wrap it up.

PRESIDENT SOLOMON: We're aware of frequency generation. We know storage will be a game changer, if and when it becomes affordable and we know that they have to build a lot of generators to backup the infrequent or the intermittent renewables.

I agree that storage will be the game changer, will change that whole equation and there's nothing in here that prevents us from doing more than just watching.

MR. MONTALVO: Okay. Thank you very much. I appreciate that because it just said monitoring and it would be wonderful if we added a little bit more.

PRESIDENT SOLOMON: There is a section in there that talks about investing in new technologies.

MR. MONTALVO: I will try to wrap it up here and include the rest of my comments later on.

So the bottom line here is that if we can be able to use less power in our buildings and prioritize when that power is used for smart grid technology, then we're not going to really need new transmission lines.

And if we are able to take those peakers and replace them with good high efficiency and equipment, then we'll be able to get away with siting issues and putting in the new generation where those peakers currently live today.

And if we go ahead and take care of our building envelope and reduce the capacity of electricity

required in the building, we will be able to take advantage of all energy conservation programs, install all kinds of high efficiency equipment, except that, guess what, it's all smaller. And because it's smaller and more efficient, it's going to require less electric flow going through the grid.

Finally, the last thing I want to say is that New Jersey is a mecca, is a mecca for high technology. We have a lot of great companies here and the EMP does point to that, that they recognize that. But what we do not need to do is not give these companies a handout, but a helping hand.

We need to recognize those technologies that are commercially viable and can help the reliability and stability of the grid and reduce the prices of electricity and help them by not giving them money, but by giving them projects and then this way they will be able to hire more employees and be able to stir up this

economy.

Thank you.

PRESIDENT SOLOMON: Thank you.

Now, we have 34 people signed up, 34 more people. It's now 4:20. If there's anybody who will not be speaking, please let us know. We may be breaking before everybody gets a chance to speak so if you can keep it short, if any of you can. We're obviously going to have to have another hearing date and/or ask you to come to Trenton and or Atlantic County and testify at one of those hearings.

Boli Zhou, I think I pronounced it right.

Did I pronounce it right?

MR. ZHOU: Perfect.

PRESIDENT SOLOMON: Perfect?

First perfect thing I've done all day.

MR. ZHOU: I gave that to you.

PRESIDENT SOLOMON: Maybe the only perfect thing I've ever done.

MR. ZHOU: Thank you.

PRESIDENT SOLOMON: BZ Plating Process Solution.

MR. ZHOU: Thank you, Mr. President.

I appreciate to have the opportunity to speak at the hearing. My name is Boli Zhou. I

represent BZ Plating.

PRESIDENT SOLOMON: Just speak closer to the microphone.

MR. ZHOU: My name is Boli Zhou. I represent BZ Plating. BZ Plating is a technology company working towards a second generation of solar energy.

I wanted to make some quick comments about the job creation aspect of the EMP. A key component for the EMP plan is to promote renewable sources of energy in a way that stimulates job creation. To be most impactful on job creation, the State needs to have its own manufacturing industry that offers renewable energy products of the highest possible value added. This requires innovation and an entrepreneurship, and the kind that creates a new paradigm, business models, and

products. Simply following the lead of other states and countries will make New Jersey more a consumer of renewable energy products manufactured elsewhere, about less a manufacturer rebate of those products.

To be innovative, there is a need for funding early stage research and development that aims to produce early proof of a concept in a context of creating commercial value and supports job creation.

There is also need for funding market

research and financial monitoring activities to help build this business and job creation for potentially disruptive technical concepts.

In short, we need to foster new opportunities and ideas.

Finally, a job -- to a job creator must meet the immediate, as well as long-term energy needs of this, state the nation, and the world. There must be a method of or a combination of methods of producing energies that are sustainable and reliable over the long-term. The alignment to such a vision creates sustainable jobs in New Jersey.

I hope there will be consideration of funding early stage research and development under a new plan. Treat it as something strategically important to the future of renewables and abundant jobs.

PRESIDENT SOLOMON: Thank you, sir.

MR. ZHOU: Thank you.

PRESIDENT SOLOMON: I'm going to take a five-minute break. Chair has prerogative because I need

a five-minute break, but I will try to be back as close to five minutes as I can. I will be back shortly.

Joseph Nardone, Ernest Schapiro, Lyle Rowlings, Ben Rich, Bill Chappel. Those are the next few.

If you're not going to speak, let us know or if you're going to come to a different hearing, let us know.

THE PUBLIC: Can you have more hearings up north instead of them all down in Trenton?

PRESIDENT SOLOMON: The question is can we, yes.

THE PUBLIC: Will you?

PRESIDENT SOLOMON: No. Now you're getting technical on me.

I will plan to, yes.

THE PUBLIC: Thank you.

PRESIDENT SOLOMON: That may require that I need more in South Jersey as well, but we will work on it.

(A short recess is taken.)

PRESIDENT SOLOMON: Why don't we start with Joseph Nardone of the Sierra Club. I notice there's a number of Sierra Club members, would you have any interest in coming up as a group? Anyone from Sierra Club, you want to raise your hand? Anyone interested in coming up as a group, try to get you all in today.

Yes, no, may be so?

THE PUBLIC: I'm not a member of the Sierra Club, but I got here because of their e-mail.

141

PRESIDENT SOLOMON: If you signed up to speak and you're interested in speaking with the Sierra Club as a group, come on up and we'll do it as a group. If not, stay where you are.

THE PUBLIC: One person speaks for everybody?

PRESIDENT SOLOMON: If other people have additional comments they want to make, raise their hand.

Come on up, Joseph Nardone.

MR. NARDONE: My name is Joseph Nardone. I live in the Ironbound section of the east ward of Newark. First of all, I want to say that I realize that we need energy and we have to produce energy so my comments are not going to be anti-energy. It's just that --

PRESIDENT SOLOMON: You're here on behalf of the Sierra Club?

MR. NARDONE: No. I am here by myself through an e-mail from the Sierra Club signed me up.

PRESIDENT SOLOMON: Go ahead.

MR. NARDONE: The master plan, the EMP, is a very good business plan that I have looked at. I cannot come up here and talk about a lot of the things that some of the experts who are highly and experienced and some technicalities that they have said. But some of

142

the things that I have experience I will speak about.

A man from the waste energy industry came up

and he mentioned Covanta. I live close to the Covanta plant in Newark on the Ironbound which is located on the Passaic River. The Covanta plant puts out hundreds of pounds, if not thousand of pounds a year of mercury, lead which are neurotoxins. They've been fined hundreds of times and have not paid some of their fines. They have gotten a few years ago, I think a year, maybe two, a five-year renewal from the DEP which meeting was held in the Ironbound and people specifically went against renewing their license, but the DEP went ahead and renewed it again for five years.

The man from waste to energy was talking about how we have this homegrown energy, but he didn't talk about how Covanta has to bring in garbage from New York City because they don't get enough homegrown energy from New Jersey to burn in a plant to give off toxic neuro-emissions for the children especially in the area. He talked about landfill. He didn't talk about the fact that the toxic ash from the Covanta plant or from all waste energy plants is considered toxic ash and contains disposable facilities.

The same story was told to us under the Whitman Administration. They were going to put one

garbage incinerator in every county and it seemed that the only counties that got --

PRESIDENT SOLOMON: I think that preceded the Whitman Administration. I was freeholder at the time and we were involved in that fight.

MR. NARDONE: I was involved in the fight too and Whitman was putting one in each county. The

only counties that got it were the working class counties of Newark, Camden, Warren counties, I think Rahway. But those are the only people that got garbage incinerators. The rich areas of Bedminster, where Whitman lives, and Franklin Lakes, they never got garbage incinerators.

And he talked about creating jobs. Well, jobs at garbage incinerators do not give jobs to the local residents, only people with college grads get jobs at garbage incinerators and may be 60 people at most. So when they talk about going to waste energy, it is the same story that was given at that time. The garbage incineration was put into our environment twenty years ago.

The next thing they're talking about is nuclear energy. Of course, we all know what happened in Japan recently with a Tsunami, and what I've been reading on the web and news stories, it has polluted the

food and water in the areas around Japan.

Now, the only thing they do with nuclear energy -- use nuclear energy is to boil water to make steam and they say that's clean. But what about rods that remain. We have something like 68,000 rods that have half-lives of five, 10,000 years, and they have to store. These rods are also great for terrorists, which they worry about, who want to use it so they have to have a cost for security of these rods and the cost for storage, but that's supposed to be an efficient way to make energy and it's supposed to be a clean way with

having rods that have half-lives of 10,000 years.

In Japan they failed to heed the warnings studies that told them about the problems of where the nuclear energy was located and they built them anyway. And I know in New Jersey, if I went back to the Star-Ledger, I could get a lot of reports about the leaks at Salem and Oyster Creek plants that have come out in the Star-Ledger and there's never more appropriate newspaper than the Star-Ledger. That the person from PSE&G where she talked about nuclear energy did not mention.

Now, moving on into the Ironbound which is a heavily polluted area because of all the truck and the truck traffic and the highway that comes through the

area, our children and people have very high rate of asthma.

Studies have been done on this. In the Ironbound -- oh, what is it, I forget the company's name -- fighting now, they tried to put in and they lost their fight in front of the planning board. They wanted to put a medical waste disposal facility there to incinerate medical waste. They lost it, zoning board, but now they're trying to put this -- go to court and get this through the courts.

They also wanted to put an animal crematory in the Ironbound, to put -- cremate animals who have died for whatever reason which would again give off pollution. The Ironbound also suffers, as I say, from idling vehicles which I fight all the time with trucks and buses and sometimes have had my life chased and

called the police, but this happens.

There's also the Diamond Shamrock plant in Ironbound which was dioxins that is entombed on the river forever.

Now, with the toxic waste from landfill which has to be entombed forever and with the nuclear energy that will have to be entombed forever, we're talking about in the EMP going to nuclear energy and waste to energy that doesn't make a lot of sense. And

the Diamond Shamrock plant was polluted by dioxin, not by nuclear energy. Makes no sense. Now, they want to put a plant in the Ironbound to generate electricity. Why don't they put it in Bedminster. Why don't they put it in Franklin Lakes? Why don't they put it in one of the rich towns?

PRESIDENT SOLOMON: This is about the master plan.

MR. NARDONE: Yes.

PRESIDENT SOLOMON: Sir, I don't think the master plan talks about putting anything in the Ironbound. Frankly, I don't think the master plan says we're going to build nuclear. It just talks about our carbon targets and --

MR. NARDONE: We'd be pushing -- the way I read the --

PRESIDENT SOLOMON: Hold on. Let me finish.

MR. NARDONE: Excuse me.

PRESIDENT SOLOMON: It talks about how we're going to get to our carbon targets. If you and if

everybody else here could speak to the Energy Master Plan. There's no site specific. There's actually one mention of a site-specific project because something is being closed down and the question is whether it can be replaced. Other than that, there's no site.

I understand you're opposed to waste energy. I understand you're opposed to nuclear. I get it.

But if you have a local agenda, that you take up with your legislator, your freeholder board, your local council or the DEP. We're here to talk about the master plan.

MR. NARDONE: Well, the master plan is the idea of reading it, as I read it, as was said by many people here --

PRESIDENT SOLOMON: Just because they said it, doesn't mean it says it --

MR. NARDONE: If I may finish?

PRESIDENT SOLOMON: Go ahead.

MR. NARDONE: As many people said here, the master plan -- let me get my thoughts back -- the master plan is pushing nuclear energy.

PRESIDENT SOLOMON: It does not.

MR. NARDONE: It talks about that. Well, if it does not, why was it in the plan?

PRESIDENT SOLOMON: It's not -- let me -- I'm not here to argue with you. I understand what you're saying. I get it.

The master plan talks about hitting on carbon targets and what might be required to get there. And if we're not going to use those vehicles that are

148

available to us to hit the carbon targets because of global warming, then what are our other options. That is what it talks about. Frankly --

MR. NARDONE: Well, people --

PRESIDENT SOLOMON: Frankly, and that's all it talks about.

