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HOUSE OF REPRESENTATIVES
COMMONWEALTH OF PENNSYLVANIA
ENVIRONMENTAL RESOURCES AND
ENERGY COMMITTEE

IN RE:

ENERGY POLICY FOR PENNSYLVANIA

NORTH OFFICE BUILDING
HEARING ROOM 1
HARRISBURG, PENNSYLVANIA

TUESDAY, NOVEMBER 1, 2005; 9:00 A.M.

BEFORE:
HON. BILL ADOLPH, CHAIRMAN
HON. CAMILLE GEORGE
HON. GIBSON ARMSTRONG
HON. MARTIN CAUSER
HON. JACQUELINE CRAHALLA
HON. KATE HARPER
HON. SCOTT HUTCHINSON
HON. DAVID LEVDANSKY
HON. JENNIFER MANN
HON. MICHAEL McGEEHAN
HON. CHARLES McILHINNEY
HON. RON MILLER
HON. JEFFREY PYLE
HON. KATHY RAPP
HON. DAVE REED
HON. CHRIS ROSS
HON. CAROLE RUBLEY
HON. RICHARD STEVENSON
HON. DAN A. SURRA
HON. JOHN T. YUDICHAK
HON. JIM WANSACZ

BRENDA S. HAMILTON REPORTING
P.O. BOX 165
ELM, PENNSYLVANIA
717.627.1368

1

2 ALSO PRESENT:

3 JOSEPH DEKLINSKI, EXECUTIVE DIRECTOR

4 MARK BROWN, RESEARCH ANALYST

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1 P R O C E E D I N G S

2 CHAIRMAN ADOLPH: Good morning. At the hour
3 of nine o'clock, I'd like to call to order the
4 informational meeting on energy policy. I'd like to
5 welcome everyone to this meeting of the Environmental
6 Resources and Energy Committee.

7 I'd also like to extend a special welcome
8 and thank you to all the presenters today. I know
9 that each of you spent a great deal of time preparing
10 for this meeting and we appreciate your effort.

11 Today's the second session on our energy
12 policy in Pennsylvania which we kicked off last month.
13 I would like -- I look forward to hearing from today's
14 panelists. The subjects are quite timely ranging from
15 a perspective of our energy regulators, the Public
16 Utility Commission, to the role energy efficiency can
17 play, to alternative energy and how important those
18 various forms of energy can be in shaping a secure and
19 economically viable energy future for Pennsylvania.

20 I anticipate today's meeting to be helpful
21 for our members and to provide background to help make
22 reasoned and informed decisions about energy policy.

23 Before we hear from our first presenter, I'd
24 like to ask our Democratic Chairman, Representative
25 Bud George, for his comments.

1 REPRESENTATIVE GEORGE: Thank you,
2 Mr. Chairman.

3 I believe these hearings are crucial and
4 anything we can do to focus on the problems of energy
5 shortages, availability, and prices is long overdue.
6 Earlier this year I'd asked Governor Rendell to
7 convene this special session that would be devoted to
8 energy concerns.

9 I believe it is that important and I
10 believed that last year, and the year before, and the
11 year before that, and I still believe that.

12 Sometimes I believe we're stuck in the
13 never-ending cycle of economic torment. Every winter
14 we hear of the problems of skyrocketing heating bills,
15 the diesel prices being jacked up, and natural gas
16 prices reaching levels that were hard to imagine a few
17 years ago.

18 Tens of thousands of our citizens are trying
19 to make it on fixed incomes and they are harmed year
20 in and year out. Thousands of small businesses and
21 entrepreneurs are smothered under the weight of energy
22 prices that escalate with every shockwave coming from
23 the Middle East or coal front that chills the
24 Commonwealth.

25 It is time we did something. It's time that

1 we did more than just gripe about the weather, this or
2 that price increase or what this groundhog says about
3 the length of winter.

4 We all have a stake in this. What we do or
5 don't do on energy will determine for the people and
6 the Commonwealth where we are ethically,
7 environmentally, and economically. We are only
8 limited by our own shortsightedness. We have tools
9 and strategies that we can employ. Everything from
10 something simple like we reenter -- reenergizing the
11 Pennsylvania Energy Office, to implementing our own
12 system of fuel reserves in the state to counter price
13 spikes and fuel shortages.

14 Pennsylvania powers the nation's industrial
15 revolution. This country rebuilt Europe after World
16 War II. We built the Panama canal. Surely we can
17 find answers to these energy problems that confront
18 us. We have the ability. It is my hope through the
19 sessions, such as this one, we finally will have the
20 will to find what we need.

21 I thank this chairman and gentleman,
22 Mr. Adolph, for his continual perseverance and
23 dedication to the problem. And I thank you for
24 attending here today one and all.

25 Thank you, Mr. Chairman.

1 CHAIRMAN ADOLPH: Thank you, Mr. Chairman.
2 I'd like the members to identify themselves and the
3 county that they represent starting at the first row
4 down there.

5 REPRESENTATIVE MANN: Jennifer Mann from
6 Lehigh County.

7 REPRESENTATIVE RUBLEY: Carole Rubley from
8 parts of Chester and Montgomery Counties.

9 REPRESENTATIVE SURRA: Dan Surra from Elk
10 and northern Clearfield County.

11 REPRESENTATIVE YUDICHAK: John Yudichak from
12 Luzerne County.

13 REPRESENTATIVE STEVENSON: Dick Stevenson,
14 Mercer County and Butler County.

15 REPRESENTATIVE REED: Dave Reed, Indiana
16 County.

17 REPRESENTATIVE PYLE: Jeff Pyle, Armstrong
18 and Indiana Counties.

19 REPRESENTATIVE CRAHALLA: Jackie Crahalla,
20 Montgomery County.

21 REPRESENTATIVE CAUSER: Marty Causer,
22 McKean, Potter, and Cameron County.

23 CHAIRMAN ADOLPH: Bill Adolph, Delaware
24 County.

25 REPRESENTATIVE GEORGE: Bud George,

1 Clearfield County.

2 REPRESENTATIVE HARPER: Kate Harper,
3 Montgomery County.

4 REPRESENTATIVE RAPP: Kathy Rapp, Warren,
5 Forest, and McKean Counties.

6 REPRESENTATIVE MILLER: Ron Miller, York
7 County.

8 REPRESENTATIVE ROSS: Chris Ross from
9 Chester County.

10 REPRESENTATIVE ARMSTRONG: Gib Armstrong
11 from Lancaster County.

12 CHAIRMAN ADOLPH: Okay. Thank you very
13 much. First, I'd like to welcome Commissioner Bill
14 Shane of the Public Utility Commission. Bill will be
15 our first presenter.

16 COMMISSIONER SHANE: Thank you,
17 Mr. Chairman. Let me say I'm a late substitute. Vice
18 Chairman Jim Cawley called me on Sunday and said his
19 beloved aunt had regrettably died, and he asked me to
20 sit in for him.

