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NEW JERSEY CLEAN AIR COUNCIL
PUBLIC HEARING

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IN RE: :
THE CLEAN POWER PLAN: :
IMPACT ON NEW JERSEY :
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LOCATION: Thomas Edison State University
111 West State Street
Trenton, New Jersey 08608
DATE: Thursday, April 28, 2016
TIME: 9:30 a.m. to 2:18 p.m.

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2

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1 (Richard Opiekun, Chairman of the
2 Clean Air Council, requested that each
3 member of the Clean Air Council introduce
4 themselves and the organization they
5 represent.)

6 DR. OPIEKUN: The format of this
7 hearing is that of formal presentations given by
8 invited experts followed by discussion designed to
9 engage the Council and participants in a dialog
10 about issues related to the Clean Power Plan. The
11 goal of this meeting is to develop recommendations
12 for the Commissioner of NJDEP regarding New Jersey's
13 development of a compliance plan or acceptance of a
14 Federal implementation plan. Additionally,
15 recommendations made by this Council will be
16 considered when the State revisits the Energy Master
17 Plan for New Jersey in the future. Each speaker has
18 a set time limit to present an overview of the issue
19 from the standpoint of their field of expertise and
20 the organization they represent. A brief time for
21 questions and dialog will follow each presentation
22 and an open format discussion encompassing all
23 presented issues will take place following the last
24 invited speaker.

25 Public attendees are encouraged to

1 provide testimony following speaker discussion. If
2 you plan to address the Council, please sign in on
3 the list near the door through which you entered
4 this morning. Each person will be allowed a maximum
5 of two minutes to speak. You may also provide
6 written comments to the Council after the hearing
7 via e-mail until May 20. Instructions for providing
8 comments can be found at the bottom of the hearing
9 brochure.

10 We have reserved this hearing room
11 until 4 pm. If a large number of persons want to
12 testify orally and if any persons have not testified
13 by 4 p.m., those who can't be fit in prior to 4
14 p.m., please submit written comments to the Council.
15 After the end of invited speaker presentations, we
16 will advise on the number and order of those who
17 have additionally indicated an interest in providing
18 oral comment.

19 A transcript of the hearing will be
20 made available on the Clean Air Council website at
21 <http://www.state.nj.us/dep/cleanair/> several weeks
22 after the hearing.

23 Recommendations made to Commissioner
24 Martin will also be available on the Clean Air
25 Council website sometime in August of this year.

1 MR. VALERI: This year, the Council has
2 concentrated on EPA's Clean Power Plan, a regulation
3 that was finalized in August of 2015 that
4 establishes specific state-by-state electric
5 generator CO2 reductions to be accomplished between
6 2022 and 2030. Information about the rule is on the
7 New Jersey Clean Air Council web site. The rule's
8 implementation has recently stayed by the US Supreme
9 Court pending the outcome of litigation before the
10 US Court of Appeals. This litigation, and possible
11 other subsequent actions before the US Supreme
12 Court, could result in a range of possible outcomes.
13 While the NJCAC can't predict the outcome, the New
14 Jersey Clean Air Council believes it still prudent
15 to solicit expert and stakeholder thoughts and ideas
16 about approaches for New Jersey policymaker
17 consideration relative to the CPP
18 implementation.

19 In this regard, we are soliciting
20 expert and stakeholder testimony and perspectives
21 for addressing implementation requirements of the
22 EPA Clean Power Plan in a manner that:

23 Best leverages actions New Jersey has
24 already taken to create a low carbon future;

25 Leverages existing state energy,

1 environment, and economic policies;

2 Reflects the operational and structural
3 characteristics of the wholesale and retail electric
4 market in which the state and its electric
5 generators operate; and,

6 Reflect the input of communities
7 regarding potential health and environmental justice
8 considerations.

9 While the topic of climate change and
10 federal and state responses can evoke passionate
11 debate, the focus of today's hearing are the
12 implementation decision alternatives that EPA
13 identified in the CPP rule and to determine through
14 expert testimony and public input the best path for
15 New Jersey to take, if the rule is upheld by the
16 Court. These decision alternatives are:

17 Should New Jersey develop a compliance
18 plan, or should it simply default to EPA's Federal
19 Implementation Plan (FIP)?

20 Regarding the options provided by EPA
21 under its CPP rule, would New Jersey be better
22 served by a mass-based compliance approach that
23 establishes a cap on emissions from existing
24 electric generators or a rate-based compliance
25 approach on existing generators?

1 Should New Jersey compliance approach
2 incorporate intra-state and/or an inter-state
3 emission allowance or emission reduction credit
4 (ERC) trading?

5 If New Jersey's compliance approach is
6 mass-based, should New Jersey adopt EPA's mass goal
7 for existing units with EPA's new unit complement or
8 should New Jersey adopt other measures to address
9 leakage?

10 Who should bear the burden for
11 compliance with the CPP rule? Should it be the
12 State of New Jersey? Electric Load Serving Entities
13 (LSEs)? Or, electric generating units?

14 Should New Jersey seek to participate
15 in EPA's Clean Energy Incentive Program?

16 With that as background, let me
17 introduce our first speaker. That will Assistant
18 Commissioner John Giordano, Assistant Commissioner
19 of the Department of Environmental Protection Air
20 Quality, Energy and Sustainability.

21 ASSISTANT COMMISSIONER GIORDANO:

22 Thank you, Rich and John for setting
23 the stage with regard to the discussion today on the
24 Clean Power Plan and the State's Energy Master Plan.
25 I certainly trust the rest of today's hearing will

1 be both interesting and informative.

2 As I look out, I see lots of Ph.D.'s
3 and P.E.'s and Esquires. And I'm glad my staff got
4 Esquire up there, I'd feel left out.

5 So on behalf of Governor Christie and
6 Commissioner Martin, it's an Honor to be here today
7 to welcome members of the Clean Air Council, the
8 speakers, and the public. Commissioner Martin
9 extends his regrets, as his scheduled,
10 unfortunately, does not permit him to be with us
11 this morning.

12 As Assistant Commissioner for Air
13 Quality, Energy and Sustainability, I want you to
14 know how much I value the Council's input, and I
15 want to express my deep appreciation for its hard
16 work, dedication, and sound advice over the years
17 and its continued focus on matters of utmost
18 importance.

19 Today's topic is a Clean Power Plan,
20 otherwise known as 111(d), a rule proposed more than
21 a year ago by EPA. As we all know, states are
22 facing important challenges, considerations, and
23 decisions when it comes to this plan. That said,
24 New Jersey is 1 of 27 states appealing the plan.
25 Since we don't have the time today, unfortunately,

1 to discuss our appeal in detail, my staff provided
2 links to our legal briefs which do so.

3 I believe all of us ultimately want
4 the same thing. We deeply care about New Jersey and
5 its health and safety. As such, we at the State
6 level must make sure that all regulatory mandates
7 are reasonable, achievable, and based on sound
8 science.

9 Currently, New Jersey is one of the
10 lowest carbon emitters in the northeast and
11 maintains one of cleanest energy sectors in the
12 nation. We've come a long way in successfully
13 improving air quality, and we remain committed to
14 continuing this legacy for future generations.

15 As our focus today is how clean New
16 Jersey power sector is and why, I'd like to show you
17 a few slides today that demonstrate our progress of
18 reducing air pollutants from the State's power
19 plants and how this has resulted in a power sector
20 having some of the lowest emission rates in the
21 country.

22 So when it comes to New Jersey's power
23 sector, measuring this in pounds per megawatt hours,
24 compared to other states, New Jersey's emissions
25 rate is second lowest for sulfur dioxide, fifth

1 lowest for nitrogen oxides, and fifth lowest for
2 carbon dioxide.

3 As you can see from the chart here,
4 and hopefully you can see it from your seats, when
5 it comes to sulfur dioxide, SO₂, in 2013, New Jersey
6 was the second lowest in the country for electricity
7 sector.

8 Now, when I spoke recently to a group
9 at the University of Pennsylvania, they were
10 surprised to learn that, in fact, New Jersey had
11 some of the lowest rates. Their perspective, being
12 the other side of the river, was from New Jersey
13 Turnpike, you know, they see the power plants, they
14 see emissions, they see things like that. They,
15 unfortunately, smell some of them. They were
16 absolutely floored to find out that we ranked so low
17 compared to other states, particularly Pennsylvania.

18 So as low as New Jersey actually is,
19 though, for power plant emissions, we're continuing
20 our efforts, as John mentioned, to further reduce
21 SO₂ reductions. Starting July 1st of this year, New
22 Jersey sulfur in fuel requirements for light oil
23 will drop from 500 parts per million to 15 parts per
24 million, further reducing power plant SO₂.

25 As you can see here, when it comes to

1 nitrogen oxides, New Jersey in 2013 was the fifth
2 lowest in the country for the electricity sector and
3 the third lowest for fossil units.

4 Here, with regard to carbon dioxide,
5 you can see that New Jersey again in that year was
6 fifth lowest in the country for both the electricity
7 sector as well as the fossil units.

8 And this slide here shows that between
9 2001 and 2013, New Jersey's emission rate of carbon
10 emission for fossil power plants dropped by
11 37 percent. Now, this is primarily because of
12 reduced use of coal in boilers, an increase in the
13 use of natural gas and combined cycle turbines, and
14 an increase in renewable energy. And New Jersey is
15 not stopping there, as you know. New Jersey
16 renewable portfolio standards and increased use of
17 the combined cycle natural gas power plants are
18 further reducing the emissions rate. In fact,
19 renewables are mandated to be 22.5 percent of the
20 State's electric consumption by 2021.

21 Now, as we all know, New Jersey is 1
22 of 13 states where electricity is supplied by the
23 PJM electric grid. But New Jersey's CO2 emissions
24 rate is by far, as you can see here, the lowest of
25 the other PJM states. Our CO2 emission rate is

1 approaching 500 pounds per megawatt hour, while the
2 other 12 PJM states are between 1,000 and 22,000
3 pounds per megawatt hour. Therefore, on average,
4 generating electricity in New Jersey emits a quarter
5 to a half the CO2 as generating electricity in these
6 other 12 states. What this means is that
7 significantly lower regional CO2 emissions result
8 when electricity is generated in New Jersey rather
9 than the other states.

10 Now, here we have a graph, and I love
11 this graph. The slide shows the percent electricity
12 generation by fuel type from 2011 to 2014, so here
13 you can see coal's dropped to 4 percent of electric
14 generation. Ten years ago, it was about 20 percent.
15 Renewables have increased to 4 percent and are equal
16 to coal. And as I mentioned, our mandated
17 22.5 percent of our electric consumption by 2021.
18 As you can see, natural gas has increased to over
19 40 percent. Nuclear is about 50 percent. Oil is
20 roughly 1 percent or less. So 95 percent of New
21 Jersey's electricity generation is nuclear, as you
22 can see, gas, and renewable. All of these, EPA is
23 promoting within its Clean Power Plan.

24 So in the interest of time, and we can
25 go on much further, my technical staff has made

1 available a package of information that further
2 illustrates our electric generation and provides
3 additional information on New Jersey's progress in
4 reducing air pollutants from our power plants.

5 In closing, we request that the
6 Counsel consider how New Jersey should continue its
7 clean power progress while avoiding unreasonable
8 increases in the cost of electricity.

9 I want to thank the Council again for
10 its service and sound advice, particularly over this
11 past year, and we look forward receiving its
12 recommendations in July.

13 Thank you.

14 (Applause.)

15 MR. VALERI: Our next speaker is
16 President Richard Mroz, who is the President of the
17 New Jersey Board of Public Utilities. President
18 Mroz also serves as a member of the Governor's
19 Cabinet. In his role as President of the Board,
20 he's a member of the Electricity Committee for
21 National Association of Regulatory Commissioners, as
22 well as participating in the Subcommittee of Nuclear
23 Issues - Waste Disposal. Prior to his time as
24 President of the Board, he was in private practice
25 and had a long distinguished career in public

1 service, notably as Counsel to Camden County, as
2 well as Chief Counsel to Governor Whitman. With
3 that, President Mroz.

4 MR. MROZ: Thank you, John, Mr.
5 Chairman, Members of the Council. Good morning and
6 thank you for your work and thank you for the
7 opportunity to address the Council today on these
8 issues. I'd like to also thank all of the speakers
9 today for their input into these very important
10 issues. And many of those who will present to you
11 today are also individuals or interests that come
12 before the Board, so we appreciate the dialog that
13 is going on with a number of issues around our
14 energy picture in New Jersey, around the CPP and
15 other related issues.

16 But today I want to focus my comments
17 on a series of issues particularly around the
18 State's Energy Master Plan and the intersection with
19 the Clean Power Plan. And I want to provide some
20 historical perspective and context and insight,
21 particularly into the history of New Jersey's fabric
22 of public policy on energy and the environment prior
23 to updating the Council on the specific issues
24 relating to our energy future. More specifically, I
25 want to talk about how the Energy Master Plan and

1 the policies and our actions to implement it are
2 supportive of the goals of supporting clean air. So
3 I'm pleased to provide some context on how energy
4 policies interrelate to the policy issues around the
5 Clean Power Plan.

6 The production and the distribution of
7 clean, reliable, safe, and sufficient supplies of
8 energy is essential to New Jersey's economy and way
9 of life. Energy is a vital tool of economic growth
10 and job creation across this State. Economic growth
11 depends on abundant, affordable supplies of energy.
12 And it's no secret that when considering a business'
13 decision to locate, expand, or stay in this State,
14 energy costs are a factor in that decision. This
15 Administration has stemmed the tide of antigrowth,
16 anti-job policies, and we've turned the tide in the
17 right direction. The Unemployment Insurance Trust
18 Fund in the State has been brought back to solvency
19 in just two weeks ago. Governor Christie announced
20 that the fund had a positive balance of \$1 billion,
21 saving businesses about \$213 million in federal
22 taxes.

23 Under the Economic Growth Act of this
24 State, under the ERG Program, the Economic
25 Redevelopment Growth Program, approximately 319

1 companies have used various economic development
2 assistance programs to generate and retain jobs in
3 this State. And the Administration's been working
4 together to show itself real positive ways to
5 improve job growth and progress in our economy.

6 New Jersey is experiencing its
7 strongest private sector employment growth in
8 15 years and has seen six consecutive years of
9 private sector job growth.

10 The number of residents reporting to
11 have jobs, again, has reached an all-time high in
12 March, climbing to an historic average of 4,378,500,
13 after hitting a record just the month before. So
14 the State's economy is on the move and energy plays
15 a big part of it.

16 At the Board of Public Utilities, I
17 understand the significance that it plays in the
18 Christie Administration's efforts to make our State
19 competitive and affordable when it comes to the
20 provision of cost of utility and energy services.

21 In December 2011, Governor Christie
22 released the 2011 Energy Master Plan, and in doing
23 so, the Governor asserted that the production and
24 distribution of clean, reliable, safe, and
25 sufficient supply of energy is essential to New

1 Jersey's economy and way of life. In 2011, EMP was
2 guided by the Administration and private sector
3 decision-makers through a period of economic
4 challenge and has provided long-term goals and
5 implementation strategies flexible enough to respond
6 to market changes and new information about the
7 relative merit of competing energy technologies and
8 strategies.

9 Now, as the Chairman of the Cabinet
10 level committee that assembles and reviews the
11 Energy Master Plan for an update in 2015, I can
12 report to you that that perspective that underlie
13 the first Energy Master Plan of this Administration
14 in 2011 to consider its impact on the economy was
15 very much in our sights as we took up our work.
16 With this context, I, along with my colleagues on
17 the Energy Master Plan Committee, understood the
18 significance of these issues to industry and the
19 economy more broadly, the financial issues that
20 generally affect businesses and jobs. And it's this
21 perspective that's reflected in the Energy Master
22 Plan and the Update of 2015.

23 The Energy Master Plan and the 2015
24 Update provide a strategic vision for the use,
25 management, and development of energy in this State.

1 There were five overarching goals from the original
2 plan and 31 specific recommendations in 2011. Those
3 are: First, to drive down the cost of energy for
4 all customers; second, to promote a diverse
5 portfolio of new, clean, in-state generation; third,
6 to reward energy efficiency and energy conservation
7 and reduce peak demand; fourth, to capitalize on
8 emerging technologies, particularly in the
9 transportation and power production sectors; and
10 fifth, to maintain, support, for our renewable
11 energy portfolio standard.

12 The Update provides adjustments to
13 some of those 5 goals and 31 recommendations.
14 However, since that time, because of particularly
15 weather events, there were other areas that the EMP
16 Committee thought it was necessary to address, and
17 those are resiliency. However, from the time of
18 2011 Super Storm Sandy and other devastating events
19 did turn our attention to the need for other
20 resiliency efforts. Therefore, comments were sought
21 and recommendations made in this new section of the
22 Energy Master Plan Update and based on New Jersey's
23 plan for action in the aftermath of those weather
24 vents, particularly Super Storm Sandy. This new EMP
25 section covers areas specifically regarding

1 protecting critical energy infrastructure and
2 proving our electric distribution companies
3 emergency preparedness and increasing the use of
4 distributed energy resources and the creation of
5 long-term financing and banking, such as our energy
6 resilience bank.

7 These resiliency improvements to the
8 energy infrastructure include, among many other
9 measures, the raising and rebuilding of our
10 electrical substations and switching stations,
11 adding high voltage lines, and a replacement of
12 miles of gas distribution pipes and service lines.

13 From the beginning of the Energy
14 Master Plan Update process, we were clear that the
15 update was not intended to develop a new Energy
16 Master Plan with revised goals. Throughout the
17 process, the EMP Update was intended to bring the
18 implementation status of the EMP goals up to date
19 and to add those new energy issues for storm
20 response and resiliency.

21 While most of the comments submitted
22 were important on energy issues, some were not
23 relevant to the EMP Update. Those comments were not
24 in line with the purpose of the Update to report the
25 status of the 2011 goals and to deal with the new

1 sections. For instance, some commentators opposed
2 policies contained in the 2011 EMP such as the
3 State's support for energy infrastructure
4 improvements, including natural gas pipelines that
5 allow ratepayers to take advantage of cleaner,
6 low-cost energy.

7 While energy and the environment are
8 intertwined, the energy component is broader than
9 just the environmental issues and must include
10 balance of reliable, reasonable, and equal access to
11 energy by all customers: Residential, commercial,
12 and industrial. And throughout the EMP Update
13 process, the Christie Administration was committed
14 to making sure that stakeholders and the public had
15 the opportunity to provide input, to hear comments
16 of interested parties on the 2011 EMP goals and
17 recommendations, and the new sections on resiliency.
18 I provided over three public hearings in August of
19 2015. A total 32 individuals commented at the
20 hearings, and we received over 1,000 written
21 comments.

22 I believe that the EMP Update is a
23 good product of our efforts, tells a very good story
24 about the energy picture in New Jersey. New Jersey
25 has made good progress towards the five overarching

1 goals and many of 31 policy recommendations
2 contained in the 2011 Plan. Overall, New Jersey has
3 lower energy costs, while at the same time advancing
4 energy efficiency, demand response, and renewable
5 energy. The State's fallen from a very high cost
6 energy state to a range that now falls within the
7 national average for total energy costs.

8 And since the issuance of 2011 EMP,
9 electricity prices in New Jersey has fallen by
10 approximately 8 percent for residents and small
11 businesses. And recently, residential retail
12 electricity prices were down on an average of 4
13 percent from 2011 and large and midsize businesses
14 that shopped their electricity on the wholesale
15 market probably experienced greater declines. The
16 State's drop from having the fourth highest
17 electricity cost in the nation to tenth. This is
18 progress, but it's not enough. We continue to
19 pursue measures that will help drive down prices
20 even further, especially because of future costs
21 associated with building significant new
22 transmission infrastructure which are approved at
23 the federal level and out of the State's control.

24 The current, vibrant, and robust gas
25 infrastructure in New Jersey has allowed residents

1 and businesses to take advantage of low-cost natural
2 gas prices, help to moderate energy prices overall
3 in New Jersey, and has the potential to increase
4 economic development in this State, all while
5 encouraging fuel sources with lower emissions for
6 generator use.

7 Today, New Jersey's natural gas prices
8 are among the lowest in the country. According to
9 the Energy Information Administration of the DOE,
10 the average price of natural gas delivered to the
11 residential customers fell approximately 45 percent
12 from a high of \$15.21 per thousand cubic feet in
13 2008 to \$8.37 in 2015.

14 Now, the State's commitment to
15 actively promote new natural gas fueled electric
16 generation and the enhancement of the expansion of
17 natural gas transmission distribution systems has
18 helped to reduce energy costs and emissions. Over
19 the past several years, New Jersey has benefitted
20 from the enhancement and expansion of its natural
21 gas transmission and distribution systems.
22 Expanding and upgrading the natural gas inter and
23 intrastate pipelines has helped to lower the cost of
24 energy in this State to homeowners and businesses
25 and to reduce emissions.

1 In the last seven years, the BPU has
2 approved 17 gas infrastructure replacement, upgrade,
3 and mitigation plans sought by the gas distribution
4 companies. The gas distribution companies initial
5 filings sought infrastructure upgrades totaling over
6 4.4 billion. And after review, we have approved
7 investments and upgrades totaling \$2.23 billion. An
8 additional 230 million in proposed projects are
9 still pending in front of the Board. The pipeline
10 replacement projects for those distribution
11 companies already approved by the BPU will indeed
12 reduce emissions of methane from leakages.

13 In December 2015, the Board approved
14 PSE&G's gas system modernization program to replace
15 up to 510 miles of aging gas infrastructure. In
16 doing so, PSE&G will use data on methane emissions
17 in conjunction with the Environmental Defense Fund
18 prioritize this work. The EDF has partnered with
19 Google and the Colorado State University on a
20 program to detect, map, and quantify methane
21 emissions from natural gas distribution systems
22 quickly and cost effectively, using new mapping and
23 analytic methods. The organization has spent six
24 months surveying portions of the PSE&G service
25 territory being targeted for replacement under the

1 gas modernization program.

2 The Energy Master Plan does admittedly
3 rely on lower cost natural gas for generation, as
4 well as to reduce emissions from generation.
5 However, the EMP also recognizes the strength of a
6 diverse portfolio of generation, particularly that
7 which was outline by Assistant Commissioner
8 Giordano. The EMP recognizes the strength of this
9 diverse portfolio, as was pointed out. Natural gas
10 at about 46 percent of our generation fuel source,
11 nuclear 46 percent, almost 3 and a half percent in
12 renewables, and only 3.7 percent from coal.

13 So the State's electric energy
14 resources are diverse and clean. New Jersey is
15 recently ranked among the five states with the
16 lowest emissions from electric generation despite
17 being the 22nd largest generating state. This is a
18 direct result of the State's resource of mix of
19 generation.

20 New Jersey's ranked third lowest, as
21 pointed out by the Commissioner, in sulfur dioxide
22 emissions, fifth lowest in carbon dioxide and
23 mitogen. And according to recently released 2015
24 data from the EIA, New Jersey has now become a net
25 exporter of electricity. The change is so dramatic

1 that we're actually double-checking figures to make
2 sure that's correct. And if correct, as we suspect
3 it is, New Jersey has achieved one of the goals of
4 that Energy Master Plan, not relying on out-of-state
5 electricity generation from higher emitting coal
6 fired power plants.