MR. NARDONE: But as I say, my -- just to wrap up here. I have seen -- the way I've interpreted the master plan that it's a good business plan, it wants to give -- and this is spoken about by people much more knowledgeable than I have been because I don't have the really training to go into all the mathematics and what have you -- a good business plan to put more polluting energy into our environment. That is the way I interpreted it as citizen and I came up here as a citizen to put that information out.

It seems to me that any good citizen would want to have a master plan that is going to go more toward renewable energy, real renewable energy, not waste energy nonsense, renewable energy, but real renewable energy, such as solar, wind, and tidal energy that I heard about and wave energy, so forth, that can be done and would be supportive of the citizens, not big business, in the quest to get clean energy to improve their lives and the lives of their children.

149

Thank you, sir.

PRESIDENT SOLOMON: Thank you.

Lyle Rowlings. Lyle Rowlings.

MR. ROWLINGS: Good afternoon, President Solomon. I thought you were standing there that whole time. I'm glad. I'm short.

PRESIDENT SOLOMON: I don't know if I should be insulted or flattered. I look taller now?

MR. ROWLINGS: Well, you did before.

PRESIDENT SOLOMON: I don't mean to interrupt you. Go ahead.

MR. ROWLINGS: That's all right.

I'm Lyle Rowlings, Vice President, New Jersey, for the MidAtlantic Solar Energy Industries Association and I want to thank you, President Solomon, and the other commissioners and the Governor and his staff for providing this opportunity the comment on the Draft Energy Master Plan. MidAtlantic SEIA represents over 120 companies, a lot of them small, New Jersey-born solar energy companies, but also global manufacturers. And more and more we're finding that we also represent businesses, like legal firms, architectural firms, engineering companies, financial firms, insurance firms. You know, the solar industry in New Jersey is really digging its roots broadly into the New Jersey economy.

But we especially represent the homegrown New Jersey industry.

I'll be commenting somewhat on the features of the Energy Master Plan itself and teeing up some topics on the specific policy recommendations. But we would like to come back in Trenton and be a little bit more specific on some policy recommendations.

PRESIDENT SOLOMON: I'm encouraging anybody who speaks today to speak only once because we are going to have a long list of people and we're probably going to have to come back here and have another public hearing. So if there are additional comments you want to make, please submit them in writing.

MR. ROWLINGS: All right.

PRESIDENT SOLOMON: Okay?

MR. ROWLINGS: The situation is changing so fast, we're actually now regrouping and trying to figure out exactly what are the right policies. Things are changing quickly. And I'll start with what we do agree with in the Energy Master Plan draft.

We do agree with substantially reducing the SACPs in 2016 and then continuing to reduce them thereafter. The cost of solar has actually been coming down rather rapidly. The cost of production of solar power, especially in the last couple of months and even

in the last few weeks, and that actually makes the SACP less relevant for the purposes of encouraging this industry.

As a matter of fact, that actually poses something of a problem because the widening gulf between the actual cost of producing solar and the SACP is a concern that I think we should share and work together about because we don't believe the way the policy is structured now that that savings from that widening gulf meet the ever-reducing cost of solar and the SACP is actually being delivered to the ratepayers and that

savings absolutely should be and must be delivered to the ratepayers. And it's going to take a little bit of creativity and open-mindedness to figure out how to make that happen, and we would like to work together with you to see how we can do that.

Now, in the Energy Master Plan there are some things that do cause us some concern. As others have mentioned, we think some of the facts and figures are out of date and need to be re-examined. One example is the projected cost of solar to the ratepayers in the year 2015 where it was estimated that about 575 million would be the cost of solar in that year.

What we're seeing now is the cost of SRECs are coming down so rapidly that that, in particular,

needs to be re-examined, what is the real cost of solar. We see now that the cost of 2013 RECs is already being traded at 200 and below. And, similarly, the cost of five-year contracts according to njsrec.com is also dropping below 200.

This suggests strongly that by 2015 we can certainly see SREC prices below 200 and multiplied by that year's goal of 965 megawatt hours that brings that cost to about 193 million. So the 575 has literally tripled what the realistic expected cost is. So these cost figures should be reevaluated.

And on the other side of the coin, the data on job creation we think is minimized. Our internal estimates, as well as estimates from the National Renewable Energy Laboratories jobs and economic development impact model indicates that New Jersey we

believe has already created about 5,000 jobs in solar. And, as I said, that's a very diverse and very professional workforce, as well as skilled labor. So 5,000 jobs is greatly in excess of the estimates that were given in the Energy Master Plan. So we think that should be re-examined as well.

The National Solar Energy Industry Association believes that nationwide we've created $93,000 jobs in solar energy. Our 16 percent share of

that would indicate an even higher, about 15,000 jobs. We need more study to find out where that is in reality, but between five and 15,000 jobs is quite a success story.

And that's part of our concern about the Energy Master Plan which does suggest de-emphasizing residential and small scale solar and emphasizing large scale solar. We know that large scale solar is slightly cheaper than the residential solar, but it's the residential solar in the small scale that, first of all, creates most of the in-State New Jersey jobs and also it creates more of the rate equity. The residential ratepayers put in about 38 percent of the cost of these solar programs. They deserve an opportunity to participate in those programs directly and get some of that money back.

I'll be very brief because the cost of solar, the situation with SRECs, and the policy environment is changing so rapidly that we're trying to still figure out what do we really need to do now. Part

of the problem is another widening gulf and that is between the pace of construction of solar in the RPS.

We're currently outpacing the growth in the RPS by a factor of two or three. And if we keep growing just at the rate that we have on average for the last

four months, by the end of November we will be oversupplied by about 35 percent. That's a serious oversupply situation and we think that need some very serious discussion about what do we do about that.

If SREC prices and the cost of solar are coming down rapidly enough, does that mean we should accelerate the RPS somewhat to take care of that oversupply or a throttle mechanism. We think a very serious discussion is required about that.

And we also believe that new policy should be considered in order to meet the three goals that we believe that MidAtlantic SEIA shares with the administration. Those three goals are: Accelerate solar to meet the RPS or even accelerate it; number two, do so at the lowest cost to ratepayers; and, number three, preserve the diversity in the industry, particularly in view of the fact that these residential and small scale systems are the ones that really produce the economic growth and job creation.

To that end, we believe that competitively procured long-term contracts are probably the best choice and the excellent existing JCP&L, ACE, and RECO long-term contract solicitations have been bringing down the cost very rapidly and have been very, very successful. And the PSE&G Solar Loan II program has

155

been very successful at meeting all three of those goals. Expanding those programs may be the way to go, although we're also considering a different alternative which would be schedule floor prices with some appropriate controls and framework. And that is why we believe further dialogue and study on our part is necessary.

But we think that something does need to be to manage this market. Yes, it's a free market, but it is a creation of government. It is existing now in a context of a whole lot of rules to manage it. But we think it needs to be more thought-out to create sustainable growth, not a boom-and-bust cycle.

PRESIDENT SOLOMON: Doesn't the Solar Advancement Act contemplate that by increasing the RPS if we hit our targets three years in a row?

MR. ROWLINGS: It does. But we've got a little bit of a problem with the specific wording of that because, first of all, it can't kick in till the year 2016. For businesses, that's a long time to wait if things go bust next year. You know, if you cut off the oxygen, businesses just can't come back in 2016, they die. And that's particularly true of the small, indigenous New Jersey businesses. The second problem with that is what if the SRECs have a little bit of a

156

drop and then recover in the following year, that language requires that there be a drop in SREC prices

three years in a row. So if we have a little dip and then a recovery, then it would never be triggered. So the acceleration mechanism we think it needs to be a little sooner and it needs to be clarified.

PRESIDENT SOLOMON: Thank you.

MR. ROWLINGS: Thank you.

PRESIDENT SOLOMON: We look forward to seeing your written comments.

Ernest Schapiro, Dr. Schapiro.

DR. SCHAPIRO: I'm a retired physician, also a masters degree in chemistry. I come from a somewhat different age group than people here. When I was growing up President Eisenhower --

PRESIDENT SOLOMON: Not that much different.

DR. SCHAPIRO: Okay.

-- President Eisenhower was promoting atoms for peace. Okay. So my theme is that were this plan to become our national policy, it would be a blueprint for the end of civilization and possibly of humanity as a whole.

My argument is based on an elementary, but not simple principle of energy flux density. You can think of it as watts per square inch is a measure of

energy flux density. Now, the fact that biological evolution has been accompanied by progressive increases, intensity of energy utilization by the predominant plants and animals on the earth. And, similarly, the growth of our economy has done the same thing. We've gone from wood to coal to nuclear. We can't go back to windmills.

Now, let me illustrate this principle and how it works by the difference between mammals and reptiles. Mammals today, the dominant type of animal on land replaced reptiles 62 million years ago when the reptiles went extinct. Now what particularly distinguishes mammals from other species is their metabolic rate. It's some ten-to-one. In order words, calories, you know, per gram of tissue compared to reptiles.

And this determines a whole array of differences which flow from that and support it. It involves oxygen consumption. It involves the temperature regulation. Efficient energy production requires tight temperature regulation. Reptiles take on the environmental temperature. It involves, therefore, their ability to retain heat, fur, or to lose it through sweating. It involves better oxygenation of the blood which means more efficient red blood cells. It involves

the four-chambered heart where venous and oxygenated blood do not mix. And then it involves the ability to go and get that extra food the mammals need. It means their nervous system, their senses, their muscles are all developed accordingly.

Now in this light, look at human economy and the creativity which nature has biological evolution, we do through our brains. We have evolved a growing number of people at a greater life expectancy, much greater, on the basis of our energy flux density or energy consumption.

PRESIDENT SOLOMON: I just got word we can stay till seven.

DR. SCHAPIRO: I'm almost finished.

PRESIDENT SOLOMON: I was not implying what you inferred. But we can stay till seven and we will stay till seven and, hopefully, will get to everybody. But I'm going to ask everybody who is going to speak to please try to keep it short.

Continue.

DR. SCHAPIRO: Trying to give you a concept, a way of thinking. Okay. What happened is that just as the mammals took over based on this superior mode of functioning, we have progressed as a species by increasing our energy flux density to scientific

discovery. And we have gone from wood, again, to fossil fuels to nuclear. We have increased the energy consumption per person, analogous to the metabolic rate, and energy per square mile. And we have -- you can make the comparison.

In this respect, take nuclear energy the amount -- and look at the amount of energy per gram per content. One pound of nuclear energy has as much energy as 1500 tons of coal or 7500 barrels of oil. Think about what that means. Okay. Then look at what you can do with the superior energy source. You measure through the energy flux density, the flow through a surface per unit area. You look at the frequency of electromagnetic radiation that can be produced and can do work. And then you look at the temperature you can get and do work at. Since the higher the temperature, the more things

you can do.

Now, in this light, consider that based on prototypes developed in a number of countries, China has begun assembling the high temperature gas reactor. This nuclear reactor goes up to 900 degrees centigrade. You can desalinate water. You can make hydrogen to run automobiles. You can produce new materials, all kinds of materials as a result.

Now, I should add that the Nuclear Energy

160

Agency of Europe under the direction of the organization OECD has issued a report in showing that nuclear energy is the safest of all energy sources, way safer than oil or coal or gas and as safe as any of the renewable sources.

So in conclusion, I'll just say that the EMP 2011 ignores the elementary principle which I presented in favor of a host tangential and sometimes mutually conflicting criteria. If we adopt that plan, we can go extinct like the dinosaurs and for the same reason.

PRESIDENT SOLOMON: Thank you, Doctor.

Ana Baptista.

DR. BAPTISTA: It's like winning the lottery.

PRESIDENT SOLOMON: I wish.

DR. BAPTISTA: Thank you for taking our comments past the time and I really do encourage you to consider doing evening hearings here in North Jersey and Newark. There are so many ratepayers --

PRESIDENT SOLOMON: We're going to be here

well into the evening.

DR. BAPTISTA: Well, a lot of people who wanted to comment couldn't because they couldn't take the day off.

PRESIDENT SOLOMON: We will take anything

they have to say, they can send us a note, drop me a letter, send an e-mail till the 25th of August.

DR. BAPTISTA: I would like to encourage the public opportunity to speak. I think that's important and many people here got to speak and ratepayers should have that same benefit.