21 And -- but I want to emphasize that these
22 remarks are my own thoughts on the matter. I'm not
23 parroting Vice Chairman Cawley's ideas and they're my
24 thoughts and the Commission -- these are not official
25 Commission positions.

1 Before we get into our question-and-answer
2 session, I'd like to give a brief overview of the
3 responsibilities of -- which I view as the core
4 responsibilities of this Commission in today's often
5 volatile and changing energy landscape.

6 First and foremost, it is our responsibility
7 to ensure that energy; natural gas, electricity, is
8 delivered safely and reliably to homes and businesses
9 in the Commonwealth.

10 Secondly, we must ensure that these electric
11 and natural gas utilities acquire supply in a reliable
12 and least cost manner.

13 Lastly I'd like to emphasize the consumer
14 protection role this Commission plays in its role as a
15 important liaison for consumers dealing with
16 Pennsylvania utilities.

17 Electricity markets. So how does this role
18 meld with dealing with the important energy issues we
19 have before us today?

20 With regard to the electric utility industry
21 in Pennsylvania, we are fast approaching the end of
22 supply rate caps instituted as a result of the
23 Competition Act.

24 Up to this winter consumers have largely
25 been shielded from the cost increases in the natural

1 gas fuel bill -- oil and coal commodity markets. I'm
2 not speaking here of gas utilities. I'm speaking of
3 electricity.

4 All of these commodities are an important
5 cost element of electricity prices. Had there been no
6 Competition Act, these cost increases would have
7 already been hitting our pocketbooks.

8 As it stands, however, most of these very
9 substantial increases won't hit consumers' bills until
10 the end of 2009 or 2010.

11 By way of contrast, in Texas, which is
12 heavily dependent on natural gas for the majority of
13 its electricity, electricity prices have gone from 8
14 cents a kilowatt hour to 16 cents a kilowatt hour.

15 What is the Commission doing to prepare for
16 this very important event? On the supply side, our
17 focus has been to develop default service regulations
18 that encourage competitive billing -- bidding to drive
19 down prices.

20 We also are intent on implementing Act 213,
21 Alternative Energy Portfolio Standards,, needed to
22 reduce our emphasis on traditional hydrocarbon fuel
23 sources and reward efficiency and demand response.

24 And we -- third, we participate in the -- at
25 the FERC level to ensure regional access to energy

1 suppliers and wholesale generator competition.

2 Here we're really concerned with some of the
3 transmission bottlenecks that we see in going from
4 northeast Pennsylvania to New Jersey and also down in
5 Delmarva peninsula.

6 Additionally, this Commission will carry out
7 its mandate under the Competition Act to ensure that
8 no unjust barriers exist to the development of retail
9 competition, so the consumers may have choices if
10 their traditional utility supplier is not providing
11 reasonable prices.

12 On the demand side, while this Commission
13 can encourage efficiency and demand side response, the
14 existing rate caps have to some extent stunted
15 effective demand response programs. Going forward,
16 however, the situation will change.

17 In preparation for this inevitability, the
18 Commission will need to examine a number of important
19 issues and approaches, including:

20 Funding. Expanding the funding mechanisms
21 for CAP. That's an acronym -- that's an acronym for
22 community -- for Customer Assistant Program, as well
23 as LIURP -- LIURP means Low Income Usage Reduction
24 Program -- with an emphasis on LIURP, consistent with
25 important objectives of improving energy efficiency

1 and decreasing overall energy prices and foreign
2 dependence on energy.

3 In 2004 the utility spent \$214 million on
4 Customer Assistance Programs, and they spent about 29
5 million on Low Income Usage Reduction Programs. That
6 latter program, LIURP, is my baby created in the late
7 '80s, and the idea behind it is to weatherize the
8 homes of poor people. And it makes sense to do that
9 because then there's less LIURP dollars flying
10 throughout -- out the window.

11 So that program has been in place for about
12 15 years now. So if we multiply 15 years times 20 to
13 \$30 million, it adds up to quite a bit of change,
14 quite a bit of money and time we spent trying to
15 weatherize the homes of poor people.

16 Expanding the use of and availability of
17 cost effective time-of-use metering equipment and
18 information, and developing pricing structures that
19 reflect the true market price of energy in order to
20 more effectively promote efficient use of electric
21 energy.

22 Encourage demand side response.

23 Promote customer education on energy
24 efficiency and demand side management programs,
25 low-income programs, and retail choice programs.

1 My thermostat is set at 65 degrees. I
2 always lead by example.

3 Natural gas markets. Now, as to natural gas
4 markets you're probably painfully aware of the recent
5 upswing of natural gas prices. Today it's about 12
6 bucks. Unlike the electricity market here in
7 Pennsylvania, there is no capped rate period in
8 Pennsylvania. Thus, the upsweep in wholesale natural
9 gas prices is passed on to consumers as we speak.
10 Like I said, today 12 bucks.

11 In response to these price increases, the
12 PUC has taken an important role as a protector of
13 consumer rights seriously, and ensured that customers
14 have a right under appropriate circumstances to a
15 Commission-approved payment plan. This is known as
16 the second chance payment arrangement which we just
17 put in place at last week's public meeting.

18 Secondly, we continue to play an important
19 role in enforcing critical service termination laws
20 and billing rules and have punished utilities that we
21 feel have not played by the proper rules.

22 In addition, the Commission has developed,
23 with input from the state's consumer advocate, natural
24 gas industry, and the advisory council to prepare now
25 a winter program. This is a program about energy

1 conservation, budget billing, LIURP, et cetera.

2 Lastly, this Commission has released -- just
3 released a study of retail competition in the gas
4 industry in the Commonwealth and will be commencing --
5 starting a stakeholder process to try to identify and
6 correct important barriers to retail competition.

7 That's where we've been. Now, where are we
8 going in the natural gas markets?

9 On the supply side, the Commission should --
10 should do all it can to encourage development of
11 indigenous Pennsylvania natural gas supplies.
12 Pennsylvania consumes about 600 billion cubic feet of
13 natural gas per year. Twenty percent of that comes
14 from Pennsylvania producers. One way the Commission
15 can improve this outcome is through the removal of
16 barriers to new well attachments and field development
17 within Pennsylvania. We also want to ensure that
18 utilities have adequate firm capacity to meet its
19 customers' firm supply demands. We will be watching
20 this compliance closely as always.

21 One of the big problems in the rise of gas
22 prices like that in the 1990s, there was a tremendous
23 increase in gas -- the construction of generation
24 supplied by natural gas.

25 So back in the olden days, before we had gas

1 generation, we used to be able to fill the storage in
2 the summertime with really cheap gas because nobody
3 wanted it in the summertime and then that moderated
4 prices in the winter. But now, when air conditioning
5 is at a peak, that's when the gas generators are at a
6 peak, and you can no longer stuff the 3.5 trillion
7 cubic feet storage pot with cheap summer gas, which is
8 one of the problems.

9 On the demand side, the Commission needs to
10 continue to sharpen and focus the Prepare Now program.
11 In conjunction with this effort, the commission needs
12 to examine appropriate funding mechanisms for low
13 income assistance that are responsive to rising and
14 falling prices.