7 Without New Jersey's investments in
8 energy sufficiency and renewable energy and the
9 efforts to develop clean, new, in-state generation,
10 none of our efforts and successes would be possible.
11 Through the EMP Update, we can report that New
12 Jersey continues to meet the progress toward our
13 renewable energy portfolio standard at nearly
14 15 percent of retail electricity supply comes from
15 renewable sources, with solar accounting almost 3
16 percent of in-state generation. New Jersey is
17 fourth in the country in deployed solar and recently
18 surpassed the 1.6 gigawatt installed capacity
19 benchmark.

20 The EMP strongly supports the
21 development of solar energy, which is evident in the
22 fact that 92 percent of that 1.6 gigawatts of total
23 installed solar was installed during the Christie
24 Administration. Now, of significance, New Jersey
25 has invested almost \$2.4 billion in all renewable

1 energy in the last 15 years. This includes the
2 former solar rebates of about 363 million. And
3 since the implementation of the SREC market, the
4 Solar Renewable Energy Certificate market, New
5 Jerseyans have invested \$1.6 billion to pay for the
6 incentives for the development of solar. To be
7 clear, New Jersey ratepayers have invested
8 \$2 billion just in solar.

9 Our commitment to energy efficiency is
10 equally as compelling. In the past 15 years, New
11 Jersey has invested \$2.4 billion in energy
12 efficiency. This includes almost 1.7 billion
13 invested by ratepayers through New Jersey's Clean
14 Energy Program, of which 900 million has been
15 invested during the Christie Administration. And
16 over the last 15 years, the Board's authorized our
17 electric and gas distribution companies to invest
18 \$727 million in energy efficiency programs that they
19 administer.

20 Through New Jersey's clean energy
21 programs, energy efficiency offerings over the
22 years, we've saved 4.66 million megawatts of
23 electricity and 80 million therms of natural gas
24 savings. This has resulted in 880 megawatts of peak
25 demand reduction for electricity. On average, the

1 New Jersey Clean Energy Program results in savings
2 of about 320,000 megawatts of electricity annually.
3 And over the 15 years, the compounded energy savings
4 have been 27 and a half million megawatts. That's
5 enough energy savings to power 3.1 million homes.
6 The effect of the savings approximate about
7 4.6 million megawatts less of electricity that's
8 needed to be generated, transmitted, and distributed
9 to customers this year, resulting in savings to
10 those customers and to reduce demands on generation
11 regardless of the their fuel source.

12 The positive impact of these energy
13 efficiency renewable energy investments on air
14 quality have been substantial. New Jersey's Clean
15 Energy Program total investment alone in energy
16 efficiency and renewable energy have resulted in a
17 cumulative lifetime reduction of about 880 million
18 metric tons of CO₂, 239,000 metric tons of nitrogen
19 oxides, 252,000 metric tons of sulfur dioxide, and
20 about 3100 pounds of mercury.

21 This means that all of the energy
22 efficiency measures and solar installed for the
23 Clean Energy Program will result in over 80 million
24 metric tons of avoided CO₂ at the current emissions
25 rates over the lifetime of the measure we helped to

1 install. This is all significant, in my opinion.

2 Now, given the diverse generation and
3 energy portfolio that I've outlined and the
4 significant investments that I've mentioned in the
5 energy efficient and renewable energy, the
6 commitment that this State has had for other
7 sources, such as nuclear energy as a generating
8 source, and the focus on investments in
9 infrastructure at lower cost using natural gas, I'm
10 a bit confounded that the CPP, as it was proposed,
11 virtually ignored the people of New Jersey for these
12 investments that they have made over the years. The
13 CPP did not give credit to our nuclear generation,
14 did not provide any credit for renewable energy
15 deployed. Despite the fact that New Jersey is
16 fourth highest in the country does not provide
17 credit for the billions that were invested in energy
18 efficiency and other renewable energy sources and
19 would not recognize the types of investments that
20 we've made with cleaner natural gas.

21 These are just a few of the general
22 reasons that the Administration has challenged the
23 CPP. And there's another issue in the context of
24 the CPP of which I want to make mention, though it's
25 not necessarily a policy issue that directly

1 confronts this Council or the matters related to the
2 particular emission considering air quality. But I
3 believe it's worth mentioning because it affects me
4 as the Chief Energy Officer for the State of New
5 Jersey and Chairman of the Energy Master Plan
6 Committee, and which should be troubling, quite
7 frankly, to any state official.

8 One of the underlying concerns of the
9 CPP was that a federal government regulatory agency
10 which has the jurisdiction over federal air laws had
11 seen fit to intrude on the prerogative of state
12 officials in the conduct of state energy policy.
13 Indeed, this became clear to me during the
14 deliberations of the Energy Master Plan Committee
15 and my work as the Chairman. During that process, I
16 was troubled by the impending CPP rule to
17 potentially constrain my opinions as a State
18 Official on the EMP. I was further troubled that
19 the proposed rule could have very well been used to
20 compel the Legislature and the Governor with federal
21 government regulation on energy issues in this
22 State.

23 So like many of my other colleagues in
24 other states that have responsibility for
25 implementing energy policies, I therefore supported

1 the legal challenge to the EPA promulgation of the
2 CPP. I, along with other state regulators and
3 energy officials, filed certifications to the legal
4 challenge to the rule promulgation as being an
5 unconstitutional intrusion by the federal government
6 on States' rights.

7 Now, we'll, of course, accept the rule
8 of law and the final decisions of courts. Depending
9 upon that decision, we will then consider compliance
10 with appropriate rules.

11 Regardless, I believe that the path
12 outlined in the EMP provides a foundation that will
13 continue to serve New Jersey's energy needs and
14 might provide an equally strong foundation for
15 compliance, if necessary.

16 So I just want to highlight very
17 briefly that the EMP and its update will continue
18 the policies we set forth. We'll continue to drive
19 down costs by using a diverse mix of a portfolio
20 generation distribution. We'll continue to support
21 new in-state, clean, natural gas generation, as well
22 as other generation sources. We'll continue expand
23 combined heat and power. We'll continue to promote
24 new and expanded pipeline development that is
25 responsible and permitted properly and operated and

1 maintained. We'll continue to support solar,
2 particularly on brown fields and landfills. We'll
3 continue our efforts in energy conservation and
4 renewable energy. We'll continue to support
5 emerging technologies and improving our
6 infrastructure for resilience.

7 We've made much progress on the
8 implementation status and the goals of 2011 EMP, but
9 there's always work for improvement. The EMP Update
10 has been a pursuit to identify and implement
11 improvements to move the State forward in its
12 achievement of its energy needs while protecting the
13 environment. The Christie Administration is working
14 hard to confront these and many other challenges,
15 whether they be budget, taxes, infrastructure
16 investments or burdensome regulation. And we want
17 to do this to ensure that New Jersey remains
18 competitive today and in the future.

19 And I want to thank you for allowing
20 me to make these comments today.

21 (Applause.)

22 MR. VALERI: Thank you very much. I
23 think we're on schedule to answer some questions.

24 MR. MROZ: Yes, I'd be happy to answer
25 question.

1 MR. SVENSON: Maybe just one question.

2 Thank you very much, President Mroz.

3 I'm Eric Svenson. Reading through the Energy Master
4 Plan -- first of all, the State is definitely a
5 leader in terms of what it's done, in terms of a
6 balanced portfolio of resources and being out there
7 from a renewable standpoint, and so on.

8 The question really is around nuclear
9 power. In the Energy Master Plan, the goal has been
10 evaluating loss nuclear capacity. And with the
11 Oyster Creek Plant scheduled to shut down in 2019,
12 and also projections now of very low gas prices
13 going forward, I'm really wondering to keep that
14 diverse mix of power, would New Jersey consider any
15 special incentives to maintain or put in new
16 nuclear, similar to like some of the southern states
17 have considered, putting into a rate-based or other
18 things, a new nuclear plant.

19 MR. MROZ: So there are probably three
20 issues to mention in answering your question.
21 First, as it relates Oyster Creek, I just want to be
22 clear -- I'm often asked this question. Thankfully,
23 despite what was the projections in 2011 under the
24 original EMP, at that time there were concerns that
25 with the loss of Oyster Creek in and around the

1 2019-2020 time frame, which is on schedule still for
2 closure, that there could very well have been
3 reliability concerns, whether there was, in fact,
4 the need to replace that generation in that
5 location. PJM grid operator in its analysis reports
6 that those reliability concerns are not present with
7 the closure of Oyster Creek and the loss of that
8 generation in that location does not appear that
9 there will reliability concerns. However, it does
10 mean that more than likely there would be the need
11 for additional generation across the State. So what
12 I mentioned before, about us being a net exporter
13 could very well change, depending on what the
14 metrics are. So we continue to, nevertheless, even
15 though there was no reliability concern, would be
16 focused on replacement of the generation, in-state
17 generation.

18 Second goes to the issue of the State
19 supporting directly a particular generation source.
20 And particularly around nuclear, as other states
21 have done. The other states that have new nuclear
22 build, which for Georgia and South Carolina and
23 other states have looked at it, are still integrated
24 states. They still have their electric companies
25 generation and distribution. Of course, New Jersey

1 back in the '90s deregulated, so we no longer in our
2 jurisdiction or as a matter of public policy the
3 State's direct support for a particular generation
4 source. In fact, that's a competitive marketplace.
5 So to the extent that we, the State, would consider
6 a direct support like those other states have done,
7 which put it in rate-based, that is not something
8 that right now we could do. That's a public policy
9 matter that if -- to be confronted by New Jersey,
10 all New Jerseyans, by public officials, the
11 Legislature, and the Governor would need really to
12 make a change in the policy we have on generation,
13 which would be then to bring generation back into an
14 integrated resource environment. So I can't answer
15 whether there's the appetite for that.

16 To the extent that we support, as the
17 EMP suggests, we continue to support the nuclear
18 industry. We will do what we can to support it or
19 to encourage it or to encourage if there is to be
20 new build anything we can don't otherwise to
21 continue to support it here in New Jersey.

22 One area that might provide an
23 opportunity, which is a lot of discussion about this
24 year, just because the sheer cost of a nuclear
25 build, traditional build, if our small new modular

1 reactors, the new technology that's emerging, were
2 smaller generating units, have nuclear fuel could be
3 built at a much lesser cost, but we're still talking
4 on the order of 4 to 5 billion dollar per generating
5 unit investment, which is significant no matter how
6 it's paid for or what the rate infrastructure might
7 be. We'll continue to support it as we can is the
8 bottom line, and it's something that probably
9 nationally there needs to be a policy, not just a
10 state policy on nuclear energy.

11 MR. SVENSON: Thank you very much.

12 (Applause.)

13 MR. VALERI: I'd like to introduce our
14 next speaker who is Ken Colburn, Principal of the
15 Regulatory Assistance Project. Ken joined the
16 Regulatory Assistance Project in 2011. RAP is a
17 non-profit made up of veteran utility and
18 environmental regulators, providing technical and
19 policy assistance to public utility commissions and
20 regulatory agents throughout the United States,
21 China, European Union, and India. Mr. Colburn
22 advises energy and environmental regulators and
23 other parties on air quality and climate-related
24 issues and opportunities associated with regulatory
25 compliance, energy efficiency, renewable energy,

1 distributed generation, integrated resource planning
2 and other energy policy matters. Mr. Colburn comes
3 from a very diverse private and public career
4 involving a myriad of climate issues of note. Mr.
5 Colburn led the New Hampshire Department of
6 Environmental Services Air Resources Division.

7 Thank you, Mr. Colburn.

8 MR. COLBURN: Thank you very much.
9 Thank you, John.

10 I have to tell you how delighted I am
11 to be here. I am a little more intro on RAP, but
12 from my own personal background, and RAP, many of
13 you may know, perhaps not all, the regulatory system
14 project was founded about 20, 25 years ago by a
15 group of veteran PUC regulators. And the way I
16 characterize it is they were folks who had served in
17 these capacities and didn't want to be advocates or
18 partisans, just knew what it was to sit in these
19 chairs. And the way I frame it is they want help
20 existing commissioners avoid the same mistakes they
21 made when they were in those chairs.

22 About five or six years ago, those
23 principals came to understand that there would be
24 overlap in air quality and climate policy with
25 energy policy and they better get a few airheads on

1 the team, as well. And so that's where I came from.
2 In fact, that used to be my license plate. It
3 explained both my job and my driving.

4 As John mentioned, I was Air Director
5 in New Hampshire for several years and then
6 Executive Director of NESCAUM, the regional
7 operation of which New Jersey a key part in Boston
8 for a couple years after that. So I've had a long
9 history or opportunity working with New Jersey DEP,
10 with BPU, and I've been really appreciative of your
11 leadership all along the way, and all the more so of
12 then to join here today. So we're about to get set.

13 Let me start. I can just skip ahead
14 on some of the slides. You all know that the Clean
15 Air Act has kind of a reputation no good deed goes
16 unpunished. And I think New Jersey's circumstance
17 now with respect to the Clean Power Plan is a prime
18 example of that. You are facing some challenges, in
19 part, as a result of the good works that you've
20 undertaken already. We're facing unusual challenges
21 as a result of that characteristic of no good deed
22 goes unpunished, but also because the changes in the
23 industry at this point. You know, we're faced with
24 adopting a Clean Power Plan against a future that we
25 don't have a good clue about. So that's a

1 particular challenge. And hence, my message to you
2 today, which is keep in mind context as you engage
3 in that planning process. You won't find RAPers in
4 your hearing room, in your dockets, but you will
5 find us trying to advise you and help coach you
6 through some of these processes.

7 My coaching today revolves around
8 three key context points. One is the issue about
9 the horse about the cart; one is about skating to
10 where the puck will be; and one is the compared to
11 what question that we should always be asking.

12 Now, it would be impolite for a guest
13 to come at the invitation of the Council, having
14 posed a number of questions and not respond to any
15 of those questions, so I do try to pay a little
16 attention to that. And then I want to give you a
17 look ahead as I see it.

18 The key point in terms of context is
19 that many states and utilities are diving right into
20 the Clean Power Plan, and they're trying to develop,
21 you know, what's the most cost effective strategy
22 today to deal with this. But there are a host of
23 other market rules, environmental regulations,
24 initiatives, technologies, business trends that are
25 impacting the power sector, as well. Those guys are

1 struggling to keep up with us, and many aren't. And
2 the results of the State in terms of CPP compliance,
3 but more importantly its overall economy, are going
4 to hinge on all of those, not just the CPP Plan. So
5 instead of doing this top down kind of approach, I'm
6 urging that we approaching it more from a bottom up
7 approach or at least inclusive of all the factors.

8 So what's that first mistake that
9 people often make? Getting the cart before the
10 horse, diving directly into the Clean Power Plan
11 issues. We did a little paper of that title and I
12 have a couple of copies in the back. I hope the
13 Council has some. But CPP planning is really, as
14 Commissioner Mroz mentioned, it's an energy
15 optimization challenge. It's not just an
16 environment issue anymore. And optimization
17 challenges require understanding of what are the
18 State's energy goals and priorities, the whole
19 overall economy and how it relates to energy.

20 Happily, as the Commissioner
21 mentioned, New Jersey has wisely put its Energy
22 Master Plan horse before its CPP cart, so you're in
23 remarkably good shape compared to a lot of states
24 that have that stoplight upside down.

25 You may, however, want to continue to

1 revisit the EMP as you, again, wisely done in the
2 past. A lot of these things are done and then they
3 sit on the shelf and then they become obsolete and
4 then it's as though they were never done. At least
5 New Jersey is working on regular updates. Some
6 other updates may be in order in light of some of
7 the trends that are happening in the industry.

8 For example, if you look at the Energy
9 Master Plan's key actions, the ones that
10 Commissioner went through, the hard assets about the
11 State's electricity resources, then renewables, and
12 efficiency, innovative technology, and the
13 infrastructure piece, when you look at that, the
14 hard assets are the one where the language goes
15 build, expand, develop. And the more softer ones,
16 the renewables, the efficiency, the innovative
17 technologies, are more promote and monitor less
18 aggressive language on that. It's also interesting
19 that cost effective appears for those but doesn't
20 appear for the hard assets. And don't we want those
21 to be cost effective, as well?

22 Most importantly, I fear that there's
23 an under-appreciation reflected in the plan -- this
24 may be a function how rapidly the changes in the
25 industry occur -- of what's happening with respect

1 to machine-to-machine communications, the Internet
2 of Things, the fact that we will have threats to
3 business as usual in terms of our power sector as a
4 result of those things, and the development of
5 analytics, the impact of storage which is doubling
6 now every two years, consistent with that Moore's
7 law did to computers. Think of that. If this
8 litigation takes two years, storage will have
9 doubled in the time that that happen and the threats
10 to the power sector as we know it will thus have
11 doubled. That's a pretty sobering conclusion. So
12 it may be important to revisit some of this.

13 The second mistake is skating to the
14 puck. Wayne Gretzky had this famous quote, "Skate
15 to where the puck was going to be," and that was his
16 recipe for his success. My colleague John Shenot
17 did this paper, and again, there are a couple of
18 copies in the back. He compared a lot of states'
19 activities on the Clean Power Plan to a group of
20 kids around a soccer ball, you know, how they all
21 moved with the soccer ball instead of playing their
22 positions, so you can do give-and-go. That's sort
23 of where a lot of states are at this point, not
24 skating to where the puck is going to be.

25 Well, that, of course, begs of

1 question where is the puck going to be? And carbon
2 is certainly going to be in there. I think we all
3 recognize that at this point in some form or
4 another. And certainly, New Jersey's DEP and BPU
5 and the Council are wisely communicating with each
6 other, as this meeting shows, and evaluating
7 strategies to survive even if the litigation does
8 not prevail in the end. But more importantly, with
9 other environmental issues loom, these are even
10 apart from the technology one, EPA just approved, as
11 you know, new ozone standards. Those may affect New
12 Jersey. There's talk about a delay in the second
13 round of the regional haze process, but that's just
14 a delay. It will be five more years down the road
15 and we'll say, you know, how we're going to deal
16 with this. The point is that there are more
17 stringent rules and standards for criteria
18 pollutants, toxics, water quality and quantity, ash,
19 the whole shebang. It's written into the Act the
20 EPA has to review and adjust, if necessary. This
21 isn't just something they're doing; they'll
22 compelled to review.

23 So we suggest a good, strong outlook
24 associated with multi-pollutant and planning. Let's
25 approach this as the whole soup that it is as

1 opposed to serial pollutant by pollutant processes.
2 Carbon, ozone, particulates, regional haze, the
3 whole shebang, if you take those serially, imagine
4 the exponential curve of the regulatory burden of
5 executing that as we start measuring parts per
6 trillion as opposed to parts per billion. Many of
7 us grew of in parts per million days. That shows
8 how obsolete we are.

9 And we're not just talking the power
10 sector anymore. Transportation will rolled into
11 those same issues and other industry, and even at
12 some point probably residential, because it ends up
13 being a total large source. So the key is to
14 integrate energy and air quality planning in our
15 view.

16 Now, happily, those relationships
17 you've developed, are working well for you and you
18 can leverage those, build upon them, and then orient
19 yourselves perhaps in some way to provide the
20 strengths of integrated resource planning with the
21 strengths of CPPs and state implementation plans of
22 the Clean Air Act, hopefully eliminate some of the
23 weaknesses of both along the way.

24 RAP has done some thinking on this, as
25 well. It's still a draft. It's still embryonic.

1 We call it Integrated Multi-Pollutant Planning for
2 Energy and Air Quality. You could add water to
3 that, but I couldn't figure that acronym. This one
4 is bad enough. And New Jersey may want to be one of
5 the early states to think about how that integration
6 could occur, because your relationships are already
7 tight, because your leadership's are already secure.
8 Maryland is working on multi-pollutant stuff, so
9 they've got the multi-pollutant part done, but they
10 don't have the energy integration part done. And so
11 that's something you can consider. And I'm glad to
12 support that paper and others if you'd like.

13 Then the third item I mentioned is the
14 "compared to what" question. And this is a key one
15 because we don't want to be planning for the CPP
16 based on today, because today isn't going to be
17 today very long, and there are massive uncertainties
18 facing us. The first and obvious one is what kind
19 of CCP survives legal challenge, if any. More than
20 likely, as we've seen in the past, there are things
21 in a rule that are objectionable and EPA has to fix
22 but not the whole thing. Well, which is which at
23 the end of this process is a good question. What
24 kind of administration will we have implementing
25 that regulation, however it comes out. And in the

1 meantime, we have technologies that aren't going to
2 stop for any of that stuff. And then what changes
3 in electrical demand, what bypass opportunities and
4 so forth would those technology changes create?

5 We may have more extreme weather
6 events that appears likely. And it's not like Sandy
7 was a theoretical thing for New Jersey. That's a
8 little harder for some of the Midwest states to
9 understand, but you guys faced it firsthand. And
10 then, of course, what other things will change that
11 were not even anticipated today.

12 That's why I would suggest that as you
13 look at this there are relatively few certainties,
14 and among them are the wisdom of continuing to plan.
15 You know what they say, that all plans are useless
16 but planning is critical. All plans are wrong. And
17 focus that on risk and sensitivity. If we're off by
18 a little, does the result change by a lot. If so,
19 then you have a problem. And maybe the way to
20 target this is to say, okay, what scenarios, what
21 constructs, what plans perform least badly under the
22 broadest variety of circumstances. One could do
23 worst than least bad.

24 In terms of the specific issues the
25 Council asked about, the Federal Implementation Plan

1 or State Plan? The FIP would certainly be cheaper,
2 because if the EPA does it, you don't have worry
3 about it. But I suspect that most of your sources
4 would rather be able to continue to talk to State
5 officials rather and federal officials. I certainly
6 would if I were a source and I'd cherish the fact
7 that they did when I was a regulator. So talk to
8 your sources about that one.

9 The mass-based to rate-based issue, I
10 think that DEP's analysis of this today has been the
11 superior analysis leading to a rate-based conclusion
12 in the country. You've just done an extraordinary
13 job. And try to challenge it, and you will find why
14 I think that. It's just been well thought out.
15 Now, that's for today's situation, which the
16 Commissioner described extremely well. How much
17 will that echo tomorrow situation remains one of
18 those big uncertainties. Will it be optimal as the
19 sector transforms? Will it be optimal as other
20 sectors are included? For example, when refineries
21 are regulated, you can do a mass-based program for
22 both and seek the least cost solutions across an
23 electricity refinery set of sources. That won't be
24 as easy, maybe not even possible, in a rate-based
25 scenario. Well, but then we're into how long will

1 that take and so forth. But this is the kind of
2 thing to think about in the future, for the future.

3 And then speaking of the future, might
4 EPA have a way to switch between the two? They're
5 just trying to roll this thing out, they're just
6 trying to get it under their belt. They're clearly
7 not thinking about changes midstream, but they
8 clearly will have to think about that down the road.
9 So you should be thinking about it too to just get
10 your arms what might be involved.

11 And then it's not as though a
12 mass-based approach is God's gift. There are
13 problems there, too; notably, of course, how you
14 allocate the allowance regs in the first place, a
15 hugely contentious issue.

16 One of your questions related to
17 trading. Trading, as you know, reduces costs by
18 allowing lower cost option to be sought over a
19 broader universe of applicable sources. But it also
20 reduces your control, particularly if there are
21 multi states involved, because then you have some
22 agreement or some operating condition or paradigms
23 that aren't solely at New Jersey's determination.

24 There may also may be public
25 expectations. You know, I get shoes that are made

1 in a different state than New Hampshire, what do you
2 mean I can't trade? Your sources may object to not
3 having the opportunity to trade. So, again, talk to
4 your sources on that one.

