

In The Matter Of:
CLEAN ENERGY MASTER PLAN STAKEHOLDERS

September 14, 2018

JH Buehrer & Associates

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2019 ENERGY MASTER PLAN
REDUCING ENERGY CONSUMPTION
STAKEHOLDERS MEETING

BOARD: SARA BLUHM, Lead, BPU
JESSICA BRAND, BPU
STACY RICHARDSON, BPU
TOM WALKER, BPU
SHERRI JONES, BPU
ROB AUSTIN, DCA
DANNY WONG, DEP
SHERYL TEMBE, DEP
ROB WISNIEWSKI, EDA
LIZA NOLAN, EDA
JOHN COSTELLO, EDA
CHRISTIAN CASTEEL, DHS
TED WARDENCKI, DHS
BILL GOLUBINSKI, TREASURY
DEBBY HATZISAVVAS, DOT

DATE: SEPTEMBER 14, 2018

TIME: 10:00 A.M.

PLACE: STATE HOUSE ANNEX
CONFERENCE ROOM 6
131 - 137 West State Street
Trenton, New Jersey 08625

BY: Laura P. Ream, Court Reporter

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1 MS. GRACE STROM POWER: Good
2 morning, everybody. On behalf of Governor
3 Murphy and BPU President Fiordaliso, I'd
4 like to welcome you all here today to our
5 second public stakeholder meeting of the
6 Energy Master Plan.

7 As many of you know, on May 23rd
8 Governor Murphy signed a new piece of
9 legislation, and on the same day Executive
10 Order 28, which charges the BPU to
11 spearhead the Energy Master Plan committee
12 that will ultimately develop and deliver
13 the Energy Master Plan by June 1st, 2019.

14 Our committee is tasked with
15 developing a blueprint for the total
16 conversion of the state's energy
17 production profile to 100 percent clean
18 energy by January 1, 2050.

19 This 2019 EMP will set a strategic
20 vision for the state's role as a leader in
21 the 21st century energy economy over the
22 next decade and set New Jersey on a path
23 toward 100 percent clean energy.

24 I want to briefly go over with you
25 the outline we have put together for the

1 Energy Master Plan. In June, we kicked
2 off the interagency to-do list and we held
3 our first stakeholder meeting in
4 September. This winter we are going to be
5 working to complete our first draft that
6 will be released at the end of
7 winter/early spring, at which time it will
8 be released for public comment. We will
9 have many additional opportunities for you
10 all to read it, to comment. We will have
11 public hearings throughout the state to
12 ensure that we capture the entire
13 geography of the state. And ultimately in
14 June of next year, we will deliver a final
15 plan to the governor.

16 As I mentioned, the Energy Master
17 Plan committee is comprised of a number of
18 state departments, who all have a critical
19 role in developing this plan. In addition
20 to staff on the Board of Public Utilities,
21 we have DCA, EDA, DEP, Health, Human
22 Services, Transportation, Labor and
23 Workforce Development, Treasury, and
24 Transit. And, of course, we are working
25 hand-in-hand with the governor's office to

1 put this together.

2 As I mentioned, we have five
3 stakeholder working groups. Today is
4 Reducing Energy Consumption, and I'm going
5 to turn it over to our lead, Sara Bluhm,
6 who is the BPU's Business Ombudsman.

7 MS. SARA BLUHM: Thank you, Grace,
8 and thank you everyone for joining us
9 today. We like to refer to ourselves as
10 Team Kilowatt, and I'm very happy to have
11 many of our teammates here today. I'd
12 like to just quickly have them introduce
13 themselves and identify their department
14 so that you can see we do have
15 multi-agency representation here.

16 Let's start at the end with our
17 friends from the EDA. And we are in the
18 State House, so red means go.

19 MS. NOLAN: Liza Nolan, EDA.

20 MR. WISNIEWSKI: Rob Wisniewski,
21 EDA.

22 MR. WALKER: Tom Walker, BPU.

23 MS. BRAND: Hi, I'm Jessica Brand,
24 I work with the BPU.

25 MS. JONES: Sherri Jones, BPU.

1 MR. GOLUBINSKI: Bill Golubinski,
2 Treasury DPM.

3 MS. TEMBE: Sheryl Tembe, DEP.

4 MR. WONG: Danny Wong, DEP.

5 MR. AUSTIN: Rob Austin, New
6 Jersey DCA, Codes and Standards.

7 MS. BLUHM: Great. Thank you.

8 And so you're aware, we do have other
9 upcoming meetings, too, but for today's
10 meeting, we appreciate you all being here.

11 As you can see, we have had over a
12 hundred people sign up, and we have set up
13 today's meeting so that folks who signed
14 up to speak and submitted comments will be
15 in our first tier of speakers, after that
16 will be folks who signed up in advance to
17 speak, and then our third tier will be
18 people who indicated today that they would
19 like to speak.

20 We recognize you don't all want to
21 speak, but in the interest of making sure
22 that we can hear everyone's comments, we
23 are going to have a 10-minute speaker
24 limit, and we hope that you can all work
25 within that today so that we can hear

1 everybody.

2 And if you haven't been able to
3 capture all of your comments within that
4 10 minutes, we are more than happy to hear
5 you again. But we are going to let
6 everybody go through with their first 10
7 minutes, and then if people need to come
8 back up again, then they can have a second
9 10 minutes. And so that's how we're going
10 to be operating in terms of speakers. I
11 will be going through a speakers list and
12 letting you know who is up and who is on
13 deck. And we appreciate your cooperation
14 today as we walk through this. We're very
15 excited to hear your comments and your
16 feedback as we're working through this
17 deliberative process.

18 But for those of you who are
19 planning on attending our other meetings,
20 just a programming note, hopefully you
21 received the e-mail update, but next
22 Thursday's Transportation Committee has
23 been moved as well. It will be in the
24 State House, but it will be in committee
25 room 4, which is also on this floor. It

1 was previously scheduled for the College
2 of New Jersey. But just wanted to make
3 sure everyone's aware that next Thursday's
4 Transportation meeting will also be at the
5 State House, and all meetings begin at
6 10:00. We also have our Modernizing Grid
7 on September 24th and our Sustainable and
8 Resilient Infrastructure on September
9 28th. So we look forward to your feedback
10 and comments then.

11 Today we are talking just about
12 reducing energy consumption, and we had
13 special points put out for the group to
14 give us feedback on. If you need copies
15 of those questions or the notice, they are
16 available on the table back there. And
17 because we are the BPU, we also have some
18 other materials on our clean energy
19 program. We encourage you to take
20 advantage of that, too, and start reducing
21 and killing those watts now.

22 So with that, I'd like to get
23 started. And our first speaker will be
24 from Rate Counsel. After that we will
25 have Franklin Neubauer from Core Metrics

1 and then Nancy Griffeth from the
2 U.U. Faith Action. So if I can have the
3 Rate Counsel up first.

4 MS. MAURA CAROSELLI: Good
5 morning. Thanks so much for allowing Rate
6 Counsel to appear today. My name is Maura
7 Caroselli, I'm an Assistant Deputy Rate
8 Counsel with the New Jersey Division of
9 Rate Counsel.

10 As some of you may or may not
11 know, our office was created by the New
12 Jersey legislature so that we may
13 represent ratepayers in cases involving
14 public utilities in all issues that
15 involve rate cases in New Jersey. Rate
16 Counsel did submit some written comments,
17 so I'm going to summarize them here today
18 quickly.

19 As the Board and New Jersey
20 utilities endeavor to meet the new clean
21 energy mandates, the most recently enacted
22 legislation, just details on its powers,
23 the cost of the measure will be at the
24 forefront of the decision-making process.
25 We must be able to fully understand how

1 and whether technology as a program is
2 implemented with the purpose of energy
3 reduction or add an unexpected financial
4 burden to ratepayers despite any savings
5 which results from lower energy usage.

6 Regarding the EE programs and
7 lower energy reduction in general, various
8 types of energy efficiency measures will
9 lower overall energy usage while demand
10 response programs can be used to reduce
11 peak load and place downward pressure on
12 rates. Further, appropriate rate
13 structures are needed that capture the
14 incremental costs of starting any new load
15 attributable to electric vehicles and
16 electric heating and to help ensure that
17 this incremental electric load is directed
18 to off-peak hours in order to avoid adding
19 peak loads and burdening other ratepayers
20 with the associated costs.

21 With regards to ratepayer-funded
22 programs, ratepayer-funded programs led by
23 New Jersey Clean Energy Programs, CEP,
24 should play a leading and vital role in
25 supporting energy reduction strategies

1 associated with electric and natural gas
2 utility service. Ratepayer-funded
3 programs should coordinate and integrate
4 building measures, such as energy
5 efficiency, renewable energy, and energy
6 storage. And this is to provide
7 comprehensive energy efficiency solutions
8 for customers.

9 Ratepayer-funded programs should
10 also be customized and targeted to address
11 utility systems to try and mitigate
12 capacity peaks, improve grid utilization,
13 and avoid transmission and distribution
14 system infrastructure costs.

15 Additionally, the state should
16 initiate an evaluation process -- and this
17 is crucial to us -- conducted by an
18 independent evaluator to study the
19 benefits relative to the costs for each EE
20 program. As stated earlier, any EE
21 programs that are funded by utility rates,
22 there should be an analysis of the cost
23 effectiveness and the value of such
24 programs, taking into account the interest
25 of ratepayers as a whole.

1 Regarding utility versus state-run
2 programs, the utilities have had some
3 challenges demonstrating that their
4 programs provide incremental benefits on
5 top of benefits provided by the CEP,
6 particularly when program participants
7 receive incentives from both the state and
8 the utility for some measure. Utility
9 efforts should be channeled into areas
10 that do not overlap with the CEP to
11 prevent further free ridership problems.

12 Also a safe free ridership study
13 should be conducted to determine the level
14 of participation and savings the CEP would
15 have achieved absent the utility programs.
16 Such a study will provide critical inputs
17 to help assess where utility efforts have
18 been most successful and cost effective.

19 With regard to technology, some
20 advances in technology that could be
21 considered in this instance are net
22 energy. Net energy buildings; deep energy
23 retrofit; load control technologies, such
24 as smart thermostats and controlled
25 end-use load; thermal storage such as ice

1 energy storage, chilled water tanks, hot
2 water tanks; and batteries, including
3 electric-vehicle batteries.

4 And with regard to state policy,
5 when considering whether these strategies
6 should be led by the private sector or by
7 the state, Rate Counsel feels that the
8 state's overall policy and strategy
9 construct should be developed through a
10 governmental process. Yet, with regard to
11 the private sectors, the state efforts
12 should endeavor to address market
13 barriers. And as far as feasible, private
14 contractors should take the lead in many
15 areas, after selection process.

16 With regard to codes and
17 standards, Rate Counsel feels that
18 building changes and incentives should be
19 considered to promote green
20 infrastructure. This can be achieved
21 through many forums where best practices
22 can be shared. Also communities can
23 consider adopting polices that require
24 builders to design homes and businesses
25 with solar-ready roofs and, for example,

1 EE-ready wiring.

2 With regard to security, to the
3 extent that the electric grid and natural
4 gas utility services are digitized, we
5 feel that critical infrastructure
6 applications should be subject to even
7 greater protective measures In general.

8 With regard to economic growth and
9 workforce development, the state needs
10 workforce training on maintenance,
11 installation, construction, and inspection
12 of various energy efficiency measures,
13 including such emerging technologies as
14 heat pumps, net zero energy buildings,
15 heat energy retrofits, electric and
16 thermal energy source systems, and load
17 control devices.

18 With regard to environmental
19 justice, in answering the question of how
20 the state can keep energy affordable --
21 can keep clean energy affordable for
22 communities, Rate Counsel's view is the
23 state should conduct an assessment of
24 climate vulnerability for persons in
25 high-energy burdens in different parts of

1 the state, For example, very populated
2 areas, And included in this assessment, a
3 full assessment of housing stock.

4 Additionally, another way the
5 Board can look at this is siting any new
6 generation and energy facilities and
7 consider the aggregate environmental
8 wealth within those communities where
9 these new generation facilities are sited.

10 And with regard to ensuring that
11 disproportionately impacted communities are
12 receiving benefits of the clean energy
13 economy, it's Rate Counsel's view that the
14 state should review, monitor, and report
15 on the bill impacts of clean energy
16 development over time, with particular on
17 emphasis on disparate energy burdens of
18 low income households in disadvantaged
19 communities.

20 Just a summary of Rate Counsel's
21 views on the issues, as I said, we
22 submitted our full comments with more
23 details and some samples of some of our
24 thoughts. So thank you so much for
25 listening today.

1 MS. BLUHM: Thank you. And as you
2 alluded to, and I failed to mention, we
3 are accepting written comments at
4 emp.comments@bpu.nj.gov until 5:00 Friday,
5 October 12th. That information is also in
6 the notice if you need it, and it is up on
7 the screen, and we welcome any feedback.
8 Committees will be reviewing all of the
9 comments that we receive. With that, is
10 Franklin Neubauer here?

11 MR. FRANKLIN NEUBAUER: Yes.

12 MS. BLUHM: Okay. You're up next.
13 And then I have Nancy Griffeth, and after
14 her, Anne-Marie Peracchio.

15 MR. NEUBAUER: I am Franklin
16 Neubauer of Core Metrics. I'm a
17 consultant in energy efficiency planning,
18 energy modeling, and forecasting. Thank
19 you to the EMP Committee for this
20 opportunity.

21 As the lowest cost and cleanest
22 source of energy, energy efficiency offers
23 tremendous benefits to the power system
24 and the state. There are essential
25 differences between energy efficiency and

1 energy production, which have held back
2 previous administrations from saving more
3 energy. There is no meter to measure how
4 much energy we're saving, at least not at
5 the state level. That poses a challenge.
6 Despite that, we still need to estimate
7 savings for new portfolios of utility
8 programs, for new approaches to building
9 design, for financing programs, and
10 policies that put a price on greenhouse
11 gas emissions. Economic theory tells us
12 we should expand carbon pricing beyond
13 just the power sector to other sectors of
14 the economy.

15 So far, New Jersey has only
16 skimmed the surface of what's possible
17 with energy efficiency. Now the state
18 must pursue energy efficiency more
19 purposefully, achieving deep savings to
20 displace fossil fuels and their emissions.