15 I personally supported a state LIURP grant
16 in 1984 when I was Commissioner. I call on it for
17 today. I support the \$15 million appropriation to
18 piggyback on top of federal LIURP.

19 Finally, as a former college professor, I
20 have a homework assignment for you. It is my opinion
21 the finest report written on energy is entitled Ending
22 the Energy Stalemate written by the National
23 Commission for Energy.

24 I ask you, I urge you to go to
25 www.energycommission.org and when that page appears,

1 click down on the lower right-hand side for a
2 publication called Ending the Energy Stalemate.

3 If somebody tells you we don't have a
4 national energy plan, you tell them baloney. This is
5 the best thing I've seen since the 1974 Ford
6 Foundation which led to the strategic petroleum
7 reserve and the cafe standards for automobiles.

8 I've given you three portions of that
9 publication in your handout. It's a 148-page
10 document. I urge every member of this committee to
11 read it carefully because it's full of good ideas,
12 some of which were recently passed by the Congress in
13 the Energy Policy Act.

14 Finally, this is my take-home message for
15 you. Finally, let's look to the future. In my
16 opinion super clean coal gasification technology is
17 Pennsylvania's energy trump card for the 21st Century.
18 With integrated gasification combined cycle
19 technology, known as IGCC, we can generate electricity
20 cleanly and economically at \$6 an Mcf, which is half
21 the present price of natural gas today. Let's work
22 together to make it happen.

23 Thank you.

24 CHAIRMAN ADOLPH: Thank you, Commissioner
25 Shane. When I was in college, I was always asking for

1 Cliff Notes. So 149 pages, I'm sure we're going to
2 get right on that today.

3 I'd like to acknowledge the presence of
4 Representatives McGeehan, Hutchinson, and Levdansky
5 that came in during the presentation.

6 Because of the various committee meetings
7 today, what I'd like to do today is after each
8 presenter start with some questions and answers, okay,
9 because some of the members have questions and -- they
10 would like answered before they run out to a Finance
11 Committee or something of that nature.

12 We haven't figured out how to work our
13 schedules yet around here. Maybe in another hundred
14 years we'll figure that one out.

15 But the first member that has a question for
16 you, Commissioner, is Representative Armstrong.

17 COMMISSIONER SHANE: Yes.

18 REPRESENTATIVE ARMSTRONG: Thank you,
19 Mr. Chairman, and thank you, Mr. Commissioner.

20 I wanted to ask some questions about your
21 remarks regarding increasing production of natural gas
22 here in Pennsylvania. If -- you talked a little bit
23 about what some of the current barriers are and we
24 currently produce 20 percent of our own demand, where
25 do you think we can get that number to?

1 COMMISSIONER: Well, you have to remember
2 the character, the geologic characteristic of the
3 Pennsylvania wells. They're dribblers. They -- they
4 come out like this and then they -- maybe for 25 or 30
5 years they operate at a very low level.

6 So wells like we have in Pennsylvania
7 couldn't provide a direct pipeline to a steel mill
8 because you can't get it to flow that fast. But there
9 are some restrictions, Indiana County has 12,000 gas
10 wells, where I live.

11 I hear my friends in the gas industry
12 complaining about permitting problems and so forth. I
13 don't want to criticize another agency too much but we
14 could -- we could speed up and maybe loosen up some of
15 those permitting requirements for Pennsylvania wells.

16 Where I think we could go? I don't think we
17 can get much above 30 percent. There's some, like
18 Phillips, T.W. Phillips, for example, I think about 70
19 percent of their production is Pennsylvania gas. But
20 that's because of their unique location and where they
21 are.

22 But we could do something to help the
23 problem with Pennsylvania gas.

24 Now, there's another one that may not be
25 popular but I'd like to throw this on the table. I

1 used to work for the big gas producers in the 1990's
2 and my buddies from Mobil tell me that their 3 D
3 seismic data shows that there's huge reserves off the
4 coast of North Carolina. The question is: Are
5 they're not in my back yard, folks, and are others
6 going to permit that gas to be drilled for? But it's
7 there and it's a lot closer than the Gulf of Texas --
8 of Mexico. And I -- you know, I think it's good to
9 have your supplies in different geographic regions
10 because of hurricanes and stuff like that.

11 So I'd like to increase Pennsylvania
12 production. I'd like to drill off North Carolina
13 because there's -- there's reserves there my friends
14 tell me that dwarf what is up at ANWR.

15 REPRESENTATIVE ARMSTRONG: Thank you. Are
16 there any known reserves in the Lake Erie vicinity?

17 COMMISSIONER SHANE: Yes. I'm not up on
18 that one, Representative, but I know there's been some
19 controversies up there about drilling in Lake Erie and
20 I know there are some possibilities up there. But I'm
21 not up-to-date on what the status of that
22 controversy -- and I do recall it being a
23 controversy.

24 REPRESENTATIVE ARMSTRONG: Okay. My last
25 question involves DCNR. I understand that there are

1 some companies that own mineral rights on land that's
2 currently controlled by DCNR. Can you tell us a
3 little bit about the process that a company needs to
4 go through to access the natural gas maybe below the
5 surface without doing undue damage to the forest that
6 is owned by the state?

7 COMMISSIONER SHANE: Well, the law of
8 Pennsylvania is that if you own the mineral rights,
9 you have the right to a reasonable access to those
10 rights.

11 So I think the Department can require, you
12 know, certain -- they can't do too much damage, but
13 they have to be allowed to take their rig in there and
14 drill if they own the mineral rights.

15 So I guess it's just a question of how DCNR
16 regulates their access. They cannot block access.

17 REPRESENTATIVE ARMSTRONG: Thank you,
18 Commissioner Shane, and thank you, Mr. Chairman.

19 CHAIRMAN ADOLPH: Thank you. Next question
20 is from Representative Rapp.

21 REPRESENTATIVE RAPP: Thank you.

22 COMMISSIONER SHANE: Yes.

23 REPRESENTATIVE RAPP: Thank you,
24 Mr. Chairman, and thank you, Commissioner, for being
25 here today. My Congressman is John Peterson.

1 COMMISSIONER SHANE: Yes.

2 REPRESENTATIVE RAPP: Who has been strongly
3 advocating drilling off the outer continental shelf
4 and drilling in Lake Erie because Canada is drilling
5 in Lake Erie and selling that natural gas to the
6 United States.

7 And I'm certainly very much in favor of
8 drilling. I have a gas well on my property, and I'm
9 very thankful that I do because I don't have a gas
10 bill to pay and I get a royalty on top of that.

11 Actually my question was would you be
12 supportive, like my Congressman, in advocating for
13 that and I believe you answered that. I -- it's not
14 just my people in my district who I know will be
15 struggling to pay their gas bills this year, but from
16 what I'm hearing from my Congressman, China is paying
17 much, much less than what we are for natural gas, and
18 it's not just hurting our individual consumers, but
19 the price of natural gas is extremely hurting our
20 economy. And we are going to see more and more
21 businesses, manufacturing, going overseas into China
22 because of the price of natural gas.