I'm Dr. Ana Baptista. I work for the Ironbound Community Corporation. And we are nonprofit community-based organization. We do a lot of environmental justice work on the ground and community and statewide.

We believe that many of the State's most vulnerable residents, low-income residents bear the brunt of environmental pollution extending from existing energy production and they also suffer from the burden of rising utility costs. So many of our poor residents recently in this recent heat wave event could not afford to turn on air-conditioners nor pay for the capital needed to invest in upgrading their windows or air-conditioners.

So we really believe that the kind of investment we need to make in this state should include the most vulnerable among us and least able to deal with the rising energy costs and also the pollution burdens that come from energy production.

We have some specific points to make on the Energy Master Plan. We believe that true economic prosperity should become clean jobs for economically distressed communities by investing in true renewables, wind and solar.

The first point we would like to make on the Energy Master Plan, the first refer specifically to the incentivization of natural gas and specifically in your plan on page on 78 and 79, it talks about the LCAPP recommendation to incentivize and subsidize three particular natural gas plants, one of which would be a natural gas plant sited in the City of Newark in the Ironbound community, a 625 megawatt power plant.

We believe that this incentivization in the siting of the facility poses an environmental injustice in our community. It poses an environmental injustice in other communities outside the State. The reason for this is that that facility would live alongside a nuclear power plant. We have the Newark Bay Cogeneration plant, PSE&G peaker generating station, Essex County Resource Recovery facility, and many other emitting air-polluting facilities, together more than a million pounds of toxic air releases.

While natural gas may be cleaner than coal, it still will produce air pollution. Furthermore, the

development of this plant does not guarantee or ensure the closure of older, dirtier facilities that live

alongside in our backyard in Newark, concentrated in our community. We see it as added pollution with no guaranty of future benefit for our community.

Subsidizing these natural gas plants incentivizes harmful environmental practices like fracking outside of the State and environmental injustices in our State. The Governor has made it clear that he believes that we shouldn't continue to environmentally burden the most burdened and he made a commitment for environmental justice. And so we want to hold him to that.

And we believe that if we take the same taxpayer subsidies and invest them in true renewable energy, for instance, in wind and solar, we would not only get renewable energy, but more green jobs for our residents and produce more green jobs for our residents and not continue to distribute burdens.

The second point we want to make very clear is that we believe that biomass and waste energy facilities are not renewable energy, not renewable energy. Garbage is not renewable. In fact, MSW incinerators emit more carbon dioxide per unit of electricity than coal-fired plants. They emit

greenhouse gases which is carbon dioxide and nitrous oxide. Even incinerators with the most advanced technology will burden the communities downwind and the host communities would increase air pollution.

Increasing incentives for these facilities increases the pollution burden. De-incentivizing would be much more cost-effective in the sustainable practice

of recycling and waste reduction, worsens climate change, and many of the materials burned in incinerators can be recycled and compost to conserve and reduce greenhouse gases at far less cost and providing jobs.

Finally, existing incinerators in the State are burning garbage and making negligible contributions to energy production in our State. We generate more energy from these plants, requiring new siting or expansion of these facilities which would create increased pollution, increase the injustice in our community.

Subsidizing garbage subsidizes -- it de-incentivizes recycling, takes the funding away from truly renewable energy sources like solar or wind. Garbage is not a renewable energy. It is not a sustainable or viable approach for our state's energy needs and we should invest in a true green technology, like solar and wind and zero waste efforts.

Biomass is also not a renewable energy source. Carbon dioxide -- biomass --

THE COURT REPORTER: You have to slow down.

DR. BAPTISTA: Biomass combustion is --

PRESIDENT SOLOMON: Slow down.

DR. BAPTISTA: Biomass combustion has 50 percent more carbon dioxide pollution than coal pollution.

In 2009 the EPA found that reabsorption of carbon emissions to burning takes centuries and millenniums. Because of air pollution, human health

concerns related to biomass and garbage incinerators, many health related associations, such as the Oregon Chapter of the American Lung Association, Massachusetts Media Society, and the Florida Medical Association have established policies to --

PRESIDENT SOLOMON: You really have to slow down. Be patient.

DR. BAPTISTA: All right. So because of these air pollution concerns many of these medical groups have established policies opposing large-scale biomass policies.

Next, we think that with increasing unemployment, we need to invest in energy production that is truly green and produces green jobs. Nuclear,

natural gas, and waste energy facilities produce few, if any, new green jobs, relative to the new renewables, like solar and wind.

According to an analysis of 13 independent reports and studies, renewable energy technologies create more jobs per average and per dollar invested in construction manufacturing and installation when compared to natural gas and coal.

A growing body of evidence indicates that renewable energy technologies investments hold tremendous job creation potential. Clean Energy development not only helps to mitigate the challenge of climate change and the fossil fuel dependency, it holds great promise in addressing the need for high quality jobs, especially in areas like Newark where unemployment is so rampant.

The final point I want to make is about energy efficiency and the weatherization programs. The current state of weatherization and energy efficiency programs surfaced in low-income and moderate-income residents is very poor. We know this from firsthand experience working in the City of Newark. There are huge waiting lists and many residents on these lists are turned away. If we are serious about investing in energy efficiency, we should set real targets and fund

these targets or programs that can make a difference in the lives of residents. There are true energy savings to be had in investing in energy efficiency.

The Energy Corporation did a study that looked at targets by assessing weatherization and energy efficiency and low income households and they found huge returns that could help eradicate poverty in America.

We saw in the plan that you did make recommendations about redesigning energy efficiency programs in the State. We encourage a redesign and rethinking of how to target educational programs, particularly low income and moderate income communities. We believe that we should be investing in things like a sustainable energy facility, a nonprofit entity that can take some of the funds that go into renewable energy and energy efficiency and educational programs with the sole purpose of really servicing those communities energy efficiency targets. They could invest in community solar and wind projects, incentivize energy efficiency and weatherization in urban areas. And it's been done

in states like Delaware, St. Paul, Minneapolis have tried this approach.

Finally, we would like to again reiterate our support for wind and solar programs over biomass, waste energy, and nuclear.

PRESIDENT SOLOMON: Thank you.

Stephanie Greenwood. Take your time.

MS. GREENWOOD: Okay. Stephanie Greenwood, City of Newark, Acting Sustainability Officer.

Thank you for the opportunity to testify today. We are -- can people hear me?

PRESIDENT SOLOMON: Speak close to the mic.

MS. GREENWOOD: So we are going to submit detailed written comments. I just wanted to briefly highlight some of our points to the policy recommendations in the plan. I'm just going to quickly go down the list.

PRESIDENT SOLOMON: Don't go too fast.

MS. GREENWOOD: In terms of promoting new clean cost-effective in-State generation, we wanted to make the point that new generation facilities should look to provide net improvements in greenhouse gas and air pollution with the intention to impact at the local level, as well at the regional or state level. So, in particular, new generation should not result in additional contribution to air quality problems in areas that already have high levels of air pollution.

On solar, we welcome the idea of expanding attention to brownfield installations and community solar power and other strategies that expand access to

169

solar in urban areas.

I want to also encourage the plan to look a little further into how both solar and energy efficiency programs can strengthen their ties to workforce development and job development with training and employment, particularly focused in areas of high unemployment and high energy cost burden.

On the issue of biomass and waste energy, we are looking very closely at the impact that this is likely to have on Newark residents. Community advocates have raised important points about the health impacts in expanding waste energy facilities and so we're looking at that. And we're looking forward to learning at how points can be addressed in the framework of the Energy Master Plan.

On cost-effective conservation, we strongly support the master plan statement that the most cost-effective way to reduce energy cost is to use less. We're very interested in the concept of an energy efficiency utility, a nonprofit, an energy efficiency utility to generate revenue for customers at a savings.

I want to encourage additional attention to opportunities for programs in energy efficiency. We will be really happy to talk further and put more detail in written comments about opportunities that we see for

170

efficiency programs in urban areas such as Newark.

However, I do also want to stress the point

that energy efficiency programs would be particularly valuable in our community if they set and meet high targets for participation. We -- households in Newark do pay a disproportionate share of their income and energy bills and receive relatively low penetration as to some of the programs that are available compared with more affluent communities.

Last, I wanted to mention that as a transit hub, we are strongly supportive of the role transit can play in reducing greenhouse gas and saving energy and encourage the master plan to further develop policy on clean transportation technologies, with particular attention to improving access to public transit options.

I will stop there and a bunch of other people have things to say and submit more written comments.

PRESIDENT SOLOMON: William Brown, Veterans For Education.

MR. BROWN: Good afternoon, President. Thank you for --

PRESIDENT SOLOMON: Good afternoon.

MR. BROWN: -- taking the time and having the patience to hear our concerns.

You know, one of the things that's kind of interesting is the different angles that you get, the different perspectives, sometimes a more accurate picture you retain.

I'm disappointed in the master plan's and the Christie's Administration for solar to deep-six RGGI. And one of the reasons for my concerns is my

experience in Iraq. I'm a combat Navy Seal.

PRESIDENT SOLOMON: Thank you for your service.

MR. BROWN: Thank you. It's my honor.

One of the things that I realized that prodigy has a direct -- direct correlation to influence. And one of the reasons why I believe that our military is conducting and has conducted operations in Iraq is to increase our energy resources and influence on those energy resources.

I'm not a fan of fossil fuels. I also realize that China has a thousand new drivers every day and that our planet globally is becoming more congested-wise. And it seems like there's a lot of fishing poles in the same pond and I think there is a limit to those types of resources.

So one of the things that I found pleasing about the RGGI initiative was that it reduced -- it

reduced the profits for power plants using fossil fuels and at the same time increasing initiatives for alternative resources, energy resources, that I think eventually is going to be a stronger presser to adopt.

I appreciate the time.

Thank you.

PRESIDENT SOLOMON: Thank you, Mr. Brown.

William O'Hern.

Had to leave.

Amy Goldsmith, New Jersey Environmental Federation.

How are you?

MS. GOLDSMITH: I'm okay.

My name is Amy Goldsmith. State director of the New Jersey Environmental Federation. We have over a hundred thousand members across the State and over a hundred groups.

The New Jersey Environmental Federation Board in 2008 took a position about fossil fuels and new fossil fuel production. And at that time in 2008 the Board unanimously decided that the State of New Jersey should not consider and/or approve any new fossil fuel based energy facilities in New Jersey, either on land or offshore, until all other energy conservation efficiency and clean renewable options are continually and

aggressively advanced.

We also believe that due to the inherent ecological financial and human health risks associated with nuclear power, the State of New Jersey should not extend the licenses, although unfortunately they did, and -- of the current operating plants or build any new nuclear power units.

PRESIDENT SOLOMON: I don't think we have any right or ability to license, not license, extend or not extend nuclear.

MS. GOLDSMITH: Well, there is a discussion going on right now about the safety of the Oyster Creek plant and that may in the end take away the license of that plant.

PRESIDENT SOLOMON: I don't believe the State of New Jersey has the authority to license, not

license, continue or terminate a license. That's handled by the federal government.

MS. GOLDSMITH: It does have the power actually to control whether cooling towers are constructed or not and the DEP has power to make those decisions and, therefore, by requiring cooling towers, they could de facto --

PRESIDENT SOLOMON: I will check, but I believe that is a federal --

174

MS. GOLDSMITH: Licensing is federal, but the cooling towers is not.

PRESIDENT SOLOMON: Let me jump in.

First, I believe that the requirements that they have cooling towers was federally mandated or anticipated to be federally mandated and the response to that Oyster Creek entered an agreement to close.

MS. GOLDSMITH: That is correct.

And I should note that this decision was made in 2008 of my Board and that was before the decisions were made about Oyster Creek. So the timing --

PRESIDENT SOLOMON: Before my time.

MS. GOLDSMITH: Right, before your time.

Okay. So let's move on. That's my organization's position. As the candidate for Governor, Chris Christie stated that due to global warming and our own security, we need to reduce, not increase our reliance on fossil and foreign fuels. He also stated -- this was in 2009. He also stated at that time that he

supported the Global Warming Response Act, the updating of the Energy Master Plan, and the strong goals contained therein. He said he was disappointed in the previous Governor for not moving them along faster; and in contrast, he committed to aggressively pursuing these

goals.