21 Fortunately, West Coast states
22 have been showing us how to do that since
23 the 1980s. Soon New Jersey will conduct a
24 research study to estimate potential
25 energy efficiency savings statewide. In

1 addition to that, there are opportunities
2 to conserve energy that do not make
3 anything more efficient, but simply cut
4 down on waste.

5 New Jersey should track progress
6 across all fronts. The way to reach the
7 goals is to develop forecasts of New
8 Jersey's energy consumption and update
9 them periodically, so that when we revisit
10 this plan three to four years from now, we
11 can make direct comparisons and there are
12 milestones to mark accomplishments along
13 the way.

14 Improvised ways of measuring
15 energy efficiency progress have hurt New
16 Jersey before. In the 2011 Energy Master
17 Plan, the Christie Administration changed
18 how it measured progress in the power
19 sector so it could eliminate an energy
20 savings goal.

21 The recession also had a big
22 impact on the size of cuts. In 2011, the
23 EMP cut plans to save energy by 12,700
24 gigawatt hours, roughly two and a half
25 times bigger than its cut to the RPS

1 target. Many environmentalists did not
2 realize that energy efficiency programs
3 were hit harder, and they focused on
4 renewable energy instead. The public's
5 attention was diverted from what they
6 could see, that is renewables, and away
7 from what they couldn't see, energy
8 savings.

9 Another way that energy efficiency
10 is different from energy production is how
11 analysts add up savings. New Jersey will
12 have a wide range of programs in the
13 future. There are bound to be businesses
14 and households who are affected by several
15 programs at the same time. In those
16 conditions, analysts should be on the
17 lookout for double counting of energy
18 savings. To avoid double counting, the EMP
19 team, or Team Kilowatt, may benefit from
20 specific end-use research. Occasionally
21 savings estimates need to be scaled back
22 to avoid double counting.

23 The new Energy Master Plan will
24 need energy demand forecasts that
25 represent business as usual, business as

1 it was in 2017. In order to track
2 greenhouse gas emissions, forecasts are
3 needed for petroleum products and natural
4 gas, generation mix in the electric power
5 sector, and leakage from imports of
6 electric power. Those forecasts would
7 enable modelers to establish a base case.

8 Scenarios showing how New Jersey
9 can reach the administration's goals
10 should include energy saving targets or
11 milestones on our way to 2050. The point
12 of milestones is to assure progress in
13 energy efficiency -- again, there's no
14 meter on it, so the milestones are helpful
15 -- progress in energy efficiency and
16 greenhouse gas reductions, and to assure
17 the accountability of state government.

18 I suggest using a simple,
19 transparent method like
20 trend-extrapolation in the
21 business-as-usual forecast in order to
22 help create a reliable EMP process. If
23 you think extrapolation is just too
24 simple, and you want to consider
25 forecasting that you consider more

1 accurate, I'd be glad to discuss
2 alternatives afterwards. I would be glad
3 to explain my reasoning.

4 The best examples of reliable
5 energy planning processes that I know are
6 in the Pacific Northwest, where I used to
7 work, and RGGI. Those are regional energy
8 planning efforts and they put a premium on
9 transparency, which contributed to their
10 long-term success. Next June's plan will
11 be updated ten times before 2050, so
12 reliability of the planning process is
13 important.

14 The subject of best practices came
15 up last week, so I want to address how to
16 interpret the term "best practices." In
17 2009, Northeast Energy Efficiency
18 Partnerships, known as NEEP, presented the
19 Corzine Administration with an energy
20 efficiency strategy that was filled with
21 best practices, and I was a big fan at the
22 time. That does not mean the strategy was
23 a good fit for New Jersey. Organizations
24 like NEEP and ACEEE, which some of you may
25 know, select best practices mainly on

1 engineering and administrative criteria,
2 which they can judge. They cannot judge
3 the political, economic, and institutional
4 circumstances in the state. Those factors
5 need to be judged by elected officials and
6 their staffs. So when I hear something is
7 best practices in energy efficiency, I
8 think great, but judgment calls still have
9 to be made about whether those practices
10 are likely to work in New Jersey.

11 I know that the caliber of
12 economic analysis provided to
13 decision-makers on energy policy can be
14 improved. I am speaking about analysis
15 for the EMP and what may come later. For
16 renewables and other supply-side planning,
17 power system models are very helpful, but
18 for energy efficiency and demand-side
19 planning, most big models are of limited
20 value. There are exceptions, and I was
21 fortunate to work on one such project for
22 the Bonneville Power Administration using
23 its Conservation Policy Analysis Model.

24 Smaller models and tools are often
25 useful for demand-side economic analysis.

1 Analyzing economic impacts to program
2 participants and to distribution utilities
3 requires a broad perspective that includes
4 the average cost of energy savings,
5 utility rates, customer bills, and
6 conservation supply curves.

7 Societal benefits of energy
8 efficiency are far reaching. Priority
9 must go towards reducing environmental
10 externalities. Some benefits can be
11 quantified reliably, and measurement
12 should be rigorous, never improvised.
13 Cost-benefit analysis of clean energy is a
14 highly specialized area in economics, and
15 the discipline imposed by economic
16 analysis can ensure that non-energy
17 benefits are measured objectively.
18 Objectivity and a disciplined approach
19 will pay off because public funding is
20 involved, and so public support is
21 essential.

22 Now I want to highlight five
23 policy options that harness market forces,
24 which the EMP should consider. These will
25 provide opportunities to save money and

1 lighten any upfront costs of the plan.

2 Number one, targeted financing.

3 When financing programs are targeted at

4 specific barriers to energy efficiency,

5 like PACE, they can be very effective.

6 Number two, demand response. As

7 BPU staff has noted, these programs are

8 voluntary and provide effective price

9 signals to consumers who want to save

10 energy and money.

11 Number three, time varying rates.

12 Opportunities to shift loads to off-peak

13 hours can hold down costs and emissions.

14 Number four, benchmark buildings.

15 Benchmarking is intended to disclose key

16 information about a building's energy

17 consumption so that markets can be more

18 efficient at valuing individual

19 properties. The new clean energy law is a

20 partial step in that direction.

21 Number five, put a price on

22 carbon. Participating in RGGI will

23 facilitate cooperation with like-minded

24 states. RGGI states are exploring

25 policies for deep decarbonization using

1 the grid.

2 Another group of states formed the
3 Transportation and Climate Initiative,
4 which has explored pricing carbon in the
5 transportation sector. Even broader
6 approaches to carbon pricing have been
7 proposed by state legislatures. At one
8 time, Massachusetts, Rhode Island, and
9 Connecticut, were all looking at similar
10 carbon tax legislation. Opportunities to
11 cooperate on carbon tax plans should be
12 explored.

13 Before I conclude, I want to offer
14 a perspective on past BPU hearings where
15 energy efficiency was on the agenda. The
16 hearings I remember from several years
17 back seemed somewhat contentious and, I
18 think, unnecessarily so. They framed
19 energy efficiency as just another expense
20 without tangible benefits to the power
21 system. The cost advantages of energy
22 efficiency are not fully recognized by the
23 BPU. I believe demand-side resources have
24 been handicapped relative to new
25 generation and other BPU priorities.

1 There may be administrative remedies to
2 this imbalance.

3 Originally, I intended to offer
4 much more input on the subject of
5 forecasting. However, there are time
6 limits and I decided public comments are
7 not the best forum, at least at this time.
8 I am receptive to presenting that material
9 I prepared on slides in another setting.
10 Thank you.

11 MS. BLUHM: Thank you. Nancy
12 Griffeth? And then again on deck is
13 Anne-Marie Peracchio and Richard Lawton.

14 MS. NANCY GRIFFETH: Hi. I'm
15 Nancy Griffeth from the Environmental
16 Justice Task Force, Unitarian
17 Universalists Faith Action New Jersey,
18 which is a mouthful. I've got it out. We
19 are also partners in Jersey Renews. I'd
20 like to thank you for giving emphasis to
21 reducing energy consumption and the good
22 work that the Office of Clean Energy has
23 been doing.

24 However, from conversations with
25 people in the building industry, we

1 learned that there's a problem with the
2 societal benefits charge. A contractor
3 who works in Short Hills, in Elizabeth,
4 said that almost all the rebates go to
5 Short Hills. Now, I know Short Hills is a
6 long way from here, so Short Hills is a
7 very wealthy community. But it's
8 interesting. Everyone pays for the
9 societal benefits charge. This amounts to
10 a transfer of wealth from poor communities
11 to the wealthy communities. We do
12 appreciate the motivation of the societal
13 benefits charge, and we believe the side
14 effects have been entirely unintentional.
15 We also believe that it's important to
16 reward energy reduction, but we want to
17 reward it in a way that rewards all
18 citizens for their efforts, not just the
19 wealthy.

20 So we challenge the BPU and all
21 the environmentalists here in the room,
22 everyone here in the room, to come up with
23 approaches that will reward the efforts
24 that lower-income people make to reduce
25 their energy uses just as much as those of

1 higher-income people.

2 Also, I just, as aside to the
3 Division of Rate Counsel, in response to
4 the comments about evaluating energy
5 efficiency efforts and the cost-benefit
6 analysis of that. As a retired computer
7 scientist, I always appreciate the
8 quantitative approaches and I would like
9 to -- them to include -- or you to include
10 a cost and benefit specifically to
11 disadvantaged communities and in such
12 analysis. I think that analysis is a
13 great idea, But it should address
14 specifically disadvantaged communities.

15 There are a number of other issues
16 we addressed in our written comments,
17 including approving an electrified New
18 Jersey Transit and the state police,
19 modifying the building code to encourage
20 green buildings. I'm sure you'll hear a
21 lot about these things in subsequent
22 comments, so we just wanted to emphasize
23 the importance of rewarding energy
24 efficiency in disadvantaged communities as
25 much as in wealthier. Thank you.

1 MS. BLUHM: And thank you for your
2 comments. We are taking environmental
3 justice concerns into consideration with
4 the Energy Master Plan. As you can see,
5 there are some questions within our
6 groups' discussion points, but we are
7 looking at that.

8 Anne-Marie?

9 MS. ANNE-MARIE PERACCHIO: Thank
10 you. I'd like to thank you, Sara, and the
11 rest of the committee for the opportunity
12 to provide comments here today. The first
13 thing that I would suggest, though, is
14 that you have to revisit your group name
15 on Team Kilowatt. The gas companies have
16 had a strong history of supporting energy
17 efficiency and we're ready to do even
18 more.

19 Good morning, everyone. My name
20 is Anne-Marie Peracchio. I'm the Director
21 of Conservation and Clean Energy for New
22 Jersey Natural Gas. I've been an active
23 member on the energy efficiency committee
24 for their disciplinary program for more
25 than a decade. I also served on the

1 portfolio advisory committee for the
2 consortium for energy efficiency, and as
3 the New Jersey Natural Gas representative
4 on the state and local energy efficiency
5 action network, See Action.

6 New Jersey Natural Gas has been
7 working hard to engage our customers in
8 creative ways to reduce their energy usage
9 since 2006, when our conservation saving
10 program was approved. And then we
11 significantly expanded those efforts in
12 2009, when our energy efficiency programs
13 were approved under the name Save Green
14 Program.

15 All of our energy efficiency
16 programs are designed to work
17 collaboratively with New Jersey's clean
18 energy programs so that we're providing
19 more comprehensive solutions to our
20 customers. And we're very proud of what
21 we've accomplished so far.

22 We had more than 52,000 customers
23 participate. Put that into perspective,
24 that's nearly 1 out of every 10 of our
25 customers, and it's extra significant when

1 you look at that, thinking that our rebate
2 and credits are significant, they're not
3 light bulbs. These are HVAC and
4 whole-house, whole-building programs.

5 We have more than 2,600
6 conferences across the state and we've
7 invested more than \$159 million. So it's
8 through the experience we've had running
9 our programs and our efforts on the
10 national scale with those other
11 organizations, working with customers,
12 with trade allies in the organizations,
13 that we'd like to just share a few
14 thoughts.

15 In the general sense, within that
16 category, we don't have time to write
17 suggestions on all the different types of
18 things that need to be in the programs,
19 but the goal, the most important thing,
20 would have a diversified portfolio program
21 to ensure that all customers have the
22 opportunity to participate in the energy
23 savings.

24 There certainly has to be special
25 attention to make sure that we support our

1 low-to-moderate income customers, but also
2 even particular segments of customers. We
3 may focus on renters, seniors, we may need
4 to slate them a little differently than
5 we've done in the past, make sure that
6 they participate.

7 For commercial and industrial
8 customers, we should expand the efforts in
9 terms of commercial customers by industry
10 segment, to help ensure that we're
11 reaching all customers and they're aware
12 of the resources, And also leverage the
13 work of national groups such as PEE, the
14 DOE Better Buildings Network, select some
15 others to share best practices. I'm very
16 glad that in the past year, New Jersey's
17 Clean Energy Program did rejoin Consortium
18 for Energy Efficiency and that --
19 attending as well is a great opportunity
20 to learn from others.

21 In regards to the benchmarking
22 requirement, we encourage the state to
23 establish the rules as soon as possible
24 and consider building in a demonstrative
25 compliance waiver for early champions so

1 that customers like built to lead
2 standards or making an Energy Star
3 certified building understand that they
4 have a clear path to ensure compliance,
5 and it actually even could serve as a
6 marketing tool for us in the meantime, if
7 we can engage more people to show that
8 they will be able to comply with those
9 requirements.

10 In regards to non-energy benefits,
11 there's been a tremendous amount of work
12 that's been done by ACEEE and Lawrence
13 Berkeley National Lab. They've done a
14 great job of documenting the broad range
15 of benefits, from health and safety on the
16 residential side to employee productivity
17 on the commercial side, resiliency. So
18 there's a lot that New Jersey can learn
19 from both the studies that have been done
20 and then also seeing how other
21 jurisdictions have dealt with it and
22 considered it.

23 We would encourage the state to go
24 beyond just thinking about the non-energy
25 benefits and actually take a step back and

1 look at the cost benefits overall,
2 Particularly using the National Efficiency
3 Screening Project resource value framework
4 as a way to really tackle how we're
5 looking at cost benefits. A lot of the
6 cost benefit approaches do a great job of
7 capturing all the costs, but not
8 necessarily all the benefits because those
9 are often harder to quantify. But we can
10 learn from what others have done.

