

1 NEW JERSEY BOARD OF PUBLIC UTILITIES

2

3 *****

4 ENERGY MASTER PLAN

5 PUBLIC HEARING

6 *****

7 AUGUST 11, 2011, 1:00 P.M.

8 RICHARD STOCKTON COLLEGE, POMONA, NEW JERSEY

9

10

11 B E F O R E: LEE A. SOLOMON, President

12 JEANNE FOX, Commissioner

13 NICHOLAS ASSELTA, Commisssioner

14

15

16 J.H. BUEHRER & ASSOCIATES
17 2295 Big Enough Way
18 Toms River, New Jersey 08755
19 732)557-4755

20

21

22

23

24

25

□

1 SPEAKER REPRESENTING PAGE NO.

2 Provost Kesselman, Stockton State 4

081111_Transcripts

3	Senator Jim Whalen		6
4	Fred DeSanti, Sun Energy	10	
5	Dr. Edward Salmon, Sun Ventures	16	
6	Matt Davey, Petra Solar	22	
7	Marlissa Travaline, South Jersey Industries	28	
8	Paula Gotsch, GRAMMES	33	
9	Professor Richard Colby	38	
10	David Most. Committeeman, Lacey Twp.	40	
11	Cathy Sims, Ecological Systems	43	
12	Sky Sims, Ecological systems	43	
13	Debv Dagavarian	51	
14	David Forsyth, Gerdau	55	
15	Conrad Cantell	68	
16	Richard Kunze, Environmental Assn. NJ	70	
17	Michael Van Brunt, Covanta	75	
18	Paul Kydd, Partnership 1	78	
19	Roger Bason, Natural Currents Energy	83	
20	Jeff Benner	91	
21	Jesse Connor	93	
22	Christine Guhl, Sierra Club	97	
23	Donald Powell, Powell Energy & Solar	100	
24	Susan Polk, Sustainable Mull Green Team	104	
25	Douglas Dickinson	105	

3

1	George Dzurina, G-Crew	109
2	Edith Gruber, Jersey Shore Nuclear Watch	117
3	Janet Tauro, NJ Environmental Federation	120
4	Kate Hubschmitt, NJ cct	124
5	Ethan Sprague, SunRun	127
6	Earl Benner	138
7	Charles Anvode	142

081111_Transcripts

8	Matthew Hoke	144
9	Angela Jones	149
10	Fred Huber, Eastern Energy Service	150
11	Robert Toreki, ILPI	157
12	John Cusack, NJ Corp. for Advanced Technology	169
13	Donna Henry	174
14	Brian Bovio. Bovio Advanced Comfort & Energy	176
15	Larry Furman, Popular Logistics	177
16	Captain Joel Fogel	183

17
18
19
20
21
22
23
24
25

□

4

1 PRESIDENT SOLOMON: Good afternoon.
2 This is the continuation of the public
3 hearings regarding the Energy Master Plan. We have
4 many people in attendance today so please place your
5 name on the sign-in sheet and we will call you in
6 the order that you have signed in. if you are
7 reiterating what someone else has already said,
8 rather than take up time that might preclude
9 someone else from speaking, let us know, we will be
10 reviewing the transcript and we will have a chance
11 to review that.

12 Our first speaker is Dr. Harvey Kesselman,
13 Provost of Stockton College of New Jersey.

14 PROVOST KESSELMAN: Good afternoon.

15 On behalf of President Saatkamp and our
16 Board of Trustees, I'd like to welcome everyone to
17 the Richard Stockton College of New Jersey for
18 today's Energy Master Plan open public hearing.
19 Stockton College is proud to host our fellow State
20 residents as well as Commissioners from the New
21 Jersey Board of Public Utilities.

22 Energy Master Plans are crucial for the
23 development of the State's long-term energy
24 policies. Most certainly, the public's awareness
25 and feedback is essential to this process and we

5

1 thank you all for being here today.

2 with our unique location within New
3 Jersey's protected Pinelands National Reserve,
4 Stockton is fully supportive of alternative energy
5 systems and sustainable designs.

6 Thanks to funding from the Board of Public
7 Utilities, we have one of the largest solar carports
8 in the country, capable of generating nearly 850
9 kilowatts.

10 Adding in our rooftop solar panels, our
11 college has 1.2 megawatts of solar generating
12 capacity. To support the current phase of our solar
13 project work, we are utilizing 3.46 million dollars
14 in funding from the Board.

15 This represents the single largest grant
16 for a construction project in Stockton's history,

17 and, over the next six months, we expect to boost
18 our solar capacity by another 1 megawatt with
19 additional solar panels installed at the parking
20 areas within our North Residential Housing Complex.

21 In addition, our brand-new Campus Center
22 features a number of environmentally-friendly
23 benefits, including:

24 The heating and cooling system runs about
25 30 percent more efficient than standard

6

1 construction; water use is about 40 percent
2 less than average, and; low-emitting paints,
3 coatings and adhesives were used throughout the
4 building.

5 These features, among many others, are
6 being documented as part of our efforts to achieve
7 LEED certification.

8 We'd like to thank the residents of New
9 Jersey for their continued support of Stockton as
10 well as the Board of Public Utilities which has
11 generously provided the financial resources
12 necessary to make Stockton an academic leader in
13 alternative energy and sustainable design.

14 Thank you.

15 PRESIDENT SOLOMON: Thank you.

16 I see Senator Whelan is here. I will ask
17 Senator James Whelan to please come to the podium.

18 SENATOR WHELAN: First of all, on behalf
19 of South Jersey, we are very grateful that you have
20 come to Stockton in South Jersey to give us here in

21 South Jersey an opportunity to participate directly
22 in these hearings.

23 We have an enormous challenge in this
24 country and in this State in terms of energy. That
25 challenge very simply is that we as a nation, quite

7

1 frankly, are behind the rest of the world. Europe
2 is well ahead of us in terms of off-shore wind.
3 England and Denmark, they spourt windmills the way a
4 field sprouts dandelions .

5 I read a book recently called " Making it
6 in America " by Andy (inaudible) who is not a, does
7 not come from an environmental background, he is the
8 Chairman of the Dow Chemical Corporation, and he
9 tells us that China spends ten times more in
10 renewable energy development than the United States
11 does; such a huge challenge.

12 We have done a lot of good things in New
13 Jersey and this plan calls for the continuation of
14 many of the good things. Certainly the SRECs
15 legislation made us number 2 in terms of
16 installation of solar panels.

17 The problem is that while SRECs leads to a
18 lot of solar panels and solar installations to be
19 created in New Jersey, the odds are that those
20 panels are being manufactured in China or Europe or
21 somewhere outside not just New Jersey but outside of
22 this country.

23 Similarly with windmill production, we lag
24 behind, like I said earlier, the rest of the world.
25 Particularly for us in South Jersey I think while it

1 is a challenge it is also an opportunity.

2 we once upon a time had a thriving glass
3 industry in South Jersey, hence, Glassboro.

4 we also had a thriving boat industry. You
5 can literally from here within five minutes go to
6 boatyards that are padlocked. At those boatyards
7 they used to work with fiberglass, exactly what the
8 windmills are made out of.

9 so I would hope and while I recognize and
10 acknowledge that last year the Governor signed a
11 bill creating a hundred million in stimulus into
12 job creation of renewal energy, I would hope that
13 that is something that we would look at,
14 particularly for the small manufacturers.

15 The concern I have is that the hundred
16 million when we develop the port at Paulsboro, when
17 we develop the port in North Jersey to run the
18 windmills out to where they would be, miles out at
19 sea--By the way, for the record, speaking as a
20 resident of Atlantic City, we welcome windmills off
21 our coast, and in fact Stockton did an analysis that
22 showed not just Atlantic City but Atlantic County,
23 the coastal communities welcomed windmills off our
24 coast.

25 So we welcome them but we also would

1 welcome them that much more if those things were in
2 fact manufactured right here in Atlantic County, New

3 Jersey.

4 I was at a conference last week, and I
5 have not had time to verify this, but one of the
6 things that came up is you can save twenty percent
7 of your cost of a windmill, an off-shore windmill
8 project, if in fact the product is produced locally
9 instead of buying it abroad and shipping it here, if
10 it is manufactured here and doing the final touches
11 on-site.

12 I know there are many other speakers.

13 Again, we welcome you. I just hope we can
14 find a way to stimulate the jobs that small
15 manufacturers will bring in terms of manufacturing
16 for glass, windmills and any other technologies that
17 come along.?

18 PRESIDENT SOLOMON: Thank you, Senator.

19 And part of the legislation that you were
20 a part of does provide for that, that is one of the
21 analyses we will have to do, is the positive
22 economic impact and what opportunities there will be
23 in New Jersey in assessing where we go with off-shore
24 wind, so that will be an important complement.

25 So I appreciate your time. It's good to be

10

1 in Atlantic County.

2 SENATOR WHELAN: Thank you.

3 PRESIDENT SOLOMON: Thank you.

4 Fred DeSanti.

5 MR. DE SANTI: Good afternoon, President
6 Solomon and Commissions and members of the New
7 Jersey Energy Master Plan.

8 My name is Fred DeSanti and today I'm
9 pleased to be representing Frank DiCola, President
10 and Chief Executive Officer of DCO Energy, which is
11 in partnership with South Jersey Industries and
12 proudly headquartered here in May's Landing.

13 DCO Energy has and continues to play an
14 important role in the development of a number of
15 important cogeneration landfill gas to energy
16 projects in New Jersey that has worked to save
17 energy, reduce carbon emissions and helps spur
18 employment by assisting New Jersey's businesses,
19 government and institutions reduce energy costs and
20 become more competitive with neighboring regions.

21 Projects supporting major New Jersey
22 employers like DCO Energy's prior cogeneration
23 facilities helping Geon Industries in Pedricktown,
24 our Vineland Municipal facility supporting the
25 thermal energy needs of Progresso Foods help make

11

1 New Jersey businesses more energy efficient and cost
2 competitive.

3 Close by, New Jersey casinos also employ
4 state-of-the-art cogeneration infrastructure like
5 our Marina Thermal project at the Borgata Government
6 facilities, saving cost and energy include our Essex
7 County Correctional CHP, landfill gas collected and
8 producing electricity at Atlantic, Burlington,
9 Salem, Sussex and Warren Counties, our solar
10 installations for the City of New Brunswick and
11 Seabrook Farms.

12 All of these facilities would not be
13 possible without the policy support of New Jersey
14 and we want to commend the Board and those who
15 worked hard to create this draft report for their
16 continued endorsement and the policy framework
17 necessary to carrying these energy and cost savings
18 technologies far into New Jersey's energy future.

19 The plan's goal of developing 1500 Mws of
20 distributed generation combined heat and power is
21 ambitious, but clearly tractable and will challenge
22 sour industry to seek high quality applications
23 that will minimize the economic and environmental
24 net benefits. Clearly, it is not unreasonable to
25 undertake net benefits evaluations to prove that

12

1 projects are aligned with our State's energy policy
2 goals

3 we support that as well because we know
4 that combined heat and power projects enjoy high
5 capacity factors, virtually double the efficiency of
6 natural gas utilization and displace far higher
7 carbon intensive technologies while simultaneously
8 reducing grid congestion and producing other
9 distributed generation benefits to our State EDC
10 ratepayers.

11 we also are very pleased to see the Energy
12 Master Plan' support for an emerging new sector of
13 combined heat and power that can create district
14 energy systems to help our State's major urban
15 areas. District energy systems can be of significant
16 value in reducing energy infrastructure capital

17 replacement costs for government and educational
18 facilities and significantly improve energy
19 efficiency, lowering operating expenses now and into
20 the future.

21 A number of feasibility studies are now
22 underway throughout the State and we look forward
23 to working to develop these vital resources,
24 particularly at this time when the economic and job
25 creation impacts would be most welcome. After all,

13

1 our cities will always have needs for hospitals,
2 universities and institutional support facilities.
3 These needs will never go away and neither will the
4 need to see that those facilities run as energy
5 efficiently and cost effectively as possible.

6 As the report also correctly observes,
7 however, the development of these projects requires
8 some reasonable financial and process support.
9 However, these support systems need not be
10 necessarily grounded in expensive grant programs, as
11 far less costly vehicles like county improvement
12 authority tax exempt lease-back programs, revolving
13 loan programs, loan guarantees and streamlined
14 permitting can go a long way to supporting the
15 development of these projects.

16 we would be remiss if we did not recognize
17 the support of the Governor and our Legislature in
18 creating laws that facilitate the movement of CHP
19 power, reconcile sales tax implications on primary
20 fuels and the sale of electricity across property

21 lines within the thermal loop. Reconciling utility
22 standby charges across utility boundaries, virtual
23 net metering proposals that will help balance
24 thermal and electrical output and other
25 forward-thinking proposals now being considered will

14

1 also be of great assistance in meeting the goal of
2 1500 Mws of new combined heat and power capacity by
3 2020.

4 we support the recommendations regarding
5 the capacity market and new construction of base
6 load facilities to both improve our environmental
7 profile and that seeks to replace older technology
8 with far greater heat rates and utilizaiton of
9 natural gas. we support the recommendations and
10 endorsement of natural gas as perhaps our mosty
11 valuable and available fossil resource that will be
12 needed to reliably carry us well into the future.

13 we would also like to, finally, observe
14 that the overall recommendations of the Board
15 regarding our State's solar energy and renewable
16 programs correctly recognize the economic realities
17 and dysfunctional consequences of building large
18 capacity "grid based" projects that can wash out
19 far more deserving and higher quality solar
20 applications that create distributed generation and
21 energy discount benefits to New Jersey's consumers
22 and particularly those residential projects.

23 Clearly, Board review of projects over 10
24 Mws is needed, as is envisioned in A-2529. We also
25 think that the program's rapid success over the past

1 year in particular should give rise to some
2 consideration to evaluating the 2013 SREC market in
3 as much as it is critical to the industry as a whole
4 for business continuity reasons. We would ask,
5 therefore, that you appropriately consider the
6 potential consequences resulting from the coming
7 confluence of the significant overbuild concurrently
8 with the anticipated loss of Federal ITC cash
9 funding in 2012. This looming threat is of
10 considerable concern.

11 while we would like to go on to discuss
12 our ideas involving biomass, energy efficiency
13 credits and some related issues involving public
14 contracting laws, we will preserve those issues for
15 our written comments in deference to your difficult
16 schedule today and others who wish to participate.
17 Our brevity, therefore, is our best way of saying
18 thanks to all of you for a job well done and a
19 policy framework that we look forward to working
20 within for many years to come to build those CHP
21 projects that the State needs.

22 Thank you for your time and attention. We
23 look forward to working with you to implement these
24 policies.

25 PRESIDENT SOLOMON: Thank you, Mr.

1 DeSanti, and especially thank you for being brief.

2 Dr. Ed Salmon, a former President of the

3 BPU, but we still spell our names differently and
4 were we are not related.

5 DR. SALMON: First of all, let me welcome
6 you to Stockton College. I have the honor to serve
7 as Chairman of the William J. Hughes Center for
8 Public Policy here.

9 And there are just great things going on
10 in Stockton College and energy certainly is one of
11 our big issues in public policy, maybe one of the
12 largest we face in this country today.

13 I have a great admiration for this
14 Commission, I think this Commission works hard
15 together, works on solving the problems and works on
16 working with the administration to make sure we
17 achieve common goals, and I salute the Christie
18 administration and the BPU for this balanced
19 approach you are charting in a critical course for
20 New Jersey's energy needs.

21 Because electric use is one of the largest
22 expenses for business and industry, I am pleased to
23 see that the number 1 overarching goal of our Energy
24 Master Plan is to drive down the cost of energy for
25 all customers, and I think that's a proper overall

17

1 number 1 goal.

2 I know, I had the pleasure when I was on
3 the Commission in '92 to do that Energy Master Plan
4 and I know the hard work it takes to put all of the
5 pieces together to be able to get something that
6 will be successful in the future.

7 I am also pleased that the Energy Master

8 Plan focuses on pursuing a mixed basket of options,
9 because I think a mixed basket and putting everybody
10 in that basket is so important, whether it is
11 nuclear, natural gas, renewable energy efficiency
12 or innovative technology.

13 There are four points I would like to talk
14 to you about that I think are specific points that I
15 would like you to give some consideration to.

16 First of all, I will talk a little bit
17 about nuclear. Nuclear energy plays such an
18 important role in New Jersey's energy supply, I
19 think last year it was 51.8 percent of our electric
20 needs, I was pleased that the administration
21 continues the support of nuclear, especially due to
22 the fact that we going to need to replace Oyster
23 Creek's lost capacity when they close.

24 A new nuclear facility will create jobs,
25 improve system reliability and help us achieve our

18

1 greatest greenhouse gas reduction goals. So the
2 direction that the Master Plan takes on nuclear I
3 think is right on track and going in the right
4 direction.

5 The second issue I want to talk about is
6 infrastructure. I think we are all familiar because
7 we have been at all of the conferences of the real
8 importance of replacing infrastructure that is long
9 overdue, and I think we need to look at innovative
10 programs.

11 The Commission especially has to look at

12 innovative programs, whether it be electric, natural
13 gas, water, of how we are going to replace
14 infrastructure. It is probably one of the biggest
15 challenges we face in our nation today, not just in
16 New Jersey.

17 The third area I want to talk about is
18 SRECs. I think we all have been following what is
19 happening with the SRECs for solar, and there has to
20 be quite a concern because of the nasty drop that we
21 just had recently. I think there should be
22 consideration to putting a floor on the value of
23 SRECs, a floor that may be similar to the State of
24 Massachusetts that put a floor of two hundred and
25 eighty-five thousand. You are not going to get

19

1 investors, you are not going to build the solar
2 industry, the solar industry isn't going to stand
3 unless we have a floor that would be some validation
4 of what investors know to expect. And I think that
5 may be a direction that the Board may want to
6 consider.

7 The second thing, I have been involved in
8 a lot of solar projects around the State, we were
9 involved in the first one for Toms River Regional
10 High School, and I know that Commissioner
11 Fiordaliso went up to visit and saw the tremendous
12 advantage that has given to that educational
13 district; it is really one of the models of success.

14 we have a lot of models of success right
15 now in the State of New Jersey.

16 I am really concerned that we make sure

17 that we are benefitting all of our citizens in the
18 State when it comes to solar, particularly
19 governmental, educational, health care facilities,
20 enabling those entities to install solar, providing
21 a great value in sending those lower costs on to the
22 taxpayers.

23 what I would like you to consider is maybe
24 we need to look at establishing a three tier system,
25 maybe a four tier system. I think tier 1 would be

20

1 projects that are for the public good, schools,
2 colleges like here at Stockton, hospitals and
3 government. The last thing we need to do is to have
4 the educational institutions of our State, to have
5 the colleges and to have the hospitals all tied to
6 solar and then find that they can't interconnect, so
7 there has to be some provision for those kind of
8 facilities.

9 I think the second tier would be
10 commercial and industrial projects where they are
11 using the solar right on the location of where the
12 facility is; In other words, they are helping to
13 drive down the cost, to make it easier for the
14 consumer to buy.

15 And the third would be brown-fields,
16 landfills and large non-agricultural development.
17 In my way of thinking, this is going to be important
18 as you go forward.

19 I just think that we are looked upon as
20 the leader in the nation along with California in

21 solar and renewables, I think it is a position that
22 we want to continue in , but I think we are going to
23 have to adjust and make some of these changes in
24 order that we can move forward and aggressively
25 continue to be able to provide relief to taxpayers

21

1 when we talk about government, when we talk about
2 education and the tax bills that are paid or relief
3 to patients when they go to the hospital so that
4 they can reduce their health care costs by a million
5 dollars since we have been able to install solar.

6 with that I want to thank you for the
7 dedicated efforts you give to the State of New
8 Jersey. I know the hard work involved in everything
9 that you are doing to put this Energy Master Plan
10 together. I know working together we can get an end
11 product that will move this forward and bring the
12 State of New Jersey forward.

13 PRESIDENT SOLOMON: Dr. Salmon, I have
14 one question. You mentioned a tiered system and
15 from what you said I am assuming it's a tiered
16 system in terms of what is first in line for
17 approval and public good which would be number 1,
18 versus a tiered system tiering SREC values or floor
19 prices or whichever?

20 DR. SALMON: You are one hundred percent
21 correct. I am glad you said that because that's the
22 intent.

23 PRESIDENT SOLOMON: Because we are going
24 to hear either now or later ideas about floor
25 pricing, tiering SRECs and thing like that and I

1 didn't want there to be any confusion.

2 DR. SALMON: I think my real concern was a
3 fast-track approach for government, education,
4 schools, colleges and hospitals, anywhere we are
5 serving the public and reducing the cost to the
6 public, whether you are a taxpayer or consumer.

7 PRESIDENT SOLOMON: Thank you.
8 Matt Davey, Petra Solar.

9 MR. DAVEY: Good afternoon, President
10 Solomon, Commissioners and Staff.

11 My name is Matt Davey of Petra Solar, a
12 clean technology company headquartered in South
13 Plainfield, New Jersey.

14 A VOICE: Can't hear.

15 PRESIDENT SOLOMON: Please keep your voice
16 up because we don't have the mikes so that everyone
17 can hear you and also make sure that you take your
18 time so that the Court Reporter can get everything
19 down.

20 Can everybody hear me when I speak, I
21 hope? I am kind of loud, aren't I?

22 MR. DAVEY: Our company can demonstrate
23 the positive impact that the progressive renewable
24 energy policies here in New Jersey have had so far
25 on our business and how they have promoted job

1 creation and technology development in the State.

2 Because of the State's renewable energy

3 policy, specifically the RPS, the SREC market, Petra
4 Solar is now installing our innovative Sunways Smart
5 solar system which combines solar energy
6 generation with smart grid technology and the
7 deployment of forty megawatts to Public Service
8 Electric and Gas.

9 Using New Jersey's electrical capital,
10 Petra Solar alone has grown from fifty employees in
11 2009 to 170 in 2010.

12 On behalf of Petra solar i would like to
13 offer the following comments in six areas of the New
14 Jersey Master Plan.

15 First, the SACP: It is critical for the
16 New Jersey solar market to have certainty in the
17 forward-looking schedule of the SACP in adopting
18 firm SACP schedules through the end of 2026 to allow
19 the market to fully operate and flourish, enabling
20 stability and economic growth.

21 Secondly, the RPS. At Petra Solar we
22 support the goals of the RPS and understand that in
23 the 2011 Energy Master Plan this obligation is set
24 at twenty-two and-a-half percent.

25 We also support the administration's view

24

1 that this is a floor, not a ceiling.

2 Thirdly, solar and reliability: Projects
3 that offer a dual benefit such as distributed smart
4 solar technology that combine building a smart grid
5 infrastructure for distribution utilities with
6 reliable utility grade solar energy generation
7 should be used at projects that have enhanced value

8 to ratepayers.

9 The benefits of distributed smart solar
10 technology exceed those of traditional solar
11 technology and provide cost benefits that become
12 apparent when evaluating the multiple benefits and
13 expanded application opportunities possible.