We do not see the current Energy Master Plan revisions reflecting his stated commitment to aggressively pursue the strong goals of the previous plan, including reduced reliance on fossil fuels.

Cities like Newark are heat islands and often 10 degrees warmer than the suburbs. This is where the air is often the filthiest. This is where people primarily of color, low-income reside. They're disproportionately impacted by the pollution in Newark where there is double the hospitalization and mortality rate of asthma, double the asthmatic rate of children. Energy production contributes to that problem. This is an environmental and public health injustice.

In addition, the centralized power model that we experienced today is an economic injustice. The primary owner, controller, and deliverer of the electricity for large, private utilities who offer few options for public or private entities to grow their own power in versatile ways at a more affordable cost. This leaves energy residents, municipal governments, and businesses struggling to make ends meet.

Now, we know and we've heard much testimony about the fact that energy efficiency and renewables create more jobs on a wider skill's spectrum from the

176

general laborer to the scientist. They can be applied to a more versatile range of situations, residential, commercial, institutional, and they offer a variety of research and development possibilities in centers like NJIT which could house and incubate and has incubated commercial development.

For the past five years, the New Jersey Environmental Federation has been working with the City of Newark, One-Stop Career Center, neighborhood based nonprofit, and solar training and installation firms to not only grow the next generation of green economy advocates, but also train them in NJIT's certified solar installer programs.

In doing this we are putting traditionally under and unemployed urban youth, ages 18 to 24, to work on projects that include personal pride, quality of life in the city, reduce greenhouse gases, lower utility bills, and conserve scarce dollars for other services and needs.

A strong forward-thinking green EMP, or Energy Master Plan, would encourage more of this on a broader scale and this could be better integrated into the City of Newark with a sustainable action plan.

The nuclear power situation is quite brave in our view. New Jersey has not been responsive to the

177

tragedy of Fukushima, Japan, as Germany, Italy, and Switzerland have done by calling for the phaseout of

their nuclear plants, as well as embracing renewables and energy efficiency.

In contrast, New Jersey's proposed Energy Master Plan calls for the consideration of more nuclear units at Salem as part of its future. The nuclear stations that we have now are not without problems, tritium releases, air releases, highly radioactive spent fuel, all of which reside on major bodies of water.

The Energy Master Plan of New Jersey proposes to redefine nuclear as clean energy and carbon free. Changing the definition of clean energy on a page in a policy document, in this case, the Energy Master Plan, does not automatically make it so. It is neither clean nor carbon free given that the source of this energy is uranium, a fossil fuel. The catastrophic incident in Oyster Creek or any other facility here in the State of New Jersey would render the Jersey Shore, one of the State's premier natural treasures and second largest economy after the pharmaceuticals industry, poisoned for generations to come. We have seen Japan. We do not see that here.

Adopting aggressive renewable energy and efficiency and conservation first policy means we are

more likely to reach the 30 percent renewable goal by 2020. In contrast, the goal means that we may never likely -- may never get there or exceed it.

And I just want to give one story, given your solid waste days, President that --

PRESIDENT SOLOMON: I was just a freeholder.

MS. GOLDSMITH: You were a freeholder then,

but you know solid waste.

In the 1990s the State adopted a policy on recycling solid waste by 60 percent. The State also established a recycling charge on a tipping fee or disposal price per ton. These funds were used to send back to the towns and counties for their recycling. As the State approached the 60 percent goal, it raised the goal to 65 percent. But then the funds were not renewed by, in this case it is true, the Whitman Administration.

The DEP acknowledges that the subsequent and the dramatic decline in recycling occurred in direct relationship with the evaporation of the fund. The State started to burn and bury more of its solid waste again rather than recycling and compost. Some of the programs have been revived, but we've never gotten back to that 60 or 65 percent.

So while you speak to 22 and a half being the floor, the reality is that people strive for the

higher goal. They strive for the number. It's like running down the track. You're going to go all the distance if you know that goal is bigger and farther or you want to surpass a goal.

So our position is that New Jersey Environmental Federation strongly urges the State to direct and dedicate clean energy funding to drive State research, development, and use, as well as create green jobs, business opportunities and attract investments in all clean energy sectors, as we would define it, in the aspects of the supply chain, establish rates and

structures to drive toward clean energy, mandate energy standards and policies, set policy with an eye toward rate relief and clean energy option for the poor and low-income residents of the State, promote industrial/commercial development and use of renewables and energy efficiency in New Jersey in order to lower corporate energy costs and provide more power options that help them be profitable and sustainable.

The Energy Master Plan is -- my final comment -- the Energy Master Plan must set the final course. We recommend that you restore the 30 percent renewable goal by 2020; preserve permanent and dedicated funds for clean energy through societal benefits; establish efficiency-first -- excuse me -- strategies,

retrofitting existing buildings before considering new power plants of any kind, and subsidies for traditional power -- coal, gas, nuclear -- redirect them toward the production source of clean energy efficiency and conservation; eliminate nuclear power altogether from future power options; maintain the Governor's commitment to say no to the proposed PurGen power plant; ban gas hydrofracking in New Jersey and oppose its import that it's a threat to the Delaware River and drinking water source for over 4.5 million, in addition to polluting while it's burning; fix RGGI, the Regional Greenhouse Gas Initiative, don't abandon it; and create a stable source of mass transit, increase ridership, and electrification.

We must learn from the past and from the tragedy of Japan, as other countries have and are

planning to do. We should be more forward-thinking. This plan is not forward-thinking.

I hope and urge the BPU and the writers of the plan to make the recommended changes.

Thank you.

PRESIDENT SOLOMON: Mr. O'Hern here?

Bill O'Hern not here.

Ben --

THE PUBLIC: Can you give us a list?

PRESIDENT SOLOMON: There's about 20 of them.

Ben Rich.

Next couple, Dr. Ellyne Culver, Michael Sinai, and Chris Connor.

Are they all here?

Yes.

THE PUBLIC: President, you mentioned that you would only allow Sierra Club members to speak as a group.

PRESIDENT SOLOMON: No.

THE PUBLIC: You called on --

PRESIDENT SOLOMON: I said that anybody who wants to come up and speak as a group, go ahead.

THE PUBLIC: Well, we don't want to speak as a group.

PRESIDENT SOLOMON: Then I'll call you individually.

THE PUBLIC: This man right --

PRESIDENT SOLOMON: I'll get to you.

THE PUBLIC: You called this man before and now skipped over.

PRESIDENT SOLOMON: Who was it?

THE PUBLIC: Bill Chappel.

PRESIDENT SOLOMON: Go ahead, sir.

I will try to find Mr. Chappel's card.

MR. RICH: Thank you.

Hello. My name is Ben Rich. And I thank you for the opportunity to speak today. As a New Jersey citizen and professional educator of physics, I am concerned about -- that the latest Energy Master Plan is effectively taking a step backwards. Reading on very first page we see the 2008 goal of 30 percent of energy --

THE COURT REPORTER: You have to slow down.

PRESIDENT SOLOMON: Slow down.

I have Mr. Chappel's card. I haven't called him yet.

Continue, sir. Take it slow.

MR. RICH: On the very first page we see the 2008 goal of 30 percent energy from renewable sources has been dropped to the legal minimum of 22.5 percent. This represents a clear step backwards in leadership from the BPU and for New Jersey. We are already on our way to beat 31 percent of energy by clean sources.

In addition to this, on page 3 of the new master plan attempt to redefine clean energy sources to include nuclear waste to energy and natural gas. There's no way in which nuclear waste can be described as clean. There's no way the pollutants from burning

183

natural gas, such as particulates, mercury, sulfur dioxide can be described as clean, and there is no way for the extraction process for uranium or the hydraulic fracturing process for natural gas to be viewed as clean.

I'll try to say more excellent things.

This redefinition is unacceptable.

We are uniquely positioned on the East Coast to be the leader in job creation in the growing green industries. We must focus seriously on solar and wind power, especially the consistent offshore wind that is available 98 percent of the time, according to Atlantic Wind.

Our money spent on energy will either support jobs in other states or jobs in New Jersey. We are not a state that produces coal, natural gas, or uranium. An Energy Master Plan that increases manufactured and distribution of solar and wind in New Jersey will create jobs that cannot be moved elsewhere.

New Jersey is the second leading in solar power in the U.S. and the leader east of the Rockies. It's a title I kind of like. We are positioned to be the central hub in the manufacture and distribution of solar in the most densely populated area in the United States. Clearly, we are currently doing the right

184

things and should work only to improve the programs that are making us leaders in clean energy. Efforts to

weaken these programs will only hurt the financial prospects of our State for years to come.

Jobs in the solar industry have improved to spite the economy. New Jersey's metro areas rank in the top twenty in the nation for solar job growth. This is something that should be celebrated and encouraged and not penalized. The current draft of the master energy plan looks like it will punish solar adopters with extra property taxes and other ways to disincentivize solar.

The focus of the master plan on natural gas is also disturbing, particularly due to recent revelations about how dangerous hydraulic fracturing is, and how close in proximity it will be to us. If we end up choosing to expand our natural gas use, then we must ensure that the source of the gas does not employ fracking.

I assume you're familiar with the term fracking.

PRESIDENT SOLOMON: I've heard of it.

MR. RICH: Especially if the fracking is done in a watershed that serves our State. Choosing to expand natural gas in our State can be seen as a decision to poison the very water we drink in North

Jersey.

When comparing the job creation of different energy sources, there is no contest. Every gigawatt of energy efficiency creates three times as many jobs as are created by 1 gigawatt of natural gas. Solar photovoltaic creates eight times as many jobs as the same investment in natural gas. So if you truly value

the connection between energy and jobs, you will do everything in your power to produce strong support for our growing solar industry.

On June 30th, as reported, the German government has set higher standards last month, as opposed to lower standards. I quote: 2012 Renewable Energy Sources Act sets a minimum requirement of not less than 35 percent of renewable energy in electricity supply by 2020, not less than 50 percent by 2030, not less than 65 percent by 2040, and not less than 80 percent by 2050, with a goal of achieving a hundred percent by 2050.

Rather than reducing its commitment to expanding renewable energy, Germany has codified the more aggressive target than the previous law and they've also committed to quit nuclear power by 2022.

We should be in the same conversation as Germany with aggressive clean energy goals, instead of

weakening our current goals.

Distributed generation of solar rooftop systems has many secondary benefits that do not fit in the initial financial calculation. First, pollution is eliminated making the air we breathe cleaner. This is particularly important since we have already had eight orange alerts for poor air quality this year alone. Distributed power is greater reliability to the grid by taking some of the load off it. Rooftop solar also allows people to make money from their house by selling the electricity so it stimulates local economies. And

distributed power is safer from a homeland security standpoint because we would not rely on vulnerable point sources.

PRESIDENT SOLOMON: We are going to really have -- we have to till seven. I am going to have to ask you to, five minutes, and if you have something new to add, add it. If you want to refer to another person who testified before to your position, indicate it so we can get to as many people as we possibly can.

And I'm going to ask you to do the same, sir.

MR. RICH: I'm almost done.

Energy efficiency and clean energy have very real potential to close every coal-producing power plant

in the State and to stop importing dirty energy from coal-producing neighbor states that we are currently suing due to their pollution. We can also help poor people lower their electricity costs and improve air quality with a right incentives.

I look forward to reading the next draft of to the Energy Master Plan with strong language supporting technologies that create green collar jobs and keep New Jersey first on the East Coast for growing a clean energy economy.

Thank you.

PRESIDENT SOLOMON: Thank you.

Dr. Ellyne Culver.

I'm going to ask one more time, if you can confine it to five minutes and if you can refer to somebody else's testimony that you support or agree

with, please do. That will save a lot of time. We'll be able to get to everybody.

Doctor.

DR. CULVER: Good afternoon.

Dr. Ellyne Culver, Chairman Emeritus of the People's Organization for Progress, which is social justice --

PRESIDENT SOLOMON: Speak up close to the microphone.

188

DR. CULVER: Good afternoon.

Dr. Ellyne Culver, Chairman Emeritus of the People's Organization for Progress, Newark Branch, and covering President for the TA Association of Newark Housing.