11 In regards to technology, we
12 believe that it's critical that the energy
13 efficiency programs have a dedicated
14 emerging technology program. An emerging
15 technology program funds investments to
16 develop critical insights that will help
17 the state with longer-term strategies to
18 reach climate goals for us to keep that
19 from gaining a technical and market
20 understanding on the installation,
21 performance, reliability, and
22 serviceability for those new solutions so
23 we can get them out to customers as soon
24 as possible. Funding supports those
25 program technologies that we will need to

1 get to the longer-term view and provide
2 less risk and more certainty on getting
3 there.

4 If we look at all the leading
5 states in energy efficiency, they have
6 made those commitments and have emerging
7 technology programs. They understand how
8 important it is when you want to produce
9 and pursue the aggressive energy
10 reductions and it's also very significant
11 when you go to implement the codes and
12 standards. Because when you make that
13 advancement that you are -- that you get
14 from energy efficiency kind of fall out of
15 the bottom, so you need something else
16 that's going to come in and replace that
17 with efficiency standards.

18 It really helps to understand
19 what's ready for broader adopting, but we
20 will definitely need conference training,
21 customer incentives, and other key
22 elements of the marketplace, understand
23 the value opposition for those new
24 technologies.

25 When pursuing those DEP programs,

1 we need to consider the support for both
2 the existing workforce and our next
3 generation of energy engineers and
4 technicians, that ensure that they
5 understand the proper encoding of the
6 newer technologies.

7 An ET correction also ensures that
8 natural gas technologies are considered.
9 Our team currently participates in the Gas
10 Technology Institute's emerging
11 technologies programs and the Energy
12 Solution Center. From our involvement, we
13 recognize that are several new gas
14 technologies are approaching commercial
15 breakthroughs.

16 Gas heat pump water heaters are
17 becoming available for the commercial
18 market. And given the opportunity to
19 access greater than 100 percent
20 efficiencies with heat pump technologies
21 -- we need to look at that on the gas side
22 as well so that we're getting more energy
23 out of every therm that's used.

24 Also, several manufacturers have
25 made advancements with micro-skid pieces,

1 which significantly broadens the pool
2 customers that may be able to make use of
3 both the heat and the electricity of
4 systems, which has potential for added
5 variety. So, again, getting more out of
6 the energy that we are using.

7 In regards to codes and standards,
8 New Jersey gets high marks on code
9 stringency. The last year's ACEEE
10 scorecard New Jersey got the full points
11 for both the residential and the
12 commercial code stringency, and in the
13 coming decades New Jersey can continue to
14 be a leader on adopting those codes when
15 they're ready, and also considering the
16 opportunity to expand benchmarks and
17 requirements. The real opportunity is to
18 improve compliance so we can look towards
19 greater opportunities to work closely with
20 DCA and support code and official and
21 trade allies with additional training.

22 Shifting the outreach to -- and
23 education to compliance with all
24 installations can also get us additional
25 energy savings. Because right now there

1 are some pieces that are required from the
2 energy efficiency programs that are
3 considered burdens for crew main -- take,
4 for example, the equipment sizing
5 requirements, is just looked as something
6 else that has to be done on the energy
7 efficiency programs. But if we push it to
8 require that everyone is doing it, then
9 even if someone chooses to install
10 standard efficiency, that we get the
11 benefits of those.

12 In regard to the reliability
13 segment, gas definitely has a role of
14 demand-response. We've done it for years
15 with interruptible customers and there are
16 new opportunities, there are pipes are
17 coming out with those involved in small
18 changes on the behavioral side of a larger
19 pool of customers, and then also even
20 having other commercial sites that still
21 meet firm requirements but can play in a
22 manner -- market where they can cut back
23 their usage.

24 In regard to workforce
25 development, it is definitely critical for

1 us to continue to expand what we're doing,
2 working with technical colleges to
3 identify the needs, so fiscally the clean
4 energy economy and to also consider that
5 it's beyond just the technical resources
6 that we have now.

7 So one other real important point
8 that I just wanted to come back to in
9 regard to the earlier comment about the
10 programs only going to affluent customers,
11 it's very important to recognize that that
12 could be happening to some of the
13 programs, but there is a great network of
14 programs through the Comfort Service
15 program. We've worked collaboratively
16 with the other utilities, more than
17 112,000 customers that we've helped
18 through them, so there's a significant
19 barrier that's there.

20 About 30 percent of the audits
21 that we go out to do we cannot help those
22 customers. If the customer is interested,
23 we've already made the effort to get out
24 there because of structural and safety
25 issues with the premise. So we need to

1 try to improve that, to make sure that
2 those customers can participate. We are
3 very encouraged by the recent efforts of
4 the DCA to work on potential federal
5 funding, but we've got to find another
6 funding source that we can address those
7 other pieces that aren't directly related
8 to energy.

9 So We definitely appreciate the
10 opportunity to provide our feedback here
11 today, and -- actually, just one last
12 thing about the low/moderate, it's just
13 additional features within programs that
14 we need to consider. Our ongoing payment
15 program also gets front page so that they
16 can turn on the -- because it sets
17 traditional credit screening. We use
18 utility payment history, and then also
19 after bankruptcy, and that enables a lot
20 more customers to participate. So thank
21 you for the opportunity to provide
22 comments.

23 MS. BLUHM: Thank you, Anne-Marie.

24 And so folks who may be new in the
25 room we do have additional seats. You'll

1 have to come all the way down here, but
2 there are more seats over on this side, so
3 we welcome you to take one of those.

4 And now we have Richard Lawton, On
5 deck is Wayne DeFeo, and then Joe Accardo.

6 Richard, are you here?

7 MR. RICHARD LAWTON: Good Morning.
8 I'm Richard Lawton. I'm the executive
9 director of the New Jersey Sustainable
10 Business Council. We're also a member of
11 the Church of Organic Coalition. And
12 NJSBC is a coalition of triple bottom-line
13 businesses that cut across different
14 sectors and also different sizes of
15 business. We hold high the belief that
16 it's possible to be commercially
17 successful, also being environmentally and
18 socially responsible in how we run our
19 businesses.

20 So each one of our businesses are
21 doing what they can to integrate
22 sustainability values and practices in
23 their operations and supply chains. But
24 they also know that policy's important
25 because policy, law, rules, regulations,

1 also have a huge influence on how markets
2 function and how companies like ours
3 compete against each other, And they also
4 compete against other companies that have
5 kind of different business philosophy. Is
6 about maximizing short-term profits, which
7 includes sometimes externalizing costs and
8 risks to their communities and to the
9 environment. So this is in terms of us
10 working together to advance both market
11 solutions and policy change.

12 We're looking at, you know,
13 large-scale systemic change to create a
14 more sustainable, more vibrant, and
15 ethical vision of the economy. We think
16 that one of the areas of leverage to focus
17 on is the transition to clean energy,
18 which includes using the energy resources
19 we have more efficiently.

20 We think that improving energy
21 efficiency through smart policy change
22 that leverages and incentivizes market
23 derivation, market innovation, will
24 benefit those businesses' bottom lines,
25 but also reduce carbon emissions and

1 protect human health. So all three of
2 those priorities and goals are naturally
3 aligned as it is, so this is a huge
4 opportunity to make sure we capitalize on
5 that alignment.

6 I've already submitted written
7 comments, which are more detailed, so I'll
8 just keep it kind of brief on highlights
9 of the top-line recommendations we have
10 before I introduce of our business members
11 who has a lot more expertise in this area.
12 Okay?

13 So our first recommendation is to
14 make sure we that improve energy savings
15 by requiring a set reduction per electric
16 and natural gas usage for New Jersey by
17 year 2030 with clear, measurable
18 benchmarks, including support for
19 conservation programs.

20 And then, secondly, and more
21 specifically, expand energy efficiency
22 improvements at industrial facilities and
23 large-scale commercial facilities since
24 there's a lot of outside (inaudible), and
25 do this by considering property tax

1 incentives for commercial buildings that
2 exceed the specified energy efficiency
3 score. This will require all commercial
4 buildings to be audited and scored using
5 the Energy Star Program. Also, those
6 buildings that fall below a certain score
7 to be assessed an additional utility
8 efficiency tax, the proceeds of which
9 would go towards funding efficiency
10 incentives.

11 Number three, improve green
12 building standards for new and existing
13 construction by examining and updating
14 trade and building efficiency codes and
15 requirements. Also provide funding for
16 qualified labor training, providers to
17 train employees in operations, and
18 maintenance to optimize building
19 performance.

20 Another important thing that is
21 very important is just transparency in
22 terms of energy usage to make that
23 available to people, so establish energy
24 data transparency to make sure that -- so
25 based on permits to access to energy data

1 is the foundation for any real building
2 efficiency progress. Residents and
3 building owners get simple access to
4 understandable, reliable information about
5 their energy usage. And maybe you should
6 give building owners and managers
7 electronic access to monthly
8 whole-building aggregated energy
9 consumption data, since being able to
10 measure and identify energy reduction is
11 critical, or businesses can basically work
12 under the premise that if you can't
13 measure it, you can't match it. So this
14 is the important part.

15 And, as we've already touched on
16 it a little bit, the environmental justice
17 communities and impacts clear up just -- a
18 different dimension to that, invest in EJ
19 communities and job training. Create an
20 apprenticeship program, much like those in
21 South Carolina and some European
22 countries, but specifically tailor this to
23 offer companies tax incentives to hire and
24 train EJ community members to perform
25 energy efficiency related work within

1 their home areas.

2 And then, finally, just a final
3 point, is that all funds earmarked for
4 energy efficiency programs should only be
5 used for their intended purposes, so
6 somehow briefly protect -- prevent them
7 from being diverted to general funds for
8 any other purposes.

9 So that's kind of a summary of our
10 recommendations. I just want to end by
11 just thanking Governor Murphy for his
12 leadership in this important area and also
13 express our appreciation to BPU for taking
14 on such an important and complex task for
15 us and also making this as simple a
16 process.

17 So I'd to introduce one of our
18 business members, Mr. Scott Fischer, who's
19 the founder of Ciel Power.

20 MR. SCOTT FISCHER: Good morning.
21 I'm ducking in on Richard's ten minutes,
22 so I'll try to make this very brief. My
23 name is Scott Fischer. I'm a co-founder
24 and managing member of Ciel Power. We are
25 a participating provider of the New Jersey

1 Clean Energy Program. And we're the boots
2 on the ground, so to speak, of making
3 residential energy efficiency improvements
4 on homes throughout New Jersey.

5 I appreciate everybody being here.
6 I wanted to just commend a lot of the
7 folks here today on the progress that New
8 Jersey's made already towards energy
9 efficiency. A lot of the folks in this
10 room have devoted a lot of time and effort
11 to the programs that are in existence
12 right now, and I would really like to echo
13 the sentiment that we keep the funds that
14 are appropriated for new clean energy
15 improvements, specifically energy
16 efficiency.

17 According to New Jersey Future
18 there was \$1.5 billion that was diverted
19 from its intended purposes of making
20 energy efficiency improvements here in New
21 Jersey into other funds, even as recently
22 as this year. So I would -- whatever we
23 can do to potentially legislate or what
24 have you -- that we can do to keep those
25 funds for their intended purposes, I think

1 would be very important.

2 Additionally, we -- there was
3 comments earlier today that things that
4 can be challenges to upgrading buildings
5 to make them more efficient. I think that
6 those challenges would be well-served by
7 looking at some of the collateral things
8 that come up in the progress of making
9 buildings more energy efficient.

10 Specifically was the environmental
11 justice issue, serving lower incomes, and
12 also serving the middle class. A lot of
13 middle class families don't take advantage
14 of some of these programs because of the
15 collateral issues that can happen as you
16 work to make the home more energy
17 efficient. So it's important to look at
18 some of the by-products that occur of
19 installing energy efficiency improvements
20 and how we can help home owners navigate
21 some of those by-products. And they're
22 all well documented, and I'd be glad to
23 submit additional information on this as
24 well.

25 Finally, making some sort of a

1 process where we make energy efficiency
2 more mainstream. It might be doing things
3 like in Austin where -- or Berkeley or
4 other communities where energy audits are
5 a function of buying or selling a home.
6 Just making energy awareness and making it
7 more well-known to home owners that there
8 are things that they can do to improve the
9 comfort and the efficiency of the houses
10 that they own and use less energy is -- as
11 a function of their daily lifestyle. I
12 don't know that that's necessarily out
13 there as much as it could be, and yet
14 maybe we could look into some sort of a
15 way to make that more mainstream, would
16 probably benefit this process
17 tremendously.

18 So thank you all for your efforts
19 here. I really appreciate being here
20 today and thanks for sharing your time
21 with me, Richard.

22 MS. BLUHM: Thank you. Next up is
23 Wayne DeFeo, after that Joe Accardo and
24 after Joe is Doug O'Malley.

25 MR. WAYNE DEFEO: Good morning.

1 I'm here representing today U.S. Green
2 Building Council for the New Jersey
3 chapter. One is as advocacy as a board
4 member, and second, as of 8:00 last night,
5 as the acting executive director. So I
6 don't know if that's be careful what you
7 wish for or not. I'm going to be very
8 brief here today and we'll submit written
9 detailed comments to you after the fact.

10 What we really want to touch on
11 are highlights of things we believe will
12 help get to our goal. As We all have said
13 many times, you've heard it many times,
14 the best kilowatt hour is the one you
15 don't use. One of the first things that
16 we would really emphasize -- and you may
17 have heard this or hear it in testimony --
18 the societal benefits surcharge that
19 exists must be sacrosanct. It has been
20 rated every year. That is not what
21 ratepayers are paying for. That money is
22 being wasted.

23 Secondly, in terms of training We
24 would encourage -- we have a good energy
25 code. Our code enforcement officers need

1 more training and we need more enforcement
2 of that energy code; we need that
3 enforcement to be uniform. What our
4 members do is guide you -- we see a huge
5 level of inconsistency. That does not
6 help us achieve our goal of reducing
7 energy.

8 Thirdly, our direct energy and
9 clean energy programs are great. The
10 concept is saddled. It needs to be worked
11 on to be easier. It needs to be more
12 user-friendly. For myself, I've worked,
13 as a courtesy, with a local business in
14 our community. If I wasn't there with
15 them literally holding their hand and
16 working with good people, and if we had a
17 state-level who really helped us walk
18 through it, the store would not have had
19 new HVAC and new lighting. We reduced his
20 -- best measured, by the way, is after
21 much trial and tribulation, his electric
22 bill was lower this year than last year,
23 even though it's an air-conditioned space.
24 If that doesn't tell you it works, I don't
25 know what does.