23 So actually I guess I'm just going to
24 comment to you that I'm extremely pleased to hear,
25 from what I understand, you also are in favor of

1 drilling on the outer continental shelf and in Lake
2 Erie.

3 COMMISSIONER SHANE: Yes. And I'd like to
4 underscore that, Representative. I -- if my friend,
5 Congressman Peterson would like me -- I hate to drive
6 to Washington, but if he wanted me, as a Pennsylvanian
7 and a PUC Commissioner, to go down and testify on
8 this, in favor of that, I favor it.

9 The problem, ladies and gentlemen, is
10 NIMBY's. The problem, ladies and gentlemen, is
11 occasionally politicians who need a little more
12 courage.

13 We've got to overcome that, because there
14 are vast resources off of North Carolina and the
15 President better speak to his brother, the governor,
16 because there are vast reserves west of Florida.

17 And, remember, we're talking gas here.
18 We're not talking about -- even if something breaks,
19 it's going to bubble up through the water and out. So
20 it's no threat to the beaches.

21 And most of these rigs are 20, 30 miles, 50
22 miles off shore. Somebody laying on a beach is not
23 going to see them. In Catalina, California they're
24 disguised as palm trees.

25 So we've got -- we've got to be drilling

1 offshore in other places because we've picked all the
2 low hanging fruit in the Gulf of Mexico.

3 CHAIRMAN ADOLPH: Thank you. Chairman
4 George has a question for you.

5 REPRESENTATIVE GEORGE: Commissioner --

6 COMMISSIONER SHANE: Oh, can I add one more
7 thing to yours? The Wall Street Journal said gas in
8 China is \$5 an Mcf, gas in Australia \$4 an Mcf. And I
9 think we can get it down if we drill in all these
10 places I'm talking about.

11 REPRESENTATIVE GEORGE: Commissioner, when
12 you and I were together in the General Assembly, we
13 had an energy office. It ran out of the governor's
14 office and it did a fine job.

15 There was a gas shortage then. We weren't
16 talking about what is going on now, but there was a
17 gas shortage. It was promulgated by the industry
18 itself.

19 Now, should we have an active energy office
20 in Pennsylvania?

21 COMMISSIONER SHANE: Yes, Representative
22 George, we should.

23 But I'd like to correct your history. The
24 gas shortage in January of 1977 when we closed schools
25 and factories was wholly a government fabrication.

1 The Federal Power Commission was regulating interstate
2 gas at 50 cents an Mcf, and gas was selling on the
3 Texas intrastate market at a dollar fifty.

4 It's a wonder we got any gas. We got the
5 leftovers. So when we lifted the prices on gas, that
6 whole supply problem went away. So it wasn't the
7 industry in '77. It was the Federal Power Commission.

8 REPRESENTATIVE GEORGE: Commissioner, I'm
9 not here to debate you. The fact remains is you're
10 old enough, and so am I, to remember that at one
11 time electric energy was generated by the federal
12 government interests, such as the Tennessee Valley
13 Authority, and the electricity come out of Niagara.

14 COMMISSIONER SHANE: That's correct.

15 REPRESENTATIVE GEORGE: And at that time
16 they were producing electricity and giving it to the
17 rural electrics and they were selling it cheaper than
18 the other utilities could.

19 What I'm asking you is, regardless of who
20 you felt brought about the shortage, I noticed in your
21 comments, which was unsolicited according to you, but
22 I noticed that in your comments you said that you
23 hopefully relieved some of the stringencies that these
24 gas companies have.

25 The truth of the matter is that I go back as

1 far as you, and I can remember them complaining that
2 they didn't have transmission was the reason that we
3 had a shortage, and that wasn't true. We drill wells
4 and the gas set there and why isn't there
5 transmission? That's what I'm asking you. Maybe an
6 energy office could enlighten us more so than the PUC.

7 COMMISSIONER SHANE: Well, I think an energy
8 office would help. But back in 1983 when I was the
9 chief judge doing the gas cost hearings, the
10 complaints from the Pennsylvania producers were that
11 they were being shut in and the utilities were taking
12 the more expensive Texas gas. And we tried to attack
13 that problem in '84 with the gas transportation rules.

14 As a matter of fact, you can say that the
15 PUC's gas transportation rules basically evolved from
16 the complaints of the Pennsylvania producers saying
17 they couldn't get access to customers even though
18 their gas was cheaper.

19 So we've -- we've made some progress in
20 relieving that problem but we haven't solved it. We
21 still have complaints about you're not letting my gas
22 go to market.

23 So, yeah, I agree with you, Representative.

24 REPRESENTATIVE GEORGE: Sir, I don't insist
25 that you or the PUC. I insist that the legislative

1 body ought to resolve those problems rather than talk
2 about it.

3 COMMISSIONER SHANE: Happy to talk about it.

4 REPRESENTATIVE GEORGE: Thank you. Thank
5 you, Mr. Chairman.

6 CHAIRMAN ADOLPH: You're welcome.

7 Representative Chris Ross has a question for
8 you.

9 REPRESENTATIVE ROSS: I have two actually.
10 If I can make them short, I'll get them both in.

11 The first question was on your LIURP
12 program. You indicated that you've -- that we're
13 getting the \$29 million a year out there which is
14 relieving some of the pressure on the LIURP, and I
15 wondered if you have a sense of the backlog or
16 potential demand in that program?

17 Are we keeping up with the -- with -- for
18 those people that are willing to participate in this
19 program? Do we need more emphasis on this, more
20 outreach, and is there a tremendous amount of work
21 that yet needs done in this area if we could connect
22 with it properly?

23 COMMISSIONER SHANE: I'm too ignorant to
24 answer that question, but I'll have our Bureau of
25 Consumer Services get back to you, Representative

1 Ross.

2 REPRESENTATIVE ROSS: Thank you. And do I
3 get a second quick one?

4 And you may not want to answer this
5 question, but I thought I'd ask it anyway. You
6 indicated, of course, that we have price caps on
7 electric prices here in Pennsylvania right now, and
8 would you hazard a guess as to how much more higher
9 prices would be today if we didn't have the caps on?

10 COMMISSIONER SHANE: Add a couple cents.

11 REPRESENTATIVE ROSS: Okay. Thank you very
12 much.

13 CHAIRMAN ADOLPH: Thank you. I'd like to
14 acknowledge the presence of Representative Wansacz.

15 Okay. And the next question is from
16 Representative Reed.

17 REPRESENTATIVE REED: Thank you,
18 Mr. Chairman. And thank you, Commissioner.

19 It should be noted that the Commissioner
20 actually held my seat back in the '70's on the
21 opposite side of the aisle, but we at least come from
22 the same hometown.