5 The issue of a new source complement
6 for addressing leakage, I think is one of the
7 stickiest questions. They're both bad choices.
8 Uncharted is how EPA will actually assess treatments
9 of leakage. It would certainly be much easier to
10 accept the new source complement, but that's not a
11 very generous addition, as you all know. That would
12 be easier because it's all under one umbrella and it
13 all operates as one system, but neither of these are
14 really good choices. And there may be some change.
15 I'm not an attorney so I don't have any special
16 insights, but this could be one of the areas that
17 you will find in the court decision. So on your
18 list, I would suspect that you might want to keep
19 this one lower down on the list and see what the
20 Court has to say.

21 In terms of the compliance burden, who
22 should actually be the compliance entity, the State,
23 the load serving entities or electricity generating
24 units themselves. The easiest for you to do
25 probably is the EGUs and they're most used to it.

1 The most appropriate might be the load serving
2 entities, but the State as a whole may give you the
3 biggest flexibility. So this is really a continuum.
4 And it's a question of weighing everything else,
5 where do you want to be on that continuum.
6 Certainly, you do want to take advantage of markets
7 to the greatest degree possible at whichever point
8 in the continuum you are. And, again, how difficult
9 is it to change any of this in the future would be a
10 useful consideration going forward.

11 The CEIP, Clean Energy Incentive
12 Program, was an add-on onto the CPP, and I think it
13 shows. It's a good idea, it's well intended, but
14 there are some questionable implementation issues
15 associated with it, not least the fact that it's
16 only two years. I'm not suggesting that you don't
17 do it, but I would suggest that depending on the
18 approaches used, certainly a mass-based approach
19 would allow you to do set-asides to do your own
20 treatment for low income and disadvantaged areas.

21 We have given some initial thought --
22 and I don't want to represent to you that this is
23 big -- but we think it's also possible to do a
24 set-aside approach under a rate-based path. I think
25 the states can think up some innovative ways to do

1 that. So I think New Jersey may be able to do
2 better on its own either using a CEIP as a
3 complement or just handling those issues in
4 constructive ways on its own.

5 So turning to the looking-ahead issue,
6 the key thing as I sugar off the changes in the
7 industry are that for a hundred years now we've only
8 managed supply to meet demand. Demand is what
9 demand is. Our job in the power sectors is to
10 manage supply to make sure that that demand is met.
11 But now, with those devices that I talked about,
12 machines talking to each other and aggregation
13 through the Internet of things, we can now manage
14 electricity demand. I'm of the understanding, for
15 example, that Google through its nest thermostats is
16 selling ancillary services, which is one of the most
17 valuable subsets of power market to Ontario Power.
18 Ancillary services from devices. Amazing.

19 Right now, it's not that it can't be
20 done, it's just that we're waiting for penetration;
21 changeover in the refrigerator so that they can each
22 shut off for five minutes and you can shave peak
23 load by 20 percent, that sort of thing.

24 This will evolve to a real market.
25 We'll be able manage supply and manage demand.

1 That's a real market. In a real market, what is the
2 role for regulators? What is the situation with
3 regulatory compact? These are huge issues. And
4 it's not within the purview of DEP to reach those
5 conclusion, not with in the purview of the BPU to
6 reach those conclusions. You know, the Council has
7 a broad brush, and maybe you can think about that
8 and say some things on that front. The key point is
9 that we're in uncharted waters on this front. And
10 as a result, risks can be pretty high.

11 If we're looking at the creation of a
12 market, then does that mean we'll have other market
13 entrants that are monetizing their use of unused
14 capital assets, my guest room, my vehicle, my
15 peaking plant? And sadly or frighteningly, I'm not
16 the only one who's thought of that. There's Utility
17 DIVES. Will utilities become DERs for Uber?

18 And the economy has changed
19 dramatically in the last several years. It used to
20 be that we needed -- you know, in the post-war
21 period we needed 3 percent increase in energy to get
22 1 percent increase in GDP. That has flipped. And
23 this graph done by EIA in 2013 says .9. And their
24 latest data -- they haven't updated the graph, but
25 the have updated the data -- is .8. So we need less

1 than a percent of energy increase to get more than a
2 percent of GDP increase. Big change.

3 And some of you say, okay, well,
4 that's because fracking we've done so well, CO2
5 emissions are down, you know, this is why we're in
6 good shape. Not so. The natural gas switch-out,
7 which called fracking for a better word, is the
8 brown area. What you see is less than a third of
9 the total reductions and CO2 emissions that we've
10 already seen. The pink area is efficiency,
11 reduction in demand due to efficiency. And the
12 green area is the renewables. So it's not just a
13 matter of gas playing in this market. There are at
14 least three dynamics, and they're all pretty
15 aggressive.

16 On that efficiency one, the Northwest
17 Power Plant, as you know, the Power and Conservation
18 Council looks at load going forward. It's sort of
19 like their independent system operator, their RTO,
20 and they have looked for now 30 years and focused on
21 efficiency and looking at the next five years, the
22 plan just to approved by those four states,
23 Washington, Oregon, Idaho, and Montana, I believe,
24 have decided that efficiency is going to bear the
25 brunt of load growth in the future, as well. So

1 this isn't a question of they've already used but
2 will improve. There isn't any. And their quote is
3 Growth in electrical demand will continue to be best
4 served, even industrial load, by our commitment to
5 energy efficiency, not building new plants.

6 Now, that's good on a number of
7 fronts, but the most important thing is the risk is
8 less heading into these uncertain times and the cost
9 is ultimately less. When you're thinking of the
10 hard assets that would otherwise be necessary to
11 build, folks out there, this is CBC saying, you
12 know, what if pipelines and what's in power plants
13 don't last long enough to pay for themselves?
14 Here's the Bank of England's Governor saying there's
15 a risk here of fossil assets getting stranded.
16 That's in the Financial Times. You have the
17 BlackRock saying the same thing. You know, this
18 isn't the tree-huggers saying, careful, we could be
19 stranded; this is the financial community saying,
20 careful, we could be stranded.

21 There may even be -- this is totally
22 out on a limb by me, but I think there even be an
23 analogue with the Waxman-Markey Bill. In 2009, that
24 bill did not pass Congress. But we are below the
25 CO2 emissions today because of those graphs I

1 showed. Might it be that the CPP has already set in
2 motion that which it will primarily achieve? The
3 markets are already changing. The utilities are
4 already changing. The consumers are already
5 changing. And we're awaiting. It might be that we
6 don't end up even needing the CPP. Now, I'm
7 thinking the EPA is probably going to proceed ahead
8 with it, but it may have accomplished all it needs
9 to already, at least as a starting point.

10 So I think as you approach the plan,
11 the recommendation of Council should be to focus on
12 New Jersey future competitive position, reducing the
13 risks that you could face, increasing the
14 flexibility, which is the flip side of reducing
15 risk, of course, and avoiding potential stranded
16 assets.

17 Efficiency and renewables certainly
18 point in that direction today. They provide
19 competitive advantage for tomorrow because there are
20 typically cost lower, certainly emissions, fewer
21 risks, they can be scaled more easily, it's not as
22 much infrastructure investments associated with it,
23 and the multiple co-benefits, not to mention public
24 health and water are pretty substantial, as well.

25 Indeed, as the Commissioner mentioned,

1 New Jersey has been a national leader on the
2 renewable side of that. And the renewable side is
3 the more expensive side, as all you know. On the
4 efficiency side, not so much. And this is ACEEE
5 score card, and New Jersey is 23rd on that at
6 .68 percent of retail electricity load per year.
7 That means that the best states out there are doing
8 two and three times per year what New Jersey is
9 doing. So there's room for improvement there.

10 And then just to wrap with some of
11 that revisiting the MP that I mentioned at the
12 beginning, maybe instead we should look at lines 2,
13 3, and 4 for the expand, build, develop, taking
14 advantage of the increasing level playing field that
15 we're seeing through the REV process and the
16 Minnesota e21 process that the bypass risks that may
17 occur as a result of storage, the use of the
18 Internet of Things, the Data Analytics, the whole
19 transition to the genuine market that I talked about
20 earlier. And meanwhile, support that with
21 promotions, support and monitor of the hard assets,
22 those where you could be at risk if you dive
23 headlong and focus on those things.

24 So with that, I'll wrap. If we have
25 time, John --

1 MR. VALERI: Actually, we're probably
2 running out of time. You're going to be around for
3 awhile?

4 MR. COLBURN: I will. I'll be here al
5 day.

6 MR. VALERI: If it's okay with the
7 Council, I'd like move to our next speaker.

8 Thank you.

9 (Applause.)

10 MR. VALERI: Our next speaker is
11 Jackson Morris, Director of the NRDC. He's Director
12 of Eastern Energy at the NRDC where he focuses on
13 energy markets, state energy efficiency, renewable
14 energy, and climate polices, and how these pieces
15 can help drive progress federally. Prior to joining
16 NRDC, he was Director of Strategic Engagement at the
17 Pace Energy & Climate Center at Pace Law School. He
18 has worked to advance clean energy policies in New
19 York, Pennsylvania, and other state capitals
20 throughout the East, as well as PJM and NYISO, and a
21 bunch of other legislators.

22 With that, Jackson Morris.

23 MR. MORRIS: Good morning. Thanks for
24 the opportunity to be here today. I always like
25 following my friend Ken. He kind of hit issues

1 really well, I think.

2 I do have way too many slides, I'll
3 point out ahead of time. So I'm not going to spend
4 a ton of time on each one. I did provide the slide
5 deck more as a resource for the Council to kind of
6 go back to later. I'll also caution, I withdrew
7 some of the modeling that we've been engaged in with
8 a number of stakeholders. Typically when I meet
9 with a state to talk through that, it's about two or
10 three-hour meeting. So obviously, we don't have
11 time to go into that level of detail today. But I
12 do want to flag if there's specific interest on
13 specific aspects of some of the modeling results we
14 picked out for the slide deck, I'd be happy to
15 follow-up with anybody as necessary to dig in a
16 little more deeply, because there is a lot to it.

17 Pretty self-explanatory. We've
18 already teed that up with Ken as far as what a Clean
19 Power Plan is.

20 I do want to touch on this slide. If
21 you take a look at the fourth bullet there regarding
22 the Supreme Court stay, I think it's really
23 encouraging to see that the Council is continuing to
24 dig into these issues and continuing to think about
25 recommendations for the State. Despite some

1 interpretations by, frankly, obstructionist to the
2 progress in the Clean Power Plan, it's our
3 interpretation that based on precedent in the past
4 that the fact that the first compliance timeline
5 kicks in in 2022 for the Clean Power Plan, it's
6 going to be left up to EPA, depending what gets
7 decided by the courts. Assuming that the Clean
8 Power Plan is upheld, it's entirely possible that
9 those compliance dates will stick. And so the best
10 way, I think, to get kind of behind the eight ball
11 is for a state misinterpret the fact that there's a
12 stay means, let's put it on the back burner and not
13 worry about it. In fact, it's much more, I think,
14 forward thinking and progressive if you look at the
15 opportunity now as you continue planning and
16 thinking about it, even as that process plays out.
17 And those hyperlinks in that slide there have some
18 blog posts with specific details on that
19 interpretation of the stay.

20 As folks are probably aware, the
21 national projections are 32 percent reductions from
22 2005 levels, and that's the national statistic.
23 It's the equivalent of taking 70 percent of the
24 nation's passenger vehicles off the road. So I
25 think it's really important. New Jersey has been a

1 leader in the space, has a relative clean power
2 sector, but nationally this is a massive step
3 forward on climate change.

4 This is just a quick infographic that
5 has some of the numbers. Again, the Council is well
6 versed, I think, in most of this. But I think it's
7 important as we delve into the weeds on this that we
8 don't lose sight of the fact that this is a really,
9 really big deal and this is going to save lives and
10 really mitigate the number one source of climate
11 pollution in the entire country.

12 So these are some of the numbers up
13 there. You can see the estimates on the benefit
14 number there, between 34 billion and \$54 billion in
15 annual benefits. Bottom left-hand corner, because I
16 am going to try to touch on a health benefits, the
17 90,000 asthma attacks prevented daily. And then the
18 household bill savings, the BPU president spoke
19 earlier about the importance in competitiveness and
20 the economic strength for New Jersey. How you
21 choose to comply will have a direct link on how much
22 it costs to comply. That really turns on, to Ken's
23 point, how much energy efficient you do or don't
24 procure on your system.

25 Again, I'm going to kind of skim

1 through this slide. You can take a look at it
2 later, but it does have some of the specifics.
3 These are the national benefit numbers. You can see
4 there's some pretty big numbers up there. Again,
5 the bottom number there that I mentioned, \$85
6 savings per household in 2030, was the modeling by
7 EPA. All of these numbers are the modeling from EPA
8 and, again, makes some assumptions on how much
9 energy efficiency penetration we see by 2030.

10 I'm fairly confident -- I wasn't
11 positive how much of the basic mechanics of the
12 Clean Power Plan were going to be teed up before I
13 spoke, so I included this as some basic background.
14 I'll skim through it very briefly.

15 Essentially, it's under Section
16 111(d), as was mentioned by the DEP representative
17 earlier. It's essentially the federal government
18 sets a target and then states a great deal of
19 flexibility in how they set up their structure to
20 meet that target. Or they can choose not to pursue
21 a state plan and have the federal government provide
22 them with a federal implementation plan. That is in
23 accordance with this section of the and Clean Air
24 Act.

25 Again, I want to skim through this and

1 just assume that the Council is pretty familiar with
2 structure. But, again, it's just basic background
3 on the structure of how the Clean Power Plan is
4 designed and structured.

5 I'm going to skip ahead on these.
6 These bullets just kind of lay out the specifics of
7 mass-based versus rate-based approaches, which
8 you're familiar.

9 This chart is from an EPA resource.
10 It kind of captures the previous bullet slides in a
11 tighter figure. Technically, you've got multiple
12 options, but really it comes into those two buckets
13 of mass or rate choices. And under the mass-based
14 approach, the big question is Section 111(d) covers
15 existing sources, but the EPA has put forward
16 options whereby you could choose to also cover new
17 sources now to avoid market distortions and kind of
18 tee up for the forward-thinking and forward-looking
19 opportunity the State has to kind of capture those.

20 Another important point here is that
21 all new sources, just like your new car, eventually
22 become old and existing. And so under the Clean Air
23 Act, there is the expectation that you could have a
24 situation where you may have a new source come into
25 the market, assuming the State chooses not to cover

1 it, and eight, nine, ten years down the road, that
2 now becomes an existing source. How do you
3 incorporate it into your compliance pathway? So
4 that's just one of many, we think, issues and
5 complications that you run into if you don't choose
6 to kind of include new sources from the outset.

7 Again, a lot of considerations for
8 regulators to think about. But from our
9 perspective, which I'll get into a little bit later,
10 it does make much more sense, we think, to include
11 those new sources from the get-go.

12 Now we're going to talk about the
13 modeling. Again, I'm not going to spend a ton of
14 time on each individual slide, but there's a ton of
15 different outputs we can go back with as the Council
16 is interested in getting into.

17 This is my public service announcement
18 on what the IPM modeling is. I'll give you the
19 short version. It is that NRDC, working with a
20 number of partners, including EDF, utility
21 companies, Commission M.J. Bradley. And ICF
22 International is the same modeling consulting firm
23 the did the modeling for EPA. So we essentially
24 contracted with the same shop that did the EPA
25 modeling and use all the same assumptions, built the

1 model back up from scratch and have the ability to
2 turn dials turn levers to see different compliance
3 pathways and outcomes happen. We did that for the
4 entire country and for 47 states that are complying
5 with the Clean Power Plan, and this is going to be
6 some of specific New Jersey outcomes. Again, that's
7 a much shorter version of what's on the slide.

8 So these are the scenarios. And
9 again, you can go back and look at these later. I
10 think it's easier to kind of describe the scenarios
11 on each slide because I can point out kind of what
12 each acronym stands for. But essentially there's
13 the Reference Case, which is kind of your BAE of
14 what would happen absent a Clean Power Plan being in
15 place. And then we look at different scenarios,
16 including no energy efficiency, 1 percent levels of
17 energy efficiency, and 2 percent levels of energy
18 efficiency, for example.

19 As Ken pointed out on his list, the
20 stars of this energy efficiency show, like
21 Massachusetts and Rhode Island, are already pushing
22 3 percent levels. We're seeing really strong states
23 reach 2 percent. That's kind of like a benchmark as
24 we sit here today. New Jersey is about .7 percent.
25 So there is room to grow there. But that's one of

1 the key variables that you're going to see.

2 So we'll just jump right into it. So
3 this is the -- the proposed rule for the Clean Power
4 Plan had a relatively stringent target for New
5 Jersey, I would admit. We think it was achievable
6 but it was fairly tight. The ultimate final rule,
7 frankly, has a very modest target for New Jersey for
8 2030. And it's imminently achievable and we think
9 conceded, to Ken's point again, that, you know, is
10 the Clean Power Plan laying the foundation or the
11 groundwork? Is it going to have huge benefits
12 nationally, but is it the end all be all that in
13 2025, will we be far below those emission levels?
14 Probably. If the NOx and SOx regulations of the
15 past two decades are any indication, when we put
16 these regulations forward, we hear the sky is
17 falling, it's going to cost a gazillion dollars to
18 comply. Then it ends of costing a fraction of that
19 level and we over-comply by 10 years ahead of what
20 we're supposed to do. I'm not being flippant there,
21 I just want to point out time and time again, that's
22 been the experience on these sorts of regulations.
23 And I don't think the Clean Power Plan is going to
24 be any different.

25 So in almost all the cases, you can

1 see here that we ran, New Jersey power plants
2 emitted below their 2030 limit, going back to the
3 fact that that target is, in fact, fairly modest for
4 New Jersey. And the issue of trading, if you use a
5 mass-based approach that has allowances, there's
6 additional revenue, assuming that you auction
7 allowances or recover that revenue through some
8 other mechanism.

9 Under the exiting-only approach, not
10 surprisingly, you're going to see emissions be
11 higher for New Jersey. And that means not just for
12 carbon emissions, but also the co-pollutants that
13 goes along with that. I'm going get into that later
14 show how you see significantly higher reductions or
15 greater reductions in SOx and NOx pollutants and
16 also the corresponding health benefits if you cover
17 new sources as opposed to if you don't. So another
18 argument of why covering new sources is going to
19 drive health benefits for New Jersey residents.

20 Right here, you can see that the fact
21 that the leakage piece -- and Ken touched on it.
22 I'm guessing everybody understands leakage, but just
23 a quick version is that if you don't cover a new
24 source, the idea would be that you'd have this
25 perverse outcome where you would have a combined

1 cycle natural gas plant, for example, sitting right
2 here. Over across the street there happens to be
3 one that got built after the compliance date. The
4 one over here has to purchase a carbon allowance to
5 comply with the Clean Power Plan, and this one
6 doesn't. And what does that mean from a market
7 perspective? Let's assume a RGGI price of 7 bucks.
8 This guy is bidding into the PGM market at 57 bucks,
9 this guy is bidding in at 50. If the clean air
10 price is 55, this guy doesn't run, and this guy
11 does. And this guy will run even more. Maybe he
12 dispatches and runs even more than he would
13 otherwise because he doesn't have to cover that
14 allowance price, even though the emissions from both
15 of those resources is essentially identical. So you
16 can imagine if you're this guy and you're owned by a
17 different company than this guy, you're probably
18 going to be kind of mad. And I'm sure the DEP is
19 going to hear some of those arguments when they're
20 making their plan. But also from a public health
21 and emissions perspective, the evidence for leakage.
22 So what EPA has done is essentially said, okay, to
23 address that issue around leakage, there's a few
24 options. One, the cleanest one, from our
25 perspective, the cleanest in many ways, is to just

1 include new sources because then you're obviously
2 not going to have that outcome. The other one they
3 put in their model rule is that you would have a 5
4 percent set-aside of allowances for renewable
5 energy. The idea being that, well, we'll just set
6 aside 5 percent of those allowances and give them to
7 renewable projects; that will, hopefully, increase
8 renewables at a certain level that would offset that
9 leakage. We have concerns that that might not be
10 sufficient to, in fact, address the problem. And as
11 Ken said, the clarity from EPA right now around what
12 would pass that test, that smell test if you address
13 leakage, is far from clear. So there's a lot of
14 actual regulatory risk, we think, from a state
15 perspective of, you know, do you include new sources
16 or you come up with some plan that you think will
17 cover leakage and then cross your fingers that it
18 will be enough and EPA will bless it. If I'm
19 regulator, I'm thinking through that very seriously
20 before I make that decision. Again, a lot
21 considerations. I'm not saying it's an easy choose,
22 but for me, if I was in the shoes of a regulator
23 drafting my plan, that's a real concern for me,
24 thinking about making sure your plan actually meets
25 the requirement.

1 Again, these are the different cases.
2 So this is basically business as usual. There's
3 covering the new, existing and new, national trading
4 with the efficiency. National trading with
5 1 percent efficiency, 2 percent efficiency. You can
6 see the greater efficiency your emissions go down.
7 The existing only goes up. So basically here's
8 existing only, not covering new; all are higher.
9 Here's existing and new covered, emissions go down
10 with efficiency. You reduce demand, you reduce
11 emissions.

12 Here's the SOx and NOx piece for the
13 public health benefits. These are co-pollutant
14 outcomes. Again, fairly straightforward. You don't
15 cover existing -- if you don't cover new sources,
16 you get more pollution. It's fairly
17 straightforward. You come across, you can see
18 existing and new with a 2 percent efficiency level
19 is the lower amount of both SOx and NOx.

20 And then the trading actually here is
21 an interesting, too. Obviously, you've heard the
22 priority for the current Administration to increase
23 the amount of instate generation. Trading is going
24 to be an important factor in that. But you can see
25 here from an emissions perspective from NOx and SOx,

1 this existing and new and included with national
2 trading and 1 percent efficiency, it's significantly
3 lower. This is state-only trading, so plants can
4 trade across plants within the State of New Jersey
5 but not outside the State; lightly higher. And then
6 no trading, higher emissions.

7 Here's the numbers that I mentioned.
8 This just basically takes those bar charts I just
9 mentioned and quantifies the health benefits that
10 are projected from the different outcomes. You can
11 see the biggest number is that third chart. Include
12 new sources, 2 percent efficiency levels, gives you
13 the large numbers. This is annual number, so in
14 2030, \$118 million in health benefits, 44 million is
15 a low estimate. This is an important footnote.
16 This doesn't include the value of societal cost of
17 carbon reduction. This is purely health benefits
18 from SOx and NOx. This excludes that. It's a
19 pretty conservative number from an overall benefit
20 perspective.

21 And then this is the savings piece
22 that I mentioned. Again, turns on how much
23 efficiency you have in the system. Two percent
24 levels, you're seeing 18 percent reductions. That's
25 existing and new again with national trading.

1 Essentially what happens with that trading, as you
2 expand the pool of carbon mitigation options, you
3 reduce compliance costs. It's fairly
4 straightforward economic. So if you're chasing
5 those reductions in only the State of New Jersey,
6 you have a more finite market to pull from. If
7 you're trading across the entire country -- and we
8 have modeled region-specific stuff, too. Obviously,
9 I couldn't -- I've already probably made everybody
10 cross-eyed with all these slides. We have national,
11 we have regional, we have state-only. We have
12 different outputs that we can show you, but the
13 general concept is you reduce compliance costs by
14 trading, you reduce compliance costs when you ramp
15 up efficient. Is kind of the takeaway.