1 But if I was not there to help him
2 walk through it, as a courtesy, it
3 wouldn't have gotten done. So we need to
4 streamline, prioritize, make it easier for
5 business to access those funds by making
6 those funds more portable and more
7 creative. Let's think outside the box.

8 As far as residential, we would
9 love to see some sort of reinstatement of
10 that energy audits for homes, but we would
11 like to see that program, I should say,
12 expanded. One of the problems we've seen
13 is people doing the audits are also
14 someone you work with. That raises all
15 sorts of questions. Not to say they're
16 doing anything wrong, but an independent
17 audit, then leave the contractors doing
18 the work, would seem to make more sense.

19 It was also suggested, we really
20 want to help the residents of this state.
21 Let's consider taking the residential
22 rebate programs on a sliding scale.
23 People who have needs don't need a \$500
24 rebate on their boiler necessarily. Not
25 that you shouldn't give it to them, but

1 someone who is in a low- or
2 moderate-income home, that \$500 is not
3 going to be sufficient for them to put in
4 a system. And we lose the very people who
5 we need to be more energy efficient
6 because they're the ones who can't afford
7 the energy efficiency to start with. So
8 we would suggest considering a sliding
9 scale. It could be tied to COA, it could
10 be tied to some existing financial system.

11 We would also suggest, and we've
12 been trying this now for eight years as a
13 chapter, that we get the state to adopt
14 the International Green Construction Code
15 for all buildings. For commercial
16 buildings, it would be lovely, but
17 formally to say let's start with all
18 buildings receiving state funding right
19 now, about 10,000 square feet or 5,000
20 square feet. The reason I suggest that is
21 the IGCC encompasses many of the energy
22 savings programs you heard today. It
23 encompasses many of the green building
24 elements that our organization stands for,
25 and it requires measurement and

1 verification by third parties. That's a
2 critical component of any energy
3 conservation plans that may go forward.

4 I would also suggest that any
5 state buildings over 10,000 square feet
6 that are new be green certified. There is
7 talk about it, there is something in the
8 code, but we do not have a uniform
9 administration. We are concerned there is
10 no actual third-party verification. Why
11 do I think we need these specifications.
12 Secondly, it is a program that requires
13 third-party verification. Buildings
14 cannot be recertified if there is not a
15 third party verified. And that hasn't
16 happened.

17 We would also suggest that
18 existing buildings over 15,000 square feet
19 that are state buildings should go through
20 certification as well so state building
21 certifications exists. There many
22 buildings that do that. There are many
23 commercial buildings that do that. One of
24 the things that could be shown in energy
25 conservation and through green building

1 and sustainable building standards are two
2 very important points:

3 One, productivity of employees
4 rises on average, based on third-party
5 studies, by 10 percent in sustainable
6 buildings. Ninety percent of the cost of
7 running a building over 20 years is the
8 cost of the people in the building, Not
9 the energy. If we can improve -- think
10 about that, how many state workers do we
11 have now? If we improve the productivity
12 in every state building by 10 percent
13 simply by giving people cleaner air,
14 better lighting, better access to energy
15 efficient and thermally comfortable
16 buildings, that's a pretty big boost to
17 the economy. And that's it. Thank you
18 very much.

19 MS. BLUHM: Thank you. Joe, are
20 you here?

21 MR. JOSEPH ACCARDO: Yep. Good
22 morning. My name is Joe Accardo. I'm
23 chief regulatory officer for PSE&G, and I
24 appreciate the opportunity on behalf of
25 PSE&G to speak here this morning.

1 We provided our initial thoughts
2 and comments with respect to Governor
3 Murphy's proposed 2019 Energy Master Plan
4 and today's second of five stakeholder
5 meetings. PSE&G really applauds Governor
6 Murphy's bold commitment to reducing
7 energy consumption and investing in energy
8 efficiency.

9 We believe one of the most
10 important missions for utilities will be
11 to help customers use less energy. To
12 achieve that, though, utilities will have
13 to reset our core business model with a
14 shift to 20th century models in which
15 utilities sell as much electricity and
16 natural gas as possible, to a new
17 approach: Helping customers use less
18 energy and thereby save money on their
19 monthly bills. This is a paradigm shift
20 and it's going require adjusting to how
21 rates are set, encouraging utilities to
22 help customers use less energy while still
23 allowing utilities to collect the revenue
24 needed to provide safe and reliable
25 utility services.

1 The current business model creates
2 a disincentive to promote energy
3 conservation and efficiency. This is a
4 disincentive that exists and it must be
5 eliminated if the energy reduction targets
6 of 2 percent for electricity and 0.75
7 percent for gas are going to be achieved.

8 Energy efficiency is comprised of
9 many components and include the following:
10 Really encouraging customers to upgrade to
11 appliances and equipment that use less
12 power while providing the same or greater
13 level of service, comfort and convenience
14 that they're accustomed to.

15 It's also using more power
16 incentives when demand is low and less
17 when demand is high. It's installing
18 equipment to allow motors to run at lower
19 speeds and save energy when full power is
20 not in use. And, finally, it's also
21 installing more efficient LED lights and
22 exhaust fans to avoid using air
23 conditioning.

24 Energy efficiency delivers clean
25 energy better than -- similar to solar and

1 wind, but at a fraction of the cost to
2 customers. Energy efficiency costs less
3 than any source of electricity, whether
4 fossil fuels or renewables. Energy
5 efficiency saves U.S. customers
6 approximately \$90 billion per year, and
7 that translates to a household savings of
8 about \$460.00 per year.

9 There are broader benefits for the
10 environment and public health as well.
11 Energy efficiency already helps reduce
12 carbon emissions by nearly half a billion
13 tons per year. Reducing electricity use
14 by 15 percent can prevent 30,000 asthma
15 attacks and save Americans as much as \$20
16 billion in avoided healthcare costs.

17 Across the nation, the most
18 successful energy efficiency portfolios
19 are operated by utilities with state
20 regulators providing strategic leadership
21 and oversight. In New Jersey utilities
22 must also take a leadership role to ensure
23 we achieve the aggressive energy
24 conservation goals established in the
25 Clean Energy Act and that energy

1 efficiencies benefits are available to all
2 customers regardless of income.

3 Given the mandatory energy
4 reduction targets and new clean energy
5 law, utilities must be free of any
6 unnecessary encumbrances that would
7 prevent them from meeting these targets.
8 When done correctly, energy efficiency can
9 provide a big win for customers and the
10 environment.

11 PSE&G as well as every gas and
12 electric utilities is uniquely situated to
13 implement energy efficiency programs given
14 its pre-existing customer relationships,
15 experience in implementing award-winning
16 energy efficiency programs, ability to
17 provide on-going payment options, and
18 access to customer usage data.

19 There is no question energy
20 efficiency should be our top priority, but
21 we also recognize that other priorities
22 need to be addressed. The U.S. must
23 continue its conversion to renewable
24 resources. We must also preserve our
25 existing climate-friendly resources such

1 as nuclear while safety -- which safely
2 supplies 20 percent of the nation's
3 electricity and more than 50 percent of
4 its carbon-free electricity.

5 Because transportation represents
6 the nation's largest source of greenhouse
7 gases, utilities should lead the drive to
8 electrified sector, by investing in the
9 automobile sector and universal EV
10 charging infrastructure. We're seeing
11 automakers step up here and in Europe.
12 Now it's time for utilities to act as
13 well.

14 Utilities also should continue to
15 leverage technology to help make our grid
16 more reliable and give customers the tools
17 they need to help customize their energy
18 use in whatever manner suits their needs,
19 whether it's cutting costs or reducing
20 their carbon footprint. Even as utilities
21 evolve, we must also realize that the
22 existing infrastructure remains essential
23 to our business. That's why we must
24 continue to invest in modernizing the
25 nation's aging electric and gas networks.

1 For most of the last century,
2 American utilities were engaged in a rush
3 of pure growth and expansion to spread the
4 availability of electricity and natural
5 gas as far and as wide as possible. The
6 achievement of universal power supply
7 unquestionably was, and remains, a public
8 good of the utmost significance, which
9 resulted in improved health, education,
10 and economic opportunity for entire
11 communities. These advantages are why the
12 modern or energy grid is considered the
13 most significant engineering feat of the
14 20th century. Necessary efforts to
15 maintain what we have achieved must be
16 continued.

17 The utilities today are also
18 leading the new era of growth and change.
19 Clean energy resources such as solar and
20 wind will be part of that. Other
21 innovations such as electrifying
22 transportation, energy storage, and smart
23 energy platforms as well will all be
24 game-changers in this space.

25 But it is energy efficiency that

1 has the greatest potential at this time to
2 transform the energy sector and its
3 relationship with customers, while
4 providing reductions that are needed to
5 meet our climate challenges.

6 I thank you for the opportunity to
7 appear here today to provide these
8 comments.

9 MS. BLUHM: Thank you.
10 Doug?

11 MR. DOUG O'MALLEY: Good morning.
12 My name is Doug O'Malley. I'm the
13 director of Environment New Jersey. I
14 wanted to thank the chair of this process,
15 Sara Bluhm, for the work already and the
16 work ahead, and the chair of the Energy
17 Master Plan process, Grace Strom Power.
18 Many late nights already, and many to
19 come.

20 But I also wanted to specifically
21 thank the relocation of this hearing to
22 the State House. As much as I love the
23 Barbara Gitenstein Library, I think all of
24 us are happy to be back at the State
25 House. That being said, I also want to

1 encourage BPU to consider hearings that
2 are outside of non-traditional business
3 hours, and as much as we love Trenton,
4 outside of Trenton.

5 I wanted to start off by saying
6 that we are thrilled to be here, thrilled
7 to be part of this process. I am a proud
8 member of the Jersey Renews Coalition.
9 We've already heard from New Jersey
10 Sustainable Business Council, Faith
11 Action, we'll hear a little bit later from
12 the Work Environment Council and New
13 Jersey Sierra Club, as well as many
14 others. We represent more than 60 labor,
15 faith, environmental, and community
16 organizations. We've also already heard
17 from Ratepayer, from New Jersey Natural
18 Gas, and Franklin Neubauer.

19 I think energy efficiency provides
20 a unique opportunity where there's mass
21 agreement that we need -- that not only
22 need do we need to do more, but there're
23 benefits for everyone. And I think, when
24 we think of energy efficiency, as we heard
25 previously, energy efficiency sometimes

1 can get the short end of the stick because
2 we do not think, even in this room, of the
3 energy that's used to light the room, and
4 to heat the room, and cool the room. And
5 if we, as kind of energy professionals,
6 aren't necessarily thinking about that all
7 the time, how can -- the general public is
8 not thinking about that.

9 And in that vein, we're obviously
10 incredibly excited that Governor Murphy
11 traveled to California to be part of
12 Global Climate Action Summit. It
13 reiterated his commitment to 100 percent
14 clean energy by 2050. That's a commitment
15 that is imperative upon having the state
16 invest more in energy efficiency.

17 And as former GP commissioner and
18 former EPA administrator, Lisa Jackson,
19 said again and again, and obviously others
20 as well, that the energy that we do not
21 use is the cheapest form of energy.

22 That being said, I think it is
23 critical to talk about how we achieve
24 those goals and specifically to ensure
25 that we are referencing the Global Warming

1 Response Act of 2007, the importance of
2 reducing our emissions by 80 percent by
3 2050. And specifically I just wanted to
4 talk with you about the importance of
5 staffing state agencies and specifically
6 the Board of Public Utilities. There is a
7 ton on the plate of the BPU, as you well
8 know, and it is critical that our FY20
9 budget reflect the importance of the
10 initiatives that are on the BPU's plate.

11 A quick summary, then as all of
12 you know, there's fewer emissions credit
13 program that is ongoing. There's
14 obviously this program, which has
15 deadlines of June 1st and another round of
16 public hearings and another round of
17 public comments.

18 You know, and this is not just
19 about public hearings. This is about
20 implementing the programs and doing the
21 outreach and that needs to be reflected in
22 state budget. We need more money and
23 focus on -- for all agencies, but
24 specifically for the BPU.

25 I also wanted to talk about one of

1 the on-going challenges with BPU, and
2 specifically with the Office of Clean
3 Energy, which is we are fighting this
4 fight with one hand tied behind our back.
5 And I think it is critical that we're in
6 this room and this building right now
7 because the BPU obviously does not control
8 the state budget, that's a decision by our
9 governor and the legislature.

10 What we've seen over the course of
11 the Christie era and into the FY19 budget
12 is continual raids of the clean energy
13 fund. And obviously the strategic plan or
14 course over the next four fiscal years,
15 you know, talks about, in a euphemism, the
16 energy -- I might get the exact wording
17 wrong, but it -- energy initiatives.
18 Energy initiatives are another word for a
19 budget raid and this legislature, time and
20 again, is raiding money from the clean
21 energy fund, having it go to the general
22 fund or to fund New Jersey Transit.

23 And so it's critical that our
24 state leaders, from the legislature to the
25 governor's office, work to end these

1 raids, to write down a strategic plan.
2 The weeding process is exactly that, it's
3 weeding. And so we're talking even FY22,
4 \$128 million being raided from the Office
5 of Clean Energy and poured into an energy
6 fund. That makes it hard to achieve these
7 goals.

8 I wanted to kind of come back, and
9 I obviously referenced the clean energy
10 bill -- obviously, there's those
11 advantages as well. We've already heard
12 from Ratepayer and others and Frank Felder
13 from Rutgers Energy Institute, which
14 certainly talked about the importance of
15 evaluation for the Office of Clean Energy.

16 I wanted to thank the BPU staff
17 because they have obviously been working
18 to make the Office of Clean Energy
19 effective. And if they could -- there's
20 been honesty within the program on using
21 outside consultants like ERS to talk about
22 how the program can get better.

23 And just -- as a place of summary,
24 I wanted to reference the executive
25 summary that was issued in 2016 and then

1 pushed out in early 2017. It talks about
2 program motivations and goals, that
3 specifically there needs to be -- the
4 Office of Clean Energy is higher in its
5 goals, but there's no clear consistent
6 strategy for getting specific objectives,
7 targets, and metrics.