Now, what I'd like to talk about in the master plan is the sustainability utility element. And I just would like to say that Delaware and Minnesota have projects whereby they let the city and/or the State own elements of the green clean air projects. And I would like to say that here that seems like an excellent or might be considered an excellent project in a town like Newark and so the -- and it might help the low income and housing if they also had a project whereby they could determine their own electric energy needs, as well as that of schools and the other key operations and businesses in the town of Newark and other cities in New Jersey.

As for, oh, the students element of it, it would be good if they could learn about green energy

projects, as well as make -- have projects whereby they could make -- have work produced in the community. And on nuclear energy and fracking, you know, I really think that it should be considered damage that has been long -- that it has a track record of as close as, you

know, the good elements of it.

And that's mainly what I wanted to say.

PRESIDENT SOLOMON: Thank you very much.

Michael Sinai, Eastern Environmental Law Center.

Michael Sinai.

Chris Connor, WattLots, LLC.

Is that right?

MR. CONNOR: That's correct.

Jeffrey Brown here?

You're up next.

Is Jeffrey Brown here?

MR. CONNOR: Good afternoon.

My name is Chris Connor. I'm the Director of the business of WattLots, LLC. WattLots is the developer of the power harbor which is innovative solar array design for primarily parking lots. We're also an incubator company at the NJIT EDC.

I want to briefly address some major recommendations made regarding solar energy Section 7.2.6 specifically. Reduce cap in SRECs, subject solar renewable incentives to a cost-benefit test, and promote solar PV installations that provide economic and environmental benefit.

Some portions of these recommendations are

based on questionable conclusions. For example, quote, the ability to recoup rapidly investment on solar installations has doubtless benefit to the solar industry and the participating households or businesses but has not created significant benefits to the cohort group of nonparticipants who ultimately bear the cost of solar technology. The latter part of this statement is not supported by facts.

The rapid development of solar in New Jersey has stimulated both domestic and international investment and attracted manufacturing facilities, provided work for solar installers and created jobs and New Jersey tax revenues. This benefits everyone, including the, quote, nonparticipants. The plan includes that, quote, the solar industry is no longer fledgling. That may be, but the industry is in the growth stage and still needs significant support.

SCAM and SRECs have provided support that generated the rapid growth of solar in New Jersey and has positioned the State as a national and international leader. Their reputation has been instrumental in attracting solar related investments and businesses. New companies have been developed.

Petra Solar is leading technologies and are prime excellent examples. International development

includes companies like MX Solar and Gehrlicher Solar America. Many solar startup companies are located in

the State, including right here at NJIT at the Enterprise Development Centers. These companies create jobs and attract new investment, but they also require additional support.

To ensure growth in the solar industry and continued technology development, current support needs to continue and most importantly it must be predictable.

The plan provides tables and states that, quote, solar voltaic AV power is expensive and intermittent. And that is a direct quote from the plan. That may be true, but the expenses are rapidly declining and they will continue to fall as the industry continues to grow.

In addition, solar produces the most power where there is the most demand and new storage technologies will improve the time of delivery. There are also recommendations for clock benefit tests and to evaluate the economic and environmental benefits. Tests are appropriate, just as long as other energy technologies require similar analysis and that the economic benefits are not simply limited to easily identifiable short-term costs and revenues. Renewable solar energy systems provide benefits to society that

are typical to quantify as are the full future costs of all energy sources. In addition, solar can provide power at the point of demand, thus, reducing the need for and cost of new transmission facilities. Any test for solar should evaluate the indirect benefits of capital investment, more jobs, and the economic impact of providing, quote, according to the plan, revenue for

expansion job growth and job retention.

Finding New Jersey has been looking for ways of taking advantage of its high-tech workforce and enhance its reputation as a leader in technology. Solar and other renewable energies provide an opportunity and institutions like NJIT and incubators like the Enterprise Development Center can play a key part in that effort.

Thank you.

PRESIDENT SOLOMON: Thank you, sir.

Jeffrey Brown.

Mr. Russell is next.

PRESIDENT SOLOMON: Good afternoon.

MR. BROWN: Good afternoon. It's nice to see your personal energy.

PRESIDENT SOLOMON: I have none. It's all gone.

MR. BROWN: Jeffrey Brown. I live in Brick

about 15 to 20 miles from Oyster Creek. I'm in GRAMMES, Grandmothers, Mothers & More for Energy Safety.

I like to start by noting that I agree with what seems to be administration's overall objective for the NJ EMP. On page 73 the draft states: The Christie Administration's objective is to set forth the foundation for change that modernizes the generation resource mix in New Jersey and promotes fuel substitution in a way that saves money, stimulates the economy, assures reliability, and protects the environment.

I think protecting public health and well-being should be added to this list and then would add that I think the Draft EMP seriously fails to achieve this objective by its explicit support for additional atomic power stations in the State.

And I quote on page 80 where it states: As nuclear plants in New Jersey age and are decommissioned, the Christie Administration supports the construction of new nuclear baseload generation, and the delineation of lessons learned from New Jersey, U.S., and global nuclear experiences.

This statement reveals a very dubious assumption, namely, that the lessons learned from these nuclear experiences will be how to solve recalcitrant

problems that have defied solution for fifty plus years, perhaps a tweak here, a tweak there. I believe the rational lesson to be learned from these recalcitrant and life-threatening problems is that nuclear fission is no way to boil water. There are more wholesome alternatives in terms of sources and energy systems to be developed, expanded, and transitioned to.

But I quote the draft in terms of the clean energy may encompass natural gas plants, and nuclear power -- both license extended units and, conceivably, new nuclear. On page 74.

Page 76. Nuclear generation can provide a reliable source of inexpensive generation without air emissions it says.

Well, wishful thinking don't make it so. The catastrophe at the Fukushima Daiichi atomic plants

should make it clear to everyone with eyes to see and ears to hear that no amount of semantic manipulation can make nuclear power clean. Hundreds of square miles have been contaminated with deadly radiation. Rice fields are contaminated. Cattle are contaminated. Tons of ocean water are contaminated. Innumerable fish and edible seaweed are contaminated. The food chain is contaminated. People of all ages are contaminated.

In addition, just two weeks after securing

their renewed license from the Nuclear Regulatory Commission, Oyster Creek reported having leaked almost 200,000 gallons of tritium that contaminated both the Cape May and Cohansey aquifers. This leak was followed by another in August of 2009. To its credit, the NJDEP, under the Christie Administration, has required Oyster Creek to clean up hundreds of thousands of gallons of spilled tritium, a radioactive form of water that can cause cancer. The Salem atomic power station has its own sad history of tritium leaks, and all atomic generating stations regularly emit a whole range of radioactive isotopes in their daily operations.

As a matter of fact, a 1993 a Brookhaven Lab study reported that Oyster Creek had the second highest airborne radioactive emissions of any atomic power plant in the country. I cite the reference for that.

How can an official state document pretend to call nuclear clean and emissions free? Just because radiation is invisible and not defined by dark particulates doesn't mean it isn't real. Pretending

that atomic power is clean and free of emissions is Orwellian double-speak and has no place in New Jersey's EMP.

On page 74 the draft states: The only carbon-free technologies are renewables and nuclear

power. Atomic power is not carbon free. This is particularly apparent when considering the possible construction of a new generating station.

Benjamin K. Sovacool is an Assistant Professor and Research Fellow at the National University of Singapore. In a 2008 paper published in the journal Energy Policy, Valuing the greenhouse gas emissions from nuclear power: A critical survey, he reported that atomic power emits 66.08 grams of CO^2 equivalent per kilowatt hour of generation, and it's broken down by nuclear fuel cycles, and I give the numbers for the front end, construction, operation, backbend, and decommissioning of nuclear stations.

The link of comparison with coal which is higher at 960 grams per kilowatt hour, solar PV, polycrystalline silicone is only 32 grams per kilowatt hour and offshore wind, 2.5 megawatt size, would be 9 kilograms -- grams per kilowatt hour.

So, yes, atomic generation produces less CO^2 than coal, but much more than renewables. Atomic power, especially a new generation station must be built from scratch should not be referred to in the EMP as carbon free.

On page 77 the draft states: The 2008 EMP concluded that nuclear energy would be necessary to

197

achieve the goals set forth in the Global Warming Response Act for two reasons, dot, dot, dot.

This statement seems inaccurate. According to the October 2008 draft of the EMP, on page 80, the plan called for a study of the serious unresolved issues regarding atomic power with a report from the State Energy Council to be given to the Governor by the end of 2009. I can find no record of such a report ever having been made and I certainly wasn't notified at any of the hearings.

Just to quote the last section of that on page 80 of 2008: Until the State has had an opportunity to review this report, the State will not issue any final approvals for the construction of a new nuclear plant.

The longevity of atomic power's lethal unresolved waste issues compromises the ability of future generations to meet their needs and, thus, contradicts the central defining tenet of sustainable development. We do not -- we do have the technical capability to transition to a sustainable energy future without more atomic power stations.

Dr. Arjun Makhijani's study, Carbon-Free and Nuclear Free: A Roadmap for U.S. Energy Policy is just one of several studies that demonstrate this encouraging

198

possibility. And other countries have been referred to here today are starting to show the way.

Last Sunday Reuters reported: More than two-thirds of Japanese support Prime Minister Naoto Kan's call to do away with nuclear power, a media poll showed on Sunday, underscoring growing opposition to atomic energy in the wake of the crisis at the Fukushima Daiichi plant.

A poll conducted this weekend by Kyodo news agency showed 70.3 percent support for Kan's call to wean the country off atomic energy which accounted for nearly a third of the country's electricity output before the crisis.

And, of course, Germany, the world's fourth largest economy that has 17 atomic power stations.

PRESIDENT SOLOMON: Sir, it's been almost 10 minutes now.

MR. BROWN: My last comment, at least followed suit.

I strongly urge the Christie Administration to learn this lesson from the Fukushima disaster and pursue a no new nukes in New Jersey strategy toward a sustainable energy future.

(Brown-1, Comments on the 2011 Draft New Jersey Energy Master Plan by Jeffrey Brown, attached.)

PRESIDENT SOLOMON: Ray Russell.

THE PUBLIC: He had to go home.

PRESIDENT SOLOMON: He left.

Bill Wolf.

Mr. Wolf?

Paula Gotch.

MS. GOTCH: I will see you in Trenton.

PRESIDENT SOLOMON: Okay.
Lary Wasserman.
Thomas Jones you're up next.
And then Diane Sare.
Is Ms. Sare here?
Barbara Conover.
And Janna Chemetz.
Ms. Chemetz.
Ms. Chemetz not here.
PRESIDENT SOLOMON: Sir. Go right ahead.
MR. WASSERMAN: Good afternoon. I'm Lary Wasserman. I live in Jefferson Township. I'm an air-breathing, water-drinking taxpayer and that establishes my cost-effectiveness. As long as I'm alive, I pay taxes in New Jersey.
It's nice to know we have an Energy Master Plan, but it must optimize the money, the health, and world resources. Innovative technology certainly can

come in handy. My favorite little one and I bring it to your committee, having an innovative committee, simple example, effecting the health of our population, traffic lights, my pet peeve, but we use dumb traffic lights in New Jersey instead of intelligent ones. How many have been stuck on a highway at two o'clock for 2 minutes while waiting for the light to change and nobody ever went across the street. So there's simple things like that, especially during rush hour when we have three-mile long backups and four lines of highway and some innovating thinking would certainly clean up our

air at very little cost otherwise.

On the side of things to avoid probably coal should be written off completely and strongly. Absolutely worst.

PRESIDENT SOLOMON: It all has been by the Governor.

MR. WASSERMAN: It has been. Thank you. I'll skip that part then.

In this recent long, hot weather spell the fact that we have no brownouts or blackouts, pretty close to breaking even. And conservation, as somebody else mentioned, may even be gaining on our energy needs.

One of the more destructive projects in New Jersey is the Susquehanna/Roseland project which

violates almost every one of the goals that were stated of the Energy Master Plan.

Burning dirty coal in Pennsylvania, sending it across New Jersey to sell it to New York City. Some of the costs that were not considered is lowered land values, loss of tax ratables, higher cancer rates, and potential gas line explosions because in some cases the power line and the gas lines are run together.