16 So this last slide, you're, I'm sure,
17 all familiar with, the Regional Gas Initiative
18 Program. But based on our modeling, at end of the
19 day, it's the call of governors and agencies and
20 sometimes legislatures if they're inserting
21 themselves into the process, on what compliance
22 approach is going to be taken by a state. But from
23 our perspective, particularly when you factor in
24 these outputs that we've seen, literally just
25 looking at how much pollution you're getting of

1 rate-base versus mass-based, including new sources,
2 not including new sources. This is kind of where we
3 see -- and also savings for consumers. So this
4 isn't purely environment, this is the economic
5 outcomes. We think the way to go for New Jersey is
6 the mass-based approach that does cover new sources.
7 The allocation question is critical. It is
8 contention, as Ken said. That's a really important
9 piece to keep in mind. The very basic concept there
10 is that you will see the allowance price of a
11 mass-based approach whether it's RGGI or otherwise.
12 You will see that appear in the price of electricity
13 at PJM, and customers will pay that increased price
14 of electricity. The amount that they actually
15 experience on their bills is entirely contingent
16 upon what the State of New Jersey, or whatever state
17 you're talking about, does with that revenue. If it
18 gives those allowances away to generators for free,
19 those generators still have to include that in their
20 bid. So it will increase electricity prices. And
21 instead of that money being recovered and going back
22 to customers in the form efficiency or rebates or
23 low income programs or whatever, you name it,
24 instead of going into that, it would go into the
25 pockets of those generators as a windfall that they

1 would experience. So that's really just a
2 clearcut -- it's not philosophical or ideological
3 question, it's just the mechanics of the market.

4 So basically, regulators have a
5 decision to make. Are you going to give that
6 allowance value to generators and let them pocket it
7 for their investors? Or are you going to recover
8 that value and invest it for public benefit? And
9 that's really what the allocation question comes
10 down to.

11 And so we've seen that play out in the
12 RGGI experience and in California. In RGGI, you can
13 actually see in the analysis group reports, which
14 are cited at the bottom here, obviously there's no
15 numbers for New Jersey after they left the program,
16 but there was some numbers from before they left the
17 program. There was \$151 million of value added to
18 the state economy, 2.9 billion -- this is for the
19 RGGI Program at-large. But if you go down here, of
20 what New Jersey spent at the bottom, that's how they
21 reinvested their revenues, 63 percent on the general
22 fund, 23 percent on renewables, 9 percent on direct
23 bill assistance, and 5 percent on greenhouse gas
24 programs. You have in the Analysis Group report,
25 which you can get that link, the first link is the

1 2011, so they did like a first three-year look and
2 what the macroeconomic benefits were from that
3 program for the RGGI states. And the second link
4 goes all the way for the second time period, 2012 to
5 2014. There's a direct correlation between
6 macroeconomic benefits that a state experiences and
7 how much they reinvest in energy efficiency.

8 I also want to qualify with that,
9 depending on your decisions, from our perspective,
10 any utilization of that money for public benefit,
11 recovering that money for public benefit, is better
12 than having it be a windfall to generators having
13 that allocation. Because we see the value of this
14 allowance is a public good that needs to be
15 reinvested for public benefit. So from a purely
16 analytical standpoint, the best use of that for a
17 consumer impact basically cost savings perspective
18 is to invest in energy efficiency in the electric
19 sector. However, that's, again, a state decision.
20 EPA is not going to care how you spend that money or
21 if you give that money back at all. They're going
22 to care you have your mass-based program, your cap
23 is here, it declines through 2030, you have
24 demonstrated compliance. So another reason why do I
25 go with the federal program, do I go with the state

1 problem, that's another example. That then becomes
2 an inherently state decision on how you reinvest
3 that value or don't reinvest that value. That's a
4 really important point, too.

5 I'm going to stop there so I have
6 maybe 1 minute or even 30 seconds for a couple of
7 quick questions. Or do I --

8 MR. VALERI: We're actually right on
9 time.

10 MR. MORRIS: Okay.

11 MR. SVENSON: First of all, thank you
12 very much. I just want to clarify one thing. The
13 charts that are on your presentation, starting with
14 New Jersey's power sector can go beyond its 2030
15 target. All the subsequent charts are specifically
16 New Jersey?

17 MR. MORRIS: Yes. Everything is
18 specific to New Jersey. The beginning parts about
19 the benefits are national, but all of these are the
20 specific New Jersey runs in the modeling. Sorry
21 that wasn't clear.

22 MR. SVENSON: Just one follow-up. So
23 the ideal modeling or the modeling that generated
24 the health benefits and everything else, is that a
25 report? More than slides, is there something that

1 one can download or get ahold that has to backup to
2 how it got to the specifics?

3 MR. MORRIS: Yes. So there is M.J.
4 Bradley tool that's New Jersey specific. And also,
5 I forgot to add, this also included the update of
6 including the PTC and the ITC which changed some of
7 the outcomes, but that will be available. I'll
8 follow up. The M.J. Bradley tool can be accessed
9 New Jersey specific. And then we can certainly
10 share and summarize, kind of -- we don't have an
11 existing product for all 47 states. You can imagine
12 that would have been challenging. But we can
13 package that and also share with you guys maybe a
14 more exhaustive list of outputs.

15 MR. SVENSON: I'm just saying, the
16 health benefits that you cite, it would be very
17 useful to have how did that number get generated.

18 MR. MORRIS: Got it. Okay.

19 MR. SVENSON: Specific community
20 benefits, broader trading further reduces NOx, SOx
21 from an Environmental Justice standpoint. How did
22 that really get generated? And is it more located
23 in a particular locale, or is it statewide?

24 MR. MORRIS: Absolutely.

25 MR. SVENSON: So that type of

1 information would be very useful to understand.

2 MR. MORRIS: Okay. Got it.

3 MR. VALERI: Thank you.

4 (Applause.)

5 MR. VALERI: Our next speaker will be
6 Steve Gabel, President of Gabel Associates. Steve
7 has more than 35 years of experience in assisting
8 clients in strategic energy and environment issues,
9 legislation, regulatory and utility matters. Mr.
10 Gabel founded Gabel Associates in 1993. Prior to
11 that, he had a distinguished public service career.
12 Notably, he was the Director of the Electric
13 Division of New Jersey Board of Public Utilities and
14 also served as the Director of Solid Waste
15 Management in New Jersey Board of Public Utilities
16 in New Jersey DEP.

17 Steve.

18 MR. GABEL: Thanks, John.

19 So I don't have any slides. I'm just
20 going to take a few minutes here and talk about some
21 things, some marketplace realities about the Clean
22 Power Plan that I hope the Council will keep in mind
23 as they go through their deliberations.

24 Just a couple of things in terms
25 opening warmup here is, first, just by way of

1 disclosure, one of the clients that we've been very
2 actively involved in here at Gabel Associates is an
3 organization called the Independent Energy Producers
4 of New Jersey. It's a trade association. It
5 represents about 85 percent of the owners of
6 electric generating capacity in the State of New
7 Jersey. And they've, not only on this issue, but
8 over the years have been involved in all sorts of
9 energy and environmental and utility ratemaking
10 issues in the State for 20 years or so. We've, in
11 this context, been very active talking with DEP
12 staff. I've got to give a shout out. The DEP staff
13 has been incredibly thoughtful, available, really
14 thinking through this in a very, very serious way to
15 make this work for the State of New Jersey. So I
16 did want to make sure that most importantly got to
17 you all as you think about this. They are a great
18 resource for you, for everybody in the State.

19 In terms of what I wanted to talk
20 about today is really to talk about what this plan
21 can mean out in the energy marketplace. When I talk
22 about the energy marketplace, what I mean is the
23 wholesale power generators which are the applicable
24 regulated entities under this proposal. All of them
25 play in the PJM wholesale power markets. And when I

1 talked in the title about tripwires here, unless you
2 make this thing sensitive, recognize how these
3 wholesale power markets work to these folks who
4 compete every day in these marketplaces, this thing
5 isn't going to work. It's could raise costs, it
6 could defeat the very purpose of what we're all
7 trying to do, which is improve environmental
8 quality.

9 So that's really what I'm going to
10 touch on today. I'm not going to go through any
11 sort of broad detail review of the regulation or
12 anything like that. I want to make sure, if I can,
13 get an understanding how this thing looks from the
14 window of looking at this from a wholesale power
15 generator that has to comply with this thing.

16 A couple of general principles I want
17 to get out there in terms of that. And that's that,
18 number one, I think we all have to be flexible.
19 This thing is incredibly fluid right now. I'm not
20 going to go into detail on that. You know what that
21 means. It's legally fluid. You know guys know
22 what's happening in the courts. It's politically
23 fluid because I think the presidential race is going
24 to say a lot about what happens to this regulation
25 and what follows. It's regulatorily -- if that's a

1 word -- fluid because every State's got a big chunk
2 of decisions they have to make around these
3 regulations. It's technically fluid because there's
4 some things happening in the marketplace right now
5 that can bump this thing one way or the other. So
6 principle number one is, I think, this State Council
7 should be flexible in how they look at this thing
8 because things are changing really day-to-day. You
9 see it in the papers all the time.

10 Principal number two is just an
11 observation about what's happening in the
12 marketplace. Natural gas, as you know -- and I'm
13 not going to get into detail. I think some other
14 people did. Natural gas is really running the table
15 right now in the power markets, particularly in PJM.
16 There have been about 20,000 megawatts or so of coal
17 retirements since 2012. There's no CPP in place.
18 What happened, gas really took the ball away from
19 coal, and we're seeing that play out in the
20 marketplace. So that's an important factor. The
21 gas combined cycle units are the ones that are most
22 of the time setting the energy market price. So
23 that's principal number two.

24 Number three, this thing, this CPP or
25 whatever iteration it turns into, is a great

1 opportunity for the country and for New Jersey. We
2 think it can really drive cleaner generation, energy
3 efficiency, economic activity that occurs, whether
4 it's new generation or EE down in your basement.
5 All of that equals jobs. And we think this thing,
6 done right, can be a big motivator for all that type
7 of positive environmental and economic activity.

8 And I would say also that -- and I
9 don't know the makeup of the group, whether you're
10 doubters of climate change or not. To me,
11 regardless of whether that's your belief from a
12 science standpoint, this thing's got a ton of
13 benefit. The last speaker, I think, really put the
14 chart up there and told the story, which is the NOx
15 and SOx reductions that go along with this. Even if
16 you're not a believer in climate change, humans
17 causing climate change, there are substantial
18 benefits because this thing, again, done right --
19 and I'm going to keep underlining that -- really
20 pushes generators to improve their heat rate.

21 If you're running a power rate, this
22 heat rate, heat rate, heat rate. That's the
23 conversion. Think about your car, your miles per
24 gallon. The more you can improve that, the lower
25 your emissions across the board. So this thing is a

1 positive across the board, not just for greenhouse
2 gases, but in many other areas.

3 Principal four, is this can complement
4 the Energy Master Plan of New Jersey, which you
5 heard about an hour or so ago, and can complement
6 all those important policy goals that are in there.
7 So that's really kind of broadly.

8 The last principle is that as you
9 think about this, not only think about cost -- a lot
10 of people put costs up on the screen. You've got to
11 think about risk and uncertainty as you're thinking
12 about that. It's not enough to think it. This is
13 one number in a database. You need to think about
14 what the risk of whatever that cost component is of
15 being higher or lower, what the uncertainty is,
16 because the folks who run power plants, the
17 investors who invest in power plants, any sort of
18 uncertainty, I'll tell you how they deal with it
19 because I live it every day, it's called uncertainty
20 equals increase my price. And you don't want to go
21 there. So as you think through this, kind of factor
22 not just cost, but risk and uncertainty into what
23 you do.

24 I said at the outset that the real
25 issue, the issue I wanted to touch on, was how this

1 proposal plays into the dynamics of the wholesale
2 power market. PJM has got something called the
3 market monitor, and that market monitor is under
4 FERP (phonetic) jurisdiction to look at the
5 competitiveness of the wholesale power markets.
6 Every year since the market monitor has been around,
7 and I've kind of lost count, but it's at least 10
8 years, the market monitor finds that the energy
9 markets of PJM are competitive. There's tens of
10 thousands of megawatts, many, many owners, and when
11 you think about competition -- and probably everyone
12 here plays in some sort of competitive play, whether
13 it's in your business or in how you negotiate for
14 wages and salary, everybody plays in competition.
15 In the wholesale power industry, that competition
16 plays out every single morning of every single year.
17 Generators need to put what's called a day ahead
18 offer price into PJM. That's telling PJM, tomorrow
19 I will offer my energy into the market at the
20 following bid prices. And the prices, the offer is
21 either clear because they're below the highest
22 accepted offer price based on the amount of demand
23 expected tomorrow, or they don't clear and they
24 don't run, they're not accepted, and that highest
25 accepted price sets the market clearing price. So

1 it's a level of competition, I'll say, competition
2 kind of on steroids because it's every day, it's
3 every hour. And, in fact, in real time after the
4 day ahead auction, there's a real time auction to
5 make up the difference between what the expectations
6 were relative to the day before. So a high degree
7 of competition.

8 In the energy markets, the way this
9 played out, I talked about that market clearing
10 price, economists love to talk about this stuff.
11 It's really what's called a truth revealing bid
12 because the market -- and think about the dynamics
13 of this for a second. The market clears not at what
14 you bid, it clears at what the last accepted
15 generator bid. That incense you as a bidder to put
16 in your lowest clearing price that you would accept.
17 And how do you determine the lowest clearing price
18 you would accept? You think about what are my
19 variable costs. Because that's the dollar I have to
20 spend to generate that megawatt hour. I have to buy
21 fuel. I have to pay variable O and N, the folks in
22 the building who are running the plant. I have to
23 buy NOx allowances that exists in New Jersey. I
24 have to buy other allowances.

25 You're now introducing in this rule a

1 new cost factor, the cost of complying with CPP. So
2 that's how that bid price or this program factors
3 into energy prices. And if that number, what are
4 that nut is, they're looking at that just like they
5 looked at what's the cost of a ton of coal or an
6 MMBTU of natural gas. It's a cost element to layer
7 into that bid price.

8 Why am I getting into level of detail?
9 Number one, it's going to have an impact on the
10 overall prices in New Jersey. I think the last
11 speaker touched on that. But as important, the
12 price for that compliance go back to my risk
13 discussion. If I know what that number is, and I
14 know what the number is for a RGGI allowance right
15 now. You can look it up in the newspaper. If I
16 don't know what I number is or there's uncertainty
17 around that number, it makes compliance much more
18 costly. Risk premiums get dropped into prices.
19 Generators don't quite know how to plan. They don't
20 quite know whether they should make investments in
21 making their power plants cleaner or have a better
22 E grade. So it's very important in the context of
23 this hyper-competition to get this number right to
24 get, as you're sitting there trying to send --
25 you're trying to send a memo to the generator. You

1 want that memo to be clear and crisp and tell them
2 what that number is so they can take the action that
3 you want them to take at the end of the day.

4 The other element of PJM that's
5 important that I want to just touch on is last
6 summer, August of '15, PJM did a redesign of their
7 capacity market. I hate to take a bunch of letters
8 that sound like what we're talking about, but I
9 didn't make them up. The CP product was created,
10 not to confuse it with CPP, but it's Capacity
11 Performance, coming off the cold snap of '13-'14
12 when the system went right up to the edge because of
13 unavailability of many, many plants. PJM redesigned
14 their capacity system. The capacity system isn't
15 paying people for energy. It's just paying people
16 to be there so that when those cold snaps hit and
17 those hot summer days come and the peaks are going
18 off the screen, we know that we're going to have
19 adequate generation. So it's actually paid in PJM
20 on a fixed payment per megawatt day. And it's a
21 market that's supposed to, as it sounds, induce
22 generators to build new generation; and once having
23 built that generation, to be there when those peak
24 days and peak hours come.

25 The capacity and performance model,

1 which is in place now -- generators are living under
2 it now -- greatly increase, not the amount they get
3 paid for their capacity, it greatly increase the
4 amount of penalty they get if they're not there when
5 they should be. There's very little forgiveness in
6 this thing. There's almost no force majeure or
7 outside management control. You've got to make it
8 happen regardless of what's happening in the world
9 around you. And the penalties are significant.
10 Just to kind of give you a sense of scope, the power
11 prices right now are running anywhere from 25, 30,
12 \$35 a megawatt hour. The penalty payment under this
13 formula if you fail to deliver during these peak
14 emergency periods runs about \$3,200 a megawatt hour.
15 So it's, in many cases, could be if you're not there
16 when they need you, when the grid needs you, it's a
17 bankruptcy-inducing event, or could be. So it's a
18 huge risk. For a 500-megawatt plant, it could be in
19 the neighborhood of \$72 million in a year if you
20 don't make it happen.

21 So I'm bringing this up because
22 generators today are living under this risk.
23 They're managing this risk. They're not running
24 away from it. They understand that's part of their
25 job. But I'm trying to take the CPP and put it in

1 its this context because it's another risk variable
2 that goes into the equation. And if you want these
3 generators to make the investments, which I think we
4 all want to see to clean things up, you need to
5 recognize these risk elements.

6 So really what I'm talking about is
7 making the market work to further the policy. One
8 is to get the pricing in place so that it's clear.
9 And if you think about rate-based versus mass-based,
10 mass-based is something we know. We've seen it
11 operate in NOx, we've seen it operate in RGGI. The
12 rate-based is relatively unknown and it will be
13 harder for generators, at least as we stand here
14 today, to understand what that price is.

15 The second way to use the market, one
16 item of the CPP that I want to call out is something
17 called the Clean Energy Incentive Program. It's a
18 program that allows in the early stages of the CPP
19 to allow for additional credit and investment for
20 renewables and importantly, at least from where I
21 sit, investment in energy efficiency in low income
22 communities. This is a way to really join two very
23 important public policies, which is to make energy
24 efficiency happen more in low income areas and
25 create allowances or create ERCs to help generators

1 comply. So you're using the market to create more
2 energy efficiency to make it happen in low income.
3 I think that's something that I'd ask the Council to
4 stand behind and support and try and designed the
5 program.

6 I have a couple of recommendations.
7 One is to have live participation so a lot of folks
8 can play, community groups, utilities, other
9 generators, just other participants in the market.
10 You want to have a nice big playing field so folks
11 can get in and make these happen. You should make
12 it happen both -- allow for it to happen in
13 residential, as well as commercial and
14 nonresidential settings to get as much bang as you
15 can out of these communities.

16 The reg does not make clear at this
17 point what is a low income community. One
18 suggestion that I make is 15 percent -- I'm sorry.
19 Hold on. Any community that's got 15 percent or
20 more of its residents below the poverty line would
21 be defined into this program.

22 Sorry I dropped that one.

23 So I touched on rate-based versus
24 mass. The other issue on rate-based is we need to
25 carefully account -- and I know the DEP is carefully

1 reviewing this. There are different ways to make
2 ERCs. They can come from renewables, they can come
3 from EEE, they can come from generators themselves.
4 Each one of those has got a lot of uncertainty right
5 now in terms of how much ERC generation will occur.
6 And I think we need to really sharpen the pencil and
7 make sure we get those numbers right, because that
8 will tell the story of whether ERCs and the
9 rate-based program is one issue of whether that
10 program is workable for New Jersey. The other, as I
11 mentioned, is this issue of certainty. We know how
12 allowances function. We don't totally know how an
13 ERC system will function.

14 So just to sum it up, I think this
15 thing can work in the marketplace as long as you
16 understand and take into account the realities.
17 Costs and risks should be considered and
18 flexibility, at least especially where we are right
19 now in the process, is very important.

20 Thank you.

21 MR. VALERI: Thanks, Steve.

22 Steve, I'm not sure if you will be
23 around.

24 MR. GABEL: I will not.

25 MR. VALERI: So just one question

1 because I'd like to raise it. You mentioned a great
2 point on the issue of certainty, particularly with
3 respect to power plants. Also with respect to
4 renewables, the uncertainty is one of the problems
5 we had in the beginning of the SREC Program, et
6 cetera. We're obviously looking at very specific
7 questions related to the Clean Power Plan. Is there
8 one part of the Clean Power Plan or something that
9 we've raised that maybe scare you or at least that
10 you're most concern about future investments if it
11 were or were not to be implemented? And that may be
12 not something you can answer now, but certainly it's
13 an important question in my mind because at the end
14 of the day, to use the other analogy, where the puck
15 is going to be, we're going to develop things, clean
16 power plan, renewable energy, as well implementing
17 energy efficiency. I would be curious what you
18 think is the one thing that you'd talk about the
19 most.

20 MR. GABEL: Off the top of my head, I
21 guess the two things I kind of point at without
22 providing an answer right now are, one, this
23 question of mass versus rate approach, and the
24 relative level of risk and uncertainty inside each
25 one of those approaches, number one. And number

1 two, providing clear forward-looking signal as to
2 how generation will get treated inside the program.

3 MR. VALERI: Any questions from the
4 Council? I know we're kind of on a schedule, but
5 since Steve's not going to be here.

6 MR. SVENSON: Just to follow on that
7 last piece, Steve, when you said getting clear
8 direction about how new generation -- does your
9 group IEPNJ, for example, have a preference to
10 whether include new or not to include new?

11 MR. GABEL: At this point in time
12 because of my first guideline, we're in great deal
13 of flux right now.

14 MR. SVENSON: Understood.

15 MR. VALERI: Nicky.

16 MR. SHEATS: Thank you for mentioning
17 the CIP Program.

18 Would you favor a similar program for
19 renewables?

20 MR. GABEL: I would favor that with or
21 without CPP. So how it would factor into and meld
22 into the CPP, I'd have to give some thought to. But
23 in terms of something that provides greater
24 incentive in low income communities, I think should
25 happen. We've looked at things with -- I don't know

1 if it's strong now, but the market tax credit and
2 things like that to try and drive development in
3 inner city areas is something that we've looked at
4 and used successfully. So the quick answer is yes.

5 MR. VALERI: Any other questions?

6 Thank you, Steve. Appreciate it.

7 (Applause.)

8 MR. VALERI: Our next speaker is Pam
9 Kiely, Senior Director of Regulatory Strategy of the
10 Environment Defense Fund. She leads work on
11 implementation of Clean Power Plan. Prior to
12 joining EDF, Pam founded PK Strategies and was
13 consulting for a wide range of clients on energy and
14 environmental issues.

15 Pam.

16 MS. KIELY: Thank you very much. And
17 thanks to the Council for inviting us all and having
18 me here day.

19 I'm going to try to do three things in
20 the 15-minute time slot. The first is to highlight
21 some of the sort of CPP 101 issues that I think are
22 important for the Council to consider. I know
23 there's probably quite a base of knowledge that you
24 all have already. I want to pull out some of my
25 take-aways just from the rule itself. Two, I'm

1 going to spend a little bit of time taking a brief
2 look at the planning time horizon and what are some
3 of the factors we should consider right now, given
4 some of the uncertainty that is surrounding this
5 effort. And then finally, highlight a few things
6 that I'd encourage Council to consider as you move
7 forward with your conversations and as New Jersey
8 moves forward with their planing.

9 So first, just quickly on the Clean
10 Power Plan itself, the Supreme Court in 2007
11 affirmed, not only the authority, but also the
12 responsibility to regulate greenhouse gas emissions.
13 And I think that's important to understand that this
14 is not just an opportunity to do so, but it really
15 is a responsibility to do so. So whether these
16 greenhouse gas emissions limits come in the form of
17 the Clean Power Plan or come through other
18 regulations down the road, either for this sector or
19 for other sectors, we believe that we're on the path
20 towards a carbon constrained economy, not just in
21 the power sector, but beyond. And with that, while
22 the Clean Power Plan is groundbreaking -- I think
23 we've heard statistics about what it's doing to the
24 power sector, first ever national emissions on
25 carbon emissions or carbon pollution -- its

1 structure really does follow the traditional clean
2 air regulatory framework, that framework of
3 cooperative federalism, that partnership with EPA
4 and states that has been reducing emissions of
5 dangerous pollutants for decades.