8 And, number two -- or item number
9 three, marketing activities are
10 underfunded. These are just averages.
11 Number five, customers and trade allies or
12 happiest with the result, but not the
13 process involved, and burdensome. Number
14 six, there's little evaluation and
15 measurement and verification of data from
16 proven program performance. And then,
17 number seven, more comprehensive and
18 specific programs will benefit from
19 adjustments.

20 So already there is an on-going
21 process to make things better for the
22 Office of Clean Energy, but there needs to
23 be the state funding to make that happen.

24 We've already heard some of the
25 policies that are being discussed. I want

1 to come back to one of them, which I
2 referenced, which is critical, which can
3 provide funding for energy efficiency, and
4 that is RGGI. And obviously the BPU and
5 other agencies are involved in the
6 re-entry process and we have the global
7 warming solution fund. We have the
8 mechanic tool.

9 The negotiation process must have
10 the strongest emissions cap, not only
11 because that's the best way to reduce
12 emissions, but that is the best way to
13 ensure that you're getting more funding
14 and the best in clean energy solutions.

15 And we've seen examples from
16 NISERTA (ph), we've seen examples in
17 Connecticut with their green bank. You
18 know, these are -- you know, this really
19 is the funding that can help us to achieve
20 our clean energy goals. So some of the
21 other initiatives that were mentioned that
22 I think is important to come back to.

23 In terms of marketing, there's
24 been a clear drop in marketing over the
25 course of the clean energy. That's kind

1 of an easy fix for where we're planning to
2 go.

3 I think it's also important to
4 acknowledge that you some of the
5 lowest-hanging fruit, especially on
6 lighting, We're not there yet entirely,
7 but obviously larger improvements are
8 going to be harder, and so we need to be
9 able to have the funding to be able to go
10 after, not just the low-hanging fruit, but
11 some of the larger challenges.

12 I wanted to talk specifically --
13 and this gets into more into the '20s of
14 economic growth, workforce development,
15 those questions, as well as environmental
16 justice. Someone -- the progress that we
17 were making a decade ago through some of
18 the small HVAC contractors and -- and
19 obviously let me know if I'm getting close
20 to time. I want to respect the need to
21 get others to testify here.

22 But I think it's critical to know
23 that eight years ago, the EDP, the current
24 Supreme Court Justice Lee Solomon, the
25 former BPU president at the time, heard an

1 earful from more than a hundred HVAC
2 contractors saying please do not raid the
3 funding because it will put us out of
4 business or it will reduce our clients.

5 And we've seen that come to
6 fruition, whether it be the training
7 programs right here in Trenton, the Isles
8 with the Center for Energy -- CEET
9 program. That is a training program that
10 is incredibly important, and they've had
11 to cut back -- we see private companies,
12 when Princeton Air that advocated for more
13 workforce training programs, they've had
14 to cut back their programs because of the
15 raids of the Clean Energy Fund.

16 So when we talk about the impact
17 of energy efficiency, we need to have
18 bold, ambitious goals, and we need to have
19 that 30 percent reduction in energy
20 efficiency by 2030, but we need to make
21 sure that we have the funding in place to
22 be able to achieve those goals.

23 And I just wanted to conclude by
24 saying that our hearts in New Jersey
25 obviously go out to those of our friends

1 and family and literally millions of other
2 Americans in the Southeast right now.
3 People are suffering from Hurricane
4 Florence, and we need to remember that
5 energy efficiency is not just about hot
6 water heaters, it's about reducing carbon
7 and reducing air pollution, and ultimately
8 saving lives. Thank you so much.

9 MS. BLUHM: Thank you, Doug. I
10 can let you know we are working on some of
11 the items that you discussed and we're
12 very excited for that addition as well.
13 So thank you.

14 Next up will be Jonathan Cloud,
15 after that that William Atkinson, and then
16 David Pringle

17 MR. JONATHAN CLOUD: Hi. I'm
18 Jonathan Cloud, executive director of New
19 Jersey PACE. Properly Assessed Clean
20 Energy, or PACE, is an innovative means of
21 financing clean energy and resiliency
22 improvements in buildings. We provided a
23 brief overview of PACE last week in
24 connection with this session, clean and
25 renewable power. This week I want to

1 focus on PACE's relevance to energy
2 efficiency.

3 In fact, more than 50 percent of
4 PACE projects nationwide have been focused
5 on energy efficiency improvements, Compare
6 with about 25 percent over another 25
7 percent of mixed energy efficiency and
8 renewable energy. The main reason for
9 this, I think, is there are a variety of
10 methods for financing solar, including our
11 purchase agreements and leases, but There
12 are far fewer methods for financing energy
13 efficiency and upgrades.

14 Just to re-cap some of what we
15 said last time, PACE has been adopted by a
16 majority of U.S. states since its
17 invention in California in 2008. Most
18 recently, both Pennsylvania and Delaware
19 passed PACE bills and their respective
20 governors signed them into law, bringing
21 the number of states to 36, plus the
22 District of Columbia.

23 New Jersey updates legislation in
24 2011, but unfortunately the present
25 statute is missing key elements that would

1 allow its adoption in the Garden State.
2 We've been working with the legislature
3 for several years to draft amended
4 legislation, which we hope to see signed
5 into law later this year.

6 PACE allows property owners to
7 make energy and resiliency improvements
8 with 100 percent long-term off-balance
9 sheet financing. This financing is
10 secured by a voluntary special assessment,
11 like the Bergen (ph) municipality.
12 Special assessments are widely used in New
13 Jersey to finance improvements such as
14 sidewalks, sewers, and libraries, just to
15 name a few. The Key difference here is
16 that PACE is voluntary and is tailored to
17 the needs of each individual property to
18 make major improvements and pay it off in
19 terms of as much as 30 years.

20 Our brief to the EMP lays out the
21 features, benefits, and potential for PACE
22 in New Jersey and suggests that over the
23 next several years it can play an
24 important role in the transition to 100
25 percent clean energy. PACE has the

1 potential to literally remake and
2 transform the bills environment around us.

3 Major energy retrofits can make
4 our buildings both more efficient and more
5 comfortable year round, saving money and
6 cutting carbon emissions. It is estimated
7 that 50 percent of all the energy produced
8 in the U.S. is wasted. PACE energy
9 efficiency projects typically cut building
10 energy costs by 30 percent or more. Most
11 projects are cash-flow positive from the
12 get-go. Fiscally driven property owners
13 will typically demand that their ongoing
14 savings always exceed their out-going
15 costs. The good news is that with PACE
16 property owners reap immediate and
17 on-going cost savings while using someone
18 else's money.

19 Meanwhile, the investor is
20 receiving an attractive rate of return on
21 an investment that is highly secure, being
22 repaid through the town's property tax
23 collection mechanism.

24 There are very strong market
25 incentives, therefore, to encourage

1 utilization of private capital and they're
2 enabled by state-based legislation that
3 allows municipalities to exercise the
4 governmental power at literally no cost to
5 the public to secure the improvement
6 loans. The estimated potential for
7 investing in existing buildings alone
8 exceeds \$130 billion in the state based on
9 an informal market assessment by New
10 Jersey PACE.

11 One of the passage of new
12 applications for PACE is the new
13 construction, where the green elements of
14 the project may represent up to 30 percent
15 of the cost, thereby reducing the
16 requirements for equity or more costly
17 doesn't mean financing. PACE is expected
18 to become a standard component of the real
19 estate developer's capital stack.

20 Consequently, PACE may prove to
21 have as great, if not a greater, impact on
22 building performance as the historical
23 deployment of incentives through the New
24 Jersey Clean Energy Program. PACE does
25 not compete with any of these incentives,

1 but rather provides a complimentary
2 mechanism to facilitate the uptake of both
3 programs. Financing whatever is not
4 covered by subsidies or other incentives
5 simply removes another barrier to property
6 owner acceptance.

7 The benefits of PACE to the public
8 include carbon reduction, improving
9 ability to stock up the community, and
10 economic development. For every \$1
11 million of investment and improvements, 50
12 jobs are created. PACE is voluntary for
13 both the municipality and the property
14 owner. There is no expense to tax payers
15 or ratepayers. Property owners get
16 savings that are greater than costs
17 including the cost of (inaudible). PACE
18 is one of the few ways of reliably
19 financing energy efficiency improvements
20 over the useful life of these improvements
21 in a way that benefits everyone involved
22 in the process.

23 As you know, we have provided a
24 full set of comments to the EMP and we're
25 happy to provide comments and respond to

1 any questions. Thank you.

2 MS. BLUHM: Next up is Will
3 Atkinson. Following Will will be Dave
4 Pringle and then Murray Bevan.

5 MR. WILL ATKINSON: Good morning,
6 everyone. My name is Will Atkinson, and
7 I'm part of Princeton Student Climate
8 Initiative. So I have some general
9 comments on our group's state-ordered
10 outreach, but first I'd like to remind
11 everyone why we're all here.

12 Because in the recent months
13 lighthouse states have suffered the impact
14 of climate change firsthand. One friend's
15 home was destroyed by a Washington
16 wildfire, while another's was flooded out
17 by Hurricane Harvey. Here in New Jersey,
18 unchecked sea level rise will have
19 hundreds of thousands of our residents
20 relocated by 2100. So as you see today,
21 we can make a difference, but we have to
22 convince stakeholders.

23 At Princeton Student Climate
24 Initiative, I've taken this mindset to
25 heart. In the past, we've met with over

1 80 stakeholders to inform our research on
2 carbon pricing, and we're presenting that
3 research at the first ever international
4 carbon pricing leadership conference in
5 New Delhi, India. We plan to submit our
6 findings to the EMP process.

7 Tomorrow, Ivan (inaudible) is
8 hosting the State of New Jersey trial
9 pilot policy stakeholder forum. This
10 event will convene over 40 (inaudible) of
11 the first sectors creating state
12 satellite, utilities, distances, and
13 financial views on many that are actually
14 here today.

15 And to follow on these hearings,
16 this event will actually enable
17 stakeholders to engage in small group
18 discussions, allowing for more advanced
19 policy discourse. We plan to submit our
20 perspectives on topics from RGGI to vote
21 efficiency and submit these to the EMP
22 process as well.

23 So in sum, we thank you, but we
24 know that this is our future, and we hope
25 to make a difference by providing more

1 support and input to the process. Thank
2 you very much.

3 MS. BLUHM: Thank you. Dave
4 Pringle? Then after him will be Murray
5 Bevan and Dennis Hart.

6 MR. DAVID PRINGLE: Thank you
7 again. My name is David Pringle. I'm
8 here representing Clean Water Action,
9 which is a national environmental advocacy
10 group. We have over 100,000 members in
11 New Jersey. We'll also be submitting more
12 detailed testimony in our comments today.

13 Reducing consumption obviously
14 makes it a heck of a lot easier, but it's
15 also critical to meeting the governor's
16 clean energy goals by 2050. It's
17 obviously easier to produce less than
18 more, so let's get to that goal.

19 Done right, it's going to save
20 consumers money, promote environmental
21 justice, protect public health and private
22 property. And when we say consumer
23 savings, we don't just mean individual
24 pocketbook. Industry, for as long as I've
25 been an advocate here in New Jersey for

1 thirty years, has been screaming about
2 high electricity rates getting in the way
3 of profits and job creation, and it's only
4 -- obviously reducing consumption will
5 save business lots of money, create
6 wonderful opportunities.

7 With all that said, we
8 respectfully suggest that we need to
9 reclaim the discussion here. The
10 questions raised in the best practice
11 address and the discussion is all very
12 good points, but there is some critical
13 missing points.

14 Energy efficiency and demand
15 response are important, but conservation
16 is just as, if not even more, important.
17 And too often conservation is overlooked
18 or confused with these two other
19 strategies. They're all critical if we're
20 going to get to where we need to go.

21 Principally, what's conservation
22 versus demand-response versus energy
23 efficiency? Preservation is how much
24 power do we need, and energy efficiency is
25 how well we produce that power, demand

1 response is when we produce that power.

2 And we really need a hierarchy
3 here. We really need to prioritize. I
4 like to use the analogy of -- in our mind,
5 that priority should be number one, and
6 throughout the frame work of the Energy
7 Master Plan should be conservation,
8 followed by energy efficiency, followed by
9 demand response, and then finally clean
10 renewables.

11 In 2050, that's it. Between now
12 and then we're obviously transitioning,
13 we're ratcheting down on nuclear and
14 fossil fuels, because, as we discussed
15 last Friday, neither of those meet the
16 governor's definition of clean energy.
17 That also includes no new fossil fuel and
18 nuclear energy in the interim. And in
19 doing so, we retire the most dirty and
20 most dangerous plans first.

21 The hierarchy I like to use as
22 analogy is our solid waste hierarchy.
23 Everybody thinks recycling's great. Well,
24 it is compared to land-filling and
25 incineration, but there's actually three

1 much better strategies to managing our
2 solid waste than recycling, and that's
3 first and foremost, scorch reduction,
4 followed by reuse, followed by composting.
5 Recycling is actually number four, with
6 land-filling and incineration the last
7 resorts.

8 I think we need to transfer that
9 kind of thinking from solid waste to
10 energy. At various times we've done a
11 better or worse job in the last 30 years
12 on solid waste in terms of that priority,
13 but we have, generally speaking, done a
14 better job on the solid waste side with
15 that kind of a hierarchy than we have had
16 on the energy side.

17 So a little repetition and just a
18 couple points to build on what other folks
19 have said. Conservation often gets a bad
20 name, maybe aggravated by a certain
21 president's fireside chat in the 1970s
22 about everybody putting on a sweater and a
23 winter coat, and that's not what we mean
24 by conservation. Individuals obviously
25 have a role to play, but we need to work

1 correctively with society. Mandatory
2 recycling was a lot more effective than
3 what we did when I was a kid in the '70s,
4 which is, you know, some folks who were
5 motivated picked up the bottles and cans
6 and brought them to the local recycling
7 center.

8 So we need -- while individuals
9 have their role, individuals tend to
10 control when they turn off a light or how
11 hot their -- what they set their air
12 conditioning and heat at. We really do
13 need this much stronger state-wide across
14 the board...

15 In terms of pricing those
16 buildings -- building design and building
17 codes, compliance standards, hard grid,
18 obviously it goes without saying we need
19 to get that -- we're not going to get the
20 one and a half billion stolen from the
21 clean energy fund back, but we certainly
22 can make it not worse in the future.
23 Price signals, load spreading all have
24 their role.