14 Because of their intermittent
15 characteristics, solar energy sources can cause
16 fluctuations on the utility's electric grid, thus
17 destabilizing the grid. The solution is to start
18 with distributed generation first where the load
19 is; thus, negating the need to build transmission
20 and distribution infrastructure and mitigating the
21 intermittent issues by dispersing the generation
22 over a large number of circuits rather than on one,
23 in addition, distributed deployment reduces the
24 losses incurred through transmission and
25 distribution.

25

1 Technologies developed through funding by
2 the U.S. Department of Energy under the (inaudible)
3 program defines specific technical attributes that
4 should be deployed to make forward, more reliable
5 cost effective parts of the energy mix.

6 For these reasons, utility owned
7 distributed and solar projects coupled with
8 strategic smart grid technology are the best
9 insurance against grid instability, a problem that
10 ultimately increases the cost to ratepayers.

11 Fourth, the cost of solar energy: when

12 evaluating the cost of solar energy versus other
13 energy sources, the Federal subsidies associated
14 with fossil fuels, the exception of fracking from
15 the Clean Water Act, the environmental and health
16 benefits of clean energy, including CO2 reduction,
17 and job creation and resulting indirect economic
18 benefits should be considered.

19 Fifth, smart grid: Renewable generation
20 that also brings smart grid technology to the
21 utilities helps mitigate electric grid reliability
22 issues and enhances future expansion to other value
23 added applications which benefits utilities, the
24 State's economy and ratepayers.

25 For example, grid reliability with smart

26

1 solar technology helps keep voltage stable during
2 cloud passes.

3 Expanded smart grid application includes
4 voltage conservation, outage management, demand
5 response and streetlight control.

6 Lastly, storage: Significant work has
7 been completed in the industry to specify and
8 quantify the benefits of storage application to the
9 electricity utility grid. Three reports from
10 (inaudible) International Labs and Southern
11 California Edison detail these benefits and their
12 beneficiaries.

13 These studies clearly indicate the value
14 of energy storage from generation to the end
15 customers, including the energy market. The
16 cutting edge of clean energy technology is energy

17 storage, and we urge the State to continue with
18 leadership as to this technology as it has gone
19 forward.

20 In closing, policies which promote
21 generation of clean, renewable, smart solar power
22 along with public and private partnerships that
23 leverage State assets will put New Jersey's
24 residents to work and induce local economic
25 development as well as implement a sustainable

27

1 smarter, more reliable electric grid and update our
2 infrastructure to meet the needs of the 21st
3 Century.

4 Thank you for the opportunity to be here.

5 PRESIDENT SOLOMON: Thank you.

6 Are we at the stage yet or when will we
7 be at the stage, if you know, when the information
8 will begin to get transmitted to the utilities
9 directly; has that been worked out?

10 MR. DAVEY: Well, we are in the
11 construction phase of the project, we are a little
12 over halfway through, and the way the system is
13 designed, once the panels go up then you look at
14 where they are and do the communication network
15 afterward. I would say that we are currently
16 twenty- five percent with the fifty percent of the
17 panels out there of getting them all communicated.

18 PRESIDENT SOLOMON: Time-wise, what are
19 we looking at?

20 MR. DAVEY: I can get back to you on that,

21 I don't want to speak on behalf of PSE& behave.

22 PRESIDENT SOLOMON: On that, please.

23 We would be interested in getting that
24 information because that factors into some of what
25 we are doing, but also on the storage side--and I

28

1 don't mean to tread on Commissioner Fox's things
2 because that is her, one of her missions is the
3 storage issue--the storage technologies that are out
4 there and available, because that is a game changer
5 for solar and wind.

6 In fact, we have our first pilot program
7 subsidized--that's a bad word these days -- but
8 supported by the BPU's Clean Energy Program that is
9 a storage program.

10 So if there are other technologies or
11 other opportunities we would like to hear about
12 them, and we would like to be able to refer to them
13 either, if not part of our Master Plan, at least
14 have our Working Group look at.

15 MR. DAVEY: We will submit comments.

16 PRESIDENT SOLOMON: Great.

17 Marissa Travaline, South Jersey
18 Industries.

19 MS. TRAVALINE: Good afternoon, President
20 Solomon, Commissioners Fox, Asselta and Fiordaliso.

21 My name is Marissa Travaline and I am the
22 General Manager of Government relations for South
23 Jersey Gas Industries.

24 South Jersey Industries is a publicly
25 traded energy holding company that is parent to

1 South Jersey Gas as well as South Jersey Energy
2 Solutions, which is comprised of our un-regulated
3 subsidiaries. South Jersey Energy Solutions
4 companies specialize in energy services ranging from
5 CHP, thermal plants and cogeneration to large-scale
6 solar arrays and residential and commercial HVAC
7 service

8 Thank you for the opportunity to testify
9 here today. Although South Jersey Industries
10 previously commented publicly in Newark, we though
11 it was important that we be here today in our home
12 county on the Stockton College campus to offer our
13 support once again for the Master Plan.

14 Thank you, President Solomon and the Board
15 for your continued leadership on this plan. I'd
16 also like to thank Governor Christie, Lieutenant
17 Governor Guadagno and DEP Commissioner Martin for
18 their leadership.

19 PRESIDENT SOLOMON: Take your time. I
20 can't listen that fast, you have to slow down. I
21 know people tend to yell and rush because it's hard
22 to get information to us, but take your time. It's
23 okay to yell but please don't rush.

24 MS. TRAVALINE: This is our backyard, this
25 is where we do a lot of our work.

1 we were very happy to see inclusion of
2 Marcellus Shale gas in the Master Plan.

3 Based on its availability of supply, price
4 stability and environmental benefits, we firmly
5 believe that natural gas can and should be the
6 centerpiece of the Energy Master Plan. In
7 conjunction with renewable energy resources, natural
8 gas fired generation and combined heat and power,
9 also known as cogeneration or CHP, have a critical
10 role to play in supporting the energy needs of our
11 State. As you know, CHP is a highly efficient form
12 of electricity generation using waste heat to
13 produce steam or hot water for manufacturing
14 processes or space conditioning purposes.

15 As a New Jersey leader on CHP and
16 cogeneration facilities through our subsidiary
17 partnerships in Marina Energy and Energenic, we've
18 long advocated the benefits of distributed
19 generation fueled by cleaner burning, cost-effective
20 natural gas.

21 For the past ten years our Marina Thermal
22 facility provides heating, cooling and both heated
23 and chilled water to the guests of Borgata Hotel
24 Casino and Spa in Atlantic City. This technology
25 continues to deliver considerable efficiency and

31

1 cost savings over traditional HVAC systems,
2 providing electricity to power the thermal plant
3 and reducing the demand on electric transmission and
4 distribution systems.

5 As highlighted in the proposed Energy
6 Master Plan, distributed generation and CHP
7 resources improve system reliability and utilize

8 fuel more efficiently, particularly for commercial
9 and industrial customers, where the net income and
10 environmental benefits can be more quickly realized.

11 We remain engaged as well on the specific
12 strategies advocated by the Energy Master Plan
13 surrounding energy and biomass, cogeneration and
14 proliferation of CNG vehicles. Additionally, we
15 support the adoption of a responsible strategy for
16 extracting natural gas from the Marcellus Shale and
17 are very pleased by its inclusion in the Energy
18 Master Plan.

19 As you know, the proximity of this
20 reliable, abundant and cost effective resource will
21 enable New Jersey to use Marcellus Shale natural gas
22 to support our State's energy needs for some time to
23 come. Shale gas will help level the playing field
24 for manufacturers in New Jersey using gas as a fuel
25 source, creating incentives to locate new

32

1 manufacturing and industrial business here. It
2 will stimulate the new power generation technologies
3 that have a critical role to play in achieving
4 energy efficiency requirements. It will improve
5 reliability from a secure supply, reducing the risks
6 of interruptions due to weather, effectively helping
7 to drive down consumer costs.

8 And finally, perhaps most importantly,
9 this resource has proven its potential to
10 jump-start economic development and spur job
11 creation through pursuit of the infrastructure

12 needed to accommodate transmission.

13 Through our regulated utility, South
14 Jersey Gas, we are leading the way on compressed
15 natural gas technology as we are currently
16 constructing one of the first quasi-public CNG
17 filling stations in Southern New Jersey in the City
18 of Glassboro. We are optimistic that this station's
19 construction will be completed and operational by
20 year's end. As we look to expand this technology to
21 the benefit of our State's residents, we do so
22 bolstered by the Energy Master Plan that recognizes
23 the value of expanding the natural gas pipeline
24 system to strengthen the potential for innovations
25 in transportation fuels.

33

1 South Jersey Industries remains committed
2 to partnering with the State as well as with our
3 local government entities, our large commercial and
4 industrial customers, our small business owners and
5 our residential customers in New Jersey and beyond
6 to achieve their goals for energy efficiency, cost
7 savings and reliability in supply.

8 In closing, I'd like to thank you for
9 your leadership and for the opportunity to comment
10 here today.

11 PRESIDENT SOLOMON: Thank you.

12 Paula Gotsch.

13 MS. GOTSCH: I see you did a smart thing,
14 Dr. Solomon, you are sitting down and we are
15 standing.

16 GRAMMES are grandmothers and mothers for
Page 28

17 renewable energy safety. We have been involved in
18 research for twenty years, we are the ones that
19 fought the Oyster Creek relicensing and we were
20 told by the University that it was through our
21 intervention that they found out a lot of things
22 wrong with that plant and so they moved the
23 inspections up instead of once every ten or twenty
24 years.

25 I have read Governor Christie's press

34

1 release statement, and I was glad to hear that he
2 talked about that he knows so much about smart grid
3 and all that will come with that, the jobs that
4 will come with the smart grid.

5 I wasn't so crazy to hear him talk about
6 pie-in-the-sky options, that we have to have nuclear
7 and all these other things, that we just can't rely
8 on pie-in-the-sky.

9 Going back thirty years, I want to talk
10 about pie-in-the-sky, thirty years ago renewable
11 energy people were saying that the cost was going
12 down on renewable energy. Let's see how that turned
13 out.

14 In the last twenty-one months alone wind
15 energy people have gotten 9,400 megawatts running
16 in this country.

17 solar, we all know the prices on that are
18 dropping rapidly, and we talked about storage, and
19 as we learn more about storage in New Jersey we'll
20 be able to do a lot more with it, and energy

21 efficiency, so those are some of the renewables and
22 some of the efficiencies.

23 Now we have to go on the nuclear side,
24 let's see what they have done in the last thirty
25 years.

35

1 Back in 1960 they were saying, the nuclear
2 industry was saying, "We are going to build a
3 thousand new nuclear plants by 2000." How many new
4 nuclear plants are there? Zero. Translation:
5 nuclear pie-in-the-sky.

6 Now I am going to use local information to
7 show how that works. I will go to Texas, 693
8 megawatts, two nuclear projects cancelled because
9 of costs and problems getting funding.

10 On the other end of that, the Texas
11 Environmental Quality Commission was cited for
12 hiding the fact that there was so much radioactivity
13 in that area of Texas, this came out in May, the
14 members of the government were in collusion with it,
15 the amount of radiation in their drinking water. So
16 much for safety of nuclear energy.

17 At Texas A&M, among students in the
18 Nuclear Department, it's not as cool as it used to
19 be, supposedly if we wanted to go ahead with
20 nuclear, which it is pretty obvious that we can't,
21 we need twenty-five thousand new nuclear units to
22 replace all of the retirements in nuclear plants,
23 they are saying when they are asked, "what are you
24 majoring in?"

25 "I switched, I am going to study medicine
Page 30

1 instead." People have a strange way of not wanting
2 to hurt anybody.

3 And then I will just skip to North
4 Carolina. Duke Energy was going to build two
5 nuclear projects, the North Carolina Utility
6 Commission on April 9th said that construction costs
7 and nuclear spent fuel storage is too risky and they
8 will not put forth a CWIP bill, construction work
9 in progress, in other words, they put the cost of
10 nuclear construction on the bills ahead of time and
11 then the ratepayers, of course, absorb everything,
12 the delays, et cetera.

13 CEO Jim Rodgers of Duke Energy says, "I
14 can't build all these projects without CWIP because
15 nuclear projects are so risky"; that's the President
16 of Duke Energy saying that.

17 Globally, remember Atomic Annie? She was
18 fired mainly because the two plants being built
19 were behind schedule.

20 Germany plans to close down their
21 reactors by 2016.

22 So I think, just talking about rumor, you
23 know, if people keep thinking they can, they keep
24 saying, I have heard people at these meetings get up
25 and say, "we have to have nuclear."

1 when you think of all of the things that
2 are not solved with nuclear energy because oif

3 concern about the fact that there are so many tons
4 of nuclear waste in New Jersey and people want to
5 know why, they want to know why they wanted hot
6 storage, which is where nuclear casks are stored
7 because right now those casks are vulnerable.

8 The other thing that is interesting is
9 that MIT got a thirty-nine million dollar grant to
10 study how we can fortify these casks because they
11 are looking at long-term storage on-site.

12 And so we are looking to see how we can
13 make casks safe. why they are going to look at
14 that, that means that they are not safe. They are
15 looking to figure out how to make it safe for a
16 hundred years. They have to have radioactive
17 materials that are going to be safe for hundreds of
18 thousands of years.

19 I was at a meeting where the Mayor got up
20 and said, "We love the nuclear plant but what is
21 going to happen to that waste?"

22 I do disagree with the statement that we
23 should not pick winners and losers. we should pick
24 winners and losers, we should pick sustainable
25 energy, we should pick the most economical ones and

38

1 there is no need--for the people that say we need
2 the whole mix, we don't. we need to go with
3 sustainable energy, energy that is going to be good
4 for our kids in the future.

5 Thank you very much for your attention.

6 PRESIDENT SOLOMON: Thank you.

7 Richard Colby.

8 MR. COLBY: I would like to make two
9 hopefully constructive criticisms to your Energy
10 Master Plan.

11 PRESIDENT SOLOMON: Constructive
12 criticism is always welcome.

13 MR. COLBY: First, I think it is a
14 disservice to the word "energy," we are being told
15 it is the Energy Master Plan whereas it is in fact
16 an electricity master plan. It devotes one
17 paragraph to transportation, the largest single
18 sector of the energy economy, so what you say
19 basically is that you don't know how to deal with
20 that.

21 PRESIDENT SOLOMON: There are a few
22 paragraphs about gas.

23 MR. COLBY: But it is the largest single
24 component sector of the entire energy economy, and
25 basically you are saying you don't know how to deal

39

1 with it. That is not surprising if you are an
2 energy agency, which is what the Board of Public
3 Utilities is.

4 You might have considered declared a
5 component of a Master Plan dealing with energy.

6 The transportation sector uses primarily
7 petroleum, which is a very bad greenhouse gas
8 producer. If you think about how you could reduce
9 the number of cars in New Jersey and in the world I
10 think you would have to figure out that major
11 changes need to take place in society, such as

12 getting rid of the suburbs, but we can begin to have
13 a society that reduces the amount of energy needed
14 for transportation.

15 The second statement I would like to make
16 is that the prime goal of your plan, which is to
17 drive down the cost of energy for all customers, is
18 truly not the role of government; that's the role of
19 the free market to regulate prices of things.

20 what the Board of Public Utilities should
21 be doing and what it traditionally does is to limit
22 the profits made by a natural monopoly, which is
23 what electricity is.

24 I would like to suggest a different
25 primary goal of this Energy Plan, which should be

40

1 to propose New Jersey's contribution to reducing the
2 greenhouse gas emissions which are currently at 390
3 parts to the million to more like 350 parts to the
4 million, which is what is needed to reduce or limit
5 the amount of sea level rise that will take place in
6 the next hundred to two hundred years.

7 We are currently sitting at fifty feet
8 above sea level. When Greenland and Antarctica ice
9 melt the sea level will be about the top of that
10 panel (indicating), and all of Cape May will be
11 under water, Atlantic City will be under water by
12 the end of this century.

13 we really I think need to deal with that
14 and I hope you will.

15 Thank you.

16 PRESIDENT SOLOMON: Thank you.

081111_Transcripts

17 David Most from Lacey Township.
18 Councilman, how are you?

19 MR. MOST: Good afternoon.

20 I would like to first commend the Board
21 for doing a good job on the Energy Master Plan. I
22 think it's time that we have a comprehensive plan.

23 My name is Dave Most, I am the former
24 Mayor of Lacey Township, I am presently a
25 Committeeman, and I want to thank you today for

41

1 giving me an opportunity to speak.

2 It is really nice to see all this input
3 because I think it justifies why people are so proud
4 of living in New Jersey and the diversification that
5 we do need in New Jersey when it comes to fuels
6 because it is so important, the more generation we
7 have out there and the more stable our grid system
8 is, what that offers our residents is lower electric
9 prices.

10 I am in a unique position because I have
11 worked down at Oyster Creek for thirty years, I'm
12 proud to say. I have seen what it has done for our
13 local community and for the County and what it has
14 done for the State.

15 As far as jobs, with the young graduates
16 coming out of college it gives good sound jobs. It
17 only makes sense to me because renewable energy,
18 although it is a very important part of the mix, I
19 do not believe there is enough base load
20 electricity, and I know we consume a lot of

21 electricity in New Jersey and I think it is
22 paramount, and I'm with the Governor and this Board
23 in that we should be generating electricity in New
24 Jersey because we see our economy falling and it is
25 all about jobs, jobs, jobs.

42

1 I want to thank you for implementing Lacey
2 Township in your Energy Master Plan as far as a site
3 for future generation, whether it be combustibile,
4 turbine, biomass, gas plasm, whatever, because we
5 are in a region where we need that power and we need
6 jobs, and it will have a devastating effect on our
7 local economy as far as jobs.

8 when Oyster Creek comes off-line in 2019
9 we have the capability in that substation of
10 basically delivering eight hundred megawatts of
11 electricity so we have a lot of potential there, and
12 there is five hundred acres on the back site for
13 building plants for the future.

14 I just want to thank this Board for
15 looking forward toward the future when it comes to
16 building more gas line distribution and lessen our
17 dependency on gasoline, and I think it is really
18 time that the State implement the plan.

19 with that said, ideally I would love to
20 see the plan when Oyster Creek comes off-line and we
21 have a transfer and we can move the breaker in on
22 another generation station because seven, eight
23 years from now goes by very fast, so I think it is
24 imperative that we be thinking of the future.

25 I want to thank this Board for being

1 engaged and commend you on doing a good job on the
2 Energy Master Plan and I would really like to thank
3 you for including Lacey Township

4 PRESIDENT SOLOMON: Thank you.
5 Cathy Sims, Ecological Systems.

6 Is that a company?

7 MS. SIMS: Yes.

8 There is a study that came out recently
9 which is posted on energysavvy.com which indicates
10 that with energy efficiency we can create ninety
11 times the amount of jobs that are in nuclear plants,
12 that they create, with half the amount of money
13 invested.

14 I think it is long past time to take
15 nuclear out of the basket, and let's do it before it
16 makes New Jersey a basket case.

17 Thank you.

18 PRESIDENT SOLOMON: Thank you.
19 Sky Sims.

20 MR. SIMS: Six dollars per person per
21 year would yield solar projects over the last ten
22 years.

23 For the cost of six dollars per year per
24 person we are transitioning to the use of clean
25 energy from coal, fossil fuels and the most

1 dangerous and expensive of all sources, nuclear
2 power plants.

3 Solar now generates more than one percent
4 of our daytime energy needs. Due to line losses and
5 strain on the grid, the one percent peak energy
6 generation actually represents closer to two percent
7 of our daily energy needs at a saving to ratepayers
8 over the past decade.

9 If we continue at our current pace New
10 Jersey could be one hundred percent powered by
11 non-pollutant solar energy in the next ten yers and
12 will be in a position to export energy to our
13 surrounding states which are drowning in dirty
14 energy just as we are now.

15 In addition to generation, two percent of
16 our investment of ten dollars per year per
17 ratepayer, we have generated over three thousand
18 jobs, which is more than three times more than
19 currently provided by the existing entities, in
20 addition to more employment to be gained from clean
21 energy generated in other states in the country.

22 The State of New Jersey by my
23 calculation has been able to reduce far in excess of
24 twenty-seven million dollars to the additional tax
25 revenues, salaries and the capital expenditures

45

1 created by these companies.

2 This is in addition to the seventy-six
3 million dollars a year of energy being generated
4 by the solar systems installed in New Jersey so far.
5 These systems have an expected life in excess of
6 forty years, which means that these systems will
7 generate approximately four trillion dollars of

8 usable energy for the State of New Jersey during
9 their lifetime.

10 if we continue forward in our current
11 pace we can turn this four trillion dollar revenue
12 stream into two hundred trillion dollars for the
13 State of New Jersey and its citizens. Considering
14 the initial deployment cost of these systems and
15 that the citizens of New Jersey have shown a great
16 willingness to cover the thirty percent remaining
17 cost in conjunction with the State of New Jersey
18 contributing only about fifteen percent of the
19 Initial costs, why in the world are we letting this
20 opportunity go by at a time when we should be
21 pushing as strong and as hard as possible to
22 maximize the amount of Federal dollars it would
23 bring into this State of New Jersey and which would
24 give the Federal government far more back in tax
25 revenues than we give back now. So now is our

46

1 opportunity to push forward and get back every
2 dollar we have given them in generation and also
3 make New Jersey the number 1 energy provider for the
4 East Coast.

5 we have got the ability now to move
6 forward and do this, we have got the infrastructure
7 in place, we have got the companies, the growth, we
8 have shown that we can do it through our solar
9 enterprises. This requires the greatest level of
10 commitment from our representatives and the people
11 who we have chosen to administer these programs.

12 One in three people are now likely to get
13 cancer in their lives, cancer has become the second
14 leading cause of death in the United States. This
15 number has been around for the last six years. The
16 average cost per person to treat cancer is
17 approximately thirty-five thousand dollars, and that
18 doesn't include their loss of productivity, their
19 ability to go to work, it is just the hard cost of
20 going to the doctor and getting treatment. Cancer
21 costs is just one part of the high costs of the
22 current means of energy.

23 It is quite clear that solar energy is one
24 of the cheapest means and most efficient ways of
25 providing energy and reduced health costs.

47

1 Oyster Creek is the oldest and most
2 dangerous nuclear power plant on the planet.
3 Chernobyl and Fukushima resulted in the worst
4 man-made catastrophe that our species has ever
5 known.

6 Fukushima resulted in the loss due to
7 radiation of over--the permanent saturation of all
8 land within fifty miles, which is the equivalent in
9 New Jersey of Monmouth, Middlesex, Atlantic,
10 Burlington and Ocean Counties all at the same time.

11 A study of the map shows that radiation in
12 the Northwestern United States has increased over
13 thirty percent. Oyster Creek has more radioactive
14 fuel cells and lead storage than both Fukushima
15 Chernobyl combined.

16 The ratepayers have invested billions of
Page 40

17 dollars in Oyster Creek, including a five hundred
18 million dollar decommission fund. The solar
19 industry has received far less than that and already
20 produces nearly as much usable energy and tripled
21 the employment level per unit of usable energy at
22 a fraction of the cost.

23 Let's stop traveling down a dead-end road
24 and invest funds in clean, renewable technology,
25 which nuclear is not.