23 Through your testimony, Commissioner, you
24 mentioned coal in several different ways. Obviously
25 the coal gasification is a possible use as a potential

1 energy source, but also with the APS standards we
2 actually have two by-products of coal, coal bed
3 methane gas and the waste coal industry which is known
4 in Indiana County as a pretty vibrant energy with the
5 consumer-powered plant.

6 Recently we've heard that the DEP is
7 considering increasing our mercury standards in
8 Pennsylvania in excess of the recently announced EPA
9 standards.

10 I just would like to hear your thoughts on
11 where that may take the coal industry in the future
12 energy sources that we see here mentioned through APS
13 standards and coal gasifications, if those type of
14 standards were introduced in Pennsylvania.

15 COMMISSIONER SHANE: This is Bill Shane
16 talking, not the PUC. Bill Shane, the coal guy. I
17 oppose the mercury standards.

18 The official position, I believe, of the PUC
19 is they support them. But, hey, I'm allowed to
20 dissent once in a while. Right?

21 The mercury, from what I know, is, unless
22 you're eating fish that you caught in a stream three
23 or four times a week, it's not as big a problem as
24 "socks and knocks" but we can make the issue academic
25 if we push on IGCC, integrated gasification gas

1 combine cycles, because it cleans the mercury also.

2 The point is, ladies and gentlemen, we don't
3 want to go retro in cleaning up these power plants.

4 We don't want to go back to the 20th Century bags and
5 "socks and knocks". We want to go forward with IGCC.

6 And you're going to see some action out of
7 the PUC on Thursday, November 10th, to drive us
8 forward in this direction.

9 Coal waste, that's my baby. I started those
10 coal waste generation plants in the late '80s and
11 got -- I guess I'll brag a second. I got the
12 foundry's award. We've cleaned up a 100 million tons
13 of coal waste in Pennsylvania to generate electricity.
14 We got about two hundred eighty million three
15 hundred (sic) left to go, and I'm excited about it.

16 REPRESENTATIVE REED: Thank you.

17 COMMISSIONER SHANE: Anything else? Did I
18 miss anything?

19 REPRESENTATIVE REED: No. That pretty much
20 covers it for me.

21 COMMISSIONER SHANE: Okay.

22 CHAIRMAN ADOLPH: Thank you. Representative
23 Pyle has a question for you, Commissioner.

24 COMMISSIONER SHANE: Yes.

25 REPRESENTATIVE PYLE: Thank you,

1 Mr. Chairman.

2 Mr. Commissioner, it's a pleasure to see
3 somebody from home down here.

4 COMMISSIONER SHANE: Oh, yeah. Coal guy.

5 REPRESENTATIVE PYLE: You mentioned coal
6 gasification. Other than capital start-up cost, what
7 do you see the main impotence (sic) to propelling this
8 technology?

9 COMMISSIONER SHANE: The main what?

10 REPRESENTATIVE PYLE: The main
11 impotence (sic).

12 COMMISSIONER SHANE: Impetus, sir.

13 REPRESENTATIVE PYLE: Whatever.

14 COMMISSIONER SHANE: Yeah. Well, first of
15 all, there's a little problem. It's about 20 percent
16 more expensive than the traditional pulverized coal
17 plants, but there's a 20 percent tax credit in the
18 Energy Policy Act.

19 And there are also -- if you look at that
20 material I gave you on clean coal -- you know, you'll
21 at least read the stuff I gave you, won't you?
22 It's -- it's -- it talks about there's going to be
23 subsidies available to get the -- to kick start this
24 thing.

25 So I think the main impetus or the main

1 problem is cost. The main impetus and desire to move
2 forward is it's super clean. It's better than that
3 retro bag stuff and that kind of stuff.

4 REPRESENTATIVE PYLE: Thank you.

5 CHAIRMAN ADOLPH: Thank you. Representative
6 Mike McGeehan from Philadelphia County has a question
7 for you.

8 REPRESENTATIVE MCGEEHAN: Thank you,
9 Mr. Chairman. Good morning, Commissioner.

10 Let me bring you back to southeastern
11 Pennsylvania and the controversial energy issue there,
12 which is importation of liquified natural gas and the
13 PGW site in Fryburg and Port Richmond, and I know that
14 the senator's staff and I both communicated with the
15 PUC on this issue.

16 Commissioner, having realized that there's
17 near unanimous opposition to and among elected
18 officials and no one publicly has spoken out for
19 saving PGW, what is the PUC's position on PGW's
20 spending?

21 And they're saying that they're not spending
22 rate payers' dollars. They budgeted up to \$5 million
23 to push a plan that in my opinion can't work, has no
24 support, and is doomed to failure from the beginning.

25 COMMISSIONER SHANE: In response to your

1 letter and from your Senate colleague's letter, the
2 Chairman of the Commission has assigned staff to
3 investigate the source of those funds and the
4 expenditure of those funds and when we're finished
5 with that investigation, we'll be mailing you a
6 report.

7 I would note that these expense items that
8 you alluded -- not expense -- I guess capital
9 investment items that you alluded to in your letter
10 apparent -- were probably part of a budget that was
11 approved by the Philadelphia Gas Commission and the
12 Philadelphia City council.

13 The PUC's scrutiny only is retroactive in
14 terms of a rate case. If they come in for a rate,
15 they might have this expense in their claim, but they
16 might not. They might just say that's a -- outside
17 the regulatory process and not claim any kind of rate
18 reimbursement for these capital expenses.

19 But we are -- I just saw a memo ten minutes
20 before I came over here assigning our fixed utility
21 staff, our Bureau of Conservation Energy and Economic
22 Planning to investigate this matter in response to
23 your letter.

24 REPRESENTATIVE MCGEEHAN: Thank you,
25 Mr. Chairman.

1 CHAIRMAN ADOLPH: Thank you. I think that's
2 all the questions, Commissioner. I want to thank you
3 for your testimony.

4 COMMISSIONER SHANE: Delighted to be with
5 former colleagues.

6 CHAIRMAN ADOLPH: Thank you. Our second
7 presenter, I'd like to call on Bill Prindle. Bill
8 Prindle is the deputy director of the American Council
9 for an Energy-Efficient Economy located in Washington,
10 D.C.

11 The council is one of the foremost
12 authorities on energy efficiency and its role in state
13 and federal policy.

14 Good morning, Mr. Prindle.

15 MR. WILLIAM PRINDLE: Good morning,
16 Mr. Chairman, members of the Committee. It's a
17 pleasure to be here, back in Pennsylvania where I
18 spent ten of the best years of my life. My only
19 regret is that those ten years were about 30 years
20 ago.

21 I do work with ACEEE. We are a national
22 group that works with federal and state governments on
23 energy policy. We've been at this since about 1980,
24 so we've seen a lot of changes by the bye.

25 I'm here today to talk about energy

1 efficiency and why we think it's the fastest,
2 cleanest, and cheapest way to respond today to the
3 energy problems that Pennsylvania faces today, this
4 winter, and the -- and the years to come.