25 I'd like to look at helping folks

1 understand better what conservation is
2 versus energy efficiency. Conservation
3 is, you know, are the light bulbs on or
4 not; Efficiency is how good is that light
5 bulb.

6 There is a ton we can be doing in
7 terms of building design and site
8 improvement standards and construction
9 code. How a house is sited on land has a
10 huge impact on how much energy it needs.
11 Whether -- where you -- not just is your
12 roof south facing, are your windows south
13 facing, what kind of trees are around.

14 Folks don't appreciate the impact
15 trees have on climate adjustment on your
16 house. If your trees are sited correctly,
17 they provide cover and cooling in the
18 summer, and they provide heating by
19 letting the sun through in the winter.
20 The color of your roof, whether you have
21 tiles or carpet at your south-facing
22 windows, how well those tiles absorb or
23 don't absorb heat.

24 All of those things, obviously
25 people can make individual decisions, but

1 through the building codes and
2 construction codes and site designs and
3 municipal land use law, the state can have
4 a tremendous role in determining how much
5 power we need in the first place, let
6 alone how we reduce that power.

7 I think with that -- I think the
8 last main point I want to hit here is
9 environmental justice, just because we
10 need to flag it every single time. Again,
11 not to beat a dead horse, but Friday
12 mornings at ten o'clock in Trenton, we
13 need more diversity in that, we need more
14 outreach.

15 And all of these policies
16 absolutely fundamentally need to be bent
17 toward environmental justice.
18 Overburdened communities have suffered
19 disproportionately, and we really have to
20 prioritize those communities in the
21 solutions here. Thank you.

22 MS. BLUHM: Thank you, David. Up
23 now is Murray Bevan, after that will be
24 Dennis Hart and Henry Gajda.

25 MR. PRINGLE: I need one more

1 minute. I can't believe I forgot.

2 Absolutely and most importantly we need an
3 energy efficiency portfolio standard that
4 requires a 30 percent reduction below 2015
5 levels for natural gas and electric usage.
6 And we need clear in our benchmarks
7 between now and 2030 to get us there.
8 Thank you.

9 MS. BLUHM: Lisa, can Gabrielle --

10 MS. GABRIELLE FIGUEROA: My name
11 is Gabrielle Figueroa, I work for the law
12 firm of Bevan, Mosca & Giuditta, P.C., and
13 I am testifying today on behalf of the
14 Retail Energy Supply Association. I
15 promise I will be brief.

16 RESA is a diverse group of retail
17 energy suppliers that offer a variety of
18 electrical and gas products, as well as
19 energy efficiency tools that can help the
20 state achieve its energy efficiency goals.

21 We do plan on submitting detailed
22 written comments on the topics that are up
23 for discussion today, as well as last
24 week's topics, and I think on some of the
25 other topics we expect to see roll out in

1 the next couple of weeks.

2 So in previous iterations of the
3 Energy Master Plan, retail suppliers
4 really did not get a lot of recognition,
5 and this is an opportunity to kind of
6 bring retail suppliers back into the fold
7 a little bit in this current Energy Master
8 Plan process. Suppliers are by and large
9 indifferent to energy efficiency measures,
10 we don't need any of that.

11 Retail suppliers -- I will say
12 that one of the big things that we want to
13 see is the introduction of Advanced
14 Metering Infrastructures, smart metering
15 technology, AMI. By introducing AMI, you
16 bring literally every single citizen in
17 New Jersey into the -- creating better
18 energy efficiency measures.

19 Retail suppliers have amazing
20 software and technology that can help
21 consumers better state their energy and
22 you literally hit every single person in
23 New Jersey hard with the state's energy
24 efficiency goals when you give them the
25 smart meter. We know that the Board has

1 directed the utilities to do cost-benefit
2 analyses, but one thing AMI is going to
3 cost we know that Rockland Electric
4 already has proposed installing AMI. We
5 encourage the Board to move forward with
6 the process.

7 Suppliers are already equipped to
8 provide clean and energy efficient
9 technology. We encourage the Board to
10 open up clean energy dollars so that
11 suppliers can access this money to better
12 benefit New Jersey ratepayers. Let the
13 market decrease funds. We encourage --
14 the Board should consider pilot projects
15 where suppliers and other competitive
16 parties can bid for these dollars, and
17 that will help better spread these funds
18 out.

19 Utilities do a good job with
20 energy efficiency, but they're not always
21 the best providers of energy efficiency.
22 We know that the Clean Energy Act recently
23 passed in May requires the utilities
24 across the board to reduce energy
25 consumption. Retail suppliers can help

1 get there, and we want to help. We're
2 fine with the utilities getting that
3 credit, but we believe we can be a part of
4 this process. We want to be a part of
5 this process.

6 I actually don't have anything
7 else, but I appreciate the time. Thank
8 you.

9 MS. BLUHM: Thank you. Dennis
10 Hart? And Henry Gadja will be up next,
11 and then after that, Jeff Tittel.

12 MR. DENNIS HART: Good morning,
13 Grace, Sara, everyone on the panel, thank
14 you for the opportunity to speak here this
15 morning. My name is Dennis Hart, I'm the
16 executive director of the Chemistry
17 Council of New Jersey, representing over a
18 hundred firms in New Jersey in the
19 business of chemistry, chemical
20 manufacturing, pharmaceutical
21 manufacturing, and refining industry.

22 I think the effort that you're
23 undertaking is extremely important to the
24 future of New Jersey for a number of
25 reasons. I submitted to you detailed

1 testimony, and I'm only very briefly going
2 to go over what I think is the biggest
3 issue that we in manufacturing face in New
4 Jersey.

5 And you've heard it before, and
6 that's the high cost of energy. In our
7 recent survey of our membership from June
8 and July of 2018, respondents from the
9 11th consecutive year unanimously ranked
10 energy costs as one of the top issues and
11 concerns facing New Jersey manufacturers.
12 One can understand why, since New Jersey's
13 industrial energy rates are already eighth
14 highest in the country, and on average 45
15 percent higher than our competing
16 industries around the country. It's
17 difficult for businesses to maintain the
18 operations of New Jersey. For some
19 energy-intensive products, energy for both
20 fuel and power and feed stock represents
21 85 percent of the cost of manufacturing.

22 Because energy's a vital component
23 in industry's cost structure, higher
24 energy prices can have a substantial
25 impact on jobs and the bottom line and the

1 economy of the state. With the
2 implementation of the nuclear credit bill,
3 the green energy bill, and the ongoing
4 rate cases, the cost for energy is just
5 going to continue to go higher, making
6 doing business in New Jersey
7 unsustainable. Because energy represents
8 the largest expense in manufacturing,
9 energy manufacturing -- manufacturing has
10 put a substantial effort into energy
11 efficiency already.

12 Since the 1970s, energy companies
13 in New Jersey have reduced their energy
14 usage by over 50 percent already and what
15 we hope is that the implementation of any
16 energy efficiency program is not going to
17 result in higher costs to energy, but
18 reducing the energy that we use, but not
19 the cost of energy.

20 Prior speakers have talked about
21 the raiding of state funds from the clean
22 energy fund and other funds in New Jersey,
23 which is extremely common and unfortunate
24 in our current economy. But unless we
25 deal with the high costs of manufacturing

1 in this state, the clean energy fund and
2 those energy funds will never be available
3 for their intended purposes. They will
4 continue to be raided as part of the
5 state's economy.

6 The only way those funds are going
7 to be available is by reducing the costs
8 of doing business, allowing more
9 businesses to move to New Jersey, to
10 expand in New Jersey, then add to those
11 funds, as opposed to those funds being
12 raided for state business.

13 So thank you for that opportunity,
14 and good luck to all of you. Thank you.

15 MS. BLUHM: Henry, from the League
16 of Conservation Voters, Jeff Tittle, then
17 we'll have Barbara Blumenthal after that.

18 MR. HENRY GAJDA: Henry Gajda, New
19 Jersey League of Conservation Voters. I
20 thank you for the opportunity to speak
21 here today. The New Jersey League of
22 Conservation Voters worked very closely
23 with legislators and administration to
24 pass the clean energy bill, which calls
25 for two percent efficiency (inaudible).

1 Efficiency provides the single
2 widest and most cost-effective opportunity
3 to cut global warming pollution while
4 cleaning the air, creating jobs, and
5 saving businesses money. It costs at
6 least 50 percent less and carries less
7 risk than building power plants,
8 transmission lines, or pipelines.

9 In 2017, buildings account --
10 accounted for about 76 percent of
11 electricity that's used and 40 percent of
12 all U.S. primary energy used and
13 associated greenhouse gas emissions.

14 This is a prime opportunity for
15 improved efficiency, and by 2030 building
16 energy use could be cut by more than 20
17 percent using technologies (inaudible)
18 today and by more than 35 percent in three
19 years. Research goals aren't met.

20 There are vast good local job --
21 there are vast good employment
22 opportunities in energy efficiencies, and
23 as of now more than 33,000 people working
24 in energy efficiency sector comprising of
25 13 percent of construction jobs, and 25

1 percent of all energy-related jobs with
2 the New Jersey law. Therefore, making
3 more investment in energy efficiency
4 standards will increase the local job
5 opportunities for all, specifically those
6 who are in New Jersey.

7 However, in pursuing aggressive
8 energy efficiency targets and meter market
9 value does exist, utilities are not
10 incentivized under the current model to
11 improve energy efficiency, causing the
12 (inaudible) to hit the bottom line.

13 Decoupling turns traditional -- turns the
14 traditional rate market on its head by
15 breaking a link between energy sales and
16 revenue.

17 Decoupling keeps revenue steady
18 and reduces financial risk and capital
19 costs for the utility and keeps customers'
20 energy costs in check with considerable
21 benefits for low-income households because
22 the money they aren't spending on energy
23 is money that goes directly back in their
24 pockets without being needed for public
25 financial assistance to help pay for their

1 electricity.

2 Some low-income households are
3 spending nearly 20 percent of their income
4 on utility bills because they're more
5 likely to have less efficient appliances
6 and systems within their homes, and,
7 therefore, decoupling offers exciting
8 opportunities to promote utility-run
9 energy efficiency programs, (inaudible)
10 home, off-brand rebates, and for the
11 purchase of energy efficiency -- energy
12 efficient appliances and more efficient
13 light bulbs and should be actually
14 explored within this process.

15 In addition, low-income customers
16 face numerous barriers to participation in
17 efficiency programs. This makes
18 well-designed, specifically targeted
19 efficiency programs for low-income
20 customers a crucial topic to consider
21 doing this.

22 Therefore, we recommend to BPU to
23 set a goal for energy efficiency delivered
24 to low-income customers. States have
25 taken a variety of approaches in studying

1 fiscals within programs such as these,
2 like four-year requirements, ten-year
3 requirements, and four-year savings,
4 carve-outs for public programs.
5 Specifically this has been done in Maine
6 and California.

7 We recommend the BPU to convene a
8 stakeholder group to ensure that programs
9 are well-designed to meet the needs of
10 low- and moderate-income customers, and
11 this ensures that the programs outlined
12 are monitored and evaluated as planned,
13 with the input of the relevant
14 stakeholders who are ultimately going to
15 benefit from these programs.

16 A utility's energy efficiency
17 program for employers should pursue
18 emerging technologies, provide technical
19 support to upgrade building and appliance
20 efficiency standards, deliver education
21 and workforce training for installation in
22 municipal building code enforcement. They
23 should explore pilot programs, work with
24 key partners like local governments and
25 offer competitive solicitations for

1 innovation technologies and programs. And
2 ultimately they should encourage demand
3 response initiatives for the public.

4 Moreover, clean energy funds
5 should stop being raided and used for
6 their -- and solely used for their
7 outlined purposes. The Board should also
8 commission a study to determine, one, the
9 level of a full-cost effective efficiency
10 down to a two percent minimum, including
11 savings from a robust appliance standard
12 building code, recognizing that new
13 appliance standards would require
14 legislation. And then, two, maximum time
15 frame for achieving the level of savings
16 possible hopefully within five years.

17 Lastly, we recommend the BPU
18 consider forming a stakeholder advisory
19 board, which is similar to Massachusetts
20 and Rhode Island, which would include
21 expert consultants, who would support
22 utilities' efforts to adopt best
23 practices, help ensure transparency, and
24 provide validation for program performance
25 and any other experimental programs that

1 utilities would deem fit.

2 Thank you for your time.

3 MS. BLUHM: Thank you. Jeff
4 Tittel, then Barbara Blumenthal and David
5 Hughes.

6 MR. JEFF TITTEL: Thank you. And
7 I want to thank the BPU for having this
8 hearing and revisit the Energy Master
9 Plan, especially when it comes to dealing
10 with energy efficiency.

11 The Sierra Club, as the nation's
12 oldest and largest conservation group,
13 understands more than anything else that
14 the best way to protect the environment,
15 reduce greenhouse gases, and save people
16 money is through conservation and
17 emissions. That's what it's about, and
18 that's what we're about.

19 Because more than anything else,
20 we can help businesses in this state grow
21 jobs through energy efficiency, we can
22 save money for ratepayers in our
23 companies, and we have some of the highest
24 costs in the nation. And up until now,
25 all we've been doing in energy efficiency

1 has been hot air because we have turned
2 these clean energy funds into the slush
3 fund for the state legislature and for
4 governors, where we've seen that money
5 being grabbed for everything from licensed
6 building to paying for park salaries so
7 some conservation groups can get more
8 money.

9 We've turned this thing on its
10 head, and because we have done that, New
11 Jersey spends more per energy efficiency
12 than any other state in this region and
13 gets the least return, and that is
14 shameful.

15 And that's why today is important.
16 We have this new administration and a new
17 BPU, and we need to send a message also to
18 this building to stop raiding those funds,
19 whether it's the treasurer, senate
20 president, the head of the budget
21 committee. Hands off. Because they have
22 taken \$1.6 billion out of this fund,
23 almost consistently of \$140 million a
24 year, that has cost us 4,000 jobs per year
25 over the last ten years -- or nine years.