48

1 It is only a matter of time before this
2 State begins to realize how much it has lost in the
3 tremendous unprecedented advantage that I and others
4 have provided through our life's work.

5 The solar power industry that was created
6 was intended to provide rapid deployment of solar
7 arrest energy, and it has done that.

8 From its inception the idea of solar
9 carve-out in conjunction with SACP was never meant
10 to be outside of the fiscal system for funds. It has
11 always been understood that the RPS solar carve-out
12 would be continually approved in order to insure
13 that the solar price remains close to the SACP
14 schedule made by the BPU, And that the transition
15 from dirty, more costly energy versus clean
16 non-polluting, non-radioactive energy would happen
17 as fast as possible.

18 As for non-renewable energy, the root
19 cause of its collapse is a combination of
20 technological underfooting and the lack of

21 productive capacity.

22 Solar and other clean sources of energy
23 are a part of that productive capacity which New
24 Jersey and the country are in dire need of.

25 As a citizen of New Jersey I would prefer

49

1 the now available cheap, abundant clean energy
2 resources, New Jersey has enough available
3 resources to provide for the energy needs of the
4 tri-state area and beyond. it is imperative that
5 we don't let this opportunity pass us by.

6 To this end we need to increase the RPS
7 carve-out to at least thirty percent and
8 decommission the nuclear plants as rapidly as
9 possible, they are too expensive and too dangerous
10 and too unreliable.

11 The explosive growth of the solar industry
12 has shown that New Jersey has absolutely no need to
13 continue the operation of the nuclear plants and New
14 Jersey can easily by 2015 bring down greenhouse gas
15 reduction without the use of any nuclear plant.

16 Thank you.

17 PRESIDENT SOLOMON: Two questions.

18 The first is, you did mention a lot of
19 statistics. Do you have where those statistics come
20 from?

21 MR. SIMS: Absolutely, I will provide that
22 to you.

23 PRESIDENT SOLOMON: And the second
24 question is, do you have any idea of how much or if
25 any base load or mid-merit generation, coal,

1 nuclear, gas, any of that has been displaced by
2 solar? There is an assumption that four hundred
3 megawatts means there are four hundred megawatts
4 that you don't have to buy or produce, I'm just
5 going to tell you that that is false, but do you
6 know if it has actually displaced any?

7 If you have any information or have access
8 to it, let me know, we would be very interested in
9 it. I want to know if any solar has displaced any
10 mid-merit or base load. If you have it, give it to
11 to me, if you don't have it now get it to me some
12 other time.

13 I heard a lot of facts and information, I
14 am asking for some follow-up in substance if you
15 have it, and frankly, if anybody has it , we would
16 like to get it. We have heard a lot of stuff about
17 a lot of stuff.

18 MR. SIMS: I'm talking about the ability to
19 generate energy. We are talking about shutting down
20 the nuclear plants, absolutely which will reduce --

21 PRESIDENT SOLOMON: I have a very simple
22 question, if you have the answer, I'm not asking for
23 your opinion, I'm just asking for what you can find.

24 what, if any, mid-merit or base load
25 generation has been displaced, that is, isn't

1 running, because of solar? If you don't have it,
2 try to find it, and if you can find it give it to

3 me.

4 MR. SIMS: I can tell you right now that
5 it would be about two percent of the daytime
6 generation--

7 PRESIDENT SOLOMON: I understand that,
8 I'm just curious. If you can answer my question
9 I'd like to--

10 MR. SIMS: Sure.

11 I think in terms of how much peakers

12 PRESIDENT SOLOMON: We are not talking
13 peakers, that's a different question. That doesn't
14 even relate to what I am asking.

15 Get me the info and the basis for it.

16 Thank you.

17 I'm going to take a two minute break but
18 Commissioner Fox is going to continue. I'll be
19 right back.

20 COMMISSIONER FOX: Deb Dagavarian.

21 MS. DAGAVARIAN: First let me say that I
22 am here because I care dearly about this state, this
23 country and this entire planet.

24 New Jersey, the leader in renewable
25 energy, as you know we are second nationally for

□

52

1 solar and wind, and our current goal for generating
2 energy from renewable energy sources tells me that
3 the state cares about things like jobs for its
4 citizens, minimizing pollution and not being
5 dependent on other states for energy.

6 The last thing that we should be doing is
7 reducing this role.

8 Both solar and wind power create new jobs
9 than natural gas and nuclear. Solar is perfectly
10 clean. Natural gas production necessitates fracking.

11 And nuclear energy, relying on nuclear
12 reactors for energy is like trusting John Gotti to
13 protect your family from violent crime; sure, he
14 has the guns and guts to handle protection, but do
15 you really want him hanging around your loved ones?

16 I want to increase, not decrease our goal
17 to generate clean energy from renewable sources, and
18 I think we need to be honest about what clean energy
19 really is, that it does not include nuclear or
20 natural gas.

21 COMMISSIONER FOX: Jennifer Hansen, Ole
22 Hansen & Sons.

23 MS. HANSEN: Good afternoon,
24 Commissioners, New Jersey Energy Master Plan Review
25 Committee and all other interests represented here

53

1 today.

2 Thank you for the opportunity to speak.

3 My name is Jennifer Hansen, I am with Ole
4 Hansen and Sons. I am with an eighty-two year old
5 company that has worn many hats over the years.

6 We started as a marine and heavy
7 construction company, transforming under the
8 direction of my father, Roger, into a real estate
9 development company. Most recently we have
10 developed multiple solar projects totalling about
11 124 megawatts to date.

12 And just as an aside, I would like to
13 support what Dr. Salmon said about having a floor on
14 the SREC program

15 we are interested in developing a tidal
16 energy project as one of our operating companies.
17 After having our initial survey done by Natural
18 Currents, we have found that tidal seas are
19 significant in the channel waves and that there is
20 sufficient water depth for tidal turbine
21 installation between spans of the bridge footings

22 we are also interested in examining the
23 possibility of developing some of the other projects
24 that Natural Currents has identified as productive
25 tidal energy sites. They have been doing studies

54

1 for the Department of Transportation throughout
2 New Jersey.

3 In researching this project we talked
4 about the possibility of a pilot project including a
5 number of tidal energy places, realizing that if you
6 have a place in different locations the tides rise
7 and fall at different times so when you look at the
8 overall energy generation it is constant power
9 generation. This is one of the major benefits of
10 tidal, that is, the capacity resource provides
11 quality dependable megawatts, unlike solar or wind.

12 The tides rise and fall all day, all
13 night, three hundred and sixty-five days a year

14 There are some lulls, but if you look at
15 it on a regional basis those lulls are at all
16 different times, so it's important that we have

17 places in different locations throughout the State
18 we would request that the Board consider a
19 carve-out for tidal energy much like that for off-
20 shore winds. We are working on some initial
21 programs for this project and we think that it is a
22 viable business opportunity that will create many
23 jobs, and we would like the same consideration that
24 is given to solar and off-shore winds.

25 Doing so will put New Jersey even further

55

1 ahead with respect to renewable energy throughout
2 the country.

3 PRESIDENT SOLOMON: Thank you.

4 David Forsyth, Gerdau.

5 MR. FORSYTH: President Solomon,
6 Commissioners, to present my comments here today.

7 My name is David Forsyth, I am the
8 Regional Energy Manager of Gerdau. Here with me is
9 Mark (inaudible)

10 Gerdau is delighted that the State of New
11 Jersey is taking steps to revisit the Energy Master
12 Plan. Gerdau supports the concept that a secure
13 energy future must be reliable, safe and affordable.

14 Gerdau remains very concerned about the
15 affordability of energy to power its steelmaking
16 operations in Sayreville. Several aspects of the
17 State's current energy strategy jeopardize the
18 ability of large industrial users of electric power
19 and natural gas to compete effectively in today's
20 challenging marketplace.

21 Companies like Gerdau are highly
22 motivated to operate as energy-efficiently as
23 possible due to both global competition and the
24 major role energy costs play in their operations.
25 The State's energy strategy should also support

56

1 and facilitate these objectives and recognize that
2 energy policy directly impacts a manufacturer's
3 ability to compete, employ and contribute to the
4 economy.

5 Gerdau operates a steel minimill that
6 could employ three hundred and fifty employees at
7 peak capacity and is currently employing just over
8 two hundred people. It is important to note that
9 Gerdau has shut down steelmaking operations in
10 neighboring Perth Amboy, in part due to the high
11 cost of electricity and natural gas in New Jersey.
12 Unfortunately, that shut-down resulted in hundreds
13 of employees losing well-paying jobs. The continued
14 operations of the Sayreville facility, which still
15 pays high energy costs despite being energy
16 efficient, remain challenged.

17 By utilizing scrap as the primary source
18 of raw material in the electric air furnace at the
19 Sayreveille mill, approximately 60 percent less
20 greenhouse gases are emitted than by traditional
21 basic oxygen furnace steelmaking. Electric air
22 furnace steelmaking also uses considerably less
23 energy than basic oxygen furnace steelmaking.

24 Gerdau has invested heavily in energy
25 efficiency and manufacturing process improvements

1 since 2002, spending over forty-four million dollars
2 to improve energy efficiency at the Sayreville plant
3 during this period. These initiatives have
4 resulted in the Sayreille plant being in the top
5 quartile of the Gerdau North American fleet in terms
6 of electricity and natural gas usage efficiency.
7 And the achievement has occurred despite running at
8 reduced capacity.

9 The Sayreville plant delivers the benefits
10 of demand response to the State in general and
11 customers in the JCPL zone in particular. The
12 Sayreville facility has curtailed operations during
13 the peak demand periods for many years now in
14 efforts to reduce the capacity obligation to the
15 plant. This has resulted in lower cost to Gerdau,
16 lower capacity market clearing prices for all New
17 Jersey customers and enhanced levels of
18 reliability. Curtailing during these periods also
19 results directly in lower energy prices to customers
20 in the JCPL zone during these peak periods.

21 To further manage the high electricity
22 costs the plant is also engaged in maximizing off
23 peak operations, constant monitoring of DA and RT
24 prices and participation in PJM's synchronized
25 reserve program.

1 Yet, in spite all of these initiatives,
2 the Sayreville plant remains in the top third in the

3 Gerdau North American fleet in terms of energy cost
4 per unit manufactured.

5 Gerdau encourages New Jersey to engage
6 proactively and immediately on the five overarching
7 goals that the State has identified to achieve the
8 objectives of the Energy Master Plan, and we provide
9 the following comments on each.

10 Goal number 1- Drive down the cost of
11 energy for all customers:

12 Obviously, this is a worthwhile goal. I
13 quote from page 14 of the Draft Energy Master Plan
14 that, "Electric energy costs have a significant
15 effect on the economic well-being of C&I customers.
16 High electricity prices discourage new manufacturing
17 and commercial entry and may cause
18 electricity-intensive industry to relocate. Against
19 the backdrop of the recent recession, businesses
20 hesitate to expand, in part due to high electricity
21 prices."

22 Gerdau thanks the State for recognizing
23 this as a serious problem and urges the State to
24 take affirmative action to reverse the
25 disproportionately adverse impact of the State's

□

1 current energy strategy on large consumers' energy
2 costs. As I stated earlier, since 2002 Gerdau has
3 invested more than forty-four million dollars in the
4 Sayreville facility to increase the plant's
5 competitiveness and energy efficiency. Any future
6 expenditure on capital projects at the Sayreville
7 Mill will depend on the individual returns on

8 investment available from the Sayreville Mill and
9 will certainly be subject to competition among the
10 other twenty mills in the Gerdau Long Steel North
11 American group. The continuing burden of the
12 Societal Benefits Charge, for example, obscures the
13 Sayreville plant's relative strength in energy
14 efficiency.

15 Gerdau currently pays over one million
16 dollars each year at the Sayreville facility for the
17 Societal Benefits Charge. These charges are not
18 connected to the underlying costs of energy supply
19 or delivery and impede Gerdau's global
20 competitiveness. Also, these charges are levied on
21 a kilowatt-hour basis which disproportionately
22 impacts high-volume electricity and natural gas
23 users, like Gerdau, to support various State and EDC
24 programs.

25 New Jersey's SBCs grossly exceed

60

1 comparable charges in nearby states, contributing to
2 New Jersey's competitive disadvantage among states
3 in the Mid-Atlantic and Northeast and contributing
4 to the flight of industry from New Jersey. Gerdau
5 and other manufacturers understandably react with
6 considerable frustration and apprehension to any
7 suggestions that multiples of present day amounts
8 could be expended to achieve EMP goals. All New
9 Jersey customers have contended that the SBC should
10 not be viewed as a bottomless pit.

11 Not only are increasing SBC levels

12 counterproductive to the State's economic
13 development objectives, but the recovery mechanisms
14 for the SBC are also counter-productive. For
15 example, current recovery of costs through the SBC
16 entirely on a usage or volumetric basis is
17 counterproductive to the EMP goals of peak load
18 reduction. Charging the SBC on all kilowatt hours
19 no matter when they are consumed mutes the signal to
20 shift load to low demand periods.

21 New Jersey could make large strides in its
22 economic development initiatives by eliminating
23 certain, and substantially other, State-imposed
24 charges for large volume, energy intensive
25 employers in the State. Gerdau suggests that the

61

1 State consider full exemptions, opt-outs, revised
2 cost allocation, hard caps and SBC phase-out as
3 options for those types of customers. Ideally these
4 initiatives would emanate from the General Assembly,
5 with changes to the existing statutes to mitigate
6 the adverse impact of the State' policy initiatives
7 on energy-intensive manufacturing customers. The
8 Board should do what it can when it can.

9 I must emphasize that Gerdau recognizes
10 and does not intend to shirk its corporate citizen
11 responsibilities with respect to the low-income
12 assistance components of the SBC.

13 Also, New Jersey should routinely
14 benchmark its industrial electricity and natural gas
15 prices against those in all U.S. states. This
16 benchmarking will reveal the relative success or

17 failure of initiatives to eliminate
18 cross-subsidization.

19 New Jersey should also solicit from
20 manufacturers within the State, on a confidential
21 basis, any information they have on the comparison
22 of their New Jersey energy costs to energy costs at
23 their other facilities.

24 Goal number 2 - Promote a diverse
25 portfolio of new, clean in-State generation:

62

1 PJM's Reliability Pricing Model has now
2 been in place for more than three years and has
3 tagged New Jersey customers with more than ten
4 billion dollars in capacity-related costs.
5 Notwithstanding this extreme resource commitment,
6 New Jersey customers can credibly argue that their
7 collective investment has not resulted in meaningful
8 amounts of newer or more efficient in-State
9 generation. Like the failed promise of LMP, these
10 new and even higher price signals are not delivering
11 on their promise to incent investment.

12 The State and the BPU are no longer in a
13 position where they can "wait and see" whether RPM
14 will work. The evidence overwhelmingly demonstrates
15 that PJM has fallen short. Gerdau supported in 2010
16 and now applauds the efforts that the State is
17 taking to secure new in-State generation facilities.
18 If the State determines that barriers to new entry
19 cannot be overcome or that competitive markets are
20 not present in New Jersey then the BPU should

21 actively engage in efforts to cease the
22 "price-signal aspects" of existing market designs.

23 At the same time the State and the BPU
24 must be extremely careful not to exacerbate the
25 adverse impact of kilowatt hours based charges. To

63

1 that end, the costs of new generation capacity must
2 be allocated to and recovered from customers on a
3 capacity basis, consistent with the drivers of the
4 cost-incurrence. If such allocation does not occur,
5 the State's new generation initiatives will actually
6 inflict a substantial amount of harm on large,
7 energy-intensive manufacturers, directly contrary to
8 economic development objectives. The authority to
9 "get the cost allocation" right resides with the
10 BPU; its hands are not tied.

11 Gerdau also supports the EMP's proposal
12 to keep nuclear on the table as a viable base load
13 option.

14 Goal number 3 - Reward energy efficiency
15 and energy conservation and reduce peak demand:

16 Gerdau is pleased that the State is
17 promoting EE, DSM and Peak Demand reduction
18 initiatives. The smaller customer classes will
19 largely benefit from these programs. The State
20 should be congratulated for developing the Large
21 Energy User Pilot Program that just kicked off.
22 However, the State's current EE and DSM programs
23 costs are recovered from all customers on a kilowatt
24 hour socialized basis without any consideration of
25 customer class characteristics.

1 Some large energy-intensive industrial
2 manufacturing processes, like steelmaking, have
3 exhausted available technologies to achieve
4 cost-effective reductions in consumption. These
5 customers should not be subsidizing other's projects
6 or education through state or utility sponsored
7 programs. This results in a consumption tax, not an
8 incentive to improve, and definitely not a reward
9 for early response. Gerdau has in-house energy
10 efficiency programs designed for steelmaking
11 facilities by steelmaking experts. We don't need
12 another program that will only pancake costs.

13 Goal number 4 - Capitalize on emerging
14 technologies for transportation and power
15 production:

16 While Gerdau supports the State's
17 initiatives on emerging technologies such as biofuel
18 and waste to energy, there is no reference to waste
19 heat recovery in the draft Energy Master Plan. If
20 the State invests in waste heat recovery projects
21 through funding and grants much the same way it does
22 for renewable generation, the result is a win-win.
23 Waste heat power generation really is a good idea.
24 Waste heat recovery projects at industrial
25 facilities not only make gains toward the goals of

1 the Energy Master Plan by reducing peak demand and
2 GHGs but they increase the competitiveness and

3 sustainability of jobs and manufacturing in the
4 State. Waste Heat Power would be available when
5 industrial facilities are operating, generally do
6 not require distribution or transmission system
7 upgrades and result in lower energy and capacity
8 costs for all New Jersey ratepayers. Gerdau
9 submitted comments on the Energy Master Plan in
10 late 2010 that address this issue.

11 The State should aggressively target
12 waste heat by directing the Office of Clean Energy
13 to design a program that incents manufacturing
14 facilities to install waste heat power generation.

15 Goal numbr 5 - Maintain support for the
16 renewable energy portfolio standard of 22 and-a-half
17 percent of energy from renewable sources by 2021:

18 The draft Energy Master Plan does include
19 language about the need for solar and wind to be
20 cost effective, which is not a concept that was very
21 important to prior Energy Master Plans. Gerdau
22 applauds this specific objective, but continues to
23 question the cost effectiveness of an RPS goal of
24 22.5 percent. If such an aggressive goal remains
25 part of the State's energy policy, then the State

□

66

1 must focus on ways of eliminating barriers to
2 market-based investment and should seek to minimize
3 or eliminate State subsidies for renewable
4 generation. Also, the talk of five billion dollars
5 off-shore wind projects is enough to warrant a
6 "go-slow approach" until costs and benefits are more
7 fully known.

8 The State should also reconsider the
9 allocation of customers' obligations to purchase
10 renewable energy credits. Currently all megawatt
11 hours of energy consumed must have a certain
12 percentage of RPS. This includes solar RECs. While
13 most forms of renewable energy can be generated at
14 any time of day, such as when the wind blows, when
15 the water flows and when the landfill decomposes, we
16 know that solar power is only generating during the
17 daylight hours. So the question is, why are
18 consumers obligated to purchase SRECs for energy
19 consumed at night? The State should exempt energy
20 consumed during the nighttime period from solar REC
21 obligation. This would provide an additional
22 incentive for load shifting and, therefore, make
23 sense for many reasons.

24 To close, Gerdau emphasizes that inclusion
25 of any initiatives or goals in an Energy Master Plan

67

1 is only the first step in the process. If the
2 Energy Master Plan is to succeed, the State must
3 fully commit its attention and the necessary
4 resources and consider the net impact on the
5 industrial manufacturing base when making decisions.

6 I also emphasize that many of the
7 suggestions provided in my comments are not new and
8 do not need to await formal adoption and
9 implementation of the Energy Master Plan. Rather,
10 the Governor, the General Assembly and the Board can
11 take affirmative steps now to address many of the

12 problems I have identified.

13 Gerdau remains willing and able to help
14 move the process along.

15 Thank you..

16 PRESIDENT SOLOMON: I have a couple of
17 questions. I know you have written comments that
18 discuss this in more detail, but I am not sure that
19 everybody here knows it.

20 In terms of SBC or similar charges and
21 costs that are based on the kilowatt hour, is it
22 your position that they should not be based open the
23 amount of kilowatts used, but when they are used?

24 MR. FORSYTH: Yes.

25 PRESIDENT SOLOMON: So that if you bring

68

1 your use off of peak load you would be billed or
2 charged differently and, therefore, have an
3 incentive to stay off-peak?

4 MR. FORSYTH: Yes.

5 PRESIDENT SOLOMON: Have you ever done I
6 think you said a million a year in SBC?

7 MR. FORSYTH: Yes.

8 PRESIDENT SOLOMON: Have you ever done an
9 analysis of what the other costs are such as other
10 programs, other SRECs or any other subsidies?

11 MR. FORSYTH: Yes, we can do that, if it
12 can be confidential.

13 PRESIDENT SOLOMON: Once you give it to
14 me it will be public.

15 Conrad Cantell.

16 MR. CANTELL: I am Conrad Cantell, and

17 I want to thank the Commission for the opportunity
18 to speak before you today.

19 I am here today as advocate for clean and
20 renewable energy. Renewable energy, be it solar or
21 wind, can be counted on as a source of power for the
22 State and the country for the claimed goal of energy
23 independence.

24 (Inaudible) has been powered by an array
25 of thirty solar panels since 2008. These panels

69

1 provide for 35 to 45 percent of our daily energy
2 needs and resulted in a savings of approximately
3 one hundred thirty five dollars per month as
4 indicated on our yearly budget.

5 I hope family and friends in their desire
6 to learn more about renewable energy sources become
7 more energy conscious and aware of how their carbon
8 footprint will best be obtained.

9 Natural gas is not a clean renewable
10 source of energy for the generation of electric
11 power. Additionally, the method of fracking
12 natural gas is both costly and potentially dangerous
13 in that process which results from the run-off of
14 the resultant slurry which is processed through
15 carcinogenic chemicals.

16 As I am sure you are aware, solar energy
17 as an industry is a job creating machine with over
18 two thousand renewable energy businesses and over
19 twenty five thousand jobs in this State alone.

20 Return on investment and return on jobs

21 creation is unprecedented. For every million
22 dollars spent on fossil fuel energy generation only
23 five jobs are produced, whereas the same million
24 dollars produces seventeen jobs in the renewable
25 energy sector.

70

1 How can a State want to move backward to
2 22.5 percent of renewable generation from the 2008
3 goal of 30 percent? The future calls for the
4 expansion of renewable energy, not reduction.

5 As wind and solar clean generation becomes
6 available, the cost of both equipment and
7 installation will continue to decline based on
8 economies of scale.

9 Now is the time to move forward, to be on
10 the vanguard of renewable energy as a source of
11 energy efficiency. New Jersey has been and should
12 remain a leader in the country and as a creator of
13 renewable energy.

14 Thank you.

15 PRESIDENT SOLOMON: Thank you.

16 Richard Kunze, representing The
17 Environmental Authorities Association of New
18 Jersey.

19 MR. KUNZE: Thank you, President Solomon
20 and Board members.

21 My name is Richard Kunze and I am
22 representing The Association of Environmental
23 Authorities Association of New Jersey, AEA for
24 short.