6 And the way the Clean Power Plan is
7 going to work, I think we all kind of get these
8 basics, the federal government setting targets, the
9 states are going develop and implement plans in
10 order to ensure that their sources achieve the
11 targets set. States have tremendous flexibility to
12 design really individualized state compliance
13 frameworks to ensure that power plants within their
14 jurisdictions achieve these emission limits. But
15 the important piece, I think, to note here is that
16 that flexibility is provided to them as long as they
17 provide a clear enforceable emissions limit for each
18 regulated power plant in the State. And that way,
19 the Clean Power Plan really at its core a
20 traditional clean air requirement. You've got a
21 power plant, you've got a pollutant, and the that
22 pollutant needs to meet emissions limitation.

23 And these standards, in short, really
24 do build on America's successful efforts to date to
25 addressing harmful pollution from the power sector.

1 And these efforts have already made tremendous
2 progress, as the slide represents. And when the
3 Clean Power Plan is fully implemented -- and we've
4 seen numbers already today -- EPA estimates that
5 sulfur dioxide emissions nationally from power
6 plants will be 90 percent lower as compared to 2005
7 levels, and nitrogen oxide emissions will be 72
8 percent lower.

9 It's critical, though, and I think Ken
10 and others have noted this, that states focus on
11 looking at these choices they have before them
12 through an integrated and coordinated
13 multi-pollutant lens in order to ensure that states
14 are seeing the full benefits, not just in carbon
15 emissions but also the NOx and SOx benefits that we
16 all want to see.

17 Under the Clean Power Plan, EPA is
18 establishing separate national emission standards
19 for two subcategories of fossil fuel generating
20 electric units: The steam units, generally coal or
21 oil fire units, as well as natural gas combined
22 cycle generating units. Under the Clean Air Act,
23 EPA emissions standards reflect what's called the
24 Best System of Emission Reductions, BSER. I'm
25 really excited that I'm not going to spend too much

1 time talking about BSER. We've sort of moved beyond
2 that and we're into this implementation
3 conversation. But for those of you have been
4 roaming around talking about the Clean Power Plan
5 for two or three or four years like I have, I'm
6 really happy not to spend too much time talking
7 about it. But it is an important factor here. And
8 I do want to take a moment to talk quickly about
9 emission reduction.

10 The idea is that the Environment
11 Protection Agency has looked at a system that's been
12 adequately demonstrated, considering costs, energy
13 requirements and other factors. So it figures out
14 how you are best to control the pollutant at hand.
15 The pollutant, obviously, in this case is carbon.
16 So the EPA has applied three building blocks to
17 develop a uniform consistent national emissions
18 rate. Actually, I think this is important because
19 I've heard some comments earlier today about how
20 states were treated relative to other states based
21 on the setting of the standards. And I think the
22 thing that's important to note here is that each
23 state target, the target number you get for a state,
24 the only thing that that target is a function of is
25 how many coal facilities there are in the state and

1 how many gas facilities. Because at the core of
2 this, EPA has determined a uniform emissions target
3 for every coal plant and a uniform emissions target
4 for every gas plant and applied those targets to
5 each coal plant and each gas plant in the State. So
6 you're State's target is merely a reflection of your
7 relative mix of coal versus gas.

8 So a state like New Jersey who's made
9 tremendous progress in deployment of renewable
10 energy, also has deployed some DSM, relies on
11 existing zero emission capacity, all of those
12 choices that the State has made, the fact that the
13 State is currently getting electricity from zero and
14 lower emitting resources actually is quite helpful
15 for the State because they have fewer fossil
16 generating units that they have to figure out how to
17 come into compliance with, fewer units on their
18 system where they have to figure out how to bring
19 down the relative emissions rate or to bring under
20 an emissions cap. So I think that's an important
21 point as we think about this moving forward.

22 Functionally, everything that New
23 Jersey has done has really put it in a good place.
24 There's fewer higher emitting fossil units on the
25 system to deal with. I think Jackson put this slide

1 up, the compliance options. It's a great slide.
2 Everyone's probably seen this many times. I think
3 the idea behind this slide, though, is EPA really
4 has provided some tremendous flexibility for states
5 to figure out how to come into compliance with this
6 rule. But within that flexibility, it's a two-sided
7 coin. It's both exciting, there's lot to do or a
8 lot of options; and then it also can be a little
9 daunting, as you can see. Even in this chart, there
10 are many compliance paths that the State can go
11 down, and even pathways that are not represented on
12 this chart.

13 The thing that I want to pull out of
14 here, though, is even in some of the approaches,
15 some of the approaches that EPA has sort of dumped,
16 streamlined, compliance plan pathways, or sort of
17 presumptive approvability aura around them, certain
18 choices have consequences. So, for example, we've
19 got a lot of flexibility. We can take our
20 rate-based emissions limitation and we can translate
21 it into a mass-based goal. That's exciting, but
22 you've got to make sure that the mass-based goal
23 actually drives equivalent emission reductions as
24 you would see under a rate-based program. So if you
25 decide to do a mass-based goal and you only cover

1 your existing units, you have to make a
2 demonstration to EPA that you are actually achieving
3 emissions reductions that are equivalent with the
4 rate-based BSER. And in that instance you actually
5 free up additional allowances by not covering those
6 new fossil units that are not needed to cover a
7 ramp-up from coal to existing natural gas units.
8 You free up some those allowances. Therefore,
9 you're going to see higher emissions from your coal
10 units under programs that don't total emissions than
11 you would see under a rate-based BSER application of
12 a program. So it's an example of the type of
13 consequence you have with your flexibility. You can
14 do a lot of different things, but you have to make
15 sure the core of it you're actually achieving the
16 level of emission reductions that EPA has laid out.
17 That is emission reductions.

18 I think one of the best ways that we
19 have under the Clean Power Plan is to be able to
20 actually take advantage of the options that EPA has
21 given us and adopt solutions that maximize the
22 access to low cost compliance choices for sources
23 and also create opportunities to meet and exceed
24 requirements in a manner that works best for the
25 State and works best for the regulated entities in

1 the State. And one of the best ways to maximize
2 flexibility is to provide for the development and
3 deployment of a plan that can actually best interact
4 with other plans and providing access to compliance
5 instruments. That is kind of wider access so
6 sources have the opportunity to go out and look for
7 carbon emission reductions that can deliver the
8 required emissions reductions at the lowest cost to
9 the system, which is in many ways an exciting
10 opportunity.

11 In addition, one other potential
12 opportunity for flexibility in this program is
13 taking advantage of the Clean Energy Incentive
14 Program, as was mentioned by the previous speaker,
15 which provides power companies the opportunity to
16 have additional flexibility by seeing the
17 development or the sort of the earning of additional
18 allowances or additional ERCs and bringing those
19 addition credits into the system for focusing on
20 either clean energy deployment near term horizon or
21 investment in income energy efficiency, which is
22 incredibly critical. I'm going to talk a little bit
23 more later if I don't run out of time, which I
24 probably will.

25 So moving forward full steam ahead on

1 compliance. This slide tells us a little bit about
2 where we are and where we're going in terms of
3 emission reductions. We've got -- we can see here
4 on the chart the emission reductions contemplated
5 under the Clean Power Plan. We have the black line
6 that's sort of showing us where our CO2 reductions
7 are going and where they would go under sort of a
8 very simple projection of steady change. And then
9 the green line tells us what the economic
10 opportunity is to CO2 reductions from the sector.

11 So just to put all this in context,
12 we're talking about a relatively reasonable first
13 step here for CO2 reductions. It also allows us to
14 imagine a scenario where moving ahead in this rule,
15 we can be looking at additional reductions from the
16 sector. So as we're thinking about development of a
17 program, let's make sure we're thinking about
18 development of a program that's durable and workable
19 over time, not just in the context of sort of this
20 first step in this first tranche of reductions from
21 this sector, but potentially workable in the next
22 tranche of reductions from sector and next tranche
23 of reductions beyond the power sector.

24 This slide demonstrates a bit about
25 the power shift that we're seeing. I just like the

1 graphic. As you can see here, the trend, you see
2 the black is coal generation, beige is natural gas,
3 and as you look towards the end of the chart, what
4 we're seeing in the early part of decade, 2000-2005,
5 we're seeing a huge uptake in, obviously, gas
6 deployment. We're seeing solar and wind and other
7 renewables come on top of that. And that sort of
8 statistics underpinning this slide is fairly
9 straightforward. We've probably all seen these.
10 Renewables have made up 68 percent of all new
11 capacity in 2015. And we're sort of in this moment
12 where a lot of investment being undertaken. There's
13 a shift, sort of tectonic shift that's taking place.
14 The extension of the tax credits for renewable
15 energy will drive a lot of near term clean energy
16 investment and additional emissions reductions.
17 It's an exciting time in the power sector, and it's
18 an important context to keep in mind as we're doing
19 this planning.

20 And all that leads to what I think is
21 an important consideration for the Council, which is
22 the timely development of a compliance framework.
23 And in our view, there are some clearer damages for
24 you all to consider for power companies in state
25 that submit plans. Really, the expeditious

1 development and submission of state plans can help
2 provide a clearer framework for power companies, as
3 well as others who are making investments in the
4 power sector, allowing folks to plan their
5 investments in this sort of context of dynamism and
6 transformation of the sector to plan investments for
7 upcoming compliance obligations while maximizing
8 their compliance flexibility. And it allows people
9 to really know the rules of the road, the rules of
10 the game on the front end as they're making
11 decisions today, decisions not just to take
12 advantage of economic opportunities with new
13 resources, but also decisions that are facing people
14 who are dealing with other Clean Air Act compliance
15 obligation and other dynamics that are facing
16 regulated entities.

17 The timely finalization of state plans
18 also importantly maximizes the opportunities for
19 power companies and other entities to earn early
20 action credits under the Clean Energy Incentive
21 Program. It is worth noting that this program has
22 been finalized and certain elements have been
23 finalized in the federal rule, but there are other
24 elements of the program that are going through an
25 additional review proposal and comment period. And

1 I actually think we're going to see a new proposal
2 on the CEIP any day now. It just got sent over from
3 EPA to OMB yesterday.

4 But as it stands today, and we don't
5 expect this to change because it's the languages in
6 the final rule, the Clean Energy Incentive Program
7 Investments are actually triggered off of the
8 submission of your final state plan. So any actions
9 taken after the submission of a final plan can
10 actually earn extra credit and can count for
11 compliance if those actions are driving emission
12 reductions between 2020 and 2022.

13 This is important because I think
14 particularly when you're talking about investment
15 opportunities for low income energy efficiency, the
16 actual value of an allowance or the value of an ERC,
17 that extra value you might gain with the 2 to 1
18 compliance credit could actually help tip the
19 balance between whether a company sees that
20 investment in that DSM Program as meeting their cost
21 benefit ratio or not. And the sooner a state has a
22 program in place, the sooner we can start deploying
23 these programs, particularly in low income areas
24 that are helping drive additional efficiency. And
25 that's, I think, an important opportunity for New

1 Jersey.

2 Finally, just to put this all in
3 context. I probably should have put this slide up
4 earlier. This is near-term timeline on all this.
5 It tells us sort of where we are in the trajectory.
6 I think the important takeaway here for me is, first
7 of all, there's a lot uncertainty around the
8 litigation timeline, and that's already been
9 highlighted. There's sort of one thing we know.
10 The September 2016 initial plan submission, probably
11 not going to happen. But beyond that, we don't
12 really know. And I think it's important to note --
13 I think some other speakers have highlighted this --
14 EPA has provided a really tremendously long ramp-in
15 to the start date for compliance obligations in
16 2022. So it is certainly reasonable to imagine a
17 world where even if the litigation runs through
18 2017, planning submission deadlines are pushed back
19 a little. That initial compliance deadline really
20 might not change. And that sort of leads me to one
21 of my takeaway points here, which is as a state
22 there's an opportunity here to provide sort of a
23 certainty and the rules of the road for all of those
24 who are providing investments in the power sector on
25 the front end. So they can be ready for that 2022

1 start date on the back end.

2 Let's see. So as such -- I have no
3 idea how over time I am -- states moving forward.
4 And I think states are moving forward for a number
5 of reasons, not wanting to be caught flatfooted,
6 when the DC Circuit upholds the rule or ultimately
7 we've got a Clean Power Plan at the end of all this.
8 They're moving forward because they're facing
9 complementary or additional Clean Air Act
10 obligations and planning makes sense to do on a
11 broader context where they're imagining what their
12 CO2 obligation would look like at the same time.

13 States are moving forward because it's
14 clear that enforceable carbon limits are here so
15 they should plan for them and actually figure out
16 whether they're going to enforce those limits, how
17 they're going to enforce limits.

18 And finally, states are moving forward
19 because the power sectors are just in a tremendous
20 transition. There's big opportunities here to
21 ensure that investment decisions are the right ones
22 that take under consideration the likelihood of
23 carbon constraint and what form that carbon
24 constraint might ultimately.

25 So at its core, the Clean Power Plan

1 is a regulatory architecture, it's an Clean Air Act
2 regulatory architecture. The way the emissions
3 limit may have been set may be different, but the
4 actual emissions limitation that each facility has
5 to meet is very similar in nature to traditional
6 emissions limitations that power plants have been
7 faced with and have met successfully in the past.

8 The core choice facing state
9 regulators is whether or not you're going to have an
10 emissions limitation that is representative of
11 rate-based form or a mass-based form. And then
12 there's sort of a series of binary choices
13 thereafter. There aren't that many, and the
14 architecture of this can come together fairly
15 quickly. And beginning to provide some clarity
16 around the core direction that the State is going to
17 head can help to develop some uncertainty in, I
18 think, what we all would recognize as a fairly
19 uncertain world. And the sooner you're sort of
20 ready to pivot and submit, the earlier you will be
21 able to really provide that certainty for those that
22 need it.

23 So in conclusion, I sort of highlight
24 four issues that I think it would be helpful for New
25 Jersey to consider. So first is how quickly this

1 issue -- how quickly does New Jersey want to provide
2 these rules of the road that the State would be
3 operating under and how much clarity they want to
4 offer those who are making investments in the power
5 sector.

6 The second issue would be how much
7 flexibility does the State want to provide to
8 sources to be able to maximize emissions reductions
9 at the lowest cost. And I think this has been noted
10 before, but in this frame, it's worth noting that
11 mass-based programs are far more likely to be
12 compatible with programs across the county and more
13 compatible and more consistent with long-term
14 signals to cut program cross-sectors.

15 The third thing I'd urge the Council
16 and New Jersey to consider is does the State want a
17 clear, uniform, consistent investment signal right
18 off the bat, going into the power market. And I
19 think our last speaker alluded to this a little bit.
20 Do you want to start off with just a segment of the
21 power sector experience a carbon price, or do you
22 want to go in and say every single generating unit
23 is going to face an obligation around carbon? And
24 that's, in many ways, this question about whether
25 you're covering all of sources or just a segment of

1 your sources.

2 And then finally, I would urge the
3 State to consider how does New Jersey want to use
4 the Clean Power Plan to provide opportunities for
5 those who most need to benefit from this transition
6 that's underway in the sector. And there's sort of
7 three big things here. The CEIP provides an exiting
8 opportunity to help to start to change the economics
9 for investments in design side management programs
10 among communities. And on top of that, New Jersey
11 and really states across the country have an
12 opportunity to approach major capital investments
13 right now through the lens of an integrated and
14 protected multi-pollutant lens. EPA'S framework
15 provides and enables the meaningful and highly cost
16 effective cuts in carbon pollution, also ensuring
17 that we're also providing healthier air for
18 communities that have long been afflicted by air
19 pollution. And it's up to states to take advantage
20 of this opportunity. And I think Ken has teed up
21 this whole issue very well.

22 So with that, I don't think I have
23 enough for questions. Sorry.

24 (Applause.)

25 MR. VALERI: Our final speaker for the

1 morning is Dave Forsyth, Regional Energy Manager for
2 Gerdau Long Steel North America. Dave is
3 responsible for securing competitive arrangements
4 for the supply of electricity and natural gas
5 necessary to meet the energy requirements of seven
6 of Gerdau's North American steel operations. He's a
7 power engineer with a wide range of experience
8 representing large consumer interests in industry
9 stakeholder forums related to natural gas and
10 electricity.

11 Dave.

12 MR. FORSYTH: Thanks, John. And
13 thanks, members of Counsel, for allowing us to speak
14 to us today. It's a great opportunity for us.
15 We're very concerned about the competitiveness issue
16 here in New Jersey and heard that there's been a lot
17 of discussion about the competitiveness, and so I
18 want to give you a little bit of a background on
19 Gerdau first just so you have an idea of why we're
20 concerned. I think this will help you understand
21 our concerns.

22 We have an annual manufacturing
23 capacity of over 11 million tons of finished steel
24 in North America. We have approximately 9,000
25 people in the United States and Canada, 29 US states

1 we have plants and there were some downstream
2 operations, and 2 Canadian provinces. Our revenue
3 in 2014 was 6.8 million. It's a big company.

4 These are where the plants are located
5 in North America. You can see that most of our
6 plants are down the eastern side of the United
7 States. We have one lone plant in California,
8 Rancho Cucamonga. It's the last remaining steel
9 plant in California, and they're subject to the WCI
10 right now.

11 One of the things that's important
12 here is these plants compete against each other for
13 dispatch of production and also for capital
14 investment. Here in New Jersey we have plant a in
15 Sayreville. And the Sayreville plant, it has mill
16 shop capacity for 800,000 tons per year of product.
17 This year we're going produce probably about
18 44 percent of that. The markets are very tight.
19 There's a lot of competition. There's 213 employees
20 of that plant right now. And according to studies
21 that have been done for every job at a steel plant,
22 there's seven spinoff jobs in the local economy. So
23 that means that there's about somewhere around 1500
24 families that rely on that plant existing. Total
25 wages and benefits directly from the plant is almost

1 \$24 million; property taxes, three quarters of a
2 million dollars; and Capex approved from 2015 to
3 2018 is worth \$10 million. And since 1990, we've
4 invested \$126 million in that facility.

5 And what's important here is they
6 reproduced rebar. That's all they produce there,
7 different sizes, from stuff the size of your baby
8 finger to your big toe. Big stuff that's used in
9 bridges, buildings, you see it all over. If you see
10 the green rebar, hopefully that's ours. If you
11 sticking it out of a bridge because we have epoxy
12 coating plant at the plant that the plant also that
13 does that, and that's for when you're near a wet
14 situation.

15 So it's a lot of competition. The
16 imports of rebar in the US last year were up 40
17 percent from the year before to 1.82 million tons.
18 And 1.47 million tons of that came from Turkey. And
19 we don't think that they have a Clean Power Plan.

20 This is our commitment to the
21 efficiency and the environment. In 2012, the DOE
22 completed a study that concluded that the US steel
23 industry is the most efficient globally. This is
24 important because we all use the same technology in
25 the United States pretty well, different variances

1 of how efficient we are. That plant is very
2 efficient. We spend a lot of money there. And not
3 only are they efficient directly in how they work,
4 but as you heard here already today, the electricity
5 that we consume at the plant, it's very clean also,
6 the cleanest in North America. So it really puts us
7 to the top of chain for being energy efficient.

8 We produce our steel using electric
9 arc furnish, so it's scrap metal is what we start
10 with. It's almost a hundred percent scrap and then
11 there's some alloys put in there to give us a
12 recipe. So when you take your car to the junk yard,
13 your fridge, your freezer, your washer, your dryer,
14 it ends up getting shredded, sent over to us, and we
15 make something good out of it. So it's good, part
16 of the circular economy kind of idea, too, where
17 your old car ends up being part of a bridge you're
18 going to drive over with your new car.

19 This is another thing, too, that's
20 important is by us recycling this, it doesn't end up
21 going back into a scrap heap somewhere, just a
22 landfill. It's actually used into a good product.
23 And we have a team of energy and technology
24 specialist and we share best practices across the
25 cooperation. It's a big deal for us. We're always

1 competing for -- we have KPIs that are on energy
2 efficiency across all the plants. Our employees are
3 marked on that, actually.

4 We are also one the utility's largest
5 customers typically, with connected loads sometimes
6 of up to 200 megawatts in a plant at some of our
7 bigger plants. Here in Jersey, we have 65 megawatt,
8 that's what our peak would be, but that's never
9 during a peak. It's an off peak. During the CP or
10 during any high low day, our peak is about 2
11 megawatts. We take the plant down to avoid the
12 peaks. We're very good at that. We participate in
13 all the command response programs. If there's a
14 program out there, we're in it. If there isn't one,
15 we're trying to develop it. So we're working with
16 the Board of Public Utilities to try to develop
17 programs to keep cost down. Those costs end up
18 staying down for all ratepayers, not just us.

19 I'm not going to try to tell the
20 Council or the State what plan they should go with,
21 which option, the rate-base, mass-based. We just
22 think that they have a choice, and first they should
23 ask for a two-year extension of plan. That's going
24 to give us time to see what the other states are
25 doing. Let's not -- like I heard today, let's not

1 get the cart before the horse. Let's see what's
2 happening with the other states before we do
3 anything. And then the modeling should be done on
4 all scenarios, multiple scenarios, to achieve lowest
5 cost outcome for ratepayers. We think that's very
6 important. The lowest cost for ratepayers is what
7 we should be focused on, not just the lowest cost
8 for a utility. It's ratepayers. Those are the ones
9 who are going to pay for this, they're the ones who
10 are going to feel the pain.

11 Modeling should be thorough and
12 consider the effect of the CO2 allowance cost on the
13 price of power. We heard earlier today -- I think
14 Jackson was talking about how the price -- different
15 generators running based on what their carbon price
16 is. One of the issues that we're very concerned
17 about is if we have \$5 megawatt hour added cost onto
18 a gas plant, we're going to pay that \$5 to all the
19 generators who are online at that time. So we're
20 going to have maybe 5,000 megawatts of nuclear power
21 that could be online. We're going to throw \$5
22 megawatts hours at them for doing nothing. They're
23 doing it now. We're just going give them the money.
24 What's going to happen is all of this money -- this
25 is money that's not going to be recycled back into

1 the ratepayers, it's going to be a windfall profit
2 to shareholders. That's something that should be
3 really looked at closely.

4 Back in, I think it was 2009, Sonny
5 Boboski (phonetic) was a ratepayer advocate for
6 Pennsylvania. He testified before a congressional
7 committee on this, and he was -- in his testimony,
8 this was for all of PGN, it wasn't for New Jersey.
9 But a \$20 per ton cost of carbon, we would end up
10 spending actually \$800 a ton in the market. That
11 was just because of the multiples of how much money
12 we would throw at the other generators, so it's a
13 bit concern. It wouldn't be nearly in bad in New
14 Jersey, because New Jersey doesn't have as much
15 coal. It's a very small amount now. But we still
16 have a lot of gas. So something we should be
17 concerned about.

18 We should also be concerned about the
19 cost of infrastructure upgrades. This is going be a
20 big cost we're going to see in the market.
21 Pipelines, transmission for new renewables, and this
22 is where the BPU has to stay involved. They have to
23 be on top have this. We can't just have a plan that
24 imposes new pipelines be built without them getting
25 involved in it and what the costs are going to be.

1 We think that it's very important that they're
2 involved in this. And PJM's modeling results, we
3 should wait for those before we do anything. I know
4 they're coming soon and I don't think New Jersey is
5 going to do anything before, but they're going to be
6 doing some extensive modeling and that should be
7 considered also.