1 That is unconscionable.

2 We work very closely with the
3 laborers union at SCIU to train people
4 here in Trenton and in Paterson and Camden
5 to do work for HVAC systems and
6 weatherization and energy efficiency.
7 We've trained these young people, they're
8 expecting jobs. When that money got
9 raided, those jobs disappeared, and they
10 didn't get those jobs. And HVAC companies
11 have laid off people and everything else
12 because Princeton, who I've used for my
13 house, had to get rid of four crews.
14 That's unconscionable in a state that
15 needs those kind of jobs, in a state that
16 has some of the worst air pollution in the
17 country.

18 Energy efficiency is critical
19 because it lowers the peak demand, which
20 is the dirtiest and most expensive fuels
21 out there -- polluting fuels out there.
22 It helps us during times of those cold
23 snaps in the winter, again, where we get
24 the dirty fuels and high expensive fuels.
25 Energy efficiency reduces it.

1 We have such an untapped reserve
2 for both jobs and for our economy by
3 really grabbing ahold of energy
4 efficiency. The average home in New
5 Jersey, which was built in the '60s and
6 '70s, by adding new windows, buying new
7 fuel-efficient appliances -- energy
8 efficient appliances -- better
9 weatherization, putting in LED light
10 bulbs, getting rid of the instant-on, the
11 always-on TVs and cable boxes, you would
12 reduce energy usage by 30 percent in the
13 average home. Think about that. How many
14 fewer pipelines and power plants would we
15 need if we did that?

16 That's the other critical point.
17 We'll never get to 100 percent renewable
18 energy unless we reduce the amount of
19 energy we need. If we bring our energy
20 use down by 20 percent in this state,
21 well, that means not only don't we have to
22 build power plants in the meadowlands, but
23 more importantly, it means that we can get
24 to the 30 percent that we want to get to,
25 also it could be 40 percent. That's why

1 it's critical.

2 Same thing with solar. If people
3 in the business community complain about
4 some of the higher costs of renewable
5 energy, especially solar, pair that with
6 energy efficiency, the amount of solar
7 we'll need to get to 100 percent renewable
8 will be less and cost ratepayers less. So
9 it has an overwhelming benefit to the
10 economy

11 And so we're here today to say,
12 that we need to move forward in energy
13 efficiency. Eight years ago, ten years
14 ago New Jersey was seventh in the nation
15 in energy efficiency. We're now 22 to
16 24th depending on which study. That is so
17 wrong in a state like New Jersey. It
18 doesn't make any sense when other states
19 like Pennsylvania, Maryland, Delaware,
20 Massachusetts are doing a better job than
21 we are. Because we have some of the
22 highest energy costs and because we
23 haven't worked on energy efficiency the
24 way we should, that's one of the reasons
25 for those higher costs, as long as we do

1 subsidies and other stupid things.

2 The important point that I want to
3 get to is what we need to do. We need to
4 start changing things. We need to adopt
5 the International Green Building Code into
6 our building codes. We need to take the
7 LEED standards and also put them in our
8 building codes. We need to move the
9 Energy Star system from being voluntary
10 for level three to be mandatory for level
11 three. We need to make sure that every
12 state building and any building being
13 funded by the state government or
14 indirectly through tax and current
15 financing as a LEED state, we plan and
16 build them.

17 We need to move forward on
18 upgrading our grid to look at DC current
19 for long transmission, to make our
20 substations more energy efficient, to use
21 battery back-up and other things with them
22 to reduce the amount of loss that we get
23 off of our transmission lines.

24 We need to go out and actually
25 have real rebates and let people know

1 there is a program out there. When I went
2 out shopping for a new furnace, one of the
3 companies in New Jersey said, oh, the BPU
4 doesn't do it anymore. And I pressed them
5 on it, plus I called Joe Fiordaliso and
6 said, here, talk to Joe. We do have that
7 program. He said, oh, I don't want to do
8 the paperwork.

9 We used to -- we have to make sure
10 that we're telling vendors in this state
11 that are working on this issue that they
12 have to promote the most cleanest and
13 highest best use technology when it comes
14 to appliances and energy technology.

15 When I was shopping, I noticed we
16 don't see the big signs about rebates
17 anymore where you go to PC Richards and
18 you buy the Energy Star, energy efficient,
19 you'd get a rebate. We used to do that,
20 we used to mail things to people. We need
21 to get out there and educate the public
22 that there are programs out there.

23 Because the other thing is, the
24 more the public sees it can get a benefit
25 from rebates, the harder it'll be for

1 governors and legislatures to steal that
2 money. And that's why it's critical. We
3 cannot move the state board
4 environmentally without it.

5 We also need to make sure that we
6 go back into RGGI. When we go back into
7 RGGI, that that money is dedicated to
8 energy efficiency and targeted at low- and
9 moderate-income families. We don't need
10 to spend that money on planting butterfly
11 bushes in the middle of an island. We
12 need to make sure that we can reduce peak
13 demand and air pollution in our cities
14 based on energy efficiency.

15 If we invested in energy
16 efficiency in our cities, some of those
17 gaudy power plants will disappear. But
18 more importantly it is the biggest and
19 best compliment we have to renewable
20 energy to get us to our goals.

21 So we're here today to say that we
22 need to make sure that the BPU moves
23 forward, moves forward quickly and
24 aggressively, in reducing energy use by at
25 least two percent, not including in

1 Trenton. Because right now in Trenton,
2 New Jersey, we're reducing energy use by a
3 little bit less than a point per year --
4 percentage point per year. And that we
5 need to get to at least a 30 percent
6 reduction by 2020.

7 We need to also tie this all
8 together in one package. Not only land
9 use and transit villages, but green
10 buildings, more walkable communities,
11 green roofs, blue roofs, better and higher
12 use of materials that are more energy
13 efficient, and also repurposing materials
14 instead of using new materials.

15 And so we put it all together in a
16 package with land use, with energy
17 efficiency, with building codes, with
18 renewable energy, distributed generation.
19 We can really move this state forward and
20 make it sustainable and help protect us,
21 not only environmentally, but also help
22 protect our economy.

23 Thank you, and I am glad this is
24 going forward and glad to work with you
25 more. This is important. Thanks.

1 MS. BLUHM: Thank you, Jeff. Next
2 up is Barbara Blumenthal, then David
3 Hughes, and then Jeffrey Grant. Barbara,
4 are you here?

5 (No response.)

6 So we'll move on to David Hughes.

7 (No response.)

8 Jeffrey Grant?

9 MR. JEFFREY GRANT: Hi. Good
10 morning. Thank you for having this
11 opportunity. I'm Jeffrey Grant. I am
12 with the Mack-Cali Realty Corporation --

13 MR. AUSTIN: Want to turn on your
14 microphone?

15 MS. BLUHM: You have to press the
16 button.

17 MR. JEFFREY GRANT: All right.
18 We'll start again. Good afternoon. Thank
19 you for having this opportunity for us to
20 contribute to this plan. My name is
21 Jeffrey Grant. I oversee the corporate
22 energy program at Mack-Cali Realty
23 Corporation. Mack-Cali is a publicly
24 traded real estate investment trust
25 company. We own primarily commercial

1 office buildings, and we have a division
2 called Roseland Property Group, which owns
3 multi-family residential buildings as
4 well.

5 I'm going to talk generally about
6 the plan as it relates to existing
7 buildings. There is, of course, a huge
8 stock of existing buildings in New Jersey.
9 My role at Mack-Cali has been in making
10 them more efficient with the tenure I have
11 at Mack-Cali.

12 I want to first compliment --
13 well, my credentials are, I'm a mechanical
14 engineer, I'm a certified energy manager,
15 I'm a certified energy procurement
16 professional. I've been in the energy
17 business ever since I graduated college
18 many, many years ago.

19 So a couple of comments on the
20 general nature of things. A few have
21 already talked about. One comment I heard
22 from Mr. DeFeo was, the best kilowatt hour
23 is the kilowatt hour not used. Tittel,
24 who I've never heard him say this before,
25 but I appreciate the comment, He talked

1 about the importance of reduced kW
2 capacity.

3 So I combined those two statements
4 and say, look, the most valuable kilowatt
5 hour is the one not consumed and the most
6 valuable kilowatt is the one not called
7 upon to operate. So in our world, we have
8 been able to become more efficient when
9 applying the large energy user program and
10 Clean Energy Use program. And one of the
11 biggest parts of program is the user is
12 able to self-direct capital to its highest
13 and best use. And the benefit is a
14 33-cent kilowatt hour incentive the first
15 year of energy savings.

16 I want to compare that for a
17 moment to the solar energy program where
18 my electric program pays right now, it's
19 about 22 cents kilowatt hour for energy
20 saved, energy generated rather, for year
21 after year after year.

22 If we compare the two programs and
23 you look at something called the duck
24 curve -- if you don't know what the duck
25 curve is, you can Google it. But in a

1 short explanation is it's in a grid with
2 solar renewable energy. The grid peak
3 doesn't decline for quite a while after
4 the solar energy production declines, and
5 during that period you have a scramble of
6 low efficiency/high operating cost
7 generators that could be activated to take
8 care of the sudden drop in the varying
9 capacity cost by the solar systems.

10 So when that happens, we see
11 capacity costs driving up, we see energy
12 costs driving up. And my point is that in
13 energy efficiency programs let's not just
14 look at incentivizing kilowatt hour
15 savings, in this case the large energy
16 user program at 33 cents a kilowatt hour,
17 but let's also look at incentivizing a
18 capacity reduction that is also achieved.
19 And that capacity reduction can be just
20 as, if not equally, important.

21 The capacity reduction in most
22 energy efficiency projects we have done is
23 significant and applies almost across the
24 board to all of our projects. Some don't
25 have capacity reductions, most do.

1 So my bottom line point is to
2 reconsider good energy programs with
3 purposefully incentivizing efficiency and
4 also incentivize kW capacity reduction.
5 And I thank you very much for your time.

6 MS. BLUHM: Thank you, Jeffrey.

7 Mark Thomas. And following Mark
8 will be Robert DiDomenico and then Amy
9 Henson. Is Mark here?

10 (No response.)

11 Okay. Robert DiDomenico?

12 (No response.)

13 Amy Henson?

14 After that, I have Sally Gellert,
15 Gaylord Olson, and Judd Schweigel. Is
16 Sally here?

17 (No response.)

18 Gaylord Olson?

19 MR. GAYLORD OLSON: Hello. My
20 name is Gaylord Olson. I'm a semi-retired
21 engineer. I'm on the Industrial Advisory
22 Committee for Engineering at Temple
23 University. I'm working with a few other
24 engineers on kind of an informal basis to
25 look into perhaps more efficient and

1 cost-effective heat pump methods.

2 I'd like to make two major points
3 today. And one might seem kind of
4 controversial, but I'll try to explain it
5 and have it make sense. And that is,
6 we've heard the phrase once or twice
7 today, net zero buildings. So a net zero
8 building is assumed to be a building that
9 has solar panels on the roof to give
10 enough electricity on an annual basis
11 supply electrical energy needed for the
12 building. And basically the grid would be
13 used as a -- kind of a -- well, for
14 storage for that situation.

15 Now, thinking about that, I
16 believe that it's not the right thing to
17 do, and I'll explain. There's a vast
18 difference in cost effectiveness of solar
19 electricity for small scale versus large
20 scale.

21 Now, today we have the new
22 possibility of getting into community
23 solar, which would be a large-scale
24 array -- utility scale -- out in a big
25 open field. And so it turns out that if

1 you consider the small roof-top solar
2 cost, one cycle cost, of energy, that is
3 kilowatt hours per year, it's about 2.8
4 times more expensive to have the smaller
5 array giving you your electricity, as
6 compared to a large array on a big open
7 field.

8 And this comparison is done
9 periodically by people at the National
10 Renewable Energy Laboratory in Colorado,
11 which is run by the Department of Energy,
12 so it's a pretty valid source.

13 So think about that. It costs you
14 2.8 times more to get electricity from
15 your roof as compared to the largest
16 possible array that we could put out on an
17 open field that's maybe 100 miles from
18 your home.

19 Now, transferring electricity 100
20 miles is pretty trivial in terms of cost.
21 If you want to transfer it 1000 miles,
22 even that can be done, But it becomes more
23 expensive the further you go. But if you
24 think about a radius of 100 miles around
25 anybody's home here, there are plenty of

1 open fields and perhaps a ground that's
2 not suitable very well for agricultural
3 use.

4 So I would encourage everyone to
5 think about this difference, that is
6 giving people the opportunity -- and this
7 would be open to anybody and everybody in
8 the state the way the community solar
9 program is intended to work. So we
10 wouldn't be excluding anybody, I hope.

11 So -- and there are two other
12 factors that come in when you consider the
13 smallest rooftops on individual homes. If
14 a home has the possibility of having trees
15 around the home, then when the trees get
16 tall enough, there'd be some shade from
17 the trees to give a lower air conditioning
18 bill for the home, so you're saving
19 electricity, reducing consumption, with
20 lower air conditioning.

21 A third factor that can be
22 considered for this is that people that
23 study real estate values find that homes
24 with large trees are worth significantly
25 more than homes without the large trees.

1 And so there's a choice -- I think -- it
2 makes sense to me, and I hope it does to
3 everybody here, that people should get
4 their solar electricity from large arrays
5 away from their home and keep -- if they
6 can possibly do it, keep trees around
7 their home. That was one of the major
8 points I wanted to bring out today as food
9 for thought.

10 The other major point is that
11 there are more efficient ways of heating
12 and cooling buildings that are being
13 developed right now in Europe that are not
14 available or being developed in this
15 country. So we can learn quite a lot from
16 looking at the best ideas coming from
17 countries like Germany and some of the
18 Scandinavian countries.

19 And I'll give you one example,
20 which is something that a few other
21 engineers and I are currently working on,
22 and that is regarding heat pumps. A heat
23 pump is certainly a more efficient way of
24 getting heating and cooling in a building
25 with only electricity being used as

1 compared to, for example, clay resistive
2 heating in a building.

3 So people usually think that
4 geothermal-type heat pumps are the most
5 cost effective -- I shouldn't say it that
6 way, but the least energy intensive way of
7 getting heating and cooling in a building.
8 That is not only true in general -- and
9 the reason that these kind of systems are
10 not used more widely is that the initial
11 cost is too high.

12 Now, the State of New York is
13 looking seriously into getting significant
14 economic benefits to people that put in
15 geothermal heat pump systems for their
16 homes. What I think is possible, is to --
17 well, I should also add, there's a much
18 wider and more widely used type of heat
19 pump, which is an air source heat pump.