25 we represent one hundred local and
Page 60

1 regional public agencies that provide water,
2 wastewater treatment and solid waste management
3 services to communities across the State of New
4 Jersey.

5 The members of the AEA support the goals
6 of the draft Energy Master Plan.

7 As agencies already providing vital
8 services to the public and that use 3 to 4 percent
9 of the State's energy, it is important that
10 authorities and municipalities focus efforts on
11 energy efficiency and energy conservation.

12 Doing it returns a double benefit to the
13 public, freeing energy supplies for other purposes
14 and holding water and wastewater rates as low as
15 possible.

16 It was for these reasons that AEA member
17 agencies actively sought the available grants and
18 loans and use these funds to make existing processes
19 more efficient.

20 Authorities have installed methane gas,
21 electric systems, solar panels and windows. They
22 have invested in energy audits that reveal avenues
23 for conservation and they continue with a list of
24 projects that address elements of energy audits in
25 capital plans.

1 Some of these same agencies are now
2 exploring using (inaudible) with methane energy

3 systems to process food waste, fats oils and
4 greases which benefit the whole community by
5 increasing the amount of clean renewable energy
6 produced.

7 These facilities can provide a resource
8 recovery process for food waste and significantly
9 reduce the overall greenhouse gas output by the
10 community served.

11 The association has held numerous
12 conferences to educate and advise members on energy
13 savings opportunities and alternatives that are
14 available as well as funding sources available to
15 achieve them.

16 Each year for the past five years the AEA
17 awarded special energy saver awards to those members
18 who take actions to improve their energy efficiency.

19 In this manner the Association and its
20 members have been implementing the first goal of the
21 State Energy Master Plan, which is to drive down the
22 cost of energy for all customers.

23 we also supported the second goal of
24 promoting a diverse portfolio of new clean in-state
25 generation. Numerous authorities have added solar

□

73

1 panels to their facilities, including, but not
2 limited to, Atlantic County Utilities Authority,
3 Ocean County Utilities Authority, Landis Sewage
4 Authority, Northwest Bergen Authority and Mt.
5 Laurel Township.

6 Atlantic County and Landis have installed
7 windmills and Bayshore Regional Sewage Authority has

8 a permit to construct a windmill on it's property.

9 Other facilities such as Ocean County and
10 Bergen County and Joint Meeting of Essex and Union
11 have invested significantly in an anaerobic system
12 to create clean energy out of waste sludge.

13 Other authorities have utilized similar
14 systems to run boilers and other energy recovery
15 systems, offsetting electricity or natural gas
16 traditionally purchased on the commercial market.

17 we believe that the wastewater authorities
18 of New Jersey have a very promising future serving
19 the State in energy generation and resource recovery
20 on top of the vital role that they already serve in
21 treating and recovering water resources.

22 Reducing peak demand is already part of
23 the utilities' best management practices. Since
24 facilities must have emergency generators and must
25 exercise those generators to insure their

74

1 reliability, it is also helpful to enter into demand
2 response programs that reward the utilities'
3 ability to reduce load on the PJM grid at peak time;
4 such management produces a win-win situation across
5 the board.

6 In these ways New Jersey environmental
7 authorities have been and will continue to support
8 renewable energy production in order to meet the
9 State's goal of twenty two and-a-half percent of
10 energy from renewable sources by 2021.

11 Thank you for the opportunity to comment

12 on the plan and count on The New Jersey
13 Environmental Authorities Association to do their
14 part in the successful achievement of the State's
15 goals.

16 Thank you very much.

17 PRESIDENT SOLOMON: Thank you.

18 MR. KUNZE: I would like to also recognize
19 our Co-Chair of our Energy Committee, (inaudible)
20 of the Atlantic County Utilities Authority, it is a
21 special day for her, it's her birthday.

22 PRESIDENT SOLOMON: Happy birthday.

23 Michael Van Brunt.

24 MR. VAN BRUNT: Thank you very much for the
25 opportunity to comment on the draft 2011 New Jersey

75

1 Master Plan.

2 Covanta Energy is a leading international
3 owner, operator and developer of energy-from-waste
4 facilities. We also operate other renewable energy
5 facilities including landfill gas to energy and
6 biomass to energy facilities. Energy-from-waste is
7 a proven technology that converts municipal solid
8 waste into baseload steam and/or electricity. There
9 are currently eighty-six such facilities operating
10 in the United States, including five in New Jersey.

11 Covanta Energy, headquartered in
12 Morristown, New Jersey, has three New Jersey
13 facilities in Essex, Union and Warren Counties which
14 together generate over 120 megawatts of power.

15 We fully support the draft Energy Plan's
16 recognition of MSW as a large untapped resource in

17 the State. As noted in the draft Energy Plan, only
18 17 percent of the State's MSW is converted into
19 energy. Even providing for a State-wide MSW
20 recycling rate of 50 percent, new energy facilities
21 could generate 1.3 million megawatt hours of net
22 electrical energy from existing State resources.

23 As an economic driver, the construction of
24 one 50 megawatt energy-from-waste facility can
25 create nearly one billion dollars worth of economic

76

1 activity and create approximately eight hundred
2 direct and secondary jobs a year during the three
3 year construction period. There are approximately
4 fifty permanent high-paying jobs necessary to
5 operate the facility.

6 We also share the draft Plan's perspective
7 that the current disparity between landfill gas to
8 energy, a Tier 1 resource, and technologies that
9 generate electricity prior to landfilling, currently
10 in Tier 2, must be corrected. Based on national
11 averages, each ton of waste processed at an
12 energy-from-waste facility leads to the reduction
13 of a ton of carbon dioxide equivalent greenhouse gas
14 emissions relative to landfilling. This is
15 predominantly due to the prevention of landfill
16 methane, a GHG twenty-five times as potent as carbon
17 dioxide.

18 Concurrently, energy-from-waste recovers
19 ferrous and non-ferrous metals for recycling, and
20 supplies baseload renewable energy to the grid,

21 avoiding fossil fuel combustion . Energy-from-waste
22 generates an order of magnitude more electricity
23 than landfill gas to energy per ton of post-recycled
24 waste, on a much smaller land footprint. To
25 encourage better use of the State's waste

77

1 resources, we support the inclusion of energy- from-
2 waste as a Tier 1 renewable and the continued
3 inclusion of LFGTE as a renewable energy source only
4 for existing landfill cells, so as to not encourage
5 more landfilling.

6 New Jersey will be in good company in
7 recognizing the energy potential and GHG benefits
8 of post-recycled MSW. The State of Maryland
9 recently passed legislation that recognizes
10 energy-from-waste as a Tier 1 renewable energy
11 source. Energy-from-waste is defined as renewable
12 in twenty-six states, including New Jersey, and by
13 the Federal government. The European Union through
14 expanded recycling and energy recovery, driven
15 predominantly by the passage of the landfill
16 directives limiting use of landfills, has achieved
17 reductions in waste sector GHQ emissions by 34
18 percent, the highest of any sector.

19 Energy-from-waste facilities in
20 developing countries have been approved to generate
21 carbon offset credits under the Kyoto Protocol.
22 Closer to home, the Lee County energy-from-waste
23 facility in Florida had been generating and selling
24 carbon offset credits for two years. The world
25 Economic Forum in its 2009 Davos Report identified

1 energy-from-waste as one of eight technologies
2 likely to make a significant contribution for a
3 future low carbon global energy system.

4 Energy-from-waste can help New Jersey
5 produce baseload renewable energy near the sources
6 of consumption, create new high-paying jobs, all
7 while reducing the price to the consumer, reducing
8 greenhouse gas emissions from waste management and
9 conserving land.

10 we look forward to working together in our
11 home State to better use our available resources for
12 more sustainable solid waste management and energy
13 policy.

14 Thank you again for your time and the
15 opportunity to comment.

16 PRESIDENT SOLOMON: Thank you.

17 Paul Kydd

18 MR. KYDD: I am Paul Kydd, K-Y-D-D.

19 I am President of a company called
20 Partnerships1, Inc.

21 President Solomon and distinguished Board
22 members, I am very grateful for the opportunity to
23 comment on the draft Energy Master Plan.

24 Partnerships1 has developed the technology
25 to convert pickup trucks to plug-in electric hybrids

1 which will cut the fuel consumption in half, and
2 that is significant savings for a lot of big

3 pickups.

4 In that context I am grateful to hear
5 that the Master Plan has a section on transportation
6 and vehicles, and I am even happier to see that at
7 page 125 the first paragraph mentions electrical
8 vehicles as electric storage vehicles, and I would
9 like to expand on that paragraph.

10 The number of electric vehicles
11 anticipated for New Jersey by the Center for
12 Automotive Research is twenty-one hundred in 2012,
13 rising to about thirteen thousand one hundred by
14 2015, and that's a significant storage opportunity.

15 The batteries in those vehicles, thirteen
16 thousand vehicles, will store something in the order
17 of 260 megawatt hours of electric energy, and that
18 could be made available to the grid at the rate of
19 260 megawatts or even more, if needed, and they can
20 take excess capacity off the grid at the same rate.

21 So the point is, even a small percentage
22 of vehicles offers a big impact on the electrical
23 grid system to offer capacity, storage capacity for
24 frequency regulation, demand management.

25 The value of this capability is

80

1 significant. The frequency regulation alone at the
2 price that PJM is paying for frequency regulation
3 capacity averaged -- is worth about four thousand
4 dollars to six thousand dollars per vehicle per
5 year, and if a significant piece of that can be made
6 available to the vehicle owner, that's a very
7 powerful incentive for the adoption of electric

8 vehicles.

9 So my suggestion to the Board is that they
10 adopt a Master Plan goal to realize the value that
11 can be given by this in time for an increase in
12 electrical vehicles that are available to use it in
13 the 2012-2013 time-frame.

14 This will require both technological and
15 particularly regulatory innovation. The technology
16 is available now in a rudimentary form. The
17 University of Delaware has been pursuing this
18 technology for decades and they have a small group
19 of cars that actually are providing frequency
20 regulation through PJM, so the technology works.
21 Getting it dispersed more widely, and particularly
22 dealing with the financial aspect of it, we get paid
23 our money so that works out, but the technology
24 exists, it is licensable from U. Delaware and there
25 is a comparable program out of UCLA.

81

1 The problem is that the market for this
2 already exists, PJM is willing to pay qualified
3 generators for their services, it doesn't matter
4 where they come from and how they generate it, they
5 are willing to pay for it.

6 So unlike many new technologies and new
7 products, you don't have to create a market for it,
8 that market already exists, that market is there;
9 all you have to do is flange up with it so that you
10 can follow it, and that's what the development
11 requirement is.

12 There should be a synergy with New
13 Jersey's advanced position with solar energy. New
14 Jersey already has net metering, which you need for
15 this, so that is no problem.

16 The solar system can provide the grid line
17 inverters, which is a a critical part of the system,
18 and an expensive one, the battery is provided by
19 the vehicle, so the combination is technically
20 relatively straight-forward, but you still have a
21 lot of permitting issues of how you actually do this
22 in the homes and it is a similar effort I would
23 assume to getting solar and the qualifications being
24 implemented in the Building Codes.

25 Finally, I would like to make the point

82

1 that this opportunity is real. The incentives to
2 vehicle ownership are there, all you have to do is
3 realize the latent value that the vehicle battery
4 represents and make this connection, and the
5 incentives then are provided by the value that you
6 create from them.

7 So it is an opportunity to create a very
8 powerful program to take New Jersey into the 21st
9 century in which the utility system will begin to
10 displace the petroleum industry as a source of
11 energy for personal transportation and to keep it on
12 a plane with California as the technology leader in
13 the forefront of developing the new century.

14 Thank you very much.

15 COMMISSIONER FOX: Can I ask one question?
16 what exactly is the incentive that you are

17 suggesting?

18 MR. KYDD: The incentive is making money
19 available for frequency regulation services.

20 COMMISSIONER FOX: Frequency regulation,
21 okay, that's it.

22 PRESIDENT SOLOMON: Thank you.

23 Roger Basin.

24 MR. BASIN: President Solomon, members of
25 the New Jersey Energy Master Plan Review Committee

83

1 and the present public at large, thank you for the
2 opportunity to participate here.

3 My name is Roger Basin and I am the
4 President and founder of Natural Currents Energy
5 Services, LLC., a leader in tidal energy
6 technology and a tidal energy site developer, active
7 in the United State and the United Kingdom.

8 We have served as technical advisors to
9 the UN Partnership for Small Islands in Developing
10 States and represented tidal interests at the UN
11 Conference on Climate Change in 2009 in Copenhagen.

12 Since 2007 we have identified ten
13 potential tidal energy projects in New Jersey. With
14 the support of the New Jersey Department of
15 Transportation and Marina in Point Pleasant we are
16 developing the first tidal energy project in New
17 Jersey.

18 We are also engaged with the New Jersey
19 DOT to survey the State to identify the top twenty
20 tidal energy sites throughout the New Jersey

21 coastline.

22 In the past few years also the
23 international community has requested results of
24 this study of the New Jersey tidal energy efforts
25 in conferences in London, San Paulo, Brazil,

84

1 Moscow, Washington, D.C. among others.

2 The company has the U.S. Department of
3 Energy's support for hybrid tidal wind and solar
4 project in (inaudible) New York in cooperation with
5 the New York City Department of Parks and
6 Recreation.

7 We serve as the technical advisors as to
8 tidal energy to the Prince of Wales in the UK, the
9 future King of England, for his extensive river
10 holdings in Cornwall.

11 In short, Natural Currents is recognized
12 as a global leader in the emerging field of tidal
13 energy development.

14 The stated purpose of the New Jersey draft
15 Energy Master Plan is to present a strategic vision
16 for use management and development of energy in New
17 Jersey.

18 The definition in the Master Plan
19 identifies ways to save money and stimulate the
20 economy, create jobs and protect the environment
21 through a wide range of choices in the policies of
22 the BPU and others.

23 We contend that a strategic vision for the
24 energy future of New Jersey would be incomplete
25 without specific goals to develop the significant

1 tidal energy sources that will bring immeasurable
2 contributions to economic clean energy in this
3 State.

4 Although New Jersey is relatively a small
5 State, ranking 46th in the United States in land
6 mass, its tidal shoreline comprises 1,792 miles,
7 2,880 kilometers of potential near-shore tidal
8 energy development.

9 New Jersey contains swiftly moving tidal
10 estuaries, rivers and shoreline inlets that are
11 well-suited for tidal energy power production.

12 The New Jersey DOT has projected a
13 minimum of 500 and perhaps as much as 1,000
14 megawatts of tidal energy potential from these
15 resources.

16 The population of New Jersey, first in
17 the nation with 1,195 people per square mile,
18 presents a population with bold leadership in
19 bringing it toward a greener energy future enabling
20 job growth and economic stimulus.

21 The BPU should support this leadership
22 position in New Jersey's tidal energy development
23 through specific recommended actions that foster
24 benefits to almost every part of the New Jersey
25 shoreline.

1 In addition to the Manasquan River-Point
2 Pleasant project, Natural Currents' permanent

3 locations in the State include the Margate Bridge
4 in Margate City, the Shrewsbury River in Highlands
5 and Sandy Hook, Avalon and the intercoastal
6 waterway, Cape May, and five locations in Cumberland
7 and Salem Counties, a 5 megawatt tidal energy
8 project is underway in Salem and Cumberland
9 Counties, and another 5 megawatts will be developed
10 in Atlantic and Cape May Counties.

11 with focused and coordinated support to
12 enable streamlined permitting from State agencies,
13 PJM and Atlantic City Electric, these projects can
14 begin commercial power production in the next
15 eighteen to twenty-four months.

16 Recommendations: Number 1, the Energy
17 Master Plan should include BPU support for ten
18 megawatt regionally distributed tidal energy
19 projects in cooperation with Atlantic City Electric
20 to enable baseload renewable electricity using
21 strategically located tidal energy sites already
22 identified by Natural Currents.

23 The time delay of the tidal flux along the
24 New Jersey coast can provide baseload green power.
25 Our preliminary estimate provides a constant twenty-

1 four hour generation of 8.1 megawatts from 10
2 megawatts of installed and regionally distributed
3 tidal energy capacity.

4 Unlike other renewables that are
5 intermittent, that have intermittency problems in
6 connection with solar peaks when the sun is out, by
7 strategically locating these you can get a flat and

8 desirable constant twenty-four hour green power from
9 tidal energy.

10 2: We recommend that the BPU provide
11 guidance and support to facilitate a T-wave, tidal
12 wave process along the lines of the O-lake
13 (phonetic) process, for an appropriate incentive
14 program to support tidal energy industry development
15 in New Jersey. We have already met with the Office
16 of Clean Energy to initiate this New Jersey tidal
17 energy stakeholder process.

18 3: The BPU should fulfill its advocacy
19 function with the Federal Energy Regulatory
20 Commission, FERC, by enabling an
21 inter-disciplinary working group to facilitate and
22 streamline the cumbersome regulatory and permitting
23 process to foster tidal industry development

24 Natural Currents accepts a heavy burden
25 of environmental analysis, we accept fully one year

88

1 of baseline environmental monitoring and five years
2 of system performance monitoring of fourteen
3 different environmental impacts of tidal energy.

4 The nuclear industry and the petroleum
5 industry appear to get a free ride by comparison in
6 spite of their environmental records, those impacts
7 are summed up in a few key words, BP, Lybia,
8 Chernobyl, Tsunami, Fukushima.

9 The emerging tidal energy industry is
10 overburdened by the inefficient tangle of
11 regulatory limitations that are arbitrary, unfair,

12 expensive, and in many cases totally unreasonable.

13 The Electric Power Research Institute, a
14 respected and independent research organization, has
15 conducted and presented sixty-eight reports on ocean
16 renewable energy published on the internet and
17 concluded that tidal energy is the most
18 environmentally benign form for electric power
19 generation.

20 By way of summary, 1, facilitate a 10
21 megawatt regional tidal project;

22 2, Establishing direct incentives for
23 this program.

24 3, Advocacy for regulatory streamlining
25 and coordination.

89

1 Those steps will provide for significant
2 regional development, job growth, economic stimulus
3 in contracting and engineering and environmental
4 consulting, manufacturing, assembly, exports, as
5 well as economic benefits for the general population
6 in the hard-hit coastal areas.

7 Economic stagnation is transformed
8 through vision, leadership and bold action.

9 Not only in word but in deed, commitment
10 and focus on specific pathways provide a road- map
11 for success and benefits throughout the State.

12 Written comments will be presented prior
13 to the deadline.

14 PRESIDENT SOLOMON: One quick question.

15 What, if any, transmission and
16 distribution is available for tidal generation, is

17 that something that would have to precede it and be
18 developed, or is there something existing that it
19 could tie into?

20 MR. BASON: The smaller units could be net
21 metered to shoreline properties just like solar. We
22 have had a meeting, and Commissioner Assalta was
23 there with Atlantic City Electric, and we understand
24 there are three hundred feeder lines within Atlantic
25 City Electric with a 3 megawatt limit.

90

1 However, in order to--this is what we
2 were talking about before, regulatory, I got on the
3 phone with an (inaudible), "Have you got a map of
4 three hundred feet?

5 "Yes.

6 "We would like to look at them because
7 we've identified where the tidal waves are and we
8 want to make a connection."

9 Well, twenty five years ago you could have
10 come into our office and you could have looked at
11 it, but now because of 9/11 we can't do that, so
12 you have to-- it's there and our system was
13 designed for 2.5 megawatts.

14 PRESIDENT SOLOMON: We could tell you
15 where they are but we would have to kill you.

16 But what Atlantic City Electric's
17 contention is that there is sufficient distribution
18 available for the kind of megawatts that you are
19 talking about without additional investment or
20 development, all you need is the connection?

21 MR. BASON: And the studies that may
22 ensue, but they like it.

23 COMMISSIONER FOX: May I ask a question?

24 PRESIDENT SOLOMONT: Sure, Commissioner
25 Fox.

91

1 COMMISSIONER FOX: Could you not give
2 Atlantic City Electric where the sites are so they
3 could tell you whether it is successful or not?

4 MR. BASON: I hope so. One of our
5 colleagues from Margate is organizing a meeting with
6 them, we would like to avoid a two and-a-half year
7 wait, permitting these locations is a great
8 expense and then we finally came up on the queue,
9 and you know what, that won't really work, so we
10 would like to coordinate this and we would be very
11 grateful and we would follow any suggestion.

12 Thank you.

13 PRESIDENT SOLOMON: Thank you.

14 Jeff Benner.

15 MR. BENNER: Thank you, Mr. President and
16 fellow Commissions, I'm Jeff Benner, private
17 citizen here to speak in opposition to the reduction
18 of the goal to twenty two and-a-half percent from
19 thirty percent.

20 We are moving so strongly toward that goal
21 but it seems to be going backwards to drop down to
22 the lowest legal limit allowed at this point.

23 That goal is strongly being reached due to
24 the solar installations that have happened to date,
25 over five hundred, or closing in on five hundred

1 megawatts by the end of this year, forty megawatts
2 alone in the month of June.

3 PRESIDENT SOLOMON: Are you talking about
4 solar?

5 MR. BENNER: Solar..

6 PRESIDENT SOLOMON: That RPS has never
7 been changed, that hasn't been from the '08 Master
8 Plan, the statute or anything, that level remains
9 the same.

10 MR. BENNER: I'm talking about solar's
11 contribution towards the overall goal of thirty
12 percent..

13 PRESIDENT SOLOMON: That hasn't changed.

14 MR. BENNER: Also I would like, regarding
15 senate bill 2371 that was passed in an attempt to
16 secure the SREC market from its current collapse,
17 that has been passed by the Senate but it is right
18 now before the Assembly, hopefully some leadership
19 from you guys supporting that as well will get that
20 out of committee.

21 There has also been mention of multiple
22 tiers for SRECs, potentially looking at large scale
23 industrial projects over a hundred megawatts
24 separated from smaller commercial projects and
25 residential.

1 The drop in SRECs does not, as some people
2 say, just look forward toward the production of the

3 best systems in the future, it also hurts people
4 who installed the systems in the past.

5 With a floor being put on the SRECs, that
6 would insure that these people who have already
7 taken the step forward to help New Jersey and the
8 country towards green energy are not hurt.

9 Your job is not to solely focus on jobs,
10 jobs, jobs, but also should take into account
11 health, health, health, the health of New Jersey
12 residents, the health of New Jersey's environment
13 and the health of our country.

14 PRESIDENT SOLOMON: Thank you.

15 Jesse Connor.

16 MR. CONNOR: Good afternoon.

17 My name is Jesse Connor. I speak as a
18 resident of the State of New Jersey where I have
19 lived for forty years.

20 Thank you for giving me this opportunity
21 to address you.

22 I am speaking as an American and a member
23 of the global community which will be affected by
24 how our State addresses its energy needs.

25 As a citizen in each one of those

□

94

1 communities I feel that I have a moral obligation to
2 urge you to support a more ambitious Energy Master
3 Plan than the draft that you have presented to us.