8 I think I skipped one there. The
9 trading allowances, that should be another
10 consideration that we should make sure if we're
11 going to go to a mass-based, let's make sure that we
12 can trade with other states.

13 Now, leakage. This is something that
14 there has been a lot of talk about leakage. And
15 leakage was a term used that was used back in 2009
16 extensively to deal with -- Markey Waxman was
17 talking about the leakage of industry. Now they're
18 using for leakage of emissions across borders based
19 on the new versus the existing generation units.
20 But what they're missing now is the discussion of
21 leakage to the industrial sector.

22 Any industrial like us that
23 manufactures commodity type product, we're unable to
24 pass those costs through. Those are global prices.
25 They're moving up and down all the time. We can't

1 pass them through, so if when we have an added cost,
2 they don't go through to the customer. Those costs
3 are imposed on us, they are out of state, or even
4 worse our competitors from offshore, if they don't
5 have those costs, then they're going to have an
6 ability to lower the cost beyond what we can do.
7 We'll lose jobs. They'll either move out of the
8 state or they'll move out of the country. They
9 won't move to our plants. They'll end up moving to
10 China, Turkey, somewhere elsewhere where they can do
11 it. That ends up being a lose-lose for the
12 environment and the economy, because as we talked
13 earlier, we want to make steel here. We're clean.
14 We make it efficiently. We have the cleanest power
15 sector or one of the power sectors in the world.
16 Why would we would to ship that steel to Turkey? So
17 even think about it. If most of the scrap is
18 generated in North America or Europe, but most of it
19 here, and what's happening is a ship comes over here
20 with a load of rebar, picks up a load of scrap,
21 transports it half around the world where they turn
22 it back into rebar with coal, oil, some natural gas,
23 ship it back over here. Imagine the emissions
24 associated with that, just because we have a higher
25 cost and we can't compete with them anymore.

1 So all rating we're seeing percent of
2 steel consumed in this country being imported, and
3 it's a huge impact here on the East Coast because
4 that Turkish steel, the 1.47 million tons, that's
5 not going to the West Coast, it's coming into the
6 East Coast.

7 Mitigation of leakage. In California,
8 leakage was identified as an issue and protection
9 for EITE industrials was implemented. EITE is
10 Energy Intense Trade Exposed. That's a term that's
11 been used. Lots of people use that time. It's easy
12 to understand. The Energy Intensive is somebody who
13 uses a lot of energy to make their product, and
14 that's us. Like I said before, we're using 65
15 megawatts of power when we're running. Trade
16 exposed is anybody who does have commodity type
17 product at CMS. And we talked about that 30 percent
18 of profit margin already is from offshore.

19 And what they've done in California,
20 revenue from the auction of allowances is return to
21 EITE customers first to offset their cost increases.
22 And what they've done is the allowances were given
23 free to the LSEs or the utilities, actually, and
24 they auctioned those allowances off and then the
25 first revenue goes back to the EITE customers to

1 offset what their costs are and then the rest go to
2 the benefit, much like Jackson was saying we should
3 put that back to benefit all ratepayers.

4 In the American Clean Energy and
5 Security Act of 2009, Waxman-Markey, they identified
6 leakage as an issue and they were addressing it.
7 Duke University, Nicolas Institute, recently
8 published a Working Paper on options and they
9 suggested states could grant allowances to EITE
10 industry designed to offset the program costs. So
11 this is not a new concept that we're trying to bring
12 towards here.

13 And these are the recommendations that
14 we'd like to make. New Jersey should request a
15 two-year extension for submitting a final plan.
16 They should develop a State implementation plan that
17 results in the lowest option for ratepayers. Design
18 a plan that doesn't adversely affect local
19 industry's ability to compete in domestic and
20 international markets. And the protection we just
21 talked for EITE industry. And it should recognize
22 that leakage will increase global emissions and
23 negate efforts made in the State to be a global
24 leader in climate change.

25 We think that's really important.

1 That's something that's being lost. If we have
2 clean steelmaking here, then we should want to make
3 it here. And it is.

4 Thank you.

5 (Applause.)

6 MR. VALERI: So we are at the end of
7 our speakers for the morning. We will be back at
8 12:40. We're taking a lunch break now. We'll
9 continue with our speakers up until our discussion
10 and general public comment. So we will be back at
11 12:40.

12 (Luncheon break.)

13 MR. VALERI: We'll proceed to the
14 afternoon part of our meeting. Our next speaker is
15 Doug O'Malley from Environment New Jersey. Doug
16 has worked on a broad array of environmental issues
17 over the last 15 years in Trenton. As a clean water
18 advocate, he's ran successful campaigns to protect
19 some of the State's largest reservoirs and rivers
20 from development close to their banks and directed
21 citizen outreach offices. He's worked and a variety
22 of environment and energy issues on behalf of
23 environmental causes.

24 And to keep us moving, I'll turn it
25 right over to Doug.

1 MR. O'MALLEY: Thank you.

2 First off, I just wanted to say I'm
3 very exciting to talk to you right after lunch.
4 I'll try to keep it interesting so that we don't
5 have any naps.

6 But I guess I really wanted to start
7 off just by thanking certainly the members of Clean
8 Air Council for dedicating today's presentation to
9 Clean Power Plan and its implementation and then
10 also to the members and other presenters, some who
11 came a lot farther than just New Jersey, from DC and
12 from, I think, a lot farther away from that. And
13 then obviously finally a thanks to the DEP staff
14 that's already started to work on these issues.

15 I wanted to start off just by
16 referencing some of the uncertainties that we see in
17 the implementation for the Clean Power Plan. And
18 Steve referenced this and some of other speakers
19 referenced this as well. There are, in many ways, a
20 lot of wild cards, the biggest, of course, being the
21 presidential election and obviously the
22 implementation from a President Trump versus
23 President Clinton would presumably be a very
24 different story. But the other clear story here,
25 too, as the Governor references yesterday, the

1 Administration and the Governor has 19 months left
2 in office. We've seen on the federal level the
3 transition time isn't very long. And so clearly we
4 can't assume for a new Administration that we're
5 going to have an eight-week period to entirely turn
6 over planning. So clearly, getting started to work
7 on the implementation of the Clean Power Plan is
8 smart. And obviously, there's the X wild card
9 fashion of the stay. I'm certainly not a judicial
10 expert, but I do want to note certainly that folks
11 who are more familiar with judicial processes have
12 said, one, we're going to see a next better process
13 and see a resolution on the stay sometime next year
14 and that it's a truly extraordinary measure taken by
15 the Court to stay in the current program of this
16 size and complexity.

17 So the focus of the presentation that
18 I want to talk about, it really is forward-looking.
19 And it's forward-looking on a couple of factors.
20 One, it's forward-looking in the sense of looking
21 not only at the Clean Power Plan and implementing
22 here in New Jersey, but looking really at the Clean
23 Power Plan as a floor and not a ceiling. And
24 specifically, to include in the implementation of
25 the Clean Power Plan progressive goals of the Global

1 Warming Response Act, which was put into place and
2 signed by the Legislature and Governor Corzine in
3 2007. Those goals of an 80 percent reduction by
4 2050, obviously, are a longer timeline than Clean
5 Power Plan's 2030 timeline and are going really
6 force the State of New Jersey to put forward
7 aggressive strategies to reduce our carbon emissions
8 in the coming decades.

9 Obviously, the Clean Power Plan gives
10 us a jump start on that process but we, quite
11 frankly, should see the Clean Power Plan as a
12 starting block, not as an end point. And that
13 certainly is also -- the other continuum here is not
14 only on a national level but on an international
15 level. The Paris Climate talks and Treaty was just
16 signed last Friday obviously is another component
17 that needs to be considered as we discuss moving
18 forward on climate change here in the State.

19 So let me just talk very briefly about
20 health benefits. We've obviously heard a lot about
21 the health benefits. I do want to emphasize kind
22 of, I guess, the local angle here on the impacts of
23 climate change here in the New Jersey. The Clean
24 Air Council -- I would be remiss to say that the
25 Clean Air Council has done an extraordinary job

1 since its existence and certainly in the last
2 20 years of looking at the impact of air pollution
3 on vulnerable communities all around the State.

4 And I think it's important to note
5 that when President Obama announced the Clean Power
6 Plan and finalized it and then subsequently
7 finalized it this summer, he did it with the
8 American Lung Association. And American Lung
9 Association, obviously no stranger to the Clean Air
10 Council, just came out with the its latest air
11 report for the state, again, showing 800,000 people
12 in the State suffer from asthma. The American Lung
13 Association, obviously, does not in that report look
14 at what will happen in the future, but we've seen
15 clearly from climate scientists, including those at
16 Rutgers, projections of what heat islands will look
17 like in New Jersey over the course of the next
18 35 years and specifically what those heat islands in
19 our urban cities will look like in places like
20 Newark and Trenton and Camden will look like for the
21 number of 90-degree days over the course of the
22 summertime. And some of Rutgers climate projections
23 look at a tripling of the number of 90-degree days
24 in our urban areas. Obviously, those are the days
25 that are red alert days for the most vulnerable in

1 the population, especially the elderly and the
2 young, but separate from asthma.

3 The numbers here, I just want to
4 emphasize one that's up on the slide. For every
5 dollar invested in clean air from Clean Power Plan
6 compliance, families receive \$7 benefit in health.
7 And I think that needs to be a critical component as
8 the Clean Air Council comes up with its
9 recommendations. Climate really is about health,
10 and the Clean Power Plan is ultimately about
11 reducing carbon, but it's about increasing the
12 health and stability of every population here in the
13 State.

14 Clearly, one of the other key aspects
15 of my presentation is not only -- it's kind of how.
16 How do we go beyond just the floor of the Clean
17 Power Plan? And to be able to expand and comply
18 with the Clean Power Plan, I think it is wise for
19 New Jersey to look at groundwork that has been laid
20 in more than a decade ago in the Northeast region
21 with the Regional Greenhouse Gas Initiative. And
22 really in many ways RGGI provided a groundwork for
23 the Clean Power Plan, and it was enacted really in
24 the days of inaction on climate during the Bush
25 Administration. You had Republican governors in New

1 York, George Pataki, and Mitt Romney at that point
2 in Massachusetts, as well as the New Jersey DEP,
3 work to create the regional greenhouse gas program,
4 starting in 2005. But Legislature passed the
5 legislation late 2008 and then the program started
6 in 2009. Clearly, this is a framework that New
7 Jersey should look at. And the reason, I think, is
8 pretty obvious. RGGI has gotten stronger in the
9 last five years since New Jersey pulled out of the
10 program. And specifically, we've seen carbon
11 emissions decrease across the Northeast, as well as
12 providing economic benefits.

13 And this is a graph provided by our
14 good friends at the Acadia Center, formally
15 Environment Northeast. I think the graph clearly
16 shows the radical change in emissions that we've
17 seen over the course of the last decade. And that
18 reflection, of course, is seen in the RGGI Program
19 which reduced its cap in 2014 to be a much more
20 aggressive cap, although I think there's a
21 stakeholder process which I'll talk about later
22 that's going on right now to reduce the cap even
23 further.

24 One of the critical aspects here is
25 that there are many reason why carbon emissions have

1 gone down. It's important to note that RGGI wasn't
2 kind of just a free rider in this process. Analysis
3 from Duke University showed that RGGI increased
4 production admissions by up to 20 percent, and
5 that's, quite frankly, with a cap, as we can all
6 see, that really was extraordinarily high for the
7 amount of reductions that we ultimately saw.

8 In terms of its impact here in New
9 Jersey, and we did have -- Jackson kind of
10 referenced some of the importance of the allegation
11 dollars. RGGI is a program that has worked in the
12 region. And obviously, even when RGGI was in place
13 here in New Jersey, 63 percent of the funding went
14 to the general fund. So it was not going as the
15 program intended to focus on energy efficiency
16 programs that reduced the amount of carbon. That
17 being said, even at that point RGGI did have a
18 benefit for the State and, again, an analysis that
19 we released jointly with Environment Northeast,
20 Environment New Jersey a year and a half ago showed
21 what New Jersey is losing by not being in the
22 program, specifically, the revenue that can be
23 dedicated towards clean energy and energy efficiency
24 dollars.

25 It's also important, too, to note that

1 the benefit of RGGI is not just on carbon
2 reductions, but also in the cut on electricity
3 prices by 8 percent and then the saving ultimately,
4 the long-term savings on energy bills of \$1.8
5 billion. And this kind of gets at the ultimate
6 promise of the Clean Power Plan, which is not only
7 we're talking about reductions in carbon, but
8 ultimately with more investment through the building
9 blocks of energy efficiency and clean energy, we can
10 see savings for consumers in the long-term, as well
11 as the obvious carbon benefits which are so critical
12 for the State and for all of our states.

13 In terms of kind of ease of
14 compliance, I think it's important to note, as I
15 noted previously and as I'll talk about a little
16 bit, that the program has gotten stronger. So if
17 New Jersey is looking -- there's no, obviously,
18 silver bullet in compliance with the Clean Power
19 Plan, but if New Jersey is looking at kind of the
20 easiest way to go the farthest, rejoining the
21 regional greenhouse gas program has to be at the top
22 of the list.

23 And I want to say, too, that we did
24 see the requirement for the State be reduced from
25 43 percent to roughly a quarter. You know, that, as

1 I said before, that really should be seen as a floor
2 and not a ceiling. And the promise of RGGI -- and
3 I'll touch on this in a little bit. The promise of
4 RGGI is not just up until 2020, but ultimately it
5 will be to 2030 and 2050 as a program that can help
6 to move, not only the State, but also the region
7 forward.

8 One of the arguments that's brought up
9 and kind of why we need to do this, I'm not going to
10 belabor this point. I thought Jackson's analysis,
11 especially the business as usual forecast of M.J.
12 Bradley & Associates goes into extensive detail on
13 this, but we are seeing an increase in carbon
14 emissions in the State. We obviously saw a
15 reduction, partially related to recession. But we
16 are, obviously, starting to see an increase in
17 carbon emissions in 2014 that included 70 percent
18 increase from the power plant sector. I think it's
19 incredibly important to note that we're not --
20 business as usual is not just a flat line. New
21 Jersey, as President Mroz talked extensively, is
22 investing in tremendous infrastructure on gas
23 pipelines and gas power plants. And that
24 ultimately, you know, we will increase our carbon
25 emissions here in the State, especially with the --

1 not only -- we're not just talking about replacement
2 of facilities, but the construction of entirely new
3 facilities around the State. So I think that has to
4 be kind of a critical part of this conversation is
5 that we're not just talking about holding the line
6 here, but implementing the Clean Power Plan is about
7 clear reductions and ensuring that we don't see an
8 increase in carbon.

9 I think its obviously incredibly
10 important to be learning from our neighbors. And
11 this is, I think, obviously, the promise of a
12 regional program, even though New Jersey is not a
13 part of it, the program has gotten stronger and
14 other states have moved forward, including some of
15 our closest neighbors, specifically, New York, which
16 under Governor Cuomo just increased its RPS to 50
17 percent standard by 2030. And their Energy Master
18 Plan calls for 40 percent reductions in carbon as
19 well.

20 Maryland nearly a month ago under
21 Governor Hogan signed into law a carbon emissions
22 economy-wide cap of 40 percent below 2006 levels by
23 2030, which, again, is part of the strategy to meet
24 their 2050 goals. And I think that's one the
25 lessons that as we look at our neighboring states,

1 other states are moving aggressively to hit their
2 2050 goals and are using Clean Power Plan compliance
3 to help them to do that. New Jersey needs to follow
4 that lead. And obviously, some of that component
5 needs to happen in the Legislature. We've already
6 seen some movement there. The State Senate passed
7 legislation to have 80 percent of our energy come
8 from clean renewable sources by 2050. The Assembly
9 is still not acted. So clearly there's some
10 legislative action. Clearly it will be a need to
11 have much more.

12 Also, kind of important to note here
13 is that you have Governors of six New England
14 states, including Governor Baker in Massachusetts,
15 that have joined together as part of the Under 2
16 MOU. And the Under 2 MOU is a reference, of course,
17 to the need to keep global temperatures from
18 increasing more than 2 degrees Celsius. And that
19 compact is looking at overall emissions reductions
20 anywhere from 35 to 45 percent 2030.

21 Clearly, from a certainty perspective,
22 from a planning perspective, you can't start working
23 to reduce our carbon pollution at even in certainly
24 2025 or even 2020. This is the moment. And the
25 Clean Power Plan, even if it didn't exist, we would

1 need to be doing this. And obviously, by
2 implementing the Clean Power Plan sooner rather than
3 later and planning for it to be in effect is
4 certainly the appropriate planning level, especially
5 looking at what our neighbors have done.

6 I'm not going to go too more into
7 details on the strength of RGGI, but I do want to
8 thank the research of our colleagues at the Arcadia
9 Center. They've really done some incredible
10 research looking at the benefits in the region from
11 the RGGI Program. And I think if we looked at where
12 the program was five years ago and where it is now,
13 it's a drastically stronger program and it's a
14 program that's getting stronger as we speak.
15 They're going through quadrennial review, looking at
16 ways to expand the program and to tighten its cap
17 further.

18 And I do want to emphasize here, too,
19 the Arcadia Center has looked at the economic
20 benefits. And this really echoes the independent
21 analysis that we saw in 2011 and 2012 from the
22 Analysis Group. Again, a report that Jackson
23 referenced. The Analysis Group also updated their
24 report for RGGI recently. So you have multiple
25 independent arbiters that are looking at this

1 program as a successful program for the Northeast.
2 New Jersey, obviously, would be wise to rejoin.

3 As I mentioned before, the early
4 success of the RGGI program has been eclipsed by the
5 successes we've seen over the last few years. It
6 shouldn't be discounted, though, that even when New
7 Jersey was part of RGGI, even when you had
8 62 percent of the allowances going towards the
9 general fund, you did have a benefit. This data is
10 from when New Jersey was still in the program from a
11 report, Double Success, we released close to three
12 years ago. And you can see the clear benefit across
13 the board in total emissions per capita, carbon
14 intensity and also an increase in GDP.

15 This is kind of a good graph for
16 describing what I've been talking about. You can
17 kind of see the original emissions cap. It was
18 incredibly elevated. The new cap, again, is a kind
19 of gradual decrease. And that's, I guess, the
20 strength of a program like RGGI is you're not
21 talking about market revolution overnight, you're
22 not talking about kind of turning off a power plants
23 overnight, but you are talking about slowly
24 incentivizing clean energy and deincetivizing fossil
25 fuels.

1 This is the process that I've been
2 referring to, the Quadrennial RGGI Program Review.
3 There's actually a stakeholder meeting occurring in
4 Boston merely as we speak looking at extending
5 program and aligning the RGGI cap with a long-term
6 trajectory of 90 percent reduction by 2050. Again,
7 in line with what we've seen from our northeast
8 neighbors. A majority, as I referenced before, of
9 RGGI states are part Under 2 MOU. We should look at
10 the success of states, especially New York, in using
11 RGGI revenue for energy efficiency benefits.

12 This is just a quick analysis of the
13 RGGI cap versus the Clean Power Plan. Even as it
14 stands right now, the RGGI cap would go farther than
15 the Clean Power Plan. And, really, that's what we
16 do need to be seeing here in New Jersey.

17 I do want to leave time just to kind
18 of talk -- and this will be a theme for some of what
19 the next speaker Nicky Sheats will discuss. I do
20 want to talk a little bit about the path forward on
21 renewables. And we've seen tremendous growth within
22 the renewable sector. Most recently, the out-casing
23 of renewables, out-casing of the insulation of
24 renewables versus traditional fossil fuels. We've
25 seen costs in some parts of the nation, true costs

1 and competitiveness. And we've also seen
2 trajectories on how we can move all states in this
3 country to a hundred percent renewable by 2050.
4 This is a reference from the study by Mark Jacobson
5 from Stanford University, looking at how New Jersey
6 can ultimately get to a hundred percent renewable.

7 It's slightly cut off here, but I do
8 want to reference the importance of offshore wind,
9 which we have not really heard a lot about today.
10 Offshore wind is key for New Jersey to be able to
11 hit its RPS. It's certainly key from a Clean Power
12 Plan implementation process and provides tremendous
13 promise, not just for New Jersey but for all of our
14 Mid-Atlantic neighbors, as well as, obviously, a
15 mass penetration of solar both on rooftops, as well
16 as larger PV plants.

17 And then I just want to talk
18 briefly -- and this will be the focus of Nicky's
19 presentation -- but the importance of having
20 Environmental Justice as part of the Clean Power
21 Plan implementation, and the Environmental Justice
22 advocates across this country should deserve a ton
23 of credit because the initial draft of the Clean
24 Power Plan really did not acknowledge Environmental
25 Justice. The finalized plan does a better job. But

1 for implementing here in New Jersey, we need to be
2 looking at the cumulative impacts of Environment
3 Justice neighborhoods.

4 This is a slide directly from Nicky,
5 looking at the correlation between cumulative
6 impacts, race, and income. And as you can see, it's
7 a pretty clear correlation. And how that should
8 play out -- and again, these are comments that I
9 think Nicky would echo -- is that we obviously need
10 a clean energy incentive program. All states should
11 adopt it. We also should see a renewable incentive
12 program. And we need to ensure that we're getting
13 the benefit of specifically of energy efficiency
14 within Environmental Justice neighborhoods and that
15 we're not kind of canceling out those benefits. We
16 need to ensure that we're seeing true reductions
17 within Environmental Justice neighborhoods and using
18 the clean energy incentive program as a way to
19 invest in EJ neighborhoods with energy efficiency.

20 And then the last thought here, of
21 course, is the Clean Energy Fund and RGGI funds can
22 also go to focus on energy efficiency around the
23 State, including EJ neighborhoods.

24 So I believe I'm out of time. So I'll
25 wrap up so we stay on time.

1 MR. VALERI: Thanks.

2 (Applause.)

3 MR. VALERI: You said renewable in
4 2050. I'm just curious. It didn't look like it was
5 adding up.

6 MR. O'MALLEY: It doesn't add up
7 because the primary solution -- I apologize. I'm
8 glad you caught this because it's a big number
9 that's missing here. Jacobson's study really
10 focuses on the potential for offshore wind, and
11 specifically, 55 percent of New Jersey's energy
12 could come from offshore wind sources. I think
13 that's a testament to the fact that over the next
14 35-plus years, but even more a shorter timeline, the
15 development of offshore wind in New Jersey needs to
16 be a critical solution, and Jacobson's study
17 reaffirms the amount of renewal energy that offshore
18 wind can provide for the State.

19 MR. VALERI: Okay. Very good.
20 Thanks, Doug.

21 Our next and final speaker is our own
22 Nicky Sheats. Dr. Sheats is currently the Director
23 for the Center for the Urban Environment of the John
24 S. Watson Institute for Public Policy here at Thomas
25 Edison College, our host. A primary mission of the

1 Center has been to provide support for the EJ
2 community on both the state and national level.
3 Without getting into a large part of his bio, Dr.
4 Sheats has been very involved with the EPA
5 nationally on the development of the Clean Power
6 Plan.

7 And without further ado, Dr. Sheats.

8 DR. SHEATS: Thanks a lot, John.
9 Thanks to the Council for letting me speak, against
10 their better judgment.

11 I have to say this first. As John
12 said, we work very closely with the EPA on the
13 development of the Clean Power Plan. How can I put
14 this? It was a little bit of an adversarial
15 relationship. Originally, the Clean Power Plan had
16 no EJ in it. And we basically pissed a fit, EJ
17 communities across the country, and got some EJ in
18 it. But as you will see even though -- it puts us
19 in a tough position. Even though we really won an
20 aggressive fight against climate change, we don't
21 agree with the way the Clean Power Plan is going
22 about it. But let me tell you what we do want as
23 opposed to telling you what we don't want.