Another part of the cost-effectiveness that should be considered is the fact that class action lawsuits may be possible. And people know now about the cancer, about the loss of land values, and those kind of things that should be considered as part of the cost-effectiveness.

One of the ways to get more details is go to You Tube and numbers 146 miles of danger, 146 miles of

danger is a little six-minute video that point out negatives of that particular project.

On the drinking water side, fracking which most people have objected to. It's not reversible. That I think is the biggest danger. It ought to be ban outright in New Jersey. And as the previous speaker said to ban the import of any gas that is the result of fracking. It's a very dangerous move to make.

As far as buzz words for BPU and Governor,

clean and renewable sources. Those are two good words to keep in front of any Energy Master Plan. Clean and renewable will yield the most profit because you're basically not paying for the energy source. It provides more jobs, will lessen potential lawsuits, and seems to be the long-term way to go.

Keep in mind that weather, it's either windy, rainy, or sunny. Windmills, hydroelectric, solar are sort of free sources of energy. Used in nature's energy sources and recaps the largest profits and benefits for the citizens of New Jersey.

Thank you.

PRESIDENT SOLOMON: Thank you, sir.

Thomas Jones.

MR. JONES: Thank you, President Solomon.

My name is Thomas Jones. I live in Montclair and I teach high school at the Montclair Kimberly Academy. I'm going to try and take a minute and a half out of what I was going to say real quickly here.

Today we are facing an issue that is actually a comprehensive, historic crucible, one that desperately demands a commitment to a revolution in energy and a corroboration between government and industry on a scale last experienced during World

War II.

To date, your Board and our State have done a pretty good job, notwithstanding the ill-advised decision to renege on the clean air initiative. But New Jersey's 64 solar installations companies and one solar manufacturer employ over four times the number of workers than all of our coal plants.

Our State solar industry also employs more full-time Jerseyans than all of our nuclear facilities. Still our renewable energy process has just scratched the potential of the greatest growth industry in our State, even with solar's growth in some states. Overall, last year our country fell more behind in the global market share of installed solar capacity.

I understand that many business decisions do not account for humanitarian urgency for clean energy or today's cancer rates or severe weather threats or that this region meets the nation's mortality and heart attacks caused by coal production.

But economics stagnation stems from two sources, either a depressed labor class without disposable income or because big money corporations have pushed bad products.

In the energy industry mountaintop fracking and shale fracking are gas products with ill-fated

future, neither one boosts New Jersey's employment and we already spend over $330 million a year on out-of-state coal.

I'll interject real quick two sentences with what I think is the greatest oxymoron coined and that is the phrase clean coal. I used to live in Western Pennsylvania, outside of Johnstown. And my sister still lives across the valley from a coal mine. Watching the loaded trucks roll down Cramer Pike with coal dust wafting out the top of their beds, I can tell you firsthand the smell, the taste, and the eye irritation of black dust that also lines both sides of the road. Yes, my sister's father-in-law who lived there died of cancer and her brother-in-law who worked in that mine has black lung. So don't ever buy into the hoax of clean coal.

Frankly, our 2008 clean energy goals are not high enough. If our building codes can proscribe novelty wiring, asbestos installation, and lead pipes, we can also require solar or geothermal energy on all new construction. If our laws can require child safety seats and air bags in cars, we can also place a moratorium on fully gas powered automobiles. All this would be a boom to new industry. And clean energy employment only enhances state tax rebates. If we do

not stamp out old fogy fossil fuel and press clean phosphorous renewables, all evidence is screaming that

we are at the tipping point of a wide and irreparable calamity.

The BPU is in a great position to have an influence and to increase our clean energy benchmarks, not roll them back. Our children will have to live with your decisions much longer than we will.

PRESIDENT SOLOMON: Diane Sare.

Ms. Sare.

MS. SARE: Yes.

PRESIDENT SOLOMON: Good afternoon.

MS. SARE: Good afternoon.

PRESIDENT SOLOMON: Or evening.

MS. SARE: Thank you for extending these hearings. I am Diane Sare, and I am part of a national slate of six LaRouche Democratic Candidates for the U.S. House of Representatives. I reside in Hackensack.

I'm here today because the implications of the conclusions of Governor Christie's Draft Energy Master Plan are far-reaching and genocidal. Let me just situate my comments by pointing out that 12 million people in the horn of Africa are currently threatened with death by starvation. In the United States for the first time life expectancy is actually declining.

Governor Christie's green energy role model, President Barack Obama, has a so-called science advisor John Holdren, who is an advocate of the anti-scientific position that the world can only sustain 1 billion people and internationally a report has recently been released by a German government science advisor who has the dubious honor of having been knighted by the Queen,

Hans Joachim Schellinhuber, which calls for establishing new supranational bodies to force the reduction of global dependence on fossil fuels while excluding the use of nuclear power, thereby mandating a radical reduction in both energy and food consumption. These policies are already having the genocidal results their authors intend.

Furthermore, there is a financial component of this criminal insanity. While the cost to the State and the nation of going with solar and wind power will be beyond measure, for no net energy gained, for some, like Christie's brother Todd and Obama's Wall Street and London patrons, there is a fantasy of much money to be made in futures betting and carbon swapping and trading, in the dying days of the financial global system.

Therefore, I would like to relieve the panelist and the audience of the burden of laboring under the murderous disinformation promoted by today's

environmentalist movement so that you can come to a nongenocidal conclusion of how to address New Jersey's energy needs.

Number one, the second law of thermodynamics is a fraud.

Number two, carbon dioxide is not a pollutant.

Number three, there is no such thing as manmade global warming and, in fact, we are most likely headed for a period of global cooling which is also not caused by human activity.

Now, on the first point on thermodynamics the doctor referenced a development of mammals that relieves me going through a billion years of evidence so we'll skip that. But the point is the natural progression is for higher levels of energy flux density, greater amounts of energy packed into smaller areas.

It is from this standpoint that solar and wind energy are actually destructive of the biosphere because they violate that principle. In fact, for this reason they are actually a form of pollution.

On the carbon dioxide question, first of all, the oceans produce over 50 percent of the carbon dioxide emissions on the planet. Secondly, it would be absurd for respiration to be destructive of the

environment. Thirdly, there is no proof that levels of carbon dioxide correlate with increases in temperatures.

However, on this point on global warming, there is very clear evidence that cloud cover is directly related to the earth's temperature and that cosmic rays are the key factor in cloud formation.

I will submit the charts from the Danish scientist Svensmark, that show an extremely high, an almost 1-to-1 statistical correlation between the activity of our sun, which prevents intergalactic cosmic rays from hitting our atmosphere and forming clouds and the earth's temperature.

Although much more research needs to be done on the relationship between solar and intergalactic cycles and climate, studies from three independent American institutions, as well as others

internationally, indicate that we are actually most likely headed toward a period of global cooling.

In a few years Al Gore may prefer to be remembered for assaulting his massage therapist, rather than his movie.

Furthermore, the cost of solar and wind power is absolutely prohibitive as compared to the cost of much more abundant and reliable electricity from nuclear power. Of course, as the Energy Master Plan

advocates, if you use less energy, you will spend less money on energy. Viola. Living in a cave does not cost much in dollar amounts, but it could cost a lot in terms of longevity.

What makes Governor Christie's Energy Master Plan genocidal is that as a result of the aforementioned disinformation, it calls for reducing energy consumption where the natural course for the planet would be to increase energy consumption, not arbitrarily, but as FDR did when he built the TVA or launched the Rural Electrification Administration.

By how many orders of magnitude did our food production increase because of electric light bulbs and refrigerators?

My recommendation to this panel is that you immediately commission the experts in the Princeton physics department --

PRESIDENT SOLOMON: I'm going to ask you to sum it up.

MS. SARE: This is the last sentence.

-- to develop a nuclear fusion propelled rocket, which would be very high energy flux density with the propulsion power to lift both the corpulence of our Governor and the ego of our President and send them to a far off planet.

Thank you.

(Sare-1, Testimony of Diane Sare, attached.)

PRESIDENT SOLOMON: Barbara Conover.

MS. CONOVER: I have to say I'm a little intimidated after having followed that.

My name is Barbara Conover. I am a resident and I thank you today for the opportunity to give testimony even at this hour about the Draft 2011 Energy Master Plan. I speak as a New Jersey resident living in Montclair in Essex County and New Jersey taxpayer and a PSE&G customer. I am a member of and volunteer with several environmental organizations, primarily the Sierra Club, but my testimony should not be logged as an official Sierra Club comment on the Draft EMP.

I have to say I am a little bit intimidated to speak today. I was under the impression from the correspondence that I had received that this was going to be a public hearing and I wrote down the names and representations of all the speakers and it wasn't until number 18 that I saw anyone representing the public. I've heard a lot of business and corporate speakers. Number 18 was the League of Women Voters. Number 20 was Environment New Jersey. And I felt Mr. Solomon, with all due respect, that you grilled them very hard as you did an Ironbound resident so I am a bit intimidated,

yes.

I would like to start -- and I will make this as quick as possible because some of the things that I wanted to say have been covered. I will try to skip all of that.

This document is -- the Energy Master Plan is of significant importance to every New Jerseyan. We are all consumers of energy and there is both a benefit from energy and the hazard from energy used in generation.

I've tried to read this Energy Master Plan over many days and almost an entire bottle of Tylenol. This is an extraordinary difficult document for the citizen to grasp exactly what it is saying. I think I grasp the plan part in the executive summary. I had a tremendous amount of trouble of finding a plan in the document itself. It seems to me like there was a whole lot of what exists now and I really had to struggle for a plan there. I would really like to encourage the language in a document of this significance to be something that citizens can understand.

I did read the 2008 Energy Master Plan. I was not a resident of the State at the time. This is a plan. It is understandable. It does talk about energy in a total way and it is a plan. I would encourage the

same type of language that is understandable and very plan directed in the 2011 Energy Master Plan. I found a

tremendous amount of this language frighteningly vague, unnecessarily obtuse, and if you excuse my jargon, wonky.

I realize time is limited and so I will make -- I had already planned to make lengthier comments and I will definitely annotate them as you have requested to specific things in the plan.

The one sentence that did jump out at me because I was looking for it and I would like to strongly commend and support this is: Coal is a major source of CO^2 emissions and New Jersey will no longer accept coal as a new source of power in the State.

Bravo. Please keep that sentence in there.

However, the draft plan fails to mention existing and other proposed coals. We have existing coal-fired plants in New Jersey which are our largest pollution sources. They must be further cleaned up and phased out. Since you have expressed understanding of a significance of at least one immensely part of coal pollution, CO^2, the EMP should set clear goals for the cleaning up and phasing out of existing plants.

The draft plan also touts the benefits of coal by wire, the Susquehanna/Roseland transmission

lines. Since the prevailing winds travel east, New Jersey's air gets hammered by the dirty coal-fired plants in Pennsylvania and the Midwest. I call upon a better study for the need, safety, siting, and route of the Susquehanna/Roseland transmission lines.

And this is an issue of great concern to me. By the specific language, you have left a giant loophole

for the proposed highly experimental clean coal, PurGen I chemical, fertilizer, and power plant for Linden, New Jersey, because it would sequester its CO^2 sub-seabed off Atlantic City. New Jersey does not need to be the coal industry's guinea pig for this unproven and expensive technology.

PRESIDENT SOLOMON: Can I stop you there?

MS. CONOVER: Yes.

PRESIDENT SOLOMON: That project is not going forward as a coal carbon sequestration plant. The Governor has said no to any coal. That's a done issue. It's not even -- cannot even be inferred. There's not even a loophole. I say that publicly and on the record and so did the Governor.

MS. CONOVER: Yes. But I've been waiting for a more public statement from the Governor other than what he said.

PRESIDENT SOLOMON: I can't see how it can

be more public or more clear. Or more public or more clear than I just said.

MS. CONOVER: And I deeply appreciate that.

My concern in trying to read this as a citizen understanding it is the coal language was specifically about the CO^2 and because --

PRESIDENT SOLOMON: I got to tell you --

MS. CONOVER: -- because PurGen would sequester that's what made me nervous.

PRESIDENT SOLOMON: Don't be nervous.

MS. CONOVER: I can't tell you how good that

makes me feel. I would have stayed here until one o'clock in the morning to hear that sentence, Mr. Solomon.