5 As we all know Pennsylvania, and other
6 states, are facing the biggest energy challenge that
7 we've seen in a generation. The energy prices we're
8 experiencing today have never been seen before in this
9 economy. They threaten to break family budgets. They
10 threaten to shut down businesses. They have already
11 shut down businesses in the chemical, fertilizer, and
12 other energy intensive industries. And they threaten
13 to slow economic growth.

14 Now, some of you might remember -- I think
15 I've heard already that several of you remember the
16 energy crises of the 1970's. Well, I'm not going to
17 say like the famous horror movie line, they're back,
18 because the crisis we face today is fundamentally
19 different than what we faced in the 1970's.

20 Back in the '70's, when I lived in
21 Philadelphia, we had two major problems. We had a
22 shortage of gasoline, which was essentially a
23 political problem we had with OPEC in those days. I
24 remember the gas lines in west Philadelphia being
25 quite long. And we had a natural gas hook-up

1 moratorium, as some of you have referred to, which
2 again was a regulatory problem with underpricing of
3 gas at the wellhead. It wasn't an absolute market
4 shortage.

5 But today what we're looking at are problems
6 that are not driven primarily by political regulatory
7 problems but by global energy market fundamentals.

8 We're facing a new era in energy today. Our
9 global demand is finally catching up with our global
10 ability to deliver energy.

11 It's not that there's not enough gas in the
12 ground or not enough coal in the ground. It's the
13 question of how much energy can we deliver to the
14 market on a daily basis, on a monthly basis, on an
15 annual basis.

16 Today also we have much more interrelated
17 energy markets. In the old days everything was
18 stovepipe. Natural gas was regulated by this agency
19 and oil prices were regulated by that agency and so
20 forth. Electric utilities were actually regulated by
21 the Public Service Commission.

22 Well, now we have much more interconnection.
23 Oil and gas are much more fungible in the market. So
24 you see oil prices and gas prices tracking each other
25 much more closely.

1 We see a much stronger effect now between
2 natural gas markets and electricity markets whereas in
3 the old days electric prices were regulated from the
4 plant down to the meter by the Public Service
5 Commission based on the cost of operating that --
6 those assets.

7 Today we have a deregulated market in PGM.
8 The PGM market price is set by the marginal generating
9 unit that's operating during that hour. Okay. Eighty
10 percent of the hours of the year that marginal plant
11 is a natural gas generator.

12 Even though coal is still generating the
13 majority of the energy in PGM, natural gas sets the
14 marginal price. So we have a whole different
15 situation that we did not have in the 1970's.

16 Now, what we're really facing today is -- is
17 not -- is not really energy shortages as much as a
18 shortage of cheap energy. We're -- we're really in
19 the process now in the next decade or two of switching
20 from an era of cheap energy to an era of expensive
21 energy, and this presents a whole new set of
22 challenges.

23 Back in the old days, in the '70's, states
24 like Pennsylvania had more control over what happened
25 to energy supplies. Electric utilities were regulated

1 again from the power plant down to the meter.

2 That situation has changed. Likewise, gas
3 and oil markets have become much more national and
4 global.

5 So when you look at your options as a state,
6 as a state legislator, as a governor, you have less
7 choice. You have less control over energy supplies.

8 And what that means is you need to look to
9 the demand side, especially in the short term when
10 you're trying to answer the question how are we going
11 to get these markets to come back into balance, how
12 are we going to get these energy prices to come down?

13 The good news is that when you take energy
14 demand as a serious issue you can have a real effect
15 on prices. Our research shows when you make small
16 changes in energy demand in a tight market like we
17 have today, guess what? The price comes down. It's
18 the law of supply and demand. If you increase the
19 supply a little bit, the price comes down. If you
20 decrease demand a little bit, the price comes down.

21 The question is how fast can you get new
22 supply to come on and how fast can you affect demand?
23 Basically in the next three to five years it's the
24 demand side that's going to make the difference
25 because IGCC and the other technologies that have

1 promise for the future are not going to come in line
2 in 2006, they're not going to come on line in 2007.
3 We might see some things coming on line in 2009, 2010,
4 later years, but we got several years of -- of hairy
5 market situations to deal with. So in our view the
6 demand side is the place to look in that period.

7 The other good news about energy efficiency
8 is that it happens to be an excellent -- excellent
9 economic investment in Pennsylvania, just like it is
10 in other states.

11 We did a study back in '97 where we looked
12 at the effects of an efficiency investment policy in
13 Pennsylvania, New York, and New Jersey, and we found
14 that there would be some significant positive economic
15 effects.

16 We found that over 50,000 new jobs could be
17 created and a billion dollars in new wages would be
18 created. And now at today's energy prices, those
19 benefits would be about twice that.

20 I'd like to look just for a second at the
21 issue of energy efficiency in jobs. You don't have to
22 look very far in Pennsylvania for how energy
23 efficiency creates job opportunities. Just go over to
24 Carlisle and walk through the PPG flat glass plant,
25 which I did a few years. They make some very high

1 tech energy efficiency glass that goes into today's
2 window products. Cuts energy losses in half.

3 We have insulation manufacturers,
4 Owens-Corning, CertainTeed. We have Lutron, lighting
5 controls, up in Coopersburg. We have York Air
6 Conditioning. We also have very active retail
7 involvement in energy efficiency at Sears and the Home
8 Depot and Lowe's and companies like that. We have
9 thousands of contractors who install windows,
10 insulation, heating and cooling equipment, lighting,
11 and so forth.

12 So when Pennsylvanians invest in energy
13 efficiency, those businesses thrive. That creates
14 jobs and it creates economic growth for the state.

15 When you spend a dollar on natural gas, even
16 though there's some gas production in the state, most
17 of that dollar is going to go to the Gulf Coast or
18 with LNG it's going to go to a foreign producer.

19 All right. So now you might ask, well, if
20 energy efficiency is so all fired good for the
21 economy, why isn't it just happening automatically?
22 Why doesn't the market just make that happen?

23 Well, the short answer is that energy
24 efficiency is happening and markets do work. But the
25 question is how fast and how much are we getting?

1 And what we find is that, given the way the
2 markets are working or failing to work, we're not
3 getting enough on the demand side. We need a little
4 policy assistance to get the level we need to bring
5 markets back into balance.

6 Well -- well now, why is that? Why is the
7 economy not operating perfectly? You know, an
8 economist would say in the age of this deregulation
9 prices are all you need to make people invest in
10 energy efficiency. Price goes up. Well, you should,
11 you know, you should invest in energy efficiency. You
12 buy that more efficient vehicle, efficient furnace,
13 and that's certainly true.

14 But that's only one law of economics.
15 That's the law of price elasticity, and we have some
16 other laws that are also at work. One of those is
17 what we call the income elasticity of demand. That's
18 a fancy economics term for saying when people get
19 wealthier they spend more money on discretionary
20 items.

21 One of the legacy -- one of the legacies of
22 our success as a nation is that we have more and more
23 people who can afford \$5 a gallon bottled water, who
24 can afford \$4 cups of coffee, and, yes, \$3 a gallon
25 gasoline.