24 So here's a general premise I'll start
25 with. Climate change mitigation policies should

1 produce emissions reductions for EJ communities.
2 And I have to take a step back even further.
3 Climate change mitigation policy should incorporate
4 equity in Environmental Justice as an integral part.
5 One part of that is making sure that mitigation
6 policy -- here we're talking about the Clean Power
7 Plan -- will produce emissions reductions in EJ
8 communities.

9 Now, here's what we really want. This
10 is a more detailed premise. Guaranteed emissions
11 reductions in and near EJ communities, preferably
12 with greenhouse gas co-pollutants reductions
13 intentionally maximized, but reductions either way.
14 Okay, what does all that mean?

15 Well, people have talked about
16 co-pollutants already. Power plants emit greenhouse
17 gases, and along with that, they emit these other
18 pollutants that harm health on a local level.
19 Greenhouse gas co-pollutants. The one we typically
20 most worry about in particulate matter in precursors
21 is sulfur dioxide and nitrogen oxide. Ideally, what
22 we would want is for climate change mitigation
23 policy to have a greenhouse gas goal for reductions.
24 The Clean Power Plan is supposed deliver 32 percent
25 reduction in the greenhouse gasses. Have that as a

1 goal almost as a constraint. And then within that
2 constraint, develop strategies that intentionally
3 maximize through reduction of co-pollutants like
4 particulate matter. Because then you're going to
5 fight climate change, but you're also going to get
6 local -- you're maximizing the benefit to local
7 health.

8 Well, the Clean Power Plan doesn't
9 intentionally maximize co-pollutant reduction. In
10 fact, no climate change policy that I'm aware of
11 does that. But the second best thing -- and we
12 would want those reductions in the EJ communities,
13 because I'm going to argue to you that EJ
14 communities need them the most. But the next best
15 thing if you don't have intentionally maximized
16 co-pollutant reduction is to make sure that you have
17 greenhouse gas reductions in EJ communities from the
18 Clean Power Plan, because you're going to get
19 incidental co-pollutant reduction. Co-pollutant
20 reductions is going to go along with the reductions
21 in greenhouse gases. And the previous speakers have
22 said EPA is tallying these reductions, actually;
23 25 percent reduction of co-pollutants. And I'll
24 tell you a problem with that in a minute or what's
25 missing from that.

1 Why are we focused on particulate
2 matter? Well, particulate matter has been estimated
3 to cause 200,000 premature deaths in the country
4 every year. Let me say that again. 200,000
5 premature deaths in the country every year.
6 Concentrations tend to be highest in EJ communities.
7 When I say EJ communities, I mean communities of
8 color and low income communities. So particulate
9 matter air pollution and air pollution in general is
10 an EJ problem.

11 Here is a slide that shows you the
12 co-pollutants that will come from or at maximum
13 levels. This is a permit from the new plant that
14 is -- Bill, help me out. Is about to operate in
15 Newark or is operating already in Newark?

16 BILL: It's been operating for a year.

17 DR. SHEATS: My goodness. Where have
18 we been?

19 It's operating in Newark. And I just
20 want you to see, this is natural gas combined cycle
21 plant, state-of-the-art, cleanest we have, and has
22 over 2 million pounds permissible co-pollutant
23 emissions every year. And this is in an EJ
24 neighborhood. This is in Newark in the Ironbound
25 community of Newark where DEP recognizes that I

1 think the exact word -- well, I won't say exact
2 words, but disproportionately impact by multiple
3 source pollution. And the reason I want to show you
4 the co-pollutants attached to that plant. And one
5 of the reasons I want to show that to you is because
6 in the preamble to the federal plan, EPA kind of
7 intimated that co-pollutant production from natural
8 gas plants is negligible. If you're living in the
9 Ironbound or in Newark and this plant can possibly
10 put out 2 million pounds of co-pollutants every
11 year, that's not negligible; 97 tons of just PM2.5
12 alone.

13 So from a EJ perspective -- it should
14 from any perspective, but especially from a EJ
15 perspective, here's an opportunity that the Clean
16 Power Plan presents. It presents an opportunity to
17 drive down concentrations of co-pollutants, think
18 particulate matter, to levels we've not been able to
19 attain by just using other sections of the Clean Air
20 Act. Other sections of the Clean Air Act address
21 the co-pollutants, address particulate matter, but
22 if you use the Clean Power Plan in conjunction with
23 those other sections, you're going to drive down
24 concentrations even lower. And that's a good thing,
25 particularly for particulate matter, because what

1 the science is showing us is that there's no lower
2 threshold for health benefits from driving down
3 concentrations of particulate matter. So the lower
4 you drive down concentrations of particulate matter,
5 the more health benefits you get. And we want to
6 use climate change, we want to use the Clean Power
7 Plan to make sure that happens in EJ communities.

8 So here's my argument about the need
9 specifically in EJ communities to make this happen.
10 Here are some national investigations that say on
11 the left-hand side you have citations that say there
12 are more polluting facilities and unwanted land uses
13 in the Environmental Justice communities. On the
14 right-hand side, you have studies that say that
15 residents in EJ communities are disproportionately
16 exposed to air pollution. And we have evidence this
17 happens in New Jersey.

18 This is the slide that Doug showed. I
19 show this all the time. This is the reason why I'm
20 an Environmental Justice advocate, basically. So
21 what's the slide telling you? It's an estimate of
22 cumulative impacts in every neighborhood in
23 opportunity. Cumulative impacts, think of it as the
24 total amount of pollution in a neighborhood, rough
25 estimate of that. This is DEP data. Thank you,

1 DEP. We've were wrestling for a long time. This
2 DEP data from 2009. And what's the relationship
3 between cumulative impacts, the amount of pollution
4 in neighborhoods in New Jersey, and race and income?
5 Well, as the number of people of color increases,
6 the pollution increases. As the number of poor
7 people increases, the pollution increases. It's
8 almost a straight line relationship.

9 So what I always say, and I'll say it
10 again, if you lived in New Jersey, the amount
11 pollution in your neighborhood is connected to what?
12 To the color of your skin and the amount of money in
13 your pocket. Now, it goes against everything we say
14 we stand for, but in this context, why I like this
15 graph is because, look, the neighborhoods that need
16 the most help have the highest of cumulative impacts
17 are over here on your right. Those are Environment
18 Justice neighborhoods, communities of color in poor
19 neighborhoods. Newark is 84 percent of color
20 somewhere on your right. These neighborhoods need
21 help, and they need from the Clean Power Plan. Not
22 only from the Clean Power Plan, but we need
23 cumulative policies to invest cumulative impacts.
24 But we definitely need help from the Clean Power
25 Plan. That's one that's part of the solution.

1 Here's more evidence from New Jersey.
2 Here is a figure that was made from -- where is
3 Jackson? NRDC hired an expert in support of
4 litigation where they were representing us, Jackson,
5 representing us being Coalition for Healthy Ports
6 when we sued the port. And they made some figures
7 about air pollution risk in Newark. Now this is
8 just from air toxins, just from hazardous hair
9 pollutants, not from PM. And you'll notice that in
10 some areas, the cancer risk just from the hazardous
11 air pollutants is over a hundred in a million. The
12 goal in the Clean Air Act to reduce cancer risk from
13 air pollution is one in a million. That's my
14 argument for the need in EJ communities for the
15 Clean Power Plan to deliver emissions reductions of
16 greenhouse gasses, and more important,
17 co-pollutants.

18 So what's the problem with the Clean
19 Power Plan? Well, look, we being the Environmental
20 Justice community has had a longstanding fight with
21 policymakers and environmental community about
22 carbon trading to the degree that the Clean Power
23 Plan facilitates carbon trading as a problem for us.
24 Why? Because carbon trading doesn't guarantee
25 emissions reductions in any one location. Set your

1 overall goal and say, go ahead and meet that goal
2 but we're not going force this facility to reduce as
3 long as you meet overall goal.

4 To a degree, the Clean Power Plan, and
5 it's definitely facilitating carbon trading by just
6 putting out there to a degree you adopt a carbon
7 trading system like RGGI to fulfill the Clean Power
8 Plan, you're not going to guarantee emissions
9 reductions in EJ communities. And even if you don't
10 adopt trading program under the Clean Power Plan,
11 you still won't guarantee emissions reductions
12 because, remember, it sets an average rate, an
13 average carbon dioxide emissions rate that the State
14 must meet. So again, no particular facility must
15 meet that rate as long as the State meets the
16 overall rate.

17 Now, look, we understand that there
18 are going to be some emissions reductions in the EJ
19 communities. We're not saying there's not. There
20 will definitely be under the Clean Power Plan,
21 there's probably definitely some from RGGI, although
22 we don't know because no one's done an equity study
23 of RGGI yet, although we're involved in doing one.
24 But what we don't know is how many EJ communities
25 will receive emissions reductions, which ones, and

1 by how much. So you're basically leaving equity up
2 to chance. You're leaving all your equity decisions
3 up to the market totally.

4 So what's the solution? What's a
5 workable solution we think can get through from EJ
6 perspective? The solution is pretty simple. Go
7 back to -- the concept is simple, probably harder to
8 implement. I will grant you that. But go back to
9 my original premises. Identify facilities in EJ
10 communities and make them reduce. I'm going to come
11 back to that slide.

12 And, Pam, this slide is for you. Pam
13 always says, "Give me some specifics. Tell me what
14 you want."

15 Okay. So I'm going beyond just making
16 them reduce. Here's a proposal for you. I'll be
17 glad to implement it, but at least it starts the
18 discussion. What do I mean by making them reduce?
19 Okay, well, identify plants in EJ communities. And
20 what we're suggesting to start is make them reduce
21 their carbon dioxide emissions rate by at least
22 25 percent without using ERCs or allowances. This
23 has to be a real reduction in emissions rate. Or --
24 and this is for Bill, and they would be easier to
25 administer -- if you don't want to do 25 reduction,

1 okay, well then impose the subcategory carbon
2 dioxide emissions rate. You heard Pam talk about
3 that. You know, there's an emissions rate that the
4 CPP imposes for natural gas plants and one for coal
5 plants. So impose the appropriate rate for
6 facilities in EJ communities that they have to meet
7 without ERCs or without allowances as long as it's
8 at least a 20 percent reduction in their previous
9 emission rate. Previous emission rate, emission
10 rate as of 2012.

11 Now, look, two of the issues right off
12 is by how much? And I talked a little about that,
13 and I can say more if we have question-and-answer
14 period. You know, 25 percent to us is not written
15 in gold, but at least that's a point to start
16 discussion.

17 And the other question is what's an EJ
18 community? Well, that's good question. We could
19 give you a definition, but what we're suggesting is
20 that a stakeholder group be established or an EJ
21 committee be established that would advise DEP on
22 those questions. You know, what's an EJ community?
23 What should the imposed reduction be n plants in EJ
24 communities? And other questions that I can think
25 of but I won't go into now because we don't have the

1 time. But they advise DEP on that.

2 Let me go back. I promised to go back
3 to this slide. So one good thing that EPA did was
4 along with the CPP, they provided a proximity
5 analysis, proximity data. It's not really an EJ
6 analysis because it doesn't go as far as we'd like
7 it to go. But what it does tell you is that for
8 every plant that's under the purview of the Clean
9 Power Plan within a three-mile radius, it tells you
10 the demographics and it also does what they say is
11 an EJ index on some important environmental
12 variables criteria, like PM2.5 concentration,
13 proximity to hazardous waste sites, proximity to
14 super funds, and they come up with an index score by
15 multiplying concentrations, PM2.5 concentration by
16 the percent minority population in that three-mile
17 radius and by the number of people, and they come up
18 with the EJ index. And you know, I want to look at
19 that more. But the thing that pops out at you right
20 away is that see all the red, yellow, and orange?
21 That means in New Jersey on that index, we are at
22 least in the worst 70 percentile. I think red is
23 95th percentile, orange is 80, you know, but when
24 you do that index, we don't come out well.

25 So what I'm suggesting, though, is

1 that you could use this data to figure out which
2 plants in New Jersey you want to reduce. And we've
3 already put plants in a spreadsheet which I've given
4 to you that shows the plants, that shows their
5 emissions, and shows the PM2.5 ranking from this
6 index anyway.

7 I'm almost at the end, so let me just
8 say quickly, you know, I've talked about emission
9 reductions, but we have other EJ issues that we want
10 to you about, just don't have the time. We support
11 the Clean Energy Investment Program. We support a
12 robust participation process, and we have
13 suggestions on that we're reviewing internally. We
14 support an EJ analysis that shows the impact of the
15 State Plan on EJ communities. And what I'm going to
16 suggest is that I think this would be a great topic
17 for a Clean Air Council meeting for one of our
18 monthly meetings where we can come and talk to you
19 more from an EJ perspective about these things.

20 I'm going finish by going back to the
21 graph I like to show people so much. Let me finish
22 by saying this. One point is that these
23 communities -- if you take our suggestion, and this
24 would be a way of implementing -- Ken, you talked
25 about multi-pollutant strategy. This proposal can

1 do that. These communities here over to the right
2 have been largely left out the discussion about
3 climate change. Black, brown, poor communities have
4 really largely been left of the discussion. Look at
5 the population of people in this room. You don't
6 see a lot of people who look like me.

7 You implement this recommendation that
8 would guarantee emissions reductions in EJ
9 communities in Newark, in Trenton, in Camden, you
10 make the CPP climate change policy immediately
11 relevant to folks who live in those neighborhoods.
12 It's not, well, the CPP is going to deliver
13 co-benefits and we're going to get 25 percent
14 reduction co-pollutants but we're not quite sure
15 where, and they probably might be in EJ communities.
16 No. Make sure they're in EJ communities and you
17 automatically make it relevant to these communities
18 and bring these folks into the discussion.

19 Now I'm going to issue a challenge for
20 you. We hear all the time from folks that equity is
21 a priority. We hear that all the time. Here's a
22 challenge. If it is, put your policy where your
23 mouth it. You hear a little bit of frustration
24 because the EJ community is basically being run
25 over. Those communities have not been part of the

1 discussion. And those of us who live in those
2 communities and try to represent those communities
3 have basically been run over. We made it known we
4 didn't like carbon trading before, what we think of
5 reasonable concerns, and we get it anyway. And so
6 we hear people talk about equity, but, you know,
7 when it comes to actually doing something about it,
8 we're not seeing it.

9 So here's a challenge. Don't just
10 talk about equity. I'm making this challenge to a
11 lot of people. I'm making it to the Clean Air
12 Council, I'm making it to the DEP, I'm making it to
13 the environment groups, the mainstream environmental
14 groups. We need to hear more than talk. If it's a
15 priority, let's see the policy that's going to
16 ensure the reductions in EJ communities. Don't
17 leave equity up totally to the whim of the market.

18 I'm out of time. Thank you.

19 (Applause.)

20 MR. VALERI: So we're running a little
21 behind, but this is part of our meeting where we are
22 going discussion between members of the Clean Air
23 Council and some of our speakers who have remained
24 today. Obviously, we have a set of questions that
25 we've asked that we're going to address as part of

1 the recommendations to the Commissioner. We're very
2 focused on those. So we'd like to spend a little
3 bit of time on that before we start opening up to
4 questions from the public.

5 Before we start, my sort of individual
6 question, I guess -- I thought the Assistant
7 Commissioner was still here. Yes, he is. He's
8 right in front of me. That's why I can't see him.

9 We've heard a lot today. And
10 obviously, we're going to address some the
11 questions. I'd like to get some of your thoughts on
12 what you've heard today and some of the things that
13 you might be thinking about after hearing everyone
14 here.

15 ASSISTANT COMMISSIONER GIORDANO: I
16 appreciate your presentations. They're certainly an
17 important topic for us all to consider. And
18 everybody's presentations today were both extremely
19 interesting and informative.

20 I just wanted to -- in conversations
21 with folks after the presentations and just hearing
22 around the room, there were a couple of things I
23 just wanted to clarify. And again, maybe it's the
24 attorney in me of being here at a hearing, having a
25 stenographer, and missing my days a prosecutor; I

1 don't know, but welcome the opportunity to come back
2 up in front of you. And, again, I want to thank the
3 Council for their time, their advice, their
4 guidance, and this opportunity.

5 As you heard, one of the goals of our
6 Energy Master Plan is to develop clean and renewable
7 in-state electrical generation. And we're right
8 now, as mentioned this morning, in the process of
9 verifying new EIA data that shows New Jersey is now
10 a net exporter of this electricity. This in turn
11 further highlights our continuing efforts to
12 displace upwind states dirtier and less efficient
13 power plants. Thus, New Jersey is already doing
14 more to reduce CO2 emissions than the Clean Power
15 Plan ever could, even if it survives legal
16 challenge, which we, in fact, don't expect it to.
17 Market forces and rigorous planning through the EMP
18 are already taking us past the environmental
19 benefits aspired to in the Clean Power Plan. Here
20 in New Jersey, striving for clean power is already
21 in our DNA. We don't need EPA's reengineering.

22 So just to clarify, in case there's
23 any misconception, any misunderstanding, we are not
24 acquiescent to EPA and developing a Clean Power
25 Plan. As I mentioned, and while we have an

1 excellent understanding of EPA's regulation, we are
2 litigating the agency's strategy that excludes New
3 Jersey's successes at reducing carbon intensity from
4 our power sector. As I highlighted this morning, we
5 have one of the cleanest power sectors in this
6 country, and the Clean Power Plan fails to give us
7 credit where credit is due. That said, we are not
8 going to slow up progress toward cleaner, renewable,
9 and more efficient in-state power.

10 I want to thank the Council again for
11 this opportunity and the speakers. Thank you.

12 MR. VALERI: Questions from the
13 Council?

14 Go ahead.

15 MR. SVENSON: Nicky, your presentation
16 on cumulative impacts was very, very informative. I
17 guess in my mind is you said you acknowledge there
18 will be reductions from EPA figures that reap the
19 benefit potentially in some of EJ communities from
20 the health benefits resulting from the Clean Power
21 Plan. You just can't by the plan see how it
22 actually guarantees that any one particular
23 community what the reduction is. I guess the
24 question comes down in my mind is that you said
25 200,000 deaths avoided by the plan. I mean those

1 are real lives being saved. The question is, you
2 know, it really is one of those balance of equity.
3 And I know you have this 25 percent reduction level
4 that you're saying on the existing sources should be
5 -- that's your solution. How did you arrive at that
6 particular number, I guess is what I'm asking. I
7 think of myself. I looked at the Newark Center and
8 whatever a brand-new source -- I can't remember
9 specifically. I think the national graph 771 pound
10 per megawatt hour. I don't know what that Newark
11 center is running at. What is it again? 800.

12 UNIDENTIFIED SPEAKER: About 800.

13 MR. SVENSON: So how did you come to
14 the 25 percent? And is that really doable for the
15 plant that that's already in operation.

16 DR. SHEATS: So the 25 percent -- and
17 I want to stress that's a starting point, Eric. So
18 the reason I chose 25 percent is because the EPA
19 says the plans are going to deliver overall 32
20 percent reduction. So I figured if you're talking
21 about equity, well, let's make sure EJ communities
22 get a fair share of that. Twenty-five percent is
23 actually less than that, so it gives you a little
24 bit of wiggle room to say -- I anticipate people to
25 say, well, that's not attainable. So my argument

1 will be, well, if 32 percent is attainable,
2 25 percent should be attainable.

3 Your question is right on, though, and
4 that's one of the other issues. So with a natural
5 gas plan in Newark, like the one in Newark, you say
6 how are you going to get that 25 reduction? So it
7 gets more complicated. Probably what you're talking
8 about is running that plant less. And this is --
9 and I talked EJ colleagues about this on a national
10 level, we come out at different points. And along
11 that with that, Eric, what you would have to do then
12 is convert that 25 -- whatever the rate would be,
13 the 25 percent reduction, convert it to a mass-based
14 goal because just by running the plant less, you're
15 not going to get a reduction in rate. So then you
16 have to convert that to a mass-based goal and get a
17 25 percent reduction of that mass-based goal. And
18 what we would hope in maybe in a state like New
19 Jersey we're in a better position to do this because
20 the previous speakers have said we're in a pretty
21 good position to attain the CPP rate that we can
22 fill in -- if we have to run some plants less in EJ
23 communities, we can fill that in with renewable
24 energy and energy efficiency. The EJ dilemma comes,
25 though, that if we can't fill that gap there, we

1 would have to run some plants more. And where would
2 that happen?

3 MR. SVENSON: So I ask -- and this
4 really a science question maybe to Bill or some of
5 the DEP folks. I guess I always thought that when
6 we think about the precursors, SO₂, NO_x, formation
7 fine particulates, does the SO₂ emitted from a plant
8 or NO_x emitted from an immediate vicinity of the
9 plant create the fine particulates, or is there
10 distance component to the formation of these
11 especially more harmful fine particulates? I guess
12 what I'm asking is, is a plant located in an EJ
13 community specifically creating PM, fine
14 particulates, immediately into EJ community? Or is
15 it being transported somewhere else some distance
16 away from the plant?

17 It seems to me the presumption you
18 have, and may be right, is that the plant right
19 there has this local impact on a PM basis, fine
20 particulates. I just don't know the answer to that.

21 MR. O'SULLIVAN: I'm Bill O'Sullivan.
22 And there are direct emissions of particles. They
23 are very, very low for a gas plant. The SO₂ and the
24 NO_x for the new plants are also very, very low.
25 Your point that it takes time for those to convert

1 to particles, so it would be considerably downwind.

2 One of the big problems in New Jersey
3 is the transport of air pollution from Pennsylvania,
4 from the coal plants from Pennsylvania. So we do
5 get transport the NOx converting to particles on the
6 wind and showing up in New Jersey and ozone. And we
7 do have the problem of the SO2 from power plants in
8 Pennsylvania converting the sulfates which are
9 particles. So my perspective is that's the bigger
10 problem for New Jersey as a whole is the
11 contribution to ozone and fine particulates for coal
12 plants in Pennsylvania.

13 And a point to be made is particularly
14 on a new plant, like the Newark Energy Center, that
15 has about one-third the CO2 emissions as a coal
16 plant. And it probably has about 1 percent the SO2
17 emissions. So if we reduce operation -- let's say
18 we shut it down entirely. Well, you get basically
19 three times the emissions from the coal plants in
20 Pennsylvania and other states. That's the problem
21 in reducing the operation of the most efficient,
22 lowest emitting plants. The power is coming from
23 somewhere. And unfortunately, it's coming from the
24 coal plants.

25 And the reason our energy -- we've

1 become a net exporter is because these new plants
2 came on line. They're very cheap, they're very
3 efficient, they're very low emitting. And coal
4 plants are shutting down in Pennsylvania for
5 various, including the fact that they can't compete
6 with these new modern plants.

7 I went on a little bit there, so
8 beware of calling me up.

9 DR. SHEATS: Eric, can I give you my
10 answer to that?

11 MR. SVENSON: Yes. Thank you.

12 DR. SHEATS: So there's a definite --
13 and remember, we're talking about the local impact.
14 So that's why I showed you that in the table with
15 the emissions of the plant in Newark, and remember
16 it can emit up to 97 tons of PM2.5 directly. And
17 for the local community, 97 tons is not very low,
18 especially when you already have a high level of
19 cumulative impacts. And that's one place where the
20 concept of cumulative impacts comes in, where
21 because we have so much pollution -- like, I don't
22 know for sure, and we should look at this, but I bet
23 that 97 tons probably represents the largest single
24 source of PM, you know, maybe another power plant.
25 And so that has an impact. The SO2 and the NOx has

1 a direct impact also as far as the secondary
2 formation of PM. That's where I think we'd have to
3 do some analysis to figure that out.