PRESIDENT SOLOMON: You didn't have to.

MS. CONOVER: All right. I do want to talk very briefly about the fact that to me, as I read this plan, it seems like the definition of renewable energy is scrambled. Other people have talked about this. You cannot create renewable and alternative energy by redefining the words. I would like to be told and will we. You might tell me that and I'd like you even more than I do since you told me PurGen is going nowhere. But the fact is I am still going to be a short, plump woman.

Renewable and alternative energy or wind or solar, not a garbage incinerator, such as the Essex County, Covanta incinerator, whether it's a waste to energy incinerator or not. I have to disagree with what I heard from the waste to energy professional here today.

As an Essex County resident who has to live with my garbage being incinerated and knowing that this is harming the health of my neighbors in Newark, I find this redefinition insulting. This redefinition takes away from real renewables in solar and wind.

I understood when the man testified, Mr. Solomon, that you joked with him about the fact that your children can't recycle or they don't recycle.

PRESIDENT SOLOMON: No, I never said that.

MS. CONOVER: Okay.

PRESIDENT SOLOMON: And I don't want -- what he said was they produce a lot of trash. And I said you've met my kids. My kids recycle. They're careful about it. They're clean. I did not mean anything like that. And I'm sorry you took it that way.

MS. CONOVER: Perhaps I misunderstood that because I do teach recycling and composting for the town of Montclair. I volunteer that way. And I would volunteer to come and teach your kids for you.

PRESIDENT SOLOMON: You don't need to. They're too old anyway. They don't listen to me either.

MS. CONOVER: Well, I teach adults and sometimes they actually do listen to me. I recycle and I compost and every two weeks I throw out a bag about that big and about half of it my cat produces instead of me.

So I think if you do work hard at it and I also have never had any fun taking the trash out, but I do have fun with composting and recycling.

Getting back to the plan, this plan reduces the goal for renewable energy. I have heard you say that it's a floor, not a ceiling. However, goals are usually defined, not as the lofty end, not as a floor. So I also want to reiterate what other people have said to go back to the 30 percent RPS, not the 22.5 which is the lowest mandated by law.

Everything I read about jobs in America tells me that real renewables, energy and energy efficiency -- real renewable energy and energy

efficiency are the most promising job creating sectors in our economy. The goals set in the 2008 EMP made New Jersey second for PV solar in our State. Our State needs to attract more renewable energy businesses, entrepreneurs. And as many have said here, I think this

draft plan sends the wrong message.

PRESIDENT SOLOMON: You're about ten minutes and we get thrown out at seven o'clock, half an hour from now.

MS. CONOVER: And I would just like to make a note that seems to be that a lot of the public seems to be stuck here at the end so we're the people that are feeling very rushed in trying to make a statement.

So I'm going to --

PRESIDENT SOLOMON: I'm not going to go through the list of people that testified, but I don't agree with you.

MS. CONOVER: I also read the language. To me, the energy efficiency language in there it did seem to me like you were phasing out the energy programs and that you were getting rid of the SBC. I will in my written comments I will go and cite the specific things. But since two of us have read it, I do want to call into question the fact that the way the language is in there it's very possible to read it that way. I read it. I tell you I read it Tylenol after Tylenol.

PRESIDENT SOLOMON: Probably 11 minutes and somebody not going to get to speak.

MS. CONOVER: So I thank you.

PRESIDENT SOLOMON: I got you. Thank you.

218

Alex Swift.
Welcome Alex.
MR. SWIFT: Thank you for allowing me to speak today.
PRESIDENT SOLOMON: Sorry to rush you at the end.
MR. SWIFT: I'm not yet old enough to vote, obviously, so I speak to you today as a future voter. I do not wish --
PRESIDENT SOLOMON: By the way, I'm too old to run for election so don't worry about it.
MR. SWIFT: I do not wish to have my first vote on what to do about the terrible condition of the air in New Jersey or what we will do about being dependent on Pennsylvania and other states for all of our energy. So I strongly support all investment in New Jersey's wind and solar energy.
Some may say that New Jersey does not have any of its own natural resources, but I see resources everywhere. New Jersey has plenty of wind and sun. We must take advantage of these resources. This country is built upon the idea that its citizens have the right to correct an injustice. Polluting our air with carbon and toxins is injustice of our earth. As citizens of this country, it is our right and duty to correct this

219

injustice. If the older generation is shirking off the responsibility to fix this problem, then it will be left

to the next generation to fix and it will be much more severe and we will have to use that much more of our economic resources to fix it. This problem will not be solved until someone solves it.

Please for our earth and for future generations invest in solar and wind energy.

Thank you.

PRESIDENT SOLOMON: Thank you, Alex.

Dennis Wilson.

Dennis Wilson.

THE PUBLIC: Here's gone.

Sid Madison.

MR. MADISON: Hi, I'm Sid Madison, a senior resident of New Jersey and I hope to be short. I have what I think is an overall request.

PRESIDENT SOLOMON: Okay.

MR. MADISON: That includes a lot of what I've heard, mostly stay away from fossil fuels; number two, go with renewables. And the overarching principle behind that, as far as I'm concerned, is a thing called sustainability and I've heard that word several times later in the program today. And I would like to give just a short definition of it which is leaving the

planet better off for future generations, which I believe the gentleman just before me asked to have happen.

And I want to tell you why that doesn't happen: Because the economic system does not address sustainability because of two things. First of all, most businesses and people are only interested in

self-interest; therefore, they're going to get the cheaper things that are produced with fossil fuels. So it makes it very difficult to solve that problem based upon the way business and people operate. And the second economic law that makes sustainability outside of the realm of economics is called negative externalities. So both of these things operate to keep us from achieving sustainability.

My understanding of a body, like yours, is that their job is to address goals that the economic system will not achieve. And I hear a lot of people here today saying we shouldn't be so concerned with cost-effectiveness as a goal, lower energy costs as a goal. That's not necessarily sustainable. The using more cost -- costly renewable energies is a good idea. And I suggest the way for dealing with these issues of sustainability and idea of cost-effectiveness or the term that you heard used was cost-effective is a phrase

used many times within the program. The way to deal with this is to substitute sustainability for cost-effective. It's not -- you can't use economics to make decisions between renewable fuels and you shouldn't be making economic decisions between renewable fuels and fossil fuels.

That's my standpoint about how the process should go forward.

PRESIDENT SOLOMON: Thank you.

Thank you, sir.

Ted Glick.

Ted Glick.

THE PUBLIC: He had to go home too.

PRESIDENT SOLOMON: Okay.

Amy Hansen.

MS. HANSEN: Good evening, President Solomon. And good evening, Commissioners.

I'm Amy Hansen with New Jersey Conservation Foundation. And we are a 50-year-old nonprofit, preserving and restoring land and natural resources throughout the State.

The Wilderness Society recently published a very pertinent paper to our work entitled Energy Efficiency: Saving Energy, Save Land. And I can provide a copy when I provide our comments. The paper

refers to the huge potential of energy use reduction achievable by efficiency measures. The State of California provides a prime example of energy efficiency at its best. California's comprehensive approach includes efficiency standards for buildings, appliances, and automobiles, research and development on innovative technology, investment incentives, and more.

The Wilderness Society paper states between 1975 and 2004 the State's building and appliance standards and energy efficiency education and incentive programs replaced the need to build the equivalent of 24 additional 500 megawatt power plants.

If the entire United States were to harness the power of energy efficiency demonstrated in California, it would reduce our per-capita demand for electricity by 40 percent and save thousands of acres

from energy sprawl, not to mention the impact it could have to decrease carbon emissions and climate change destruction. This means a lot for conservation organizations, such as ours, but it could mean even more if the entire State of New Jersey took on such an energy efficiency challenge.

As the plan notes, decreasing energy costs will reduce the overall cost of doing business in New Jersey, leaving revenue for expansion, job growth, and

job retention.

If California can achieve such great goals, so can we here in the Garden State. California's energy efficiency programs enabled households to redirect $56 billion in expenditures towards other goods and services creating about 1.5 million full-time jobs with a total payroll of $45 billion.

Any money spent on energy efficiency and use reduction programs in New Jersey provides multiple benefits and returns for everyone including those not receiving the incentives directly.

Reduced greenhouse gas emissions and climate change impact, less pollution that causes asthmas and lowered energy costs.

To quickly summarize the rest of my comments, we're concerned that Governor Christie wants to take us out of the global -- the RGGI, Regional Greenhouse Gas Initiative, and we think that's a big mistake. I think RGGI has already been working to create jobs and reduce pollution. It's a good program

and it makes polluters pay and it makes a statement to our nation that we're serious about the problems of climate change and addressing that.

We're also concerned that the plan seems to look favorably upon Marcellus Shale gas. And it talks

about some environmental and economic benefits, but the dangers of fracking for natural gas can't be overestimated. We don't know enough yet about the process or the chemicals that are being used and the impacts on our future water supply. And we just hope that as much money would be spent on energy efficiency programs and small residential solar, as well as larger installations on brownfields, rooftops, garages, and parking lots, etcetera. So we do appreciate the administration's focus on relocating or locating large solar, for example, on already disturbed lands, but we do hope that residential solar programs will be equally subsidized.

In summary, we truly hope that New Jersey will put forward a visionary Energy Master Plan for 2011 to reduce greenhouse gas reduction targets, meet aggressive energy efficiency and conservation goals and move toward a healthy energy future for us all, including future generations.

And I just want to add that, you know, all of our future is at stake and I don't think -- I think the plan focuses too much on economic, while forgetting that economics -- we can't have a good economy without clean air, clean water, and clean food.

Thank you.

225

PRESIDENT SOLOMON: Thank you.
David Yennior.
THE PUBLIC: He's gone. He had to leave.
PRESIDENT SOLOMON: Melodie Somers.
Bill Chappel is next.
And Ben Rich.
Did I already call Ben?
THE PUBLIC: Yes.
PRESIDENT SOLOMON: How did he get up there.
MS. SOMERS: Hi. I'll be very brief. There have been a lot of people speaking in the last hour, giving very good details, a lot more knowledgeable than me, and I really appreciate that they spoke, especially the school teacher from Montclair. I would like to be on his team.
The main thing I wanted to just emphasize -- I'm here as resident, as a voter. I became aware of the hearing because of the Sierra Club, but only one of the many places where I emanate and try to support environmental goodness in our world.
I think that we are addicted to fossil fuels in the country. It is part of our identity. It's part of our pleasure seeking. But it is a prison and we have to get out of it because we can't keep doing it. We can't sustain it. As one of gentlemen just said and the

226

best that we know of right now are the renewable energy programs.

The other thing that hit me is that the 2008 Energy Master Plan seems like it's been working. And I wish I knew who the person who originally said it, it might have been Martin Lane, but I know my grandmother said, if something works, why do you fix it, why try to fix it. And it seems like it's been working in so many ways, with jobs, with businesses improving the air. It has good goals and that's what we should be about. New Jersey could be a leader in clean air in this nation.

In my view we are here -- we're supposed to be the best of what the planet could offer and I think we're failing. We should be providing a better world for the people after us, just like that young man that got up here and spoke. We shouldn't be making it worse. And if we go forward with the proposed plan of 2011, we will be going backward and it just does not make sense and I wish we could make sense. We should be caring about each other, caring about our planet, not concerned about the wrong things which my suspicion is it's often about money for somebody else.

So thank you for the opportunity to speak.

PRESIDENT SOLOMON: Thank you.

Bill Chappel.

MR. CHAPPEL: Good evening, Mr. President. I'm here seeking the wisdom of Solomon.

PRESIDENT SOLOMON: I have run out.

MR. CHAPPEL: My name is Bill Chappel, quarter of a century resident of the Historic James Street Commons, Newark's downtown neighborhood.

I've learned a lot being a resident of

Newark. One of the things I've learned is how important people are. I understand the need for an Energy Master Plan. But people need to always be first. I hope that in this plan environmental justice will be elevated to on a highest level of importance.

I say this through long experience. We in Newark are somewhat skeptical when we hear about some people saying how clean gas is compared to coal. Well, of course, that is true, but it's kind of like saying I'd rather be shot by a 22-caliber pistol than a 44-magnum. And we in Newark -- maybe the plan at this point doesn't say where any new gas mains will go, but we know where the first target will be. It will be Newark.