4 The draft is in my judgment a step
5 backward to a short-sighted outdated view of energy.

6 In our situation in New Jersey what we
7 need in 2011 is a plan that is a step forward and

8 plan for the future, a future for which we are not
9 prepared because of the global planet change, faced
10 with a threat so potentially devastating for our
11 small coastal state as well as the world at large so
12 we look to our leaders for help.

13 We need the Board of Public Utilities to
14 address climate change and endorsing a plan that has
15 the most impact to slow the cascading and
16 potentially catastrophic effect of climate change by
17 reducing fossil fuel consumption.

18 At a time when we should be challenging
19 ourselves to increase the goals of energy
20 conservation, the 2011 draft Energy Master Plan
21 steps backward to a plan that is weaker,
22 shortsighted and less worthy than the 2008 plan.

23 The 2008 Energy Master Plan goal to make
24 thirty percent of New Jersey's energy from
25 renewables was ambitious but doable.

95

1 The 2011 plan, by contract, calls for the
2 least possible goal allowed by the State of New
3 Jersey, 22.5 percent, in other words, this goal
4 will support the least we can do on that front.

5 Now is the time to incentivise clean,
6 renewable energy so that we don't need to have an
7 energy portfolio that relies on nuclear plants.
8 Nuclear energy looks especially bad when compared to
9 clean energy technology. Nuclear energy with its
10 astronomical cost is potentially a terrorism target,
11 a health and a safety issue, its waste management

12 problem and small workforce is simply not a good
13 choice for New Jersey.

14 Just as bad and maybe even worse is the
15 support given to natural gas produced from fracking.
16 That practice, currently on hold in the State of
17 New York, relies on undisclosed chemicals polluting
18 air and water, causes municipalities inherent
19 hardships and increased problems, posing a danger
20 to the public health.

21 All of those problems, and more, have led
22 our State Legislature to move to ban fracking in New
23 Jersey.

24 That leads us to another moral dilemma:
25 Is it ethical to support a technology in

96

1 Pennsylvania that we would not permit in our own
2 State?

3 Now is the time to fully support the
4 twenty percent demand reduction goal set up in the
5 2008 Master Plan. As you know, energy efficiency
6 has the greatest the return for the smallest
7 investment. Achieving this goal will result in
8 huge consumer and commercial savings.

9 Now is the time to support the Societal
10 Benefits Charge, not to retreat from it. That small
11 amount I pay each month is a dollar and seventy
12 five cents.

13 All New Jersey residents are reducing our
14 dependency on fossil fuels.

15 Now, in 2011 we should be stepping up to
16 the plate, we should be knocking it out of the park.

17 Instead this report sends our State scurrying into
18 the dugout with our heads down, looking for a
19 pinch-hitter, somewhere.

20 I thank you for listening to me.

21 PRESIDENT SOLOMON: Thank you.
22 Christine Guhl.

23 MS GUHL: My name is Christine Guhl and I
24 am speaking on behalf of the Sierra Club.

25 As a Sierra Club organizer, I have lived

97

1 in New Jersey my entire life and I have been very
2 proud of the accomplishments New Jersey has made in
3 clean energy, but I am not proud now.

4 This is a real setback in 2011, this is
5 moving New Jersey backwards. reducing the renewable
6 energy goals from 30 percent to 22.5 percent is
7 another step backward.

8 I am not going to repeat the many things
9 that you heard over and over again about reducing
10 the goals, about energy efficiency and how important
11 it is, about clean energy and how important it is.
12 I believe you already know all these things.

13 You already know that New Jersey is one of
14 the leaders in the nation in solar installation. I
15 know, I have heard, I have been at the last few
16 hearings, I am aware that you want facts and you
17 want figures, and so I will give you a few, but not
18 all the figures because that would take up too much
19 time, so I am going to give you a few now.

20 Jobs are incredibly important not just

21 during a recession, they are always important.
22 Right now unemployment is in a bad stage and the
23 recession has hit New Jersey especially hard, and we
24 know that clean energy has really survived
25 throughout the recession, but let me give you some

98

1 numbers about clean energy.

2 Energy efficiency gives us the biggest
3 bang for the buck, it creates between 1.5 and 5
4 times the number of jobs of natural gas, and I have
5 all of the references, natural gas creates 1.5 jobs
6 per megawatt while energy efficiency creates
7 somewhere between .2 and .6 jobs per megawatt.

8 wind creates 1.5 as many jobs as natural
9 gas. solar PV, there are representatives of solar
10 companies here, they have been at the last few
11 hearings, we have seen the faces of people who have
12 been employed by the solar industry who were not
13 employed before, who were not employed before, who
14 were not employed during the recession.

15 There are studies that show that solar PV
16 creates thirteen times as many jobs as natural gas.

17 solar, wind and energy efficiency all
18 create more jobs than nuclear, which creates about
19 .14 per megawatt. For energy efficiency, that
20 creates 3.3 times as many jobs as natural gas, 3.1
21 per million for natural gas as opposed to about
22 seventeen jobs per million for energy efficiency,
23 and those are jobs in various fields.

24 I met with someone who because of the
25 state's role in energy efficiency has gained more

1 work because new glass that is more energy efficient
2 is being used more often in New Jersey, and that's
3 because New Jersey has set strong goals for
4 reducing demand and for energy efficiency.

5 I have a lot more numbers for you but I
6 don't want to take up a lot of time today, there has
7 been a lot of testimony so I am going to keep mine
8 short because we have a lot of comments that we
9 will be submitting.

10 I want to say one thing, I was at the
11 first hearing and the second hearing, and there were
12 residents like myself, private citizens that aren't
13 pad by some industry and don't own a solar company
14 that are here because they care about the Energy
15 Master Plan.

16 It is not about industry, it is about the
17 people of New Jersey. Thirty-five percent of New
18 Jersey's electric needs comes from residential
19 electric needs, that thirty-five percent should be
20 listened to just like the other sixty-five percent.
21 So please take into account every comment that every
22 person from the State of New Jersey that has taken
23 time out to come to this hearing, taken days off
24 from work, please take everyone's comments seriously
25 and weigh every comment that comes from the average

100

1 resident to someone who owns a huge company or
2 utility, please take every comment into

3 consideration because this plan affects everyone in
4 new Jersey.

5 PRESIDENT SOLOMON: Thank you.
6 Donald Powell, Powell Energy and Solar,
7 LLC.

8 MR. POWELL: Good afternoon, President
9 Solomon, Commissioners and members, I thank you for
10 the opportunity to speak to you today.

11 I guess I would like to start off with
12 congratulations, you have probably heard a lot of
13 criticism, but you have created a very, very
14 successful solar energy program. I am President and
15 owner of a solar energy and energy efficiency
16 company, we are a State certified energy company so
17 we are heavily involved in programs that you
18 created.

19 Unfortunately, I think that you have been
20 a victim of your own success.

21 It is quite obvious that we made a much
22 too attractive solar industry in the State of New
23 Jersey. We have brought people in who, I guess it's
24 probably a bit of a perfect storm, given the
25 economic climate there is no other place where

101

1 people can reap the kind of return that solar has
2 brought, so the State is being flooded with outside
3 interest and outside money to bring in the kind of
4 returns that are not available through wall Street
5 and other financial institutions.

6 I would like to kind of give you a sense
7 of grounding here, you probably know all this, but

8 in the recent past the stock market, the Dow Jones
9 industrial average has gone down five, six percent,
10 which has been on the front page of every newspaper
11 in the past few weeks and has got the entire world's
12 financial system in turmoil.

13 By comparison, the SREC market has gone
14 down over 72 percent over the last few months. This
15 has some outstanding consequences to the people who
16 were early adopters and bought into their vision and
17 invested their money and put it into the market.

18 Everyone knows, and I have been selling
19 solar for three years and I tell it to everyone that
20 I sold it to, that the SREC market is only a market
21 and it can fluctuate, and they certainly understand
22 that.

23 But I don't think they ever anticipated
24 in their wildest dreams that the market would go
25 down 70 percent.

102

1 A GENTLEMAN: 79.

2 PRESIDENT SOLOMON: Do me a favor, when
3 someone is speaking, please don't interrupt them.

4 MR. POWELL: Unfortunately, these folks
5 are being thrown under the bus. A lot of them,
6 probably most of them, have borrowed money to
7 install the systems that support your vision and
8 support the clean Energy Master Plan and clean
9 energy in the State of New Jersey, they have
10 payments to make and the cash flow is just not
11 there.

12 I spoke to one of your people from the
13 Clean Energy program yesterday at a lunch, and when
14 I asked about the Master Plan and the SREC market,
15 his advice was, well, bank them because we don't
16 think that the SREC market is going to stay low.

17 Unfortunately, that's not an option, they
18 need cash flow, they don't have a of money to sit
19 on and wait. They need to make payments and
20 certainly in this economic climate, that's a
21 challenge to a lot of people.

22 Second of all, from a grass roots kind of
23 a level, I have had two people cancel contracts in
24 this past week due to the instability in the SREC
25 market. They looked at it, they have seen what

103

1 happened to it and they don't want any part of
2 that.

3 Going forward, if that's the case what
4 that is going to translate into is that there are
5 going to be people out of work, there will be
6 families in distress and it will mean reduced taxes
7 to the State because people are not working.

8 I would like to recommend to you two
9 things: Number 1, to do everything you can to raise
10 the RPS standard right now to pick up the slack and
11 get rid of the excess.

12 Number 2, to find a way to limit the
13 amount of solar that is approved so that it does not
14 exceed the RPS, perhaps that needs to be limiting
15 large scale solar installations, but the people of
16 New Jersey who are residents, who are businessmen,

17 who are doing what they need to do and what they can
18 do, they need to be protected, their interests need
19 to be protected by the Board of Public Utilities so
20 that they don't get shortchanged on the SREC
21 market.

22 Thank you.

23 PRESIDENT SOLOMON: Thank you.

24 Susan Polk.

25 MS. POLK: Good afternoon.

104

1 I am Susan Polk, and I have lived in New
2 Jersey all my life.

3 I have come here today as a concerned
4 mother, grandmother, daughter, sister and one
5 dedicated to living her best life.

6 After thirty-three years of teaching in
7 New Jersey's public schools I now serve as an
8 elected official on the Mullica Township Committee,
9 I created and serve as President of the Sustainable
10 Mullica Green Team.

11 Taking responsibility for our actions is
12 necessary for our survival and our good quality of
13 life. The clear and responsible choice here is to
14 make clean that renewable energy is a priority in
15 our State. If you look at the clean energy picture
16 realistically, solar and clean energy clearly come
17 out ahead as a better choice.

18 I oppose all new coal plants, the New
19 Jersey Energy Master Plan should set a timeline to
20 phase out all of New Jersey coal plants, and no new

21 transmission lines that would import coal energy to
22 New Jersey should be constructed.

23 Please, the 2008 Energy Plan goal to
24 generate 30 percent of New Jersey's energy with
25 renewable sources should remain intact to continue

105

1 so we can have clean energy and economic growth and
2 the 22.5 percent reduction in that plan should not
3 be implemented.

4 Let's keep New Jersey as a leader in
5 sustainable environmentally healthy practices.

6 PRESIDENT SOLOMON: Thank you.
7 Douglas Dickinson.

8 MR. DICKINSON: Thank you, President
9 Solomon, and the rest of the members of the
10 Commission.

11 I am really going to be short because what
12 I was going to talk about basically Jesse Connors
13 and Christine Ghul spoke about what I was going to
14 say.

15 I would like to make a comment on
16 something that Senator Whelan mentioned. He talked
17 about getting those boat builders back to work. I
18 have been a boat builder for twenty five years. In
19 the early nineteen-nineties, we know the economic
20 conditions, and I was a victim of what was going on
21 and I lost my job.

22 I am working with Senator Whelan, I am a
23 Councilman in Egg Harbor City and I have been
24 working to get fiberglass workers back to work, we
25 can do it all, we can make the parts, we shouldn't

1 be outsourcing any jobs to any other state.

2 we read in the papers about Cumberland
3 County about some of the heavy wind farms on some of
4 the farmers' properties. and you know that the
5 windmills are going to be taking off all up and down
6 the East Coast as years go by, so let's get these
7 jobs to New Jersey and let's get them here now.

8 PRESIDENT SOLOMON: Thank you.

9 Xavier Walter.

10 MR. WALTER: I am Xavier Walter.

11 President Solomon, thank you so much for
12 listening to us, we appreciate that you have come a
13 long way.

14 I am Xavier Walter of The Energy Team, new
15 energy contractors currently conducting energy
16 audits in weatherization and energy efficiency
17 upgrades throughout New Jersey.

18 The last two years have been an
19 exceptional time for the green jobs market.
20 Entrepreneurs like myself have established a
21 foothold on a sustainable business path toward
22 financial recovery. Our team has weatherized over
23 three thousand homes and conducted over five
24 thousand energy assessments and grown substantially
25 due in part to the BPU's clean energy policy.

1 we work with and support programs like
2 Solar Read, Direct Install, Smart Smart and more.

3 We need these programs to continue to fund
4 awarness in the marketplace through advertising and
5 promotion. More importantly, we must maintain
6 strict cost control with solid education and
7 training.

8 The value in these programs lies not in
9 large handouts but the facilitation of growth for
10 a new industry.

11 New Jersey is the nation's leader in
12 energy efficiency and renewable programs and we
13 would like it to stay stay that way.

14 I was able to build a good business and
15 put many people to work over the last few years and
16 we are prepared to keep that momentum going.

17 we need to build a climate to encourage
18 consumers to be more sustainable, increasing the
19 renewable portfolio standard and supporting the
20 Regional Greenhouse Gas Initiative.

21 And we look forward to economic recovery.
22 we can rebuild our financial economy through energy
23 savings measures and renewable energy to save up to
24 thirty percent of the consumers' gas and electric
25 bills, that gives homeowners and businesses more

108

1 money to spend in the marketplace.

2 Those funds from these projects go into
3 the pockets of employees, supply houses and
4 domestically manufactured products, not to mention
5 all the lunches in local diners throughout New
6 Jersey where we meet to collaborate on best
7 practices and improved operations and networking.

8 With the decline of the GDP, clean energy
9 program's focus on reduced carbon emissions and
10 lower utility bills are the answer. These programs
11 work in conjunction with the Department of
12 Environmental Protection, local utilities,
13 community action programs, the BPU and many public
14 and private entities so that we can make a major
15 change in our State's economy.

16 New Jersey needs to continue to be a
17 leader across the nation and around the world for
18 being one of the first to financially recover in
19 these difficult times.

20 We have over 2.8 million buildings in our
21 State that need to cut their bills by a quarter or
22 more. Energy efficiency is the catalyst that
23 lawmakers need to put our country back on its feet.
24 Recovery starts with a solid plan of action geared
25 toward sustainability, job creation and

109

1 environmental stewardship. Our current plan puts
2 money in the pockets of carpenters, laborers,
3 electricians, heating professionals, plumbers,
4 scientists, bankers and engineers.

5 The industrial revolution got us out of
6 the Great Depression and the green revolution can
7 get us out of this recession.

8 PRESIDENT SOLOMON: Thank you.

9 George Dzurina.

10 MR. DZURINA: I am George Dzurina, I have
11 a solar, energy solutions and construction company,

12 I have done construction for four different County
13 Colleges around New Jersey.

14 I'm not going to stand here and commend
15 you guys for the plan because when I first read
16 this plan a few months ago I was stunned. I am like
17 one of many, like some of the last witnesses, with
18 my background of being an electrical engineer and
19 automation I decided to move into renewable energy,
20 so pretty much one hundred percent of what I do
21 revolves around energy in some aspect.

22 I can say that the more I focus in at
23 the lack of press coverage that I have seen in the
24 newspapers, this definitely is not something that I
25 see as a favorable condition here.

110

1 So what I would like to say, in one of my
2 positions at Middlesex County College I talk to a
3 lot of people who have been unemployed for six
4 months or a year and who are on a WI grant, in
5 talking to them, those are people who have been out
6 of work for a year, and one of the things they ask
7 me is, is this really a good place to get a job, and
8 generally I can say, yes, I feel it is.

9 I wonder if any of you geniuses up there
10 can tell me, is there an industry that has been
11 growing twenty-five percent per year in the last
12 three years of the recession?

13 We have an Energy Master Plan that's been
14 working very well, it's put a lot of people to
15 work, small business, like myself, and now we are
16 in a spot where I am looking at this and saying,

17 "I've got to do something different now that I have
18 spent a lot of time, money and effort in the last
19 three years to get to this position and really in
20 the last three or four months it fell apart."

21 PRESIDENT SOLOMON: Can I ask you a
22 question: what kind of work do you do, solar?

23 MR. DZURINA: I am an instructor at four
24 County Colleges and a certified PV installer.

25 PRESIDENT SOLOMON: Secondly, if you want

111

1 to speak, at least since we have tried to be
2 respectful you can be respectful. If you want to
3 insult the Commissioners --

4 MR. DZURINA: I am not insulting anyone.

5 PRESIDENT SOLOMON: Let me finish.

6 You made a comment that I thought was
7 completely insulting to all of us. If you want to
8 do that again you can wait outside, we can talk off
9 the record another time. If you have something to
10 say on the solar side, go ahead and say it.

11 MR. DZURINA: You guys are up there in
12 politically appointed positions, so great.

13 Yes, I am upset about this. I can see my
14 livelihood going down the drain, every project
15 that I go to right now there is indecision. The
16 projects I have done, the pay-back is no longer four
17 to five years, with the SRECs, it happened
18 basically overnight.

19 what do I see has happened: An Energy
20 Master Plan that has changed dramatically.

21 PRESIDENT SOLOMON: Why do you think it
22 happened overnight?

23 MR. DZURINA: Because know where this
24 program is going.

25 PRESIDENT SOLOMON: Have you considered

112

1 speaking to any people in the SREC market fo find
2 out why it happened?

3 MR. DZURINA: Yes. I am also a member of
4 the Department of Energy and two weeks ago I was at
5 Penn State, and while I was there, we have members
6 from West Virginia, Delaware, New York,
7 Pennsylvania, and everybody there said, we wish we
8 had an Energy Master Plan like New Jersey.

9 PRESIDENT SOLOMON: Why did they tell you
10 that the bottom dropped out of the market?

11 MR. DZURINA: Go look at a brokerage.

12 PRESIDENT SOLOMON: I'm asking you.

13 MR. DZURINA: My inclination is because
14 there is a change in the Master Plan.

15 PRESIDENT SOLOMON: I know why.

16 MR. DZURINA: You tell me, you know.

17 PRESIDENT SOLOMON: I'm going to tell you.

18 The reason is that the program was very
19 successful and in the last six months or so, maybe a
20 year, since the Master Plan has been discussed and
21 all those rumors are out there which are a lot worse
22 than what's written in the Master Plan, there was a
23 tremendous volume of solar being built so that the
24 supply of SRECs instead of being short is projected
25 to be long by next year.

1 MR. DZURINA: Does that have something to
2 do with our thirty percent change?

3 PRESIDENT SOLOMON: It has nothing to do
4 with the Master Plan. It does have to do with the
5 statutory targets for solar REC requirements in the
6 coming years--

7 MR. DZURINA: There is a huge change in
8 the Master Plan--

9 PRESIDENT SOLOMON: There isn't yet. The
10 Legislature may act, and there have been actually a
11 couple of suggestions here of things that can be
12 done to stabilize the SREC market which the
13 Legislature can do, and there are some things even
14 that we could do, and we are looking for some
15 constructive suggestions that might affect the
16 reason why the REC market went down.

17 MR. DZURINA: I think a lot of constructive
18 suggestions come from the oil and gas industry.

19 PRESIDENT SOLOMON: We had a solar
20 gentleman here talking about putting a floor price--

21 MR. DZURINA: We cannot say that gas is a
22 clean renewable energy.

23 PRESIDENT SOLOMON: I haven't gotten a
24 single suggestion about preserving the SREC program
25 from a gas company, oil company, coal company, never.

1 MR. DZURINA: I can tell you from my own
2 basis that in the last three months I haven't been

3 able to get a project under contract. I can tell
4 you that I taught solar and renewable energy classes
5 since October 2009 and i have never once had three
6 months of classes not run due to lack of enrollment
7 until now. What is that from?

8 What is that from?

9 PRESIDENT SOLOMON: I just told you.

10 MR. DZURINA: I'll tell you what it's
11 from, it is from the lack of growth over the last
12 three months.

13 PRESIDENT SOLOMON: You're right, and I
14 just told you why. If you have a suggestion about
15 how to positively affect that or create some
16 stability, tell us.

17 MR. DZURINA: I am not an expert on the
18 Board of Public Utilities. I know what my business
19 is. You are supposedly experts here. You have
20 three people sitting there who have never written
21 anything down, on the phone, texting during the last
22 meeting for the last two hours.

23 PRESIDENT SOLOMON: We have got a
24 transcript, I'm listening to you, do you have a
25 suggestion?

115

1 MR.DZURINA: Yes. Leave the Master Plan
2 alone. It was working very well.

3 PRESIDENT SOLOMON: It would have no
4 impact on the current price of SRECs, that's all I
5 can say.

6 We can have this debate, we can do it
7 later, but I can tell you that we have had a couple

8 of positive suggestions.

9 MR. DZURINA: I'm sure you have.

10 PRESIDENT SOLOMON: We have had other
11 positive suggestions, they have all come from solar
12 companies and financial institutions and financial
13 projects.

14 I, frankly, haven't gotten one suggestion
15 from you other than a couple of--

16 MR. DZURINA: The suggestion I can tell you
17 is that my business is dead and so is many others'.
18 I am a small business owner and I can see, when I
19 meet with customers, I have six projects right now
20 where the winner is up for bid, but nobody is going
21 to be doing anything because they don't know what is
22 going on.

23 I have had classes at three different
24 colleges in the last three months, none of them
25 filled, so something happened in the last three or

116

1 four months.

2 PRESIDENT SOLOMON: I just told you. Do
3 you want me to tell you again?

4 MR. DZURINA: Yes, tell me.

5 PRESIDENT SOLOMON: it is that the SREC
6 market is no longer short.

7 MR. DZURINA: It is that the Master Plan
8 has changed, which is undermining it.

9 PRESIDENT SOLOMON: Okay, it's your
10 opinion.

11 MR. DZURINA: No, it's not-- you're right,

12 it is my opinion.

13 PRESIDENT SOLOMON: We hear you.

14 MR. DZURINA: I do, too.

15 PRESIDENT SOLOMON: Is that it? We thank
16 you very much.

17 MR. DZURINA: Thank you for nothing.

18 PRESIDENT SOLOMON: Edith Gruber.

19 MS. GRUBER: Good afternoon.

20 My name is Edith Gruber, President of
21 Jersey Shore Nuclear Watch.

22 For us the prospect of new nuclear plants
23 is a nightmare. During the time that we have been
24 organized in 2000, twenty municipalities have passed
25 resolutions opposing the extension of the license of

117

1 Oyster Creek. We believe that due to public
2 pressure and private citizens it helped to reduce
3 the extension from twenty years to ten years.

4 One of the problems that we have been
5 discussing for the past ten years, we have been
6 attending the emergency plan that has been organized
7 by the DEP and the State Police, and most of the
8 people there say that the evacuation plan does not
9 work, they would not be able to get out in an
10 emergency; it looks good on paper, but the
11 overwhelming majority of the people there agreed
12 with us.