4 The other thing which you didn't
5 mention but which I will mention, is that -- and
6 that's where that stakeholder group comes in. I
7 keep saying plants in EJ communities. But you're
8 getting to a good point. Remember on one slide I
9 said plants in and near. Another way to say it
10 would be plants that impact EJ communities. So I
11 think what you're implying is that we may need to
12 figure out which plants are impacting EJ communities
13 the most. It may not be that plant right there, but
14 that's kind of the first order of approximation
15 that, you know, that I think we would go with. And
16 I will use that stakeholder group to really decide,
17 okay, there's going to be that plant in that EJ
18 community. How about this other plant that's
19 sitting, you know, right here? So that's where I
20 think that stakeholder would group come in.

21 MR. VALERI: Pam.

22 MS. MOUNT: May I ask a question?

23 MR. VALERI: Yes.

24 MS. MOUNT: I'm Pam Mount.

25 I don't know who can answer this, but

1 we've heard that we need to have more energy, we
2 need to have more gas lines. And then now we're
3 exporting energy. Who are we exporting to? And
4 then why are we buying stuff from outside that keep
5 those coal power plants running if we're already
6 having extra production? I mean, I sell apples.
7 You know, you don't do that if you're trying to
8 figure out how to get stuff done.

9 MR. VALERI: Where is Steve Gabel when
10 you need him? Not here.

11 MS. BLUHM. Sara Bluhm.

12 We have a couple of power plants that
13 export to New York because their energy is more
14 expensive than ours. And then within PJM, the
15 electricity goes to where it's dispatched and sold.
16 So for liability purposes, it gets sent where it's
17 supposed to.

18 MR. VALERI: Yes, sir?

19 DR. OPIEKUN: Richard Opiekun. I have
20 a question that's directed to Ken Colburn.

21 During your presentation, you
22 mentioned that we need to prepare for the Clean
23 Power Plan not based upon what the technology today,
24 but what technologies are expected to come to
25 market. Furthermore, you said that the technology

1 needs to be able to manage both supply and demand.
2 So I'm thinking in terms of how do you prepare, how
3 can you be flexible enough to prepare for that
4 demand side. You mentioned technology that maybe
5 has refrigerator shut off for five minutes to save
6 on demand, but you have these products are made by
7 private entities. How do you plan for an incentive
8 program for them to keep going and keep the buy-in?

9 I'm just trying to say because if
10 you're basing a plan on a whole bunch of things that
11 are in flux and you've got technology that you're
12 relying upon from a third party, I see some problems
13 there. And I just want to know what your best guess
14 is on how to safely incorporate something like that
15 into a plan.

16 MR. COLBURN: It's a delightful
17 question, Richard. And I have the luxury, of
18 course, of being the guy that flies in, offers some
19 thoughts and flies out and leave you with the
20 responsibility to try to plan this thing.

21 I don't think there are answers to
22 those questions because most of them are still TBD.
23 The key message that I'm trying to leave is that you
24 should not assume things will remain the same. And
25 I don't even mean that in sort of the generic sense;

1 one's always wrong to assume the future looks like
2 the past. This is very different, because we're
3 talking about the evolution of a market where we
4 haven't had a market; we've had a regulatory
5 compact. So they won't be just different because
6 things change over time. They will be
7 cataclysmically different because we'll have an
8 active demand side to this market.

9 Now, exactly what will look like, we
10 don't know. But I want New Jersey not to be in the
11 situation of the automakers when the anecdote
12 goes -- and I don't have these number right, but in
13 anticipating the driverless car, the electronics
14 necessary to do that, the LIDAR, radar and
15 geopositioning devices and so forth on the order of
16 about five or six years ago cost \$200,000 a car.
17 And about two and three years later -- well, and
18 these folks went to GM and other automakers and
19 said, "What do you think?" And they said, "Nice
20 science project, but nobody's ever going to buy
21 this."

22 Three years later, it's down to
23 \$75,000. Wow. More than half. And they still
24 said, "Yeah, but."

25 Now with advances that we've seen,

1 they're down to under a hundred dollars, the
2 geopositioning, not all the controls and safety
3 stuff. We still don't have driverless cars, but we
4 have pretty close, right? I was Eric's car coming
5 down here, and he has the one that helps you stay in
6 the lane. We're not far from that. Seventy-five
7 dollars. To take that to automakers and they say,
8 "Oh, my God." And they should be saying "Oh, my
9 God," because their business as usual is threatened.

10 I don't know what will be the
11 driverless car for New Jersey's energy sector, but I
12 do know that it will look nothing like today's. And
13 so plan on there being a strong demand side to this
14 market. Plan on there being technologies that you
15 didn't imagine. And then what form they exactly
16 take, we don't know. But at least you'll be
17 prepared by virtue of not having thought it being
18 same as today.

19 MR. VALERI: Jackson.

20 MR. MORRIS: Jackson Morris.

21 I think the other aspect that is
22 taking it back to the mechanics of a Clean Power
23 Plan and pathway, and Ken talked a lot about the way
24 you need to look at this comprehensively across the
25 entire sector, not just at the smokestack. So just

1 one example of how there are some advantages to a
2 mass-based structure. I mean, you could argue for a
3 rate-based structure, it's just a little more
4 complex probably. But in a mass-based structure,
5 you're not picking what measure drove that ton of
6 carbon reduction. You're just guaranteeing the EPA
7 I'm going to meet my target, here's my cap today,
8 here's my cap in 2030 there carbon in 2030, there
9 will be this much less carbon in 2030 than there is
10 now. That's what you need to demonstrate
11 compliance.

12 Now, as New Jersey or New York or any
13 other given state, you have tools at the BPU to set
14 up structures. Like in New York right now, they
15 were forming the energy division market where
16 they're trying to build out market signals that will
17 drive at the distribution level utilities to really
18 accelerate the deployment of demand-response,
19 battery storage, solar rooftop, you name it, some DG
20 that that's maybe fuel cells that are super
21 efficient, more efficient than centralized plants.
22 So what you're doing there is you would not want to
23 try, God help us, to build that into a Clean Power
24 Plan submission to EPA, but you don't have to. And
25 that's what so important about having that cap in

1 place to demonstrate compliance of your carbon goals
2 and then looking at, okay, maybe it costs us X to do
3 it old-fashioned way, but if we rally ramp up the
4 distribution level regulation, which we have the
5 power to do as a state jurisdictionally at the BPU,
6 instead of the business model signals to get more
7 refrigerators, whatever you want to use, if you get
8 that really going on hyper mode and technologies
9 deploying, the cost of meeting that cap now is X
10 minus whatever you got down on the distribution
11 side. So that's how they fit together. That's a
12 oversimplification to some extent, but I think it is
13 important to recognize. You showed compliance, but
14 then the states get creative and be like the test
15 beds for how you do it in a way that's cheaper and
16 more efficient and then and blow the Clean Power
17 Plan out of the water, which is -- I totally agree
18 with Ken; over-comply five years early.

19 MR. VALERI: Just to follow-up because
20 we one of our questions is on who bears the cost.
21 In a mass-based program, you're only focused on the
22 generators.

23 MR. MORRIS: Right. So in that
24 structure, the cost is still borne by the
25 generators. So you're setting the efficient price

1 signal to the generators, the generator sector.
2 They will be the ones buying that, so obviously a
3 coal plant is going to be less efficient because they
4 have to purchase more allowances. So that pricing
5 while it's still very much at the wholesale level,
6 what I was getting at as far as who bears the cost
7 of that transition I talked about at the
8 distribution level, that gets a little more complex.
9 Just to drill for a second, take a look at the
10 utility bill, right? So what are you paying right
11 now? What portion of the utility bill is wholesale
12 prices from the market for energy electricity? What
13 part is on the distribution side to maintain the
14 system? So that's going to be a key question,
15 depending on what state you're in. Some places it's
16 like 50/50. In places like Illinois, it's like only
17 20 percent is the distribution side, almost
18 80 percent, I think, is the wholesale side. So
19 those are important pieces.

20 So the cost of investment in the
21 distribution grid -- first of all, business as usual
22 ain't cheap. Right. So just to maintain the
23 conventional grid is not free; it's very expensive.
24 And so looking at how you send market signals so
25 that the benefits to the system overall of using the

1 system more efficiently outweigh the costs incurred
2 by the customer, that's kind of the key formula.
3 There's no easy answer to that. But that's what
4 smart regulators work out all the time, just to make
5 sure you balance those costs and benefits.

6 But if you do it right, the deployment
7 and the cost of ramping up those distributor
8 resources will be outweighed by the benefits you get
9 because your system is moving so much more
10 efficiency. So you're not building out, you know,
11 20 percent of the overall cost the system to supply
12 electricity ten minutes once every three summers,
13 which is what we're doing now when we build out
14 capacity for that one day every couple of years
15 where it goes through the roof, right, because we've
16 got to keep the lights on. So if you can levelize
17 and control the load shape, there's huge cost
18 savings to that. So you have to balance those
19 benefits with the investments and price signals
20 you're sending at the distribution level.

21 MR. VALERI: So when looking at the
22 cost benefit model, where in these models, if
23 anywhere, do they take into account if the ratepayer
24 is forced to absorb some of the cost? What is the
25 threshold that ratepayer or maybe the industry

1 itself will tolerate? Because we talk about passing
2 on costs and cost savings, but is there anybody
3 looking at the thresholds there, the economic
4 impact?

5 MR. MORRIS: I don't think there is
6 because I don't think there any easy answer. Like,
7 is 2 percent is the right number? I think really
8 what it boils down to is I always before you talk
9 about the cost of any policy, if I'm in New York, I
10 say guess how much it cost right now? Twenty-four
11 billion dollars every year for business as usual. I
12 feel like when you talk about a new program or an
13 RPS investment or an efficient investment, there's
14 no context. So you've got to start out, what is
15 business as usual cost and then what's it going to
16 be, what's it cost historically, what's it projected
17 to cost to maintain that over time, and then start
18 looking at alternatives and the cost and benefits of
19 that. So I don't think there's a specific number
20 that's tolerable. I think you can look at the net
21 cost now and projected savings over whatever time
22 horizon regulators decide make sense and
23 stakeholders.

24 The key to all those questions is
25 having really robust transparent stakeholder

1 processes so that everyone gets their way. And when
2 somebody say, well, maybe I think it should go down
3 10 percent. Another person says, I'm willing to pay
4 this much. And that's really how you do regulations
5 in a thoughtful way.

6 MR. COLBURN: I think that's exactly
7 right. To add a finer point to it, two things. We
8 always start with ratepayers and then think what
9 would be the incremental cost of what we're talking
10 about. What Jackson is starting to allude to, there
11 actually may be incremental savings. We have not
12 had the opportunity -- we don't keep a spare car
13 around for the two hours a year that our car is
14 broken or in the shop or something. We do that in
15 power sector. So that's one key point where there
16 are lots of savings potentially available.

17 The second one is who asked the
18 ratepayer if they had that opportunity. Did the
19 ratepayers get to say, "Wait. If my lights and I'm
20 going to save 15 percent, my lights are out two
21 hours a year, and for that I'll save 15 percent.
22 Okay, I'm all right with that."

23 They never got that question. And
24 obviously, you have to play with that carefully
25 because the hospitals would say no and you'd want

1 them to say no. But the average household might
2 say, "Yeah. Fair deal. I'll take that deal."

3 So we have lots of these market kind
4 of dynamics that we're going to start kicking around
5 that we simply haven't before.

6 MR. VALERI: I wish we had Rate
7 Council here. That's our fault.

8 Any other -- go ahead.

9 MR. LAUMBACH: Rob Laumbach.

10 I think a couple of the speakers
11 pointed out that when it comes to efficiency savings
12 that New Jersey's somewhere in the middle or bottom
13 of the pack. So what can New Jersey do? I don't
14 know if you guys know, if anybody has thoughts why
15 are we not doing better in the energy efficiency?

16 MR. COLBURN: I don't know. I'm not a
17 student of existing policies in New Jersey. I think
18 a pretty easy comparison is take some of the what
19 they call regional energy efficient organizations --
20 I don't know if it serves New Jersey or who does.
21 And just compare the policies pretty much straight
22 up whether there are incentives or rebates, lighting
23 programs, whatever. And that won't be rocket
24 science. That's not a hard determination. That's
25 just asking the people who know the programs and run

1 the programs. Mike Wink has done a lot of this on
2 the renewable side, certainly, and probably if not
3 directly the answer question, point you in the right
4 direction for New Jersey.

5 MR. O'MALLEY: That's a great
6 question. I'm glad that Ken brought it up earlier
7 with the ACEEE rankings. I mean, I think it is
8 notable that New Jersey is always not been a lagger.
9 We historically have been in the top 10 in ACEEE.
10 And we have neighboring states that have kind of
11 gone up the rankings, Maryland and Massachusetts.
12 There are many reasons. The one that we often point
13 to is the billion dollars that have been raided from
14 the Clean Energy Fund by the Christie Administration
15 over the course of the last six years. That's a
16 huge issue and it's not only --

17 UNIDENTIFIED SPEAKER: It's not just
18 six years, Doug. It was longer than that. And it
19 was the Corzine and the McGreevey Administration.

20 MR. O'MALLEY: And specifically to
21 answer that it was \$30 million raided by the Corzine
22 Administration in his last fiscal year. That SPC
23 has consistently been seen as piggy bank to be
24 raided over the course of 2000. For the most part,
25 that was taken back, obviously not in the last

1 fiscal year. But that's significant, and obviously
2 that money should be dedicated towards energy
3 efficiency and that would help. That's not the only
4 thing, but that would certainly help on energy
5 efficiency.

6 MR. VALERI: Any other questions for
7 any of our speakers from the Council?

8 Okay. So I'd like to start our
9 general comment period. I guess we should be coming
10 up here.

11 DR. OPIEKUN: We have two individuals
12 so far that have signed up --

13 MR. VALERI: How many cards do we have
14 right now?

15 DR. OPIEKUN: We have two right now,
16 so you would be the third individual. That's fine.

17 What we're going to do is ask the two
18 people, there's a Mike and an Amy here, as well as
19 this gentleman here. What you're going to be
20 allowed to do is you're going to be allowed two
21 minutes to address the Council. You can come up
22 here to the microphone so the stenographer can also
23 capture your comments.

24 So the first person to come up would
25 be Mike Shevtson man from Solar City.

1 MR. SHEVTSON: I work for one of solar
2 companies in New Jersey, and I want to share my
3 experience what I found that most people don't know
4 about renewable and about climate change and
5 sometimes they even don't want to know and don't
6 want to think about it and they don't know what are
7 the ways to go to clean power. Like 95 percent of
8 people I try to talk, they really say, "I heard
9 something about the environment, but I don't really
10 care about it."

11 They don't think it's really important
12 for them. They think that environment climate
13 change is something that related to power there or
14 somewhere else, not in New Jersey. So I think the
15 only way to promote Clean Power Plan and to get
16 success in it is to make people aware of climate
17 change and make people think how they can change the
18 situation, how they can help the environment.

19 And also the second thing that I want
20 to say that many people as I talk, they said that
21 they don't care environment. Or if they say, "Yeah,
22 I care about the environment, but I don't want to do
23 anything." And second thin is they really want to
24 know how much benefits they will get. Because if
25 you say that they will said 20 percent on their

1 electricity bills, most of them will say, "It's not
2 enough for me." They say that even if I don't have
3 to invest anything, just to save 20 or \$30 a month,
4 no, I don't want to do it.

5 We have to think how to change their
6 minds, how to make most people in New Jersey to
7 think how we can improve our environment, what I can
8 do for it.

9 DR. OPIEKUN: Thank you very much. If
10 you have additional comments, you can e-mail them to
11 Heidi's attention. The e-mail address and
12 information is on the bottom of the brochure. You
13 have up until May 20th to do so.

14 MR. SHEVTSON: Thank you.

15 DR. OPIEKUN: The next person is Amy
16 Hanson from New Jersey Conservation Foundation.

17 MS. HANSON: Thank you. Thank you to
18 the Council for holding this hearing. I just was
19 speaking with a colleague at lunch and noting how
20 important this kind of forum is for the residents of
21 New Jersey.

22 Our energy policy has a lot. It's
23 going to influence our future and our children's
24 future. And the more forums such as this that we
25 can have, the better and the better informed our

1 residents will become. And we especially appreciate
2 the Clean Air Council inviting the NJO community.
3 So thank you.

4 DR. OPIEKUN: Thank you.

5 Number three, Jeff Tittle, Sierra Club
6 New Jersey.

7 MR. TITTLE: Thank you. I want to
8 thank you, Council, for having this meeting, but I
9 also will say that what's unfortunate, you can come
10 up with the greatest series of recommendations, you
11 can have some of the best inputs from experts all
12 this country, but it won't matter because the
13 Governor will do what he wants. He will ignore the
14 laws, like he ignored the New Jersey Global Warming
15 Response Act, he's ignored policy when he pulled us
16 out of RGGI unilaterally, he has ignored the law
17 again when he's blocked offshore wind from moving
18 forward. And New Jersey was one of the states that
19 joined with the 14 other states to sue EPA under the
20 Bush Administration to actually get them to regulate
21 carbon. And now this Administration changes what
22 was 20 years of policy and sues and joins with the
23 Tea Party and the Coke brothers to sue to block the
24 Clean Power Plan.

25 The point that I'm making is that New

1 Jersey is not only falling behind other states --
2 New York State just got \$2 billion solar factory.
3 Well, hell, they're moving forward with solar. Our
4 solar program has been cut. We used to be second
5 per month in installations, we're now down to
6 eighth, depending on the month. We've had our
7 market crash, and we're going to crash again in
8 about another year unless we fix the RPS.

9 We were going to be the first state in
10 the nation with offshore wind. We've been waiting
11 five years for offshore wind rules to be put in
12 place.

13 And by the way, if you count this
14 year's budget, it's now \$1.2 billion in clean energy
15 funds that are being raided and paying for the
16 lights in state buildings instead of going out for
17 energy efficiency, costing us at least 4,000 jobs a
18 year. We were seventh at one time in energy
19 efficiency. And now we're 22nd or 23rd, depending
20 on the study. This is costing us jobs. It's
21 costing us money. Because we're not spending money
22 on energy efficiency, people are spending more to be
23 colder in the wintertime. Because we're not moving
24 forward with offshore wind, we're stifling \$10
25 billion in private investment. Same thing with

1 solar. Our jobs have been almost cut in half.

2 New York State, by the way, is moving
3 to 50 percent renewable by 2030. California is,
4 too. And they're getting the jobs and they're
5 getting those savings and they're changing the
6 utility dynamics so that the utilities become more
7 energy providers than just selling power. Instead,
8 we're moving backwards. We're supporting
9 legislation that passed the State Senate this year,
10 80 percent renewable by 2050.

11 Sierra Club is working with cities
12 around the country. We're going to have a hundred
13 cities, we're going to a hundred percent renewable
14 by 2035.

15 DR. OPIEKUN: I thank you for your
16 comments.

17 MR. TITTLE: Can I finish? Because I
18 think this is an important point I want to make.

19 When I hear the Administration talk
20 about reductions in greenhouse gases, they're
21 counting the five gas plants that are currently
22 being built, the 600 miles of gas pipelines that are
23 also going out there. When you start adding that
24 up, you realize that this Administration is full of
25 hot air when it comes to clean air and climate.

1 DR. OPIEKUN: Speaker number four,
2 Mary Barber, Environmental Defense Fund.

3 MS. BARBER: Thank you. Yes, I'm the
4 Director of our New Jersey Clean Energy Program and
5 just want to also thank the Council and want to -- I
6 think someone else said this, but to please ask you,
7 this is good, this was very exciting to see that
8 there was actually going to be this kind of public
9 hearing and this opportunity to both hear from
10 experts and also share. As far as I know, this is
11 first of its kind around the Clean Power Plan, and
12 as we can all hear, there was a lot of important
13 information about a lot of different things that
14 really matter to this State. And so look forward
15 and urge you to continue this and to do this more
16 often to allow -- it sounds like DEP and you are
17 maybe meeting with industry and all of that, but it
18 would be great to allow the public NGOs more
19 opportunity to both learn and express our views. I
20 want to also emphasize the opportunity -- I mean,
21 this is happening. The markets are changing. The
22 structure is changing, and I also want to just talk
23 about the jobs. There's so much opportunity in this
24 State for jobs with the new technology, the new
25 business models. We have great opportunities, and

1 we should take advantage of it.

2 Thank you.

3 DR. OPIEKUN: Thank you.

4 Do we have anyone from general public
5 that would like to address the Council at this time?

6 We do not.

7 I just wanted to remind people that
8 the Council will be working on the recommendation
9 over the next several months. Our timeline to
10 present our recommendations to Commissioner Martin
11 will be at our July meeting, so we're still on that
12 timetable. Once the report is officially released
13 to the Commissioner within a few weeks, it will be
14 available on the Clean Air Council website, along
15 with any supporting materials. Currently right now,
16 if you want additional information on what we've
17 been able to find on the Clean Power Plan, there are
18 a whole set of links that are set up there. You
19 could read, you can see what's available. If you
20 think that we've missed any kind of major
21 publication or any other information that would be
22 relevant, please e-mail so we would be able to look
23 at that, perhaps post that on the website as well,
24 so everybody gets the complete picture of the Clean
25 Power Plan, the various options, rate-based

1 approaches, mass-based approaches, that type of
2 thing. So as far as comments go, you still have
3 until May 20th to get anything in writing to us for
4 consideration. The information for that is at the
5 bottom of the brochure.

6 MR. VALERI: And I really appreciate
7 everyone. All of our speakers who came here today,
8 I know a bunch of you from my current and prior life
9 and public life, and I know this can be a very
10 emotional topic, but I think we all have very
11 similar goals. The end of the day, this Council has
12 chosen this topic because DEP has a charge, assuming
13 the litigation goes in the direction with the Clean
14 Power Plan remains. And while taking no judgment on
15 the litigation, we are the advisory body of the
16 Commissioner, and we intend to satisfy our
17 requirements. And we do appreciate all of your
18 comments. Please let me reiterate to the extent you
19 have additional comments, please submit them online
20 before May 20th.

21 Thanks to everybody who came today.

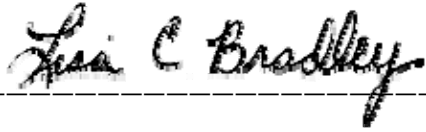
22 DR. OPIEKUN: We would also like to
23 thank today our host here, Thomas Edison State
24 University for providing this room to us. That's
25 very much appreciated. We would like to thank our

1 stenographer, as well, for all of her hard work.
2 We'd like to thank the State Police for being here,
3 as well, today, and for everyone attending this
4 meeting. Thank you very much, and we're officially
5 adjourned.

6 (Hearing concluded at 2:18 p.m.)
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C E R T I F I C A T E

I, Lisa C. Bradley, a Certified Court Reporter and Notary Public of the State of New Jersey, do hereby certify that the foregoing is a true and accurate transcript of the testimony as taken stenographically by and before me at the time, place and on the date hereinbefore set forth, to the best of my ability.



LISA C. BRADLEY, CCR

CCR NO. 30XI00228700

Dated: May 31, 2016

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