Back to the environmental justice point. We already have -- I think it's the highest incident of childhood asthma in Newark. We're way overdue for a break. Some gentleman earlier today said is no one

wants a plant in our backyard. Well, we don't want a hundred of them in our backyard. We have got too many already.

A personal story, walk out of my backdoor with my dog, dog's eager to go for the walk. And to my astonishment, she turns around and beats a hasty retreat right back into the house. And I step back and my breathe is taken away. The wind was coming from the incinerator plant. That's supposed to be clean? I don't think so. So we are skeptics in Newark.

Fortunately, I consider myself fortunate.

My wife and I were able to purchase a second home in Northeast Pennsylvania some time ago. We found it wonderful to have a respite to the noise of the city and go somewhere where air is clean. Now on the very lane that we have a beautiful home, second home, they're deciding they're going to start drilling for gas.

PRESIDENT SOLOMON: Where is this?

NEW SPEAKER: In Wayne County, Pennsylvania, northern Wayne County. So it seems I won't have any respite anywhere. I'm going to have the noise, the pollution, the drilling operation not too far from my house. We're worried about our water. People in the business they say, well, it's no problem. Well, as a matter of fact, there have been 6,000 incidents of water

being fouled across the United States due to fracking. And if fracking was so safe, why is it exempt from the Clean Water Act. Thank you, Mr. Cheney.

We don't gain in New Jersey if vast portions of Pennsylvania lose their water supply. Their basic way of life will be diminished. And as an economic surrounding area, it will be devastating and it will have an impact in New Jersey too, economically, if that's what people are worrying about. We cannot ignore our neighbors.

Wendell Berry, environmentalist, said do unto those downstream as you would have those upstream do unto you.

And here is another quote I found very interesting. We believe that part of the answer lies in pricing energy on the basis of its full cost to society.

One reason we use energy so lousily today is the price of energy does not include all the social costs of producing it. The costs incurred in protecting the environment and the health and safety of workers, for example, are part of the real cost of producing energy. But they are not now all included in the price of the product. End quote.

Believe it or not that's President Richard Nixon in 1971 special message to the congress proposal

on energy resources. Would president Nixon approve of fracking? I'm not so sure.

So there is my background. There's my concerns. Social justice, environmental justice has to be part of the mix for the sake of our children in Newark who already are suffering.

I thank you.

PRESIDENT SOLOMON: Thank, you sir.

Margaret Wood and Vincent Mackil (phonetic).

We've got about 7 minutes till we get thrown out. I know one other gentleman who wanted to speak.

Ma'am, if you can keep it as brief as you possibly can.

Elliot Ruga.

Is Mr. Ruga here?

Go ahead.

MS. WOOD: Hello. My name is Margaret Wood and I would like to thank you for giving me opportunity to speak here today. My background is that I have a masters degree in aerospace engineering and worked in

the aerospace industry for 15 years. I only mention that because my background compels me to look into the science of global warming.

PRESIDENT SOLOMON: Slow down.

MS. WOOD: Today I come to you as a Board

member of the Lakeland Unitarian Universal Fellowship. The unitarians have a covenant to affirm and promote the respect for the interdependent web of all existence of which we are a part. The interdependent nature of life requires us to take against global warming and to support sustainable energy that does not leave toxins in our environment.

When the 2008 Energy Master Plan was drawn up, much work was done to arrive at a number that stigmatize global warming. A 30 percent reduction in fossil fuels was the number that was determined to be necessary. Since then there has been new evidence showing that global warming is occurring at a far greater pace than was previously expected. The evidence is all around us. The polar ice that is melting at a far faster pace than predicted, drought and famine are occurring in the many countries.

We in the U.S. have seen violent and frequent storms due to the added heat energizing our atmosphere. Much of the flooding in the West is due to the melting of the ice in the Rockies. Water has risen to the footsteps of powerful nuclear power plant. They're using sandbags to keep the water away from the spent fuel rods containment area. There is local flooding at the basis that house to minutemen missiles.

232

A 30 percent reduction in fossil fuels is what we thought we needed in 2008. Now we see that this is not enough. The reduction in fossil fumes required these to be increased not decreased. To decrease this number to a possible 22.5 percent is suicidal. Yet, that is in the plan that you are now proposing.

I am a citizen of West Milford and the New Jersey Highlands. Two weekends ago I was driving from Wawayanda State Park and was shocked to see a huge gas pipeline going right through the center of town. I have three pictures showing that construction.

I have done some research on this pipeline and I know it is part of the Tennessee Gas Company 300 pipeline project. I know that much of the purpose of this pipeline is to gather fracked gas from the Marcellus Shale that is now being drilled in Pennsylvania and will soon be drilled in the lower tier of New York State. The plan of the Tennessee Gas Company is to use New Jersey to create pipelines to transport this dirty gas to the East Coast. I have my own personal suspicions that from there it will be shipped overseas, but that's not why we're here today.

I spoke to business owners in West Milford who have their property torn up and their tree lines moved, general moods of the citizens was one of deep

233

depression. They told me they had no choice but to comply because if they didn't, eminent domain would be

used against them.

I heard a lecture given by Dr. Anthony Ingraffea who is a professional engineer and a fracking expert. Dr. Ingraffea said that there will be leakage of the toxic fracking fluid into the gas pipelines. This fluid is extremely toxic, containing chemicals like benzene. Some of these chemicals are not biodegradable. So toxins will be with us for a very long time.

It is a well-known fact that 3 percent of all gas that enters the pipelines will leak out. That's the national average. When that gas comes from fracking, then you can expect that some of the toxic fracking fluids that flow through the Northern New Jersey pipelines will also leak out.

The people of West Milford were not told this when they were forced to submit to the Tennessee Gas under threat of eminent domain. The local press has revealed this to the citizens. These pipelines will be built through several of New Jersey's Highlands lakes. As already mentioned, the pipeline supplies leak 3 percent and this will occur in the lakes, as well. Water does not stay put. Water flows. It flows downhill. Downhill from the Highlands lakes is the

Newark water supply. We supply the water to it. Since some of these fracking fluids are not biodegradable --

PRESIDENT SOLOMON: You are about to use the amount of the time we have.

MS. WOOD: -- and they will flow --

PRESIDENT SOLOMON: I get the point on fracking and pipeline.

MS. WOOD: Okay. The gas and coal --

PRESIDENT SOLOMON: Stick with the master plan and I understand you're against the natural gas policy.

MS. WOOD: The gas in Poland receives heavy tax break subsidies. At first glance -- the solar and wind power and other renewables are not affordable compared to gas and coal, but this would be a misconception.

If the heavy tax breaks and subsidies given to gas and coal industries were removed, then you would see how quickly solar and wind power and other forms of green clean energy becomes competitive.

The plan gives methane gas as a transition energy as we move away from coal, the same mistake. Three percent of methane gas leaks out of the pipeline. Methane gas is 70 times more deadly as a greenhouse gas than carbon dioxide. People mistakenly believe that

it's only half as deadly as coal because 1 BTU of methane when burned produces half of CO^2 by-product that 1 BTU of coal produces. But that is not the whole story. You have to look at all the other carbon causes involved. It takes a lot of energy just to get the Marcellus Shale out of the ground.

There are other costs to the environment that is destroyed. There is costs to the water supply that become polluted. People understood these costs, maybe that's why he's heavily invested in the bottled water industry.

There will be medical costs as toxins take their toll over time. All of these costs need to be taken into account.

We as a state cannot afford to use dirty fracked gas as a transition fuel. We need legislation that says fracked gas will not be permitted in New Jersey pipelines.

The pipeline construction is funded by the act that puts Americans back to work. This funding needs to stop. The jobs are not all going to citizens of West Milford. These jobs are sought by construction workers who follow the pipeline project as it moves from state to state. If the State wants to control costs, then stop all subsidies to gas and coal industries. We

can't afford to have methane gas used as a transition. It will only delay the true conversion that is needed for clean sustainable energy.

PRESIDENT SOLOMON: Is there anything else in addition to the fracking and your rationale? I know. We have your statement. I think you made a record on that.

MS. WOOD: If I can finish my statement.

PRESIDENT SOLOMON: Anything else besides fracking?

MS. WOODS: Let me come to my conclusion. I'm at my conclusion.

The reason increase in global warming dictates that we cannot afford this delay, the delay caused by moving to natural gas, so-called, instead of sustainable. We cannot afford this delay. We are at

the tipping point. We cannot afford to scale-back our renewable energy goal of 30 percent. The 30 percent number needs to be increased, not decreased, if you plan to have human life continue on the planet as part of interdependent web of existence.

I have a question for you.

Today we spoke about PurGen. You were very careful to choose your words when you said PurGen would not go forward as a coal plant, but does that leave it

open to go forward as a facility that will compress and liquify fracked gas; does that leave it open as a facility that will store liquid gas underground as it's currently done when liquid gas is stored in the abandoned mines?

PRESIDENT SOLOMON: I don't know the answers to any questions about any sites anywhere in the State that may be used under LCAPP or any -- I would have no idea. If they made an application to develop the site for generation -- it could be solar, it could be wind, CHP, it could be natural gas.

MS. WOOD: So the possibility exists.

I wanted thank you for your time.

PRESIDENT SOLOMON: I have no idea.

MS. WOOD: Would you like this?

PRESIDENT SOLOMON: Give it to the court reporter.

(Wood-1, Wood-2, Wood-3, photographs, attached.)

PRESIDENT SOLOMON: Please be quick. I know

they're locking the doors.

Elliot Ruga.

I don't have a card on him.

MR. RUGA: I'll speed talk.

PRESIDENT SOLOMON: No. No. Don't speed

talk. You'll kill the reporter.

MR. RUGA: My name is Elliot Ruga.

You're stepping on my short time, President Solomon.

My name is Elliot Ruga. I'm with the New Jersey Highlands Coalition. Already PSE&G and Tennessee Gas Pipeline have very significant and large energy and gas transmission infrastructure projects in the Highlands. With the release of the Draft Energy Master Plan and the green light it has signalled for other long run electrical transmission and gas pipelines, we fear that the New Jersey Highlands would be further shred into ribbons. In fact, the very day -- very day following the release of the Draft Energy Master Plan Transcontinental Gas Pipeline filed with FERC for preapplication for a pipeline that would traverse several communities in the New Jersey Highlands.

The fragile eco-systems of the Highlands forest and wetlands are the source of the clean water that half of the population of New Jersey and its largest industries depend on. The cost of water in New Jersey is the fourth lowest in the country. This is largely due to the abundant clean water the Highlands provide. And according to state's own research, if we don't take extraordinary measures to protect the

Highlands, we will be saddled to $50 billion for additional costs of treating water, a service the Highlands watersheds provide now for free.

The expanded and new right-of-ways the new transmission infrastructure projects require, the clearing for new access roads, staging areas, electrical substations, gas impression stations, and construction activities all have permanent impacts that degrade the functionality of Highlands watersheds. When the forest canopy is interrupted by long ranged lineal utility projects, our last remaining contiguous forests which act as our most efficient and cost-effective water treatment plants lose their value, a loss that is exponentially greater than the mere areas of land disturbance.

The Draft Energy Master Plan fails to consider the real and quantifiable value of these lands as a factor in any cost-benefit analysis of transmission projects that traverse the Highlands. You should not so easily give away these valuable resources that we depend on.

PRESIDENT SOLOMON: Thank you. That brings us to a close. See you at the next meeting.

(Proceedings concluded at 7:04 p.m.)

CERTIFICATE

I, Lorin Thompson, a Notary Public and Shorthand Reporter of the State of New Jersey, do hereby certify as follows:

I DO FURTHER CERTIFY that the foregoing is a true and accurate transcript of the testimony as taken stenographically by and before me at the time, place and on the date hereinbefore set forth.

I DO FURTHER CERTIFY that I am neither a relative nor employee nor attorney nor counsel of any of the parties to this action, and that I am neither a relative nor employee of such attorney or counsel, and that I am not financially interested in the action.

_____
Notary Public of the State of New Jersey
My commission expires July 26, 2016

Dated: July 26, 2011