13 In addition to that, we have nuclear
14 waste that is piling up in our backyards. I live
15 ten miles from Oyster Creek, there have been
16 accidents of meltdowns. In addition to the safety

17 issues and the way that citizens feel, there is the
18 issue of economics, a practical issue. The new
19 nuclear plants are not practicable, it is expensive.

20 I would like to refer you to a 126 page
21 document by the Union of Concerned Scientists.

22 They said that nuclear power plants are
23 not economically viable, they depend on subsidies in
24 order to exist, they keep taking.

25 when nuclear plants started out there was

118

1 an attempt made to try to give it some
2 sustainability, and what happened is that according
3 to the report the nuclear power industry keeps
4 demanding more and more money. I would like to see
5 you study that report. The report says there are all
6 kinds of ways that the nuclear industry demands
7 more money through loan guarantees, outright grants
8 and tax reductions.

9 Now I want to get to the practical
10 aspect. Since Three-Mile Island nuclear plants have
11 not been built in our country, they have been built
12 in Europe and other places. Where are we going to
13 get the help to build the new nuclear plants? That's
14 a problem.

15 In addition to that, 92 percent of uranium
16 is imported so we should consider that also.

17 I would like to see the Master Energy Plan
18 kept the way that it is now, no changes.

19 PRESIDENT SOLOMON: Can I ask you a
20 question, because it does, it specifically cites the

21 2008 Energy Master Plan with respect to the Global
22 Warming Response Act, the carbon targets, and it
23 essentially cites the 2008 Energy Master Plan, and
24 there is a section, 713, Nuclear Generation to
25 Satisfy the Global Warming Response Act, it doesn't

119

1 say that we need to build more nuclear, it simply
2 refers to the prior Energy Master Plan and that in
3 order to meet those carbon targets it may be
4 necessary, but there are a lot of if's about it
5 including the financial issue, it doesn't advocate

6 MS. GRUBER: Okay, but I want to give some
7 more reasons why we shouldn't get new nuclear
8 plants.

9 PRESIDENT SOLOMON: I thought maybe there
10 was something in the plan--

11 MS. GRUBER: No, one of the words that's
12 mentioned in the plan was that there was a dream, It
13 mentioned the word "dream."

14 PRESIDENT SOLOMON: Everybody can look at
15 pages 77 and 78, it never dreams about, talks about
16 a dream or considers nuclear to be a dream.

17 It talks about how we could potentially
18 meet the carbon targets of the Global Warming
19 Response Act and nuclear as a carbon-free baseload
20 generation, and that's what it discusses.

21 MS. GRUBER: Okay. Well, in the mining of
22 uranium fossil fuels are used, and there is more
23 fossil fuels, and in addition to that uranium mining
24 is a dirty, dirty, industry, it's a polluting
25 industry, so I would like for you to consider that

1 fact.

2 I would like to end by saying that before
3 Fukushima which proved to a lot of Americans, and I
4 would like to see your opinions, that nuclear plants
5 are hazardous, they are riskiest-- they are risky,
6 they are impractical.

7 Since Fukushima I believe, and we have
8 seen people that we deal with all of the time that
9 have changed their minds about nuclear power.

10 Thank you very much.

11 PRESIDENT SOLOMON: Thank you.

12 Janet Tauro.

13 MS. TAURO: My name is Janet Tauro.

14 I have the pleasure to be the Board Chair
15 of the New Jersey Environmental Federation, and I am
16 a very proud member of GRAMMES, Grandmothers and
17 Mothers for Energy Safety

18 I would like to very much support the
19 comments made by Christine Guhl of the Sierra
20 Club, terrific observations, which is actually
21 something that I was noticing during the course of
22 these hearings in Jersey City, Trenton; it's
23 amazaing how just ordinary citizens are coming out,
24 coming out about the Plan, not employed anywhere,
25 but they keep coming out to express what they hope

1 will be the vision for the future.

2 I think it is so much prompted by their

3 concerns for their children, their concerns for
4 their grandchildren and the environment that we are
5 going to leave them.

6 And I think that they are just really
7 meeting with you to be asking you to be grand
8 visionaries and bold visionaries and to put us on a
9 really strong course of renewables.

10 The people want solar and wind, they want
11 green technology, and it really is amazing to see
12 how many people come out because it is very
13 difficult to come out to these hearings for the
14 average citizen.

15 Christine had to take off from work and
16 have someone do some babysitting to come here and
17 speak here.

18 So it is so important, and I am so proud
19 to hear so many people come and really speak about
20 what they want as their future.

21 It is very disturbing to hear support
22 today given to nuclear; that should not even be
23 considered, that should not be an option after
24 seeing what we saw in Fukushima and what is going
25 on there today. You know, it has gotten off the

122

1 front pages, but there are tons and tons of
2 radioactive water flowing into the Pacific, radio-
3 activity has entered into the food chain, milk,
4 cows are eating radioactive grass, there are
5 thousands of people who will not be able to return
6 to their homes not just because of the Tsunami but
7 because their home towns are radioactive.

8 And reports were issued a couple of weeks
9 ago about the tests of the urine of children living
10 eighteen miles from the site, and their urine was
11 radioactive.

12 We can never ever allow that to happen
13 here, ever, and we can never say, 'Oh, it can't
14 happen here because we don't have Tsunamies," we
15 have other things, we have very extreme weather
16 patterns, we have hurricanes, nuclear plants are
17 subject to human error, mechanical error,
18 technological error, terror, and if any of those
19 things happen the consequences are life-threatening.

20 And that is why we are not going to see
21 that type of horrific outcome with anything that
22 happens with solar installation or wind
23 installation.

24 As a matter of fact, in Japan, what is
25 interesting is that of their fifty-four reactors,

123

1 sixteen are operating, and they are meeting their
2 baseload and they are meeting their energy needs
3 through intense conservation efforts and their
4 windmills, and they are even considering taking,
5 getting rid of the nuclear program completely as are
6 Germany, Italy, Switzerland, we are seeing France
7 move away from it and we are seeing an explosion of
8 wind and solar technology in China.

9 So I would just urge you and really just
10 beg that you can find it in yourselves to push for
11 clean energy technology. That is what the people in

12 New Jersey really need. If the other countries can
13 do it, we can do it, too.

14 Also, natural gas that comes from
15 fracking, and the environmental effect of that is
16 not green technology.

17 Thank you very much.

18 PRESIDENT SOLOMON: Thank you.

19 Kate Hubschmitt.

20 MS. HUBSCHMITT: My name is Kate
21 Hubshmitt.

22 My name is Kate Hubschmitt and I work for
23 the New Jersey Carpenter Contractor Trust or NJCCT.

24 NJCCT is the labor management cooperative
25 of the carpenters union and their signatory

124

1 employers. NJCCT represents seventeen thousand
2 union carpenters and nearly two thousand signatory
3 union contractors throughout the State of New
4 Jersey. As such, my comments on the State's draft
5 of the 2011 Energy Master Plan will focus on job
6 creation within the construction industry,
7 particularly on the clean energy job sector.

8 The economic viability of this growing
9 clean energy industry is something we believe will
10 have an enormous impact on the recovery of New
11 Jersey's suffering construction industry.

12 Construction unemployment rates are down from 17.3
13 percent in July 2010 to 13.6 percent in July 2011.
14 This sharp drop indicates that many construction
15 workers have either left the industry to find work
16 elsewhere or have reached the maximum allowance of

17 unemployment benefits, leaving them in severe
18 financial hardship and affecting thousands of New
19 Jersey's working families. The lack of industry
20 demand indicates the need for innovative
21 investments, and we believe the development of New
22 Jersey's clean energy industry will provide many of
23 the opportunities needed to supply jobs for years to
24 come.

25 Globally, the clean energy industry is a
125

1 2.3 trillion dollar market. As a direct result of
2 these investments, the industry is expected to grow
3 20.4 million new jobs by 2030. Naturally, New
4 Jersey has been a front-runner in clean economy
5 market investments, spurring new industry job
6 growth. According to a 2011 report by the
7 Metropolitan Policy Program of the Brookings
8 Institution, between 2003 and 2010 clean energy
9 investments led to the growth of 152,034 green jobs
10 throughout the New York-New Jersey metropolitan
11 region. No other major metropolitan region in the
12 country has yet to break the hundred thousand mark,
13 including California's Los Angeles-Long Beach-Santa
14 Anna hub, which grew 89,592 clean economy jobs
15 during the same period. In 2010 the State of New
16 Jersey alone had 94,241 jobs in the industry and
17 2.4 percent of all State jobs. Furthermore, the
18 annual average annual increase in the number of
19 clean economy jobs grew 4.7 percent faster than
20 almost any other emerging industry.

21 These figures alone support the economic
22 viability of this growing industry. For this
23 reason, the Carpenters have remained steadfast in
24 transitioning much of our advanced training programs
25 to focus more heavily on sustainable building,

126

1 including the construction of new forms of energy
2 generation, including wind and solar.

3 Investment in new technology will
4 inherently increase the demand for a highly-skilled
5 and specially trained workforce that is
6 knowledgeable and prepared to build tomorrow's clean
7 energy sector. In this regard, the Carpenters
8 Union has been and will continue to be keenly
9 focused on enhancing our training programs,
10 including upgrade training to meet green standards
11 and clean energy trends. By investing in these
12 programs, the Carpenters are committed to increasing
13 New Jersey's competitiveness in this growing,
14 multi-million dollar industry.

15 The potential for job generation is
16 significant, but investments in clean energy markets
17 are multi-layered. The growth of the industry will
18 also reduce our dependence on foreign sources of
19 energy while simultaneously reducing environmental
20 harm, things we see as universal benefits. The
21 State's dedication to increase in-State energy
22 production is something we feel should continue to
23 be a focus of our State's leadership.

24 Investment in clean energy infrastructure
25 lays out a long-term plan for job growth and removes

1 thousands of construction workers from the
2 long-term unemployment that is stunting New Jersey's
3 economic growth. The Carpenters Union and their
4 employees are committed to ensuring that New Jersey
5 remains competitive for years to come.

6 PRESIDENT SOLOMON: Thank you.

7 Justin Murphy.

8 A GENTLEMAN: He left.

9 PRESIDENT SOLOMON: Ethan Sprague.

10 MR. SPRAGUE: Thank you for the
11 opportunity to stand and speak this afternoon. I am
12 Ethan Sprague.

13 I have been listening and listening to a
14 bunch of different people's visions of energy in New
15 Jersey's future.

16 I am not going to tell you what to do with
17 your vision, I am only going to tell you what I know
18 about the residential market and the innate value
19 that that has in New Jersey.

20 The SunRun Company started in 2007 in
21 California. The model is and was to create
22 residential solar and make it easier for solar
23 installation. The model has quickly taken off and in
24 2009 we came to New Jersey. We had about twenty
25 five hundred customers under contract in New Jersey

1 and we buy solar panels locally, so we reinvest it
2 into New Jersey to purchase systems that go into

3 customers' homes and then they pay for the energy.
4 This avoids the up-front cost that would be a
5 barrier to going forward.

6 So that the twenty five hundred customer
7 contracts represent an investment of over a hundred
8 million dollars in New Jersey.

9 PRESIDENT SOLOMON: I have a question: Is
10 it a residential PPA?

11 MR. SPRAGUE: Exactly, yes. .

12 PRESIDENT SOLOMON: Does the model depend
13 on a residential customer, or would it apply to
14 small businesses and commercial also?

15 MR. SPRAGUE: It could apply, but we don't
16 apply it to that level, we are just doing
17 residential. We want to see everyone have the
18 opportunity for that and take away the barriers as
19 to that.

20 We are investing about 1.4 million dollars
21 a day in solar equipment across the United States,
22 so it's been pretty popular.

23 And we have seen prices in the market
24 change dramatically in the last three years.

25 That gets me to the Energy Plan.

129

1 The (inaudible) report says, it cautions
2 the BPU about the limits and uncertainties
3 associated with the data in the analysis that was
4 provided.

5 In the Energy Master Plan it also talks
6 about not picking winners and losers, and as we are
7 looking at this vision I think it gets more viable

8 if the data in the analysis that underlies the
9 vision is supported.

10 So I will go into five different
11 recommendations about the Plan related to the data,
12 and it is all focused on the cost analysis of solar,
13 and particularly what I would like to focus on is
14 residential solar cost.

15 The first page I'd like to turn to is
16 page 6, that solar is more costly than other energy
17 sources, it uses a figure of \$390 per megawatt
18 hour and there is reference to a capital cost, and
19 if we go back and look on page 22 of that report,
20 and the 2008 and 2010 data, there is a June 2011
21 figure, a high end of \$192 per megawatt hour,
22 roughly half of what was reported in terms of price.

23 The second point I would like to point out
24 is on figure 41 on page 93 gives the cost in cents
25 per kilowatt hour, if you look at it, it's about

130

1 thirty-five cents per kilowatt hour. This is based
2 on a 2 kilowatt system. The average system size for
3 residential in New Jersey is a much smaller system,
4 so I think this will skew the numbers, we are
5 showing a much different cost per kilowatt hour.

6 PRESIDENT SOLOMON: What number are you
7 showing?

8 MR. SPRAGUE: It would depend on your
9 assumptions, that was the point I was just making,
10 if you assume tax credits and other things, you have
11 got to spell it out to get a reasonable analysis. I

12 would be happy to provide something on that.

13 PRESIDENT SOLOMON: If you could submit
14 supplemental written comments, we would love to get
15 something.

16 MR. SPRAGUE: Okay. The third point I would
17 like to make, on page 94 it estimates the annual
18 cost to the state of SRECs at a half million dollars
19 by 2013, Table 4, page 106, Table 4 uses SREC prices
20 at 35 percent --

21 PRESIDENT SOLOMON: We know that the
22 price has dropped significantly in the past few
23 months.

24 MR. SPRAGUE: So it's the price today, not
25 in 2015, so I think that piece of the analyst could

131

1 be updated.

2 The fourth point, on page 96, that number
3 is actually the number reported for 2010. The
4 number for 2011 is \$226,000 which is 22 percent
5 less.

6 PRESIDENT SOLOMON: Is that based on the
7 diminishing SREC price?

8 MR. SPRAGUE: No, that's his opinion--

9 PRESIDENT SOLOMON: No, I'm saying your
10 2011 projection.

11 MR. SPRAGUE: The 2011 projection is the
12 (inaudible) projection, and then 42 percent less, my
13 projection is even less than that based on the other
14 inputs.

15 PRESIDENT SOLOMON: I have got it.

16 MR. SPRAGUE: I think it is also pertinent
Page 112

17 to know in the report that says, " The employment
18 benefits from installing and maintaining solar
19 slightly outweighs the economic benefits of higher
20 electricity prices, " on page 103 of the Spiegel
21 report..

22 I think actually based upon the numbers
23 they were looking at, which are outdated, the
24 finding would be much stronge if run today with
25 updated numbers.

132

1 Lastly, the last point I want to make
2 about the specific EMG is that on page 73 it states
3 solar costs will be 2.6 percent of the total retail
4 electric market in 2012 even through solar power is
5 less than 1 percent of the electric power."

6 That is based on Table 6, that has the
7 SREC prices in there, and when I look at this I'm
8 curious as to what underlies that figure, and I
9 wonder if the fact that solar is producing during
10 peak hours so that the value that it is offsetting
11 is greater, I'm wondering if line losses are
12 considered in thatso that not only would the cost
13 data that went into that perhaps be outdated but
14 that it wasn't a robust analysis of the specific
15 benefits.

16 That gets me to a couple of points. If you
17 look at the different energy resources, and in
18 particular, the first one is a broader economic
19 benefit from residential solar. The report cites in
20 a couple of places that residential is higher. The

21 reason it is higher is because of the local jobs,
22 and as costs go down what remains is the local jobs
23 piece, so the investment that we are making, that
24 hundred million dollar investment system has also
25 been creating local jobs.

133

1 And the purchase of goods and equipment
2 should be looked at, too, and those would come in at
3 a high percent of investment, most of the
4 investment, as I said, is jobs.

5 That investment also affects the income
6 tax, sales tax, and other similar taxes such as
7 property tax. there is a survey out in California
8 that shows home values increasing when they have
9 solar so that when that home sells it sells for a
10 higher base because it has solar, and the State
11 may get a portion of that revenue.

12 So the report shows almost seven thousand
13 installs, and when we multiply that out we get three
14 hundred million dollars invested in residential
15 systems, so I think that is a huge amount that
16 should be looked at. That would represent peak
17 generation, reduced consumption, you know,
18 residential solar is also energy efficient, there is
19 reduced demand at peak hours, but it's even better
20 than that because it is sending energy back at peak
21 hours, there is reduction on the network, it
22 encourages conservation at reduced cost and there
23 are environmental health benefits.

24 The last thing is energy awareness.
25 when I look at the energy market, demand response is

1 very much like a dial-up on the internet, if you
2 remember, there is a general awareness of the
3 benefits of this and we are still involved in the
4 mechanics of making it mainstream, and so I think
5 any promotion of residential customers getting the
6 benefit of this and seeing it in their everyday life
7 is really going to be the basis of how we think
8 about energy and how we use energy and would have a
9 positive impact on our economy.

10 Before I conclude, I want you to
11 understand why we believe that the residential
12 market is fundamentally different than the
13 commercial or other solar markets. The cost drivers
14 really have to do with the per project total cost,
15 the cost of sales, the cost of interconnection,
16 SREC registration, all those costs add up to more
17 per system, per watt than on a larger scale.

18 And so the things that you can do today to
19 improve those types of processes would lower the
20 costs. What happens is when you lower the cost for
21 residential solar I am going to be investing in
22 less local jobs, but there will be a bigger market
23 and customer savings will increase, and those
24 customers have more liquidity than to spend on
25 goods and services I think what you lose in cost

1 per system you gain in the marketplace.

2 So to the extent that you can work on

3 those per system costs I would really appreciate it
4 and I think the State would appreciate it.

5 The residential market will create big
6 support for local investment and it will save
7 energy and be the new frontier of energy, I know
8 there is some money out there that is available.

9 The permitting processes, there are a lot
10 of different and various processes and applications
11 and for renewing things that could be reduced. I
12 have a study with me that looks at the benefits in
13 California over nine years, and I will give that to
14 you as something you can --.

15 PRESIDENT SOLOMON: The taxes. are high.

16 MR. SPRAGUE: The taxes are different..

17 The last thing I want to say is that I
18 think creating long-term opportunities for the
19 residential aspect will go a long way to stabilize
20 the SREC prices. Right now the way that program
21 works, it hasn't been extended, and an entity like
22 SunRun--the system can't be built yet in order to
23 apply, there is a lot of paperwork that needs to be
24 filled out. There are ways to streamline that.

25 Basically what we are doing is taking a

136

1 higher price for a shorter term contract because we
2 don't think we are going to get anything or as much
3 at the end, so we are sort of forced into taking
4 whatever we can now because of the uncertainty of
5 the future. If there was a structured SREC market
6 where a lower price was available for a longer term
7 we would be all over that and it would help

8 facilitate our efforts, and the sooner that can be
9 done the better, I think the last solicitation is in
10 September.

11 And the other thing on that, I will
12 submit written comments, but in conclusion I think
13 you should focus on cost, trying to stabilize the
14 SREC market through programs that maybe could be
15 expanded and made more user friendly and accessible.

16 PRESIDENT SOLOMON: Two things I want to
17 ask you. We are aware that over the year or year
18 and-a-half that this was all being being developed
19 that we were getting inputs that some of the numbers
20 and statistics would change, and they will be
21 reviewed. I appreciate what you are saying but we
22 are already in the process of trying to get the most
23 up-to-date date that we can.

24 But when you read the Master Plan, we read
25 it, we read it fifteen or twenty times each or maybe

137

1 thirty, we weren't looking for a conclusion, just
2 information, in other words, what the cost is, and
3 then decisions about what is to be done with that
4 information would be made by the policy-makers,
5 typically the Legislators and the Governor.

6 We will refresh, look at the data, we will
7 refresh it, and it was not the intention to reach
8 the conclusion but put the information out there and
9 let the policy-makers decide.

10 And my question is, do you aggregate, is
11 part of your model to aggregate the energy sold back

12 to residential buyers, or do you do it one resident
13 at a time?

14 MR. SPRAGUE: We do it one resident at a
15 time.

16 PRESIDENT SOLOMON: Is aggregation an
17 option?

18 MR. SPRAGUE: is it an option? I'm not
19 sure in what context you are asking, the SREC
20 finance programs, it requires a single obligation
21 for every project.

22 PRESIDENT SOLOMON: I know, but were that
23 not the case would aggregation work for your
24 business?

25 MR. SPRAGUE: Yes. The one point I would

138

1 like to make is in regard to providing access to
2 people, what is happening now is that it it
3 becoming harder to try to finance these projects and
4 make it accessible to people and we would be happy
5 to give you our ideas on that.

6 PRESIDENT SOLOMON: We would welcome
7 those ideas. I think the last date is August 25th,
8 so you can send us whatever you want to make part of
9 the record on or before August 25th.

10 Earl Benner.

11 MR. BENNER: I would like to thank this
12 gentleman much for your presentation, I think it
13 was very clear as to the issue. I got most of what
14 you had to say and I hope that you members got even
15 more than I did, I only hope you did.

16 This gentleman pinpoints what we should
Page 118

17 all be talking about. You know what caused the SREC
18 market to go down? Very clearly, it was the over-
19 building of solar in New Jersey, It was building
20 more faster than what was anticipated.

21 And there is a point that you can make a
22 change in that, and the change is to drop the 22
23 and-a-half percent requirement for the renewable
24 energy proposal.

25 PRESIDENT SOLOMON: I'm listening.

139

1 MR. BENNER: There was more generation than
2 there are requirements for the utility companies to
3 buy it; ergo, the price goes down.

4 So what do we have? We have a system
5 which has been too good, too effective, do we want
6 to perpetuate that rather than try to change it?

7 I think it is clear, everybody on the
8 panel, everybody in this room says we must go to
9 renewable energy. It is inevitable and has to be
10 done, and the only deterrent has been cost.

11 So I would just like to mention a couple
12 of things. We have a Governor who indicates that he
13 plans to drop the RGGI, I don't know if that's a
14 good move or a bad move, but I was heartened by
15 the words that the Governor made in his statement,
16 and I would like to read just a couple of those to
17 you.

18 "One of the things"--this is the Governor
19 speaking, " one of the things that I am announcing
20 today is that there will be no new coal permitted in

21 New Jersey. From this day forward any claim that
22 anyone has regarding any type of coal based
23 generation of energy in New Jersey is over. We know
24 that coal is a major source of CO2 emission, we
25 will no longer accept coal as a new source of power

140

1 in this State. "

2 I don't know if the Governor wrote that
3 before or after the Harvard Medical School came out
4 with their cost analysis of the health costs of
5 coal. But in their report, and I hope you all have
6 read it or at least read the summary, they indicate
7 that the health cost of coal in the United States is
8 one-third to one half a trillion, with a T, dollars
9 annually, that's three hundred and thirty three to
10 five hundred billion dollars annually in health
11 costs.