1 So -- so this wealth effect, as economists
2 sometimes refer to it, means that there's a big
3 segment of the population that, yeah, energy prices
4 are a pain, but they're not really going to force a
5 lot of behavior change.

6 Well now, what about the rest of us, those
7 of us who don't have all that discretionary income,
8 who don't go to Starbucks twice a day and so forth?
9 Well, doesn't energy prices affect them? Well, yes.

10 But then we have another economic effect.
11 It's called cross elasticities. Again, that's a fancy
12 word. But what it means is that when the price of
13 energy goes up, the demand for something else goes
14 down.

15 We've already seen economic data this year
16 that says people are still driving to the mall.
17 People still like to shop. But what they're doing is
18 they're bringing home fewer items. They're
19 substituting energy for retail purchases, and that's
20 hurting the retail sector and that is slowing economic
21 growth.

22 So what you don't see is you don't see a
23 drop in energy use. You see a drop in economic
24 activity. That's economically painful. But it's
25 another way the market works.

1 We have a couple of other things going on in
2 the economy. We have what economists call the
3 principal agent problem. That's not -- that's not
4 Austin Powers posing as a high school administrator.
5 That means you have one class of people that has to
6 make investments for energy efficiency, and you have
7 another class of people that benefits.

8 The best example I can think of is home
9 builders. Home builders have to front the money for
10 efficient homes, but most of the time they don't know
11 who the buyer is going to be. So they have a lot of
12 competitive pressure to keep their cost down. They're
13 going to be limited to how much they're willing to
14 spend to make that house as efficient as possible,
15 even though it could be a good deal for the homeowner.

16 Then there's the good old landlord.
17 Landlords own half of our commercial office space.
18 They own one-third of our housing units. And, again,
19 they have to invest the money. The tenant gets the
20 benefits. There's a split incentive problem.

21 I can go on and on with this, but I hope
22 I've made the case that we need some kind of policy
23 intervention that markets all by themselves are not
24 going to get us the kind of demand response we need.

25 At the risk -- if we completely trust the

1 market forces to take care of this issue, the risk is
2 that market forces will work but they'll have some
3 very painful effects. And we're beginning to see that
4 already with the thousands and thousands of lost jobs
5 we've already experienced in the chemical industry,
6 the fertilizer industry, and the other energy
7 intensive industries.

8 But with a little moderate dose of
9 efficiency policy to try to moderate demand, we can
10 keep our markets in balance and keep our economy going
11 without a whole lot of economic pain.

12 So let me touch on a few specifics, a few
13 things that Pennsylvania could be doing more in to try
14 and affect energy markets.

15 One of the areas that leaps to mind for me
16 is the whole area of utility sector energy efficiency
17 programs. Certainly there are things going on in the
18 Commonwealth that are worthwhile.

19 However, we -- we conduct a periodic survey
20 of states on how much states are investing in energy
21 efficiency as a percentage of utility revenue and on a
22 per capita basis. And I won't -- I won't put anybody
23 on the spot by telling you where Pennsylvania falls in
24 the pecking order, but I have to say it's not in the
25 top ten. There -- there certainly is some room for

1 improvement there.

2 You need only look across the border into
3 New York and New Jersey to see states that are
4 spending in excess of a hundred million dollars a year
5 on energy efficiency programs alone. That's not
6 including renewables and low income and the other --
7 the other important spending areas.

8 Now, Pennsylvania did do a good thing last
9 year when the Alternative Energy Portfolio Standards
10 Act was passed, which calls for renewable energy and
11 other kinds of advanced resources to be brought into
12 the utility sector. That's going to help.

13 And actually energy efficiency is one of
14 those resources in what they call the Tier II
15 requirement, and I know the Commission and we and
16 others spend a lot of time working out the rules for
17 how that's going to play.

18 But we think actually you could take a step
19 further. You could actually set a more specific
20 target for efficiency in AEPS. Several states have
21 done that. We're happy to talk to you about how to go
22 that way.

23 The second area I want to talk about is tax
24 incentives. Congress put out a few tax incentive in
25 the bill that was passed in August, and this creates

1 an opportunity really for Pennsylvania to create some
2 leverage to match, if you will, those kinds of
3 incentives.

4 There's incentives out there for efficient
5 vehicles; efficient new homes; commercial buildings;
6 heating, cooling, hot water equipment; efficient
7 windows, insulation, and so forth. So you can use
8 income tax incentives. You can use sale tax
9 exemptions.

10 The state of Maryland, where I lived for
11 four years, had a sales tax exemption policy for high
12 efficiency vehicles, a whole bunch of heating and
13 cooling equipment and appliances. That's an easy
14 thing to do and is something that a lot of governors
15 are looking at today. Essentially a sales tax holiday
16 for some of these items.

17 You can look at what we call fee-bates for
18 efficient vehicles, which is essentially changing the
19 design of registration fees so you pay less for an
20 energy efficient vehicle and you pay more for a low
21 efficiency vehicle.

22 One of the areas that we work on very
23 intensely is what we call combined heat and power or
24 CHP, which is just -- it's the -- it's the joint
25 production of electricity and useful heat in the same

1 process. Most thermal power plants generate
2 electricity and then the waste heat, about two-thirds
3 of it, is rejected to the rivers or the atmosphere.
4 CHP allows you to capture as much as half of that
5 waste heat.

6 Our analysis shows that up to ten percent of
7 the electric generating capacity in Pennsylvania could
8 be augmented with CHP type systems. And these are not
9 big utility-level systems. These can be installed in
10 universities, hospitals, shopping centers, large
11 commercial establishments. There are a lot of
12 opportunities there.

13 Last, but not least, I want to offer you the
14 thought that there's -- there's no substitute for the
15 bully pulpit.

16 The state that had the biggest energy crisis
17 in the last five years was California. Their
18 experiment in deregulation went a little bit awry back
19 in 2001 as many of you know, and they were faced with
20 skyrocketing prices and shortages at the same
21 time.

22 One of the things that California did was
23 essentially a public relation campaign. They spent
24 about 20 or \$30 million and they got the governor and
25 the utilities, the energy efficiency industry, local

1 governments, everyone on-board with basically just a
2 public information campaign letting people know, this
3 is important, we all need to do our part, and here's
4 the -- most importantly, here are the concrete things
5 that you can do.

6 So those are some thoughts for you. We hope
7 that you'll take those -- those ideas to heart.

8 I want to close with the idea that states
9 really have a new role to play in this new -- new
10 energy crisis arena that we're going into. Back in
11 the '70's nobody really knew about energy. Energy
12 blindsighted us in 1973 and I think most governments
13 were caught flatfooted.

14 The federal government tried to respond and
15 passed some landmark legislation back in the '70's,
16 invested a lot in R and D, and, you know, did -- tried
17 to do a lot of things.

18 Back in the '70's the states didn't have
19 energy offices initially, didn't have much in the way
20 of technology, and they didn't have an industry out
21 there to deliver energy efficiency.