20 And people usually think that you
21 have to make a choice, do you want to buy
22 a less expensive air-source heat pump,
23 which is less efficient on the hottest and
24 coldest days of the year, or do you want
25 to pay more money and have a geothermal

1 heat pump, which is efficient regardless
2 of the outdoor temperature, but it had a
3 higher initial cost.

4 Now, it turns out that there's at
5 least one company in Germany right now
6 installing a system that provides the best
7 benefits of both of these types of heat
8 pumps. It would be called a multi-source
9 or hybrid heat pump. And anyone wants to
10 look it up, the name is ThermSelect, and I
11 believe their website is thermselect.de.
12 It's only available in Europe, and another
13 one of my associates and I are looking
14 into whether it's possible to bring that
15 technology into this country, but there
16 are some other ways to do a very similar
17 function, which, again, I believe might
18 end up being the most cost-effective way
19 to provide electrical heating and cooling
20 for buildings.

21 So thank you for your time, and I
22 hope all of these good ideas that are
23 coming out can be put into effect. Thank
24 you.

25 MS. BLUHM: Thank you. Judd

1 Schweigel (ph). And then following him
2 would be Rey Montalvo, Andy Corn, and
3 Robert McCoy.

4 MR. JUDD SCHWEIGEL: Good
5 afternoon, and thank you to the members of
6 the committee for the opportunity to
7 address you today and to provide comments.
8 My name is Judd Schweigel and I represent
9 Schneider Electric, a large industrial
10 company -- global company with facilities
11 in New Jersey, including one large plant
12 with over 500 employees that we recently
13 acquired in northern New Jersey. So I'm
14 here to speak from the perspective of an
15 industrial customer.

16 I am a consultant to Schneider
17 Electric and several other large
18 industrials who are in favor of energy
19 efficiency, including in favor of energy
20 efficiency programs and policies. Energy
21 efficiency is important to Schneider
22 Electric and other large customers in
23 several ways.

24 First, as industrials and as large
25 energy users, energy efficiency helps us

1 to manage and to reduce our energy costs
2 as well as to meet our sustainability
3 goals.

4 Second, we provide services and
5 profits to our customers. We work in
6 power management and energy management,
7 not just efficiency, but with things like
8 switches and controls, we own Square D
9 circuit breakers. So all of our other
10 customers -- energy efficiency helps to
11 reduce their costs and increase their
12 competitiveness as well.

13 And then third, our supply chain,
14 businesses who supply us, energy
15 efficiency helps reduce all of their
16 costs, which helps reduce our costs, and
17 make both them and us competitive. We
18 are, again, a global business -- global,
19 international company.

20 In particular, we have very
21 ambitious sustainability goals, and those
22 goals apply to us, or they apply
23 throughout our entire supply chain. We
24 need to not only meet the standards that
25 we've set for ourselves in our own plants,

1 but we require those standards and those
2 goals to be met by all the supply chains
3 businesses, and we rely on energy
4 efficiencies to help to get us there.

5 So why are energy efficiency
6 policies and programs important to large
7 businesses? It basically comes down to
8 the value of the technical assistance and
9 the financial incentives. Some often ask
10 if energy efficiency is so good and if
11 it's so cost effective, why does a large
12 multi-billion dollar company like you need
13 that, why do you support energy efficiency
14 programs, and why don't you and your
15 suppliers need energy efficiency services
16 and financial incentives?

17 And it basically comes down to
18 this: Within our reality is -- we are
19 competing against many others globally.
20 There's intense competition for resources
21 and capital within our businesses. We all
22 have made the investments in the
23 low-hanging fruit things that have a
24 one-year payback or a one-and-a-half year
25 payback or a 100 percent rate of return,

1 or internal rate of return.

2 However, most of the potential in
3 things like industrial process or in
4 manufacturing, most of that potential now
5 remaining has payback periods of two to
6 eight years. And if I'm going to face the
7 CFO -- Schneider's CFO or any other CFO,
8 and I bring them a project that has a 50
9 percent rate of return or a 30 percent
10 rate of return, which all of us would
11 take -- many of us would take, That
12 project is not going to be funded against
13 the investments that they make in R&D and
14 other areas that basically get funded.

15 So what happens in the utility
16 industry is, utilities go out and they --
17 and other private industry suppliers go
18 out and buy resources on our behalf that
19 cost two, three, four times more than the
20 energy efficiency in our plant, and then
21 we're forced to pay for those investments
22 year after year after year because of the
23 way they're capitalized.

24 Yes, we have energy efficiency
25 that we could do in our plants. That

1 doesn't mean our internal cost -- the
2 requirements, our investment criteria, but
3 far surpass investment criteria for us as
4 a New Jersey customer and all other New
5 Jersey customers.

6 So the cost of energy efficiency
7 is a very high priority for us and strong
8 programs with high levels of investment
9 and quality services delivered to
10 customers, those are the things we need to
11 be able to compete. We have multi-year
12 projects, so we need the flexibility to
13 design a project in 2018 that may not be
14 implemented until 2020 and 2021, so it's
15 important for us to have both market and
16 regulatory certainty.

17 Policies such as plans -- a plan
18 that you all are working on -- but also
19 state policies, such as appliance
20 standards or resource standards, we have
21 found to be very effective in other states
22 to allow our planners to develop
23 investments, design investments, and then
24 to be able to have the confidence to
25 follow through with those investments

1 because we can be sure that when working
2 with the program suppliers, that those
3 products can actually be done. Plus, the
4 commitment of the financial incentives are
5 going to be available three years from
6 now, not just immediately. So that's
7 important to us.

8 So we support these programs that
9 provide value to customers and that meet
10 customer need. We encourage the program
11 supplier to take into account the unique
12 situations of industrial customers and to
13 meet us, the needs that we have. We like
14 system approaches that are -- include, but
15 are not necessarily limited to, industrial
16 process, new construction, controls for
17 lighting and HVAC. These are areas where
18 new technologies and advancements in
19 automation, something that we are a global
20 leader in, these new technologies and
21 automations can provide new opportunities
22 for energy efficiency.

23 We also support small business
24 programs and mid-size business programs,
25 again, that help our supply chain deliver

1 cost savings to us and help meet our
2 sustainability goals. And we support
3 performance contracting for schools,
4 governments, municipalities, and others,
5 hospitals, for example, healthcare
6 facilities, that can help businesses meet
7 high levels of energy efficiency and help,
8 again, provide that technical assistance
9 and the financial assistance as well.

10 In addition to energy efficiency
11 and reducing energy costs, we support work
12 and coordination of the energy efficiency
13 activities with activities for micro
14 grids, for grid modification, for
15 electrification, which is going to be very
16 important for New Jersey to meet its
17 overall climate goals as well as its
18 energy efficiency goals. And we support
19 energy efficiency in transportation.

20 So with that, again, thank you for
21 the opportunity, and I encourage you to
22 consider the use of industrial customers
23 in your developmental plan. Thank you.

24 MS. BLUHM: Thank you very much.
25 Rey Montalvo followed by Andy Corn, Robert

1 McCoy, and then Debra Coyle.

2 MR. REY MONTALVO: My name is Rey
3 Montalvo. I'm president and CEO of
4 Consolidated Energy Design. I've been in
5 the energy business for 44 years, and
6 because everybody's hungry and because we
7 only have 10 minutes, I'm going to get
8 right down to what does concern me over
9 these past 44 years.

10 When we look at utility bills,
11 there's two components, kW and kWh. But
12 for some reason here in New Jersey we only
13 pay attention to part of that energy bill,
14 we pay attention to the kWh. That's what
15 we incentivize people for, but we never
16 incentivize people for the kW and
17 reduction, and that represents anywhere
18 from 30 to 40 percent of the bill. So if
19 we really want to help people of New
20 Jersey, we need to reward people for
21 reducing the energy demand.

22 Now, the Board of Public Utilities
23 has been doing an admirable job,
24 especially with programs over the last 35
25 years, such as paying for performance, and

1 the new customer tailored energy
2 efficiency. But now we need to have a
3 major paradigm shift as Governor Murphy
4 has envisioned. California's been doing
5 this for a long time. New York has
6 already embarked on their journey toward a
7 fundamental energy change with their
8 mandate called REV, Reforming Energy
9 Vision.

10 These states understand, and New
11 Jersey needs to understand, that
12 incentives must be made to encourage kW
13 reduction, not just incentives for kWh,
14 which has and continues to be the case.

15 We ask that the Board incentivize
16 fully automated demand enablement because
17 the peak a.m. money that we see for demand
18 response is simply not significant enough
19 to encourage building owners to want to
20 pay for a demand enablement. But by
21 having a demand enablement from the Board
22 through the clean energy program, we can
23 encourage many, many thousands of
24 businesses to do this and this is going to
25 help New Jersey.

1 Currently, kW reduction must be
2 more than just something that we
3 recognize. Gee, that's really great, you
4 guys billed that much kW. No incentive.
5 Instead, it must be incentivized for
6 people to want to do it, for people to be
7 able to afford to do it, because it's a
8 lot easier to drop kWh than it is to drop
9 kW.

10 Now, this has become even more
11 critical as we consider the fact that we
12 want to move into electric vehicles. And
13 we want to move into heating and cooling,
14 which was discussed today, such as heat
15 pumps. Those things are going to increase
16 the stable kW demand capacity that we
17 need, and if we don't address reducing kW
18 reduction now, we will not be able to
19 achieve these goals later.

20 So where a company by energy
21 storage will help out, but we need
22 destructive new tech -- innovative
23 technology to actually accomplish this.
24 Governor Murphy has clearly seen that new
25 destructive innovation is critical to

1 only in this area, but to increase jobs
2 with decent wages and decent benefits to
3 help New Jersey get out of the financial
4 crisis it finds itself in.

5 The Board needs to incentivize kW
6 demand reduction. They need to
7 incentivize kW demand enablement or else
8 that destruction's not going to happen,
9 and they need to incentivize disruptive
10 energy innovation, because only then will
11 we achieve our future electric vehicle and
12 clean energy goals and actually start
13 saving significant money on our total
14 electric bill, not just part of it.

15 Thanks for giving me your time.

16 MS. BLUHM: Thank you very much.

17 Andy Corn. Andy, going once? Going
18 twice?

19 (No response.)

20 Robert McCoy.

21 MR. ROBERT McCOY: I'll put my
22 comments in writing.

23 MS. BLUHM: Okay. Great. Thank
24 you. Robert McCoy? Oh, sorry, yes.

25 Okay. Wasn't sure if you were Andy or

1 Robert.

2 Debra Coyle? And Debra is the
3 last speaker that signed up. If anyone
4 else wishes to speak, then if you could do
5 me a favor and just pass your card up here
6 so I can read your name into the record.
7 And, if not, then, Debra, you are in
8 between us and lunch.

9 MS. DEBRA COYLE: I am going to
10 also submit comments. I will be like 60
11 seconds because they look very hungry.

12 So my name is Debra Coyle. I'm
13 the acting executive director of the New
14 Jersey Work Environment Council and we're
15 partnered in Jersey Renews. And, like I
16 said, I will submit written comments, but
17 a couple of just very quick points.

18 When we talk about energy
19 efficiency, particularly in manufacturing,
20 the high cost of energy in the state and
21 it is an issue, one thing I would like to
22 be considered is New Jersey should support
23 policies and measures that expand use of
24 industrial energy efficiency technologies
25 that will serve to reduce greenhouse gas

1 emissions, maximize efficiency, reduce
2 waste, and help industrial facilities to
3 be more competitive nationally and
4 globally.

5 We'd also like to see improving
6 energy efficiency savings and requiring a
7 30 percent reduction below 2015 levels for
8 electric and natural gas use in New
9 Jersey.

10 And in my written comments I will
11 also spew more detail, but I would also
12 like to bring up the green building
13 standards for newly existing construction
14 and examining and updating building
15 on-load and efficiency codes and
16 requirements; and, finally, establishing
17 an energy data transparency.

18 The New Jersey Board of Public
19 Utilities could give building owners and
20 managers electronic access to monthly
21 whole building aggregate energy
22 consumption data with reasonable aggregate
23 energy protections for tenants being able
24 to meet and verify energy reduction
25 critical.

1 And as many people have mentioned
2 today, I think an important step is also
3 to stop raiding the clean energy fund.
4 And I'll stop there. Thank you very much
5 for your time.

6 MS. BLUHM: Thank you. And thank
7 you everyone for participating today.
8 Again, I just want to do another open call
9 in case there's anybody who has any
10 comments they'd like to share with us.
11 Feel free to come up to the mic.

12 Otherwise, that will conclude our
13 stakeholder meeting for reducing energy
14 consumption. We appreciate all of your
15 comments and feedback. The committee will
16 be deliberating, as Grace mentioned, and
17 we'll be reviewing all of your comments on
18 this.

19 If you are going to write written
20 comments and have not yet submitted them,
21 please remember they are due by October
22 12th to emp.comments@bpu.nj.gov, which is
23 on the screen. It's also in the notice
24 and the discussion point that are on the
25 table in the room.

1 This is not your only opportunity
2 to comment. After the draft plan comes
3 out, as Grace mentioned, we will then have
4 public stakeholder meetings and have the
5 draft plan be open to comments as well,
6 too.

7 If you're looking to participate
8 in our other meetings, we still have three
9 stakeholder meetings coming up. The next
10 one is next Thursday here in the State
11 House on Clean and Reliable
12 Transportation, then on September 24th,
13 Building a Modern Grid, and on September
14 28th, Sustainable and Resilient
15 Infrastructure.

16 Thank you all for coming out.
17 Have a good day.

18

19

- - - -

20 (The proceedings adjourned at 12:45 p.m.)

21

- - - -

22

23

24

25

C E R T I F I C A T E

STATE OF NEW JERSEY)

) ss.

COUNTY OF BURLINGTON)

I, LAURA P. REAM, a
Shorthand (Stenotype) Reporter and
Notary Public of the State of New
Jersey, do hereby certify that the
foregoing hearing, taken at the time and
place aforesaid, is a true and correct
transcription of said deposition.

I further certify that I am
neither counsel for nor related to any
party to said action, nor in any way
interested in the result of outcome
thereof.

IN WITNESS WHEREOF, I have
hereunto set my hand this 3rd day of
October, 2018.

Laura P. Ream

LAURA P. REAM

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