12 And they break it out, if that cost was
13 proportioned to the cost of generating a kilowatt of
14 energy of electricity using coal, it would double,
15 triple or quadruple the cost.

16 So it is clear that the Governor is quite
17 accurate when he says that we should do away with
18 coal in the State and really throughout the
19 country.

20 But we also have to consider the cost of
21 making the switch. There has been a lot of talk
22 today, and again, I won't go over the cost for
23 solar, but I would like to call your attention to a
24 report on off-shore wind.

25 In the fiscal year 2010 the U.S.

1 Department of Energy instituted the Offshore wind
2 Innovation and Demonstration Initiative. They came
3 up with a number, a goal and expectation that
4 off-shore wind in the United States achieve 54
5 gigawatts at a cost of seven cents per kilowatt hour
6 by the year 2030 with an interim scenario of 10
7 gigawatts at ten cents per kilowatt hour by 2020.

8 Now, those numbers are right around our
9 current costs of burning coal, so we should be doing
10 everything we can to see to it that those goals are
11 achieved, and we think the best way to do that is to
12 set your goals high, not low.

13 The concept of the BPU putting out a
14 Master Plan that lowers our goal to 22 and-a-half
15 percent is setting the wrong example.

16 So I wish you would reconsider that and
17 perhaps make a change to that, and I think you will
18 find that those are the thoughts that the Governor
19 has on those issues, too.

20 COMMISSIONER FOX: Charles Anvrade.

21 MR. ANVRADE: I am retired.

22 COMMISSIONER FOX: You're still a New
23 Jersey resident, you haven't retired from that, you
24 haven't retired from being a New Jersey resident?

25 MR. ANVRADE: Yes.

1 Good afternoon, everyone, and thank you
2 for the opportunity to be here and thank you for

3 holding these meetings, which implies that there is
4 going to be a revision in the Energy Master Plan.

5 I want to refer to the same study that
6 Earl just told me about before the meeting started
7 about the Harvard Medical School.

8 Now, when I looked at the 230-some odd
9 pages of the report, actually I concentrated on the
10 graphics more so than on any narrative, but looking
11 at the charts, it's pretty obvious that the
12 concentration on this study was to get the 30
13 percent down to 22 percent of greenhouse gas
14 reduction. and so that was the objective and,
15 therefore, the alternative energy is not shown very
16 prominently on that chart as is the methane gas and
17 the nuclear.

18 Speakers before me have already discussed
19 the health issues, particularly the radioactive
20 substances and nuclear reactions and the other
21 health issues that are discussed in the Harvard
22 study that should be addressed in this revision that
23 we hope to see.

24 I would want to concentrate specifically
25 on the health issues.

143

1 There are two questions that I have for
2 the BPU to consider. The first one is on the health
3 care cost to reduce clean air and clean water under
4 your 22 percent and-a-half percent reduction
5 compared to the prior plan of 30 percent. I didn't
6 see that anywhere, so that what I am asking and
7 hoping is that it will be considered in your next

8 plan.

9 The second question has to do with the
10 fossil fuel industry's profit gain at the 22
11 and-a-half percent level against the health care
12 losses at that level, which makes more sense for the
13 economic health of all citizens in the State of New
14 Jersey. ,.

15 So it would be great to see the health
16 care cost benefits and cost on such graphics you
17 have to show.

18 And I thank you very much.

19 PRESIDENT SOLOMON: Thank you.

20 I'm sorry that I had to step out for a
21 second, but I will be reading the transcript and
22 Commission Fox will be filling me in on anything I
23 missed.

24 Matthew Hoke.

25 MR. HOKE: I am basically just expressing

144

1 dissatisfaction with reducing the clean energy goal
2 from 30 percent to 22 and-a-half percent. I would
3 like to keep it where it is or higher.

4 And there are a few reasons that I think
5 it is possible.

6 First of all, the reason for the
7 reduction, correct me if I am wrong, I think it was
8 based on the idea that the goal was to reduce the
9 end cost for the consumers; is that right?

10 PRESIDENT SOLOMON: Certainly cost was a
11 factor, but since the statute, the Solar Advancement

12 Act, if you look at it in the aggregate, it sets or
13 confirms that 22.5 percent standard. We felt,
14 number 1, it's a floor, not a ceiling, and that that
15 floor was set and acknowledged in the past by the
16 Legislature, that that was a policy that the
17 Legislature could change if they wanted it changed,
18 but there was nothing about that floor that changed
19 or altered our ability to go higher or past it, if
20 it was doable.

21 It has never been the goal of saying that
22 we are not going to achieve the most we can, but
23 that's the goal that was set by statute so we will
24 adhere to that until the Legislature and the
25 Governor tell us differently.

145

1 But it doesn't stop us from going beyond
2 that. Just like, even though the Governor has
3 pulled out of RGGI or he said he is going to pull
4 out of RGGI, the Global Warming Response Act which
5 sets the carbon target is still part of the law of
6 the land and all of the targetss set forth in that
7 Act are still binding on us.

8 So whether we are in or out of RGGI, we
9 still have the same obligations; I thought that I'd
10 throw that out there as another example.

11 So the answer is that the floor has been
12 set, we didn't change that floor, we certainly
13 didn't say it should be raised.

14 I'm certain that there will be people
15 that want to provide information, which is really
16 what we are hoping to get, not just raise it because

17 we think it should be raised and we want to have
18 that aspiration, but that your target should be
19 22.5, 25, 30, and here is how we think we will get
20 there and here is what it is based on and here is
21 what the real environmental impact is, that type of
22 analysis is what are hoping to get.

23 what we have got mostly is just a request
24 that we set a higher standard without the rationale
25 as to what is the reason for it, what is our

146

1 authority to do it, and what is the net environment
2 and economic impact.

3 MR. HOKE: As a little person here in the
4 world, I would just like to use this opportunity to
5 say that it should be higher, that would be my
6 petition.

7 PRESIDENT SOLOMON: Petition away.

8 MR. HOKE: But if the goal is lower cost
9 then I have to disagree with the economics of it,
10 because, all right, I guess the idea is if you back
11 off the industries then they have more room to
12 wiggle and they have more room to make more money,
13 and the extra money they make will sort of be
14 distributed back out in the form of lower costs;
15 but in my experience it is not what I have seen in
16 economics.

17 In this market when a company gets money
18 they just basically sit on it; that's just the
19 reality that I have seen.

20 So if you are looking for a suggestion,

21 I'd like to see this on a Federal level.

22 PRESIDENT SOLOMON: Good luck.

23 MR.HOKE: I would like to see massive
24 subsidization for new technology, I would like to
25 see the State spearheading infrastructure.

147

1 I don't think there is such a thing as the
2 overbuilding of solar until we get to a hundred
3 percent zero fossil fuel energy grid.

4 I look around these days and I see
5 technologies that make me feel like I am living in
6 science fiction, I see people walking around with
7 little computers in their hands like from Star-Trek,
8 and so I think that whatever we set our minds to we
9 can do. We have a lot of unemployed people, we have
10 a climate change problem that will only get worse
11 the longer we ignore it, and we have a bunch of
12 investors who rather than putting down money and
13 creating jobs are skittish and are not investing
14 that money and creating those jobs.

15 So with the Nike method, you just do it.

16 In the 1950's the USA actually had a
17 ninety percent income tax on the top bracket; just
18 remotely approaching that once more would actually
19 take that money, it's not being used by anyone
20 because investors, again, are just sitting on it,
21 you could put the unemployed to work and actually
22 solve this problem and end this whole debate and
23 that would be it.

24 PRESIDENT SOLOMON: I'm going to give
25 you the Treasurer's cellphone number and suggest

1 that you give him a call.

2 MR. HOKE: I am a humble citizen, I would
3 say perhaps the BPU could also give the Treasurer a
4 call, I really don't know why anyone wouldn't do it
5 unless (inaudible).

6 Another thing I wanted to bring up, I
7 heard about creating a solar power plant not like
8 solar panels but the mirror arrays and the heat it
9 generates during daytime is actually stored at night
10 to form this bulk.

11 So a lot of that is technological
12 tripping points that we have been talking about in
13 the past, and, again, I think rather than saying,
14 Oh, well, we can't do these things because we don't
15 have the technology yet, that's why they should
16 subsidize Research and Development, so these
17 practical problems, we can actually solve them,
18 overcome them.

19 Finally, this is more of a local issue, I
20 would just bring this up here, the town I work in,
21 Ocean City, we recently did some tests on people's
22 magnesium levels--no, mercury levels, and they were
23 pretty high. I suspect that it is because of the
24 coal (inaudible), I don't have any hard and fast
25 data with me, I can probably get it to you later,

1 but I suspect that's contributing to asthma and
2 maybe some heart and lung disease in my area. They

3 have been given waiver after waiver after waiver.

4 They were supposedly going to be shut down
5 a while ago, so if we could wrap that up that would
6 be great, too.

7 PRESIDENT SOLOMON: Thank you.

8 Angela Jones.

9 MS. JONES: Thank you for the opportunity
10 to speak. I am Angela Jones, a homeowner.

11 As someone who does not have a scientific
12 background, I worked my way through the Energy
13 Master Plan as best as I can. One thing that stood
14 out to me was that it does not support the coal
15 industry and we will no longer have coal in New
16 Jersey.

17 Aside from my feelings about renewable
18 energy, I don't want to rehash anything that was
19 already mentioned, but one thing that did concern
20 me was that there was no specific program for coal
21 or carbon sequestration.

22 PRESIDENT SOLOMON: The Governor has been
23 very clear as to that.

24 MS. JONES: I would like to see that in
25 writing in the plan.

150

1 PRESIDENT SOLOMON: I will look and check
2 the language again, I know the Governor has been
3 very explicit and in writing, there will be no coal
4 carbon sequestration.

5 MS. JONES: That's all I have to say.

6 PRESIDENT SOLOMON: I shouldn't say Cogen
7 because that implies a bias against a company, but

8 the proposal they apparently had on the books was
9 for a carbon sequestration facility up in Linden;
10 that's gone, that's off the table.

11 MS. JONES: thank you.

12 PRESIDENT SOLOMON: Fred Hauber.

13 MR. HAUBER: Good afternoon, my name is
14 Fred Hauber, I am the President of Eastern Energy
15 Service, Inc. I have lived here in New Jersey for
16 seventeen years.

17 I am here representing Eastern Energy. I
18 am also the President of the International
19 Association of Lighting Management Companies and the
20 Chair of the IES Energy Management Committee and the
21 Association of Energy Engineers Renewable Energy
22 Committee.

23 We are a full service company that
24 functions on both the energy efficiency side and the
25 energy renewable side.

151

1 I have read through the Master Plan and I
2 would like to thank you guys for all of the time
3 that you put into this. The existing Commissioners,
4 all of the past Commissioners, I have been working
5 in these programs since the utilities had it years
6 and years ago, and I have seen the evolution of
7 where all of these things are going to go, and I
8 appreciate the volume of work you have put into it,
9 it's just maddening trying to figure it all out.
10 Hopefully we can help you with that.

11 I am going to limit my comments because a

12 lot of what I have, including the numbers, have
13 already been said and I'm not going to say it again
14 so under a separate cover I will send that to you.

15 PRESIDENT SOLOMON: Please.

16 MR. HAUBER: I guess that what we need to
17 do with all this to start with is to say that there
18 are some modifications required in the Energy Master
19 Plan with respect to efficiency. There are a lot
20 more technologies available, and especially on the
21 commercial-industrial side, nobody seems to want to
22 promote gas, but the commodity power program that
23 is actually run by natural gas is very efficient,
24 and we have been working with CSG and PRC to bring
25 some of these things forward.

152

1 I am going to recommend changes in the
2 direct install program which may help them go
3 forward. I have already been involved in
4 discussions with PRC and they are right on the ball.

5 And in teaching renewable energy for the
6 Association of Energy Engineers, we look at all of
7 the different types of renewables energies, and
8 there are not many true renewables.

9 The biggest one that produces 6 percent of
10 all the world's power right now is hydro. The
11 problem is, we don't have any place where we can do
12 hydro in New Jersey.

13 Tidal is somewhat there. The problem with
14 tidal is you have to be careful with the rise and
15 fall, the volume of flow and the redistribution of
16 subsurface materials that may cause a slowdown.

17 wind, that's another good one, I am glad
18 to see that we are promoting off-shore wind. Right
19 now the State of New Jersey itself only has 5
20 percent of its land mass that is applicable to
21 solar, and so off-shore wind is a great thing to
22 promote, and we thank you for that.

23 And then we come to good old solar.
24 Everybody talks about solar. We actually have
25 invested some of our own funds in funding solar

153

1 projects. There are certain products that we cannot
2 offer right now just because, I will call it, a
3 steep depression in the SREC market.

4 And we all knew that this was going to
5 decline but nobody expected it to go to where it is
6 so fast. I think you need to bolster that in some
7 way. I don't know whether that is something that
8 the Board can take on or whether that has to go
9 through legislation and then come to the Board.
10 Maybe you can give us some insight on that.

11 PRESIDENT SOLOMON: Certainly we have to
12 set, and we will be setting to create stability
13 within a month or two to the new SACP schedules past
14 2016, and that will create some stability. There
15 have been a number of suggestions, some here today
16 and some in the past which includes setting up a
17 floor, what that floor might be, a tiered floor so
18 there would be some stability as to SREC prices and
19 enable some long-term financing and, some other
20 ideas that would create guaranteed bankability for

21 SRECs. We are listening to all that.

22 I don't know that there is any one answer,
23 but they are all possibilities. Most of those
24 issues, the bankability, the changing of the target,
25 the number of SRECs, the setting of a floor, would

154

1 probably require legislative action.

2 MR. HAUBER: That's a really good point.
3 We have one manufacturer that has over four hundred
4 million dollars to invest, and they want to use
5 their own panels, they are made in America, thank
6 God, and the only thing that they have said is, we
7 can't do it in the current market, if you can
8 convince the people of New Jersey, the Legislature
9 of the State of New Jersey to set an SREC floor we
10 will dump ever penny into New Jersey.

11 Because now they don't have the
12 opportunity to lose their money so they have to
13 plan for the worst case scenario, and if they get
14 anything above that, that's great, but that takes
15 the risk out of it.

16 This is why most banks have backed off
17 with funding solar, just because they don't know
18 what that risk is going to be.

19 So stabilizing the SRECs will help
20 everything. Right now you have got cities and
21 municipalities that may not be able to pay bonds on
22 the projects that they did because the SRECs dropped
23 so low, so those are some of the things that we have
24 to pay attention to.

25 solar farms, we really don't think that's
Page 132

1 a great idea, not even ten megawatts, because this
2 program from its very inception was designed for the
3 net metered ratepayer, and somehow this thing got
4 way off track and now you have got developers that
5 want to build hundred megawatt solar farms until
6 they realized that they couldn't build more than
7 eighty under the FERC rules, then they backed off of
8 that.

9 But coming out of the PJM queue Tuesday
10 was 7 megawatts of power, and when they got final
11 approval from PJM they realized that they lost
12 their financing on it, we can't build this.

13 And now we hundreds of applications in the
14 SRP registration program that has no contracts, no
15 one knows whether they are real or not and CSG is
16 getting calls from customers saying, what sort of
17 projects are you talking about? We are not doing
18 solar.

19 So there are people out there filling out
20 the SRP registrations for whatever reason they
21 don't know.

22 PRESIDENT SOLOMON: 85 percent of the
23 projects never get built, never go past the
24 application, we know that. I'm not sure we can
25 change that, and that's been going on forever.

1 MR. HAUBER: Right, and what we'd like to
2 do is we would like to see them come back with

3 making people produce a contract if they are going
4 to file a registration form. If they can't produce
5 that contract, that contract is not real, it's pie
6 in the sky.

7 That might help as far as projections of
8 where are we now, where do we think we are going to
9 be a year from now?

10 i think that's pretty much it, you will
11 see the rest of it in our written remarks, and I
12 know that there are other people that want to speak.

13 I thank you guys for all of the efforts
14 you put in. I have worked with some of you over the
15 years and we have had our ups and downs, but in the
16 long-run New Jersey has been doing pretty good.
17 Right now we have a horrible problem with the SREC
18 and solar market and we really need to get your
19 attention devoted on that relatively quickly.

20 There are foks, some of them who
21 understand the problem and some of them don't, but
22 they all have small businesses. I know that my
23 company has quadrupled in size in the form of jobs
24 just when we added solar back into our mix.

25 By the way we did the solar here at

157

1 Stockton and all the new lighting sequences in the
2 gymnasium.

3 PRESIDENT SOLOMON: Are you the one who
4 made the lights go out?

5 MR. HAUBER: I didn't do that.

6 Thank you very much. Please help us get
7 through this.

8 PRESIDENT SOLOMON: Thank you.
9 Robert Toreki.

10 MR.TOREKI: I am Robert Toreki.

11 Let me tell you a little bit about my
12 background so you understand my role as a
13 stakeholder here and where I am coming from.

14 I hold a PhD from MIT in inorganic
15 (inaudible) chemistry, Professor at the State
16 University of Kentucky for several years, i also
17 did research there which was basically Kentucky's
18 coal money at work.

19 I am an owner of two New Jersey businesses
20 and now I am the proud owner owner of a 4.4 kilowatt
21 DC kilowatt array which three months ago was going
22 to pay off in three and-a-half years and now, who
23 knows?

24 Before I get to the remarks that I want to
25 make, I did want to respond to the earlier comment

158

1 we had from these gentlemen from industry, I'm
2 sorry, I didn't catch their names, where they came
3 before you and they pleaded that the Societal
4 Benefits Charges were killing them.

5 I am going to ask you to put no weight to
6 that for the following reasons: 50 percent of the
7 electricity in the Unites States is generated from
8 coal power. Coal power, you have got the cave-ins,
9 the amputations, the electricutions that occur in
10 the mines, you have the black lung, which is the
11 government paying the miners saying, "You are going

12 to live a couple of less years, here is some money."

13 You have the coal trucks which destroy
14 the roads, which run over the soccer moms, you get
15 that stuff to the plant, you burn it, you throw out
16 the mercury, the arsenic, the sulfur oxide, the
17 NRX, the particulates.

18 The US EPA says that coal plants kill
19 17,000 people each year on top of all the asthma and
20 all the other things that come with that.

21 And then there is the toxic byproducts,
22 which conveniently gets dumped somewhere, not as
23 toxic waste, although it is.

24 All those costs or paid for by New Jersey
25 taxpayers and ratepayers of utilities in New Jersey.

159

1 we pay for that out of our pockets, and this guy
2 comes here and says, You know, I really shouldn't
3 have to pay, I am one of the biggest users of
4 electricity here, responsible for more of that
5 damage to the populace and I really shouldn't have
6 to pay.

7 PRESIDENT SOLOMON: I don't want to
8 interrupt you, I just want to correct something.

9 i don't think that he said he shouldn't
10 pay, I think what he said was, not reduce it,
11 there is a way to do it and charge you on SBC that
12 will incentivise demand reduction, energy efficiency
13 and won't penalize companies that have done it
14 already and have maxed out, and the way to do that
15 is not to do it on a flat scale of total number of
16 kilowatt hours but give you more credit or a higher

17 charge for peak.

18 MR. TOREKI: I have no problem with net
19 metering.

20 PRESIDENT SOLOMON: it's not net
21 metering; in other words, your payments would
22 increase at peak and decrease off peak so you would
23 have an incentive, an industry that is very energy
24 intensive would have an incentive to cut back their
25 peak demand.

160

1 He wasn't saying, we are not going to pay.
2 he is saying, we pay more than we should have to.

3 MR. TOREKI: I understand what you are
4 saying but I don't think that they are paying more
5 than they should have to because they use so much
6 electricity.

7 COMMISSIONER FOX: But they use it at
8 night, it is cheaper and not imported from out of
9 state, we are using it at night.

10 The coal imports during those high peak
11 days they shut off, those guys aren't working
12 during that peak period, they are home.

13 PRESIDENT SOLOMON: He wasn't saying, I
14 shouldn't pay, he is saying that if we are all
15 paying, let's do it in a way that incentivises
16 energy efficiency and saves us from buying all that
17 coal fired generation.

18 I didn't want to pick on Ross unless he
19 really deserves it.

20 MR. TOREKI: That's fine.

21 I just want to give you a few points about
22 residential solar because it is my understanding
23 that there is an effort to try to de-emphasize
24 residential solar installation.

25 On a dollar for dollar basis, because it

161

1 is smaller than on a watt for watt bases,
2 residential solar costs more, that's absolutely
3 true.

4 If you look at solar farms, I am watching
5 solar farms being built by out of State companies,
6 they come into the State, they build their farms,
7 employ some guys; what happens to the money that
8 they got as income? That money flows right out of
9 the State.

10 with the residential installations that I
11 have, my money, where does that come from? It didn't
12 come from the pool of money that I am saving to buy
13 a car or a pool or something like that, I have
14 actually added new money to the economy of New
15 Jersey, I took money out of another investment, the
16 stock market, I don't want to be just anyplace, I
17 want to be somewhere where I have a guaranteed
18 return, almost guaranteed return, and I took money
19 out of the stock market.

20 That is sixty thousand dollars I brought
21 into the State of New Jersey for economic activity.
22 When somebody like me does that, I am going to get
23 my electric savings each month, I will get my four
24 hundred SRECs every month, and I am not going to
25 take that money and put it back into the stock

1 market where it came from, I will spend that money
2 on other stuff, I am going to spend it in New
3 Jersey.

4 And the multiplicative power of a
5 residential install is huge. If you think about it,
6 the out of state investment is a net drain even
7 after you consider the jobs, the solar farms--.

8 PRESIDENT SOLOMON: The Energy Master
9 Plan does not support solar farms, in fact it says
10 the opposite.

11 MR. TOREKI: The residential programs have
12 a multiplicative effect on the State's economy.

13 And in regard to the same thing, I was
14 really quite amazed to find out that I was limited
15 to installing one hundred percent of my prior year's
16 usage. Right now the panels that I installed are
17 fourteen percent efficient, panels are hitting the
18 market today in Europe with twenty percent
19 efficiency and they will be sold in the United
20 States next year.

21 I don't understand why somebody can come
22 in and build a solar farm in Vineland and I am
23 limited to one hundred percent. My neighbor down the
24 street, he installed solar, he would like to get
25 an electric car because he thinks it's great, I can

1 have my solar, I can plug my car in, except he is
2 limited to one hundred percent of his prior year's

3 use.

4 Now that he has a solar installation he
5 has to go and plug his car in for a year or however
6 long he wants to do that, and it makes absolutely no
7 sense. If we want people to use electric cars and
8 electric hybrids or switch from some other source,
9 gas for heating, for hot water heating, we need to
10 allow people the ability to install more than that
11 hundred percent.

12 In fact the hundred percent limit
13 penalizes people like myself.

14 PRESIDENT SOLOMON: I don't want to cut
15 you off, but there was a rationale for that, that
16 issue came up in a case that's now over so I can
17 talk about it. We are aware of that problem and we
18 are working to correct it.

19 The rationale behind it was that people
20 who were simply in the construction phase who hadn't
21 built the house but were looking for a revenue
22 stream so that they could maybe buy or build more
23 house than they could afford would use the SREC and
24 the revenue from that as a way of doing it.

25 In other words, there would be a lot of

164

1 projects on houses that weren't built yet or may
2 never be built, but we go to the point you are
3 talking about. We get it and we are actually
4 working on it.

5 MR. TOREKI: One last comment about natural
6 gas. When you look at it, coal is pretty much down
7 the tubes as far as any new install capability

8 there, we are working on phasing out of coal plants.

9 I have no problem with nuclear power, I am
10 a realist and I don't think, especially in the wake
11 of Fukushima thanks to one guy who didn't think very
12 well to use generators or back-up generators,
13 basically set nuclear power back twenty years, if
14 not forever.

15 So our options are natural gas and
16 anything else. Renewables, for us to be looking at
17 a 22 or even 30 percent target on it or whatever
18 seems unrealistic. Realistically we are going to
19 have to go all natural gas or really pump up the
20 renewables.

21 And the problem with natural gas is all of
22 it is coming out of the Marcellus shale and the
23 shale plate, but what happens when the first
24 aquifer gets contaminated or there is the first big
25 industrial accident, we are going to have a public

165

1 backlash and if all of our marbles are in that
2 natural gas basket we're in trouble.

3 Look at Pacino (phonetic) Chesapeake
4 (inaudible) are all looking at developing, as they
5 should, natural gas for transportation fuel. If
6 that catches on, demand and supply of natural gas
7 may reestablish their relationship and natural gas
8 prices may rise, and we may be kicking ourselves
9 down the road that our plan hasn't taken into
10 account the possibility the competition in the
11 natural gas market.

12 PRESIDENT SOLOMON: Thank you.

13 John Cusack.

14 MR. CUSACK: Many of the people at the
15 table know me already anyway, probably you have seen
16 me without a tie on.

17 Good afternoon and thanks for listening to
18 me and the other speakers today. You have a lot of
19 patience to hold these meetings, having been on a
20 local planning board I know how difficult it is to
21 be on that side of the stage.

22 My name is John Cusack, I am Chairman of
23 the Board of the New Jersey Corporation for
24 Advanced Technology, a not-for-profit, and also
25 President of (inaudible), a consulting firm. I

166

1 also spent a lot of time in the energy industry,
2 working for Con-Edison, I ran businesses in Europe
3 and the United States so I have experience in that
4 as well.

5 NJ CAT is a great organization, it's a
6 not-for-profit membership organization, it's a
7 private-public partnership, it promotes green jobs
8 and sound emerging environmental technology in New
9 Jersey..

10 But I am not here to talk on behalf of NJ
11 CAT or on behalf of my consulting firm, I'm here to
12 talk about some personal beliefs of what has to be
13 done with the Energy Master Plan.

14 One of the major activities, by the way,
15 of NJ CAT is their piece of technology, and I think
16 that's extremely important. A lot of people out

17 there are saying, this is a great technology, we
18 should invest in it and there are a lot of things
19 out there inaudible). We have to be careful of those
20 and work on them.

21 I have some very personal comments
22 relating to a friend of mine, Stu Hart, who some of
23 you may know is the S.G. Johnson Professor of
24 sustainability at the Cornell Business School. He
25 has been quoted as saying that there is a great

167

1 falacy out there that renewals and energy
2 efficiencies are too expensive.

3 And in fact the problem is until there is
4 a breakthrough and an anti-gravity device comes
5 along that's going solve all our problems, there
6 are no silver bullet solutions to the problems you
7 are facing in trying to balance the cost of energy
8 versus environmental cleanliness and so on in
9 solving the climate changes.

10 He said, "We do not have to wait for major
11 breakthroughs to occur in renewable energy research
12 before they become cost effective technology, the
13 truth is that we have a lot of very good clean
14 technologies now. What is lacking is a
15 breakthrough, not a breakthrough in technology, but
16 rather a breakthrough in how we bring the technology
17 to the market."

18 There is a lot of good technology sitting
19 out there on the shelves of corporations and
20 universities that have this technology. And the

21 reason is implementing that technology would be very
22 disruptive to the present business models.

23 I think the example of, you may have seen
24 it in the papers this week, Exxon after spending
25 decades as the largest highly valued company has

168

1 been supplanted by Apple Computers.

2 PRESIDENT SOLOMON: For a brief period.

3 MR. CUSACK: For a brief period.

4 To me that's amazing about the benefit of
5 going small versus going big. Exxon has been going
6 big for years and years and Apple was going small,
7 small, small, and you see what happened in terms of
8 the values, Apple went from 1.7 billion in 1997 to
9 348 billion earlier this week.

10 I think you see the same problem in the
11 energy field. A lot of the technologies that you
12 want to look at are not practical, not because they
13 are not good technology, but it is hard to try to
14 site and get permits for and get permit approval
15 for a thousand megawatt solution anywhere in New
16 Jersey, in fact, anywhere in the Northeast, is the
17 reality.

18 The solution is going to be small scale
19 renewable distributed clean technology, many of it
20 related to energy efficiency, and we are not just
21 going to green the State, we are going to green the
22 health, the store, the facilities, the hospital or
23 school one at a time, and in the long-run all of
24 those little pieces will add up to make the case for
25 renewables.

1 To give you a quick example, right now the
2 average building in New Jersey is about 30 percent
3 more inefficient than the average building in
4 Belgium. And it's not because they are nice guys
5 or they are getting taxed higher, it's just that
6 they have different standards of how they affect
7 buildings.

8 The Building Code is part of the issue.
9 We can make every building in our State 20 percent
10 more efficient and we would still be 10 percent
11 behind the Belgians. If we can reduce energy by
12 only 20 percent, that would have a tremendous
13 impact on transmission and distribution lines and
14 generation.

15 That's not new technology, there is a lot
16 of efficient old technology that is just sitting
17 there waiting to be used.

18 A good example, Cap Still
19 (phonetic)Microserve certified that they could meet
20 air pollution quality standards, and what they are
21 doing is installing in National Guard armories
22 cogeneration units producing heat to heat the
23 buildings and also producing hot water for the hot
24 water units, and actually it becomes a
25 tri-generation plant by producing electricity as

1 well. That technology is already out there and is
2 already being used in a lot of places.

3 what I am suggesting are three major
4 points to allow this breakthrough in the Energy
5 Master Plan, marketing this technology so it could
6 be more commercially applied within our energy
7 infrastructure.

8 The first one is that we have a very good
9 constantly upgraded and updated on-line data base
10 available for potential users and investors and
11 regulators about the sustainability impacts of the
12 technology. The performance plans that they have
13 can be verified by independent third-parties, and
14 then to come up with priorities or roadmaps of where
15 to go based on relative benefits and advantages,
16 including speed to market.

17 As part of that, we have heard this
18 discussion, some of the people have commented on
19 this, create a fast track process to move these
20 technologies from university laboratories to clean
21 technology incubators to commercialization as
22 quickly as possible.

23 This would include regulatory permitting
24 and also things like business plan goals. A lot of
25 these guys are great engineers, great scientists and

171

1 know how to market technology, they need guidance
2 and technical assistance for raising capital for
3 product marketing and operational implementation,
4 how do you actually do it. And that's something very
5 important for getting this technology into the
6 market.

7 Demonstrating commercial scale pilot
 Page 146

8 projects, because everybody wants to be second
9 with this technology, not first. To get over that
10 bump you have to get funding for commercial scale
11 pilot projects.

12 A good example of what's been done funded
13 mostly privately is BASF with a house they have in
14 Paterson, they were using a variety of energy-
15 savings technologies, not one technology but a bunch
16 of them to make the building energy efficient, and
17 it's actually very close to the commercial price in
18 terms of its cost.

19 The last suggestion is that we need for
20 these technologies while they are still in the R&D
21 phase, we certainly want to give them as much
22 commercialized incentive as possible and to develop
23 R&D and commercialization we may need lightbulb
24 technology changes.

25 I'd like to discuss funding, research

172

1 grants, Stevens Institute had an attempt to try to
2 do this, but it needs some further work, it was
3 funded by the benefits in cost and technical
4 performance of a company.

5 These are things that you can do now, they
6 are not twenty years in the future. That doesn't
7 mean that we just do that, we still have to invest
8 more in longer-term technologies and do that at the
9 universities and we need a portfolio approach to do
10 that.

11 My last comment is, personally, and I am

12 speaking for NJ CAT, we would be glad to assist the
13 BPU and the State in implementing these steps now so
14 we would have a cleaner and more efficient energy
15 infrastructure in this State, improved State
16 economy, more jobs, and maintain an excellent
17 quality of life environment for the people who live
18 in New Jersey.

19 Some experts out there say we can't afford
20 to be more energy efficient, we can't afford to be
21 renewable. I say the opposite is true, in fact we
22 can't afford not to be renewable, we can't afford
23 not to be energy efficient.

24 There are a lot of companies out there
25 that are doing that. One of my clients is an asset

173

1 manager who picked the eighty most successful
2 companies in the S&P 500, one of the criteria is how
3 energy efficient they are, and in that portfolio of
4 the eighty companies in the S&P 500 they have beaten
5 the S&P by 10 percent over the last ten years.

6 So here is an example of where looking at
7 energy efficiency is not something in the future,
8 but something that you can do now and implement it
9 within months and have an immediate effect, and that
10 will make it easier to meet whether it is the 30
11 percent goal or 22 and-a-half percent goal, whatever
12 goal we have for renewable energy, and we can get
13 the energy use down, it's a lot easier if we make
14 renewables a bigger part of the portfolio.

15 That's what I am suggesting and we will
16 submit our written remarks to the BPU.

17 PRESIDENT SOLOMON: Thank you.

18 Donna Henry.

19 MS.HENRY: Good afternoon.

20 I am here as a resident of New Jersey.

21 In past years New Jersey has led the
22 nation with cutting-edge policies designed to curb
23 global warming, reduce air pollution and promote
24 clean energy.

25 Instead of supporting the State's efforts

174

1 to move as quickly as possible to clean energy,
2 Governor Christie is slashing our clean energy goal
3 from 30 percent to 22.5 percent.

4 We were poised to be the national leader
5 in solar and wind, but this EMP jeopardizes that.
6 We were meeting or exceeding our clean energy goals,
7 but Christie is jeopardizing our safe, clean energy
8 future.

9 Not only does this undermine our goals but
10 the goals of our clean energy program; not only will
11 it hurt the environment but the economy and jobs as
12 well.

13 Governor Christie said he wants to create
14 a basket of options from which the State could draw
15 power generation in New Jersey. The problem is
16 what is in the basket: natural gas is obtained by
17 fracking, it requires a potent chemical cocktail.

18 Some of these chemicals can and have ended
19 up going to the surface and leaching drinking water
20 and contaminating it.

21 Shale gas has a greater greenhouse gas
22 footprint than coal or oil because of the methane
23 that is released during the shale gas processing.
24 Coal fired power plants, we heard what
25 they did. Coal fired power plants produce

175

1 approximately one third of our carbon dioxide.

2 Then we have nuclear power. That is
3 dirty. Enormous quantities of radioactive vapor
4 are created through the nuclear pool process.
5 Nuclear energy is marked by a number of disasters
6 and near disasters, and you have heard about those
7 today.

8 In 1930 the Scientific American published
9 an issue on energy problems, observing that the
10 possible exhaustion of the world's oil supplies
11 deserve consideration. Renewable technologies can
12 capture the power of the sun, the wind and the
13 tides.

14 However, we go on struggling to control
15 the growing energy appetite.

16 In 1931 Henry Ford said, "I'll put my
17 money on the sun and solar energy, what a source
18 of power, and I hope we don't wait until oil runs
19 out before we tackle that."

20 New Jersey needs to be a state of
21 modernizers and we need a plan that promotes clean
22 energy. Thank you.

23 PRESIDENT SOLOMON: Thank you.

24 Brian Bovio.

25 MR. BOVIO: I will be brief, I know it's
Page 150

1 been a long day for you guys. I'm here back at my
2 alma mater.

3 PRESIDENT SOLOMON: It has grown a little
4 bit.

5 MR. BOVIO: I can't recognize it.

6 I represent my family business, Bovio
7 Advanced Comfort and Energy, I'm also the
8 Vice-President of Act New Jersey Contractors of
9 America, two hundred contractors in the State of New
10 Jersey.

11 All I would really like to say is we would
12 like you to continue New Jersey's success as a
13 shining example in residential energy, there should
14 be a continued focus on that.

15 The programs do work, we have had some
16 setbacks but I think we are starting to rebuild so
17 that it's not a question of throwing the baby out
18 with the bath water.

19 As I said, the programs do work,
20 homeowners are seeing it on their energy bills and
21 our businesses have grown unprecedentedly over the
22 last few years, we hire people in New Jersey.

23 Thank you.

24 Larry Furman.

25 MR. FURMAN: Good afternoon, President

1 Solomon and Commissioners. Thank you for extending
2 this opportunity to comment on the Energy Master

3 Plan.

4 It is a privilege to live in a state where
5 opinions of private citizens are sought by the
6 agents of this government, of the people, by the
7 people and for the people.

8 I recently earned an MBA in Managing for
9 sustainability, which is kind of like management for
10 long-term.

11 I would like to express my thanks to
12 Governor Christie and his predecessor, the
13 Commissioners and Staff of the BPU Energy Program
14 who made it possible to build that solar array over
15 there near the parking lot and I would also like to
16 express my thanks to Governor Christie for the
17 proposal to close Oyster Creek and for his
18 opposition to the Cogen clean coal plant, which
19 really was an experimental plant. It was originally
20 presented as 750 megawatts at a cost of only five
21 billion dollars if it was still on schedule and
22 within budget.

23 However, it would have needed a hundred
24 million a year in subsidies for forty years so it's
25 a nine billion dollar plant.

178

1 And the cost of compressing and capturing
2 and the pumping of carbon was estimated by Roger
3 Salon (phonetic), the Director of the Case Western
4 School of Sustainability, to be at least twenty five
5 percent and maybe forty percent, so if you do the
6 math, at best it's a 562 and-a-half megawatt plant
7 for nine billion dollars, which is sixteen dollars

8 a watt..

9 Solar, that's six dollars a watt and
10 dropping, wind is I think two to three, so which is
11 more economical?

12 But the Master Plan states that the goal
13 of fullfilling 70 percent of the State's electric
14 needs from clean energy sources may be an aspiration
15 but is one that is achievable if the definition of
16 clean energy is brought beyond renewables to include
17 nuclear, natural gas and hydro-electric.

18 I'd like to offer two observations. You
19 are thinking very long-term, that's great. However,
20 if we can define coal and nuclear as clean then we
21 are already at 100 percent clean energy.

22 You know, there is a reality show that
23 pictures a bunch of young people stumbling around
24 the shore. We can broaden the definition of art to
25 include that show.

179

1 So coal, nuclear and hydrocracking are
2 not clean, they are not renewable, they are not
3 sustainable and when we consider the clean-up cost
4 and the capital costs, they are not cheap.

5 A couple of things happened recently.
6 You mentioned Fukushima in the report. On December
7 22, 2008 a flood at a steam plant in Tennessee put
8 about 1.2 billion gallons of toxic waste in the
9 (inaudible) Rivers in Tennessee and that toxic soup
10 contained arsenic, lead, mercury, uranium and zinc,
11 toxic heavy metals from A to Z

12 The TVA estimates that the clean-up will
13 cost about a billion dollars, which is actually
14 okay because the TVA is booking those costs as an
15 asset, so it is good, it adds to the GDP, but that
16 really means that the GDP is not a good metric.

17 In the spring and summer of last year,
18 beginning April 20th, and as you mentioned it in
19 the report, for eighty-five days approximately sixty
20 thousand to eighty thousand barrels a day, 5.1
21 million barrels of crude oil, and a barrel contains
22 forty-two gallons of stuff which can be manufactured
23 into about forty-four gallons of stuff, that
24 spilled into the Gulf of Mexico, and I don't know
25 how much dispersements were poured into the Gulf,

180

1 but I also don't know if that shrimp is still
2 edible.

3 I think with all due respect to BP, it
4 should change its name to GPG or TBP, which would
5 be barrels per gulf or thousands of barrels per day.

6 In March of this year we saw the Tsunami,
7 the earthquake, the meltdown of three or four
8 different reactors, the good news is that it did not
9 melt down all the reactors; however, three or four
10 meltdowns is three or four too many.

11 In May of this year the (inaudible) plant
12 on the Missouri River a few miles north of Omaha,
13 the reactor was shut down to refuel. That was really
14 fortuitous because in June, on June 6th the Missouri
15 River flooded so that plant is now in the middle of
16 the Missouri River. It has been shut down, it's

17 losing a million dollars a day because the
18 maintenance costs I imagine are higher and they
19 are not generating electricity. According to the
20 Director of the Nuclear Safety Project, the risk of
21 radiation is low but the expenses are startlingly
22 high.

23 In March of last year a young man named
24 sarif Mobly (phonetic) was arrested in Yemen, he is
25 from New Jersey. I Imagine that as a child he

181

1 watched James Bond movies. In prison he did a
2 James Bond like move, he complained that he was
3 sick, he asked to be taken to the hospital, on the
4 way to the hospital he allegedly wrestled a gun from
5 a cop and allegedly shot two cops, one of them is
6 dead. I don't know how much of that is true, but I
7 do know that before he went to Yemen he worked as a
8 day laborer at nuclear plants here in New Jersey,
9 Pennsylvania and in Mayrland, and he was given
10 unlimited access. I have a camera on my blackberry,
11 I could take pictures and no one would know. I have
12 done it.

13 And again, on June 7, 1981 Israel
14 destroyed the reactor that was under construction
15 in Bagdad, actually 17 kilometers from Bagdad.

16 we can build them and we can destroy them.
17 These seem like isolated incidents, but if you
18 connect the dots, they are built into the system.
19 That's why no new nuclear plants have been built in
20 this country since the seventies. You can engineer

21 them to be more or less safe until they get out of
22 hand, probability of an accident becoming very
23 expensive is almost a certainty.

24 If you are buying lottery tickets you are
25 either saying, yes, I love paying taxes, or you are

182

1 saying this million to one shot is going to pay off.

2 Again, if you think about it, we saw
3 Three Mile Island in '79, Chernobyl in '86,
4 Fukushima this year, five meltdowns, one partial
5 meltdown, so the probability of a meltdown or a
6 partial meltdown is one every nine years. That's
7 empirical data. We can now say with some certainty
8 that the probability of a major disaster is and has
9 been one in nine years.

10 we know we need energy; the question is
11 not should we shift the paradigm, but how and how
12 much time will it take, how many people do we need,
13 where do we find them and how do we train them.

14 we can do it in ten years, that would be
15 aggressive. We went in ten years from nine
16 kilowatts at six installations, Commissioner Fox
17 was here, to about three hundred megawatts, so going
18 from three hundred megawatts to seven gigawatts in
19 ten years, that might be tough, so maybe we should
20 do it in twenty-five years.

21 Germany will be at 40 percent by 2025 and
22 a hundred percent by the mid '60s. Where there is
23 no fuel there is no way. Rather than consume
24 resources we can and should harness processes.

25 Thank you.

1 PRESIDENT SOLOMON: Thank you.

2 Captain Joel Fogel.

3 CAPTAIN FOGEL: President Solomon and
4 Commissioners, I just wanted to again thank you. I
5 am going to make a presentation today that is
6 totally different from what you have been hearing.
7 I am coming to you as a resident of sixty-seven
8 years of the State of the New Jersey, not only a
9 resident but a proud resident; I love this State.

10 I am also Chapter Chairman of a group
11 called the Explorers Program, six thousand members
12 worldwide, we have people like Buzz Aldrich,
13 (inaudible) Hillary, John Glenn, all members of our
14 organization, they are scientists.

15 I am here also as President and Executive
16 Director of Water Watch International, a non-profit
17 organization that's been around since 1970, I worked
18 with Jacques Cousteau, he gave me this interest in
19 environmental care and that's why I am here today.

20 But there have been some problems along
21 the way. New Jersey in my opinion is a leader in
22 the United States in many ways and stepping in the
23 right direction at the right time, from water
24 quality analysis where we came up with various Acts,
25 the Water Pollution Control Act that helped not just

1 our state but our nation focus on situations like
2 water pollution in our rivers and in our lakes, it

3 goes back a long time.

4 In 1970 in a kayak, I went along the way
5 and I saw the worst pollution you could imagine
6 along the coast, but New Jersey is one of the first
7 to create deal with the pollution.

8 If you gave me two days I could take you
9 to places you couldn't even imagine in your own
10 State, places that are magnificent, rivers,
11 magnificent parks; I love this State.

12 But I could also show you some problems
13 along the way. I could show you Barnegat Bay, which
14 has problems with overheating and
15 overindustrialization, and I could show you other
16 things as well, the effects on our ocean from too
17 much coal and too much oil, too much mercury.

18 And I can take you to my doctor's office
19 and show you my examination of what is the impact
20 on me from places like (inaudible). I was an iron
21 man once, that's right, I competed in national
22 competitions, I won gold, they called me spaghetti
23 man.

24 My wife has had lung cancer and I have
25 Crone's, so I have to think that there is some

185

1 impact here, exactly how and what-- but here is my
2 point: I am here to encourage you people, you
3 Commissioners; you have a tremendous responsibility.
4 Thank you for taking this responsibility, but I
5 want to encourage you to keep going in the right
6 direction.

7 with is the right direction? I have one
Page 158

8 more hat, I sit on on the New Jersey Tourism
9 Council, Co-Chairman. The imagine of this beautiful
10 State which earns hundreds of billions of dollars in
11 all kinds of associated touristic endeavors, you
12 know, we don't have to go to the movies, we are
13 living in it, this is paradise. We must keep it
14 that way, we need to continue to try to hold on to
15 the beauty that surrounds us.

16 Don't let putrifaction impact our bays
17 and rivers with water pollution and air pollution.
18 Stand up, be proud, remember it's your children and
19 grandchildren, I have eight grandchildren and I
20 want them to be as proud as I am to be living here.
21 We are living in paradise; let's keep it that way.

22 PRESIDENT SOLOMON: Ladies and Gentelmen,
23 that concludes our third and final Master Plan
24 public hearing. We will have a continuation of the
25 Trenton hearing so you probably won't be hearing

186

1 anything from us until we have had a chance to
2 review the finish of the last set here, review the
3 transcripts, review the attachments, review the
4 written submissions and updates on the numbers and
5 research.

6 Thank you all for coming.

7 (Adjourned.)

8
9
10
11

12
13
14
15
16
17
18
19
20
21
22
23
24
25

C E R T I F I C A T E

187

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

I, William Sokol, Certified Shorthand Reporter of the State of New Jersey, License No. 30X100030700, and Notary Public of the State of New Jersey, do hereby certify that the foregoing is a verbatim record of the testimony provided under oath before any Court, Referee, Commission or other body created by statute of the State of New Jersey.

I am not related to any parties involved in this action; I have no financial interest nor am I related to an agent of or employed by anyone with a financial interest in the outcome in which this transcript was taken; and furthermore, that I am not a relative or employee of any attorney or counsel employed by the parties hereto or financially interested in the action.

17

18

19

20

21

22

23

24

25

WILLIAM SOKOL
Certified Shorthand Reporter
and Notary Public

□