22 So what we have to today is a fundamentally
23 different situation. We have a federal government
24 energy policy sector that I have to say is somewhat
25 gridlocked. Those of you who traffic with Washington

1 politics know it's very hard to get anything through
2 Congress these days.

3 So the energy bill we saw in August was --
4 was helpful but only, in our analysis, accomplished a
5 small fraction of what needed to be done. What we've
6 seen is states have really become the leaders in
7 energy policy, and that goes for energy efficiency as
8 well.

9 When I look back 30 years when I finished my
10 master's degree at Penn, I've seen this whole
11 federalism issue flip around on energy, and the states
12 are really taking the lead now.

13 What we've found is if you look at state
14 spending on energy efficiency, states together spend
15 double the amount of money that the federal government
16 spends on energy. States have learned how to run
17 programs. They've learned how to partner with the
18 energy efficiency industry, which didn't exist 30
19 years ago.

20 So we have kind of a new era where there's
21 an infrastructure out there. There's some policy
22 experience. We think this is actually an opportunity
23 for Pennsylvania to push ahead with energy efficiency
24 as part of a balanced energy portfolio. You can bring
25 prices back into line. You can help avoid the

1 severity of future price spikes. You can create jobs.
2 You can reduce pollution emissions and so forth.

3 And just in closing, I'd like to say that
4 we'll be happy to help with any future deliberations
5 you have along these lines and appreciate the time and
6 enjoyed speaking with you.

7 CHAIRMAN ADOLPH: Thank you. We do have
8 some members that have some questions.

9 Representative Armstrong.

10 REPRESENTATIVE ARMSTRONG: Thank you,
11 Mr. Prindle, and thank you, Mr. Chairman.

12 On your recommended courses of action, one
13 of them is upgrade building energy codes. Can you
14 talk just a little bit about the cost benefit there?

15 What -- if a -- if a contractor was to
16 implement the IECC guidelines, how much would that add
17 to the cost of the building and when could the tenant
18 or the owner expect to see that cost recovered?

19 MR. PRINDLE: Well, the good news is that
20 Pennsylvania has already gone through one round of
21 improvements in its energy code in the last five
22 years. So the market has already adapted to some
23 degree to better energy codes.

24 There's a new version of the IECC coming out
25 in 2006 which is not really a whole lot more

1 stringent. It's really simpler, easier to use, easier
2 for those hard-pressed local code officials to
3 understand.

4 So we -- we'd like to see the state consider
5 that new version of the code just to make it easier to
6 use.

7 We also encourage the state to combine
8 building codes with voluntary programs where builders
9 who want to go for the -- the more energy efficient
10 market can basically just use the code as a platform
11 to -- you know, to market a home that has, say, a
12 energy star label on it or something like that.

13 And there are, by the way, tax credits for
14 homes that are 50 percent better than the IECC code.
15 That's going to be on the books for the next two
16 years.

17 So we see the building code as kind of a
18 pretty easy threshold to hit and the real -- the real
19 challenge would be to encourage more builders to go
20 beyond that and, you know, try to leap over that
21 market barrier and invest in energy efficiency.

22 REPRESENTATIVE ARMSTRONG: Thank you.

23 CHAIRMAN ADOLPH: Thank you.

24 Representative Ron Miller.

25 MR. MILLER: Thank you, Mr. Chairman.

1 Mr. Prindle, when I think about energy efficient new
2 appliances and devices and things like this, I
3 normally associate the best way is to apply those to
4 new construction.

5 I get real worried about people promoting
6 replacing existing products in people's homes with a
7 higher energy efficient device mainly because I get
8 concerned about the cost of manufacturing that new
9 device, the energy that goes into it, and the disposal
10 of the old device.

11 Have we looked into what these costs truly
12 are? Do we have a fair way of advising consumers on
13 what their costs are going to be and what it really
14 does to our environment, energy needs and our energy
15 requirements?

16 My concern is that we actually are promoting
17 some programs at times that cost us more energy. Is
18 there a program out there or somewhere --

19 MR. PRINDLE: Well --

20 REPRESENTATIVE MILLER: -- where there's
21 published data? I've asked for this before, and I've
22 never found it, where we've compared some of these
23 things.

24 And even on new devices, if it takes twice
25 as much insulation in a refrigeration unit and the

1 energy required to build the more energy efficient
2 device, have we consumed the energy we will save in
3 making that energy efficient device? Are we doing
4 mass balances? That's what's always been my concern
5 on this issue.

6 MR. PRINDLE: Yeah. That's a good question.
7 I did a study on insulation, which is a very energy
8 intensive process. As you know, basically raw
9 material is melted at a high temperature, 2 or 3,000
10 degrees in order to make fiberglass insulation.

11 But even with that, when you look at all the
12 energy that goes into manufacturing it, once you put
13 that insulation in place, our analysis shows it saves
14 about 12 times the energy used in manufacturing in the
15 first year that it's in place. Over a 30-year period
16 it's more like 300 times the manufacturing energy
17 cost.

18 Generally we find that to be true with what
19 we call embodied energy, I think what you were
20 referring to. We don't, however -- we don't
21 necessarily encourage people to replace appliances
22 prematurely. There's a natural replacement cycle for
23 furnaces, clothes washers, refrigerators and so forth.
24 Can run anywhere from 15 to 25 years. And, you know,
25 the best way to deal with that is through what we call

1 natural replacementism.

2 When it comes time to replace something, for
3 heaven sakes, please use the most energy efficient
4 model available. In some cases it makes sense to
5 accelerate the replacement a little bit. Maybe a
6 couple years. Something -- the appliance is getting
7 old and typically, like my dryer was last year,
8 finally broke down and I replaced it with a high
9 efficiency model.

10 The incentive programs can sometimes help
11 accelerate that cycle a little bit. So overall it's
12 an economic win I think.

13 REPRESENTATIVE MILLER: Thank you. Thank
14 you, Mr. Chairman.

15 CHAIRMAN ADOLPH: Thank you. Mr. Prindle, I
16 want to thank you for your presentation. It was very
17 informative, and I'm sure the members can take your
18 information back to their offices with them.

19 Finally, I'd like to call upon Roger Clark.
20 Roger is with the Sustainable Development Fund located
21 in Philadelphia. This sustainable energy fund is
22 instrumental in developing and implementing
23 alternative energy projects throughout eastern
24 Pennsylvania.

25 Roger, don't get an inferior -- inferiority

1 complex with people walking out on you. Obviously
2 there's a ten o'clock committee meeting some place in
3 the Capitol that these members have to be to.

4 I'd like to acknowledge the presence of
5 Mr. Energy Efficient himself, Representative
6 McIlhinney.

7 Roger, without further ado.

8 MR. ROGER CLARK: Good. Thank you,
9 Mr. Chairman. I appreciate the opportunity to speak
10 before this committee again. You've been doing some
11 very, very good work. I think Act 213 is a landmark
12 piece of legislation, very forward thinking about how
13 to grow a clean energy future for Pennsylvania.

14 I think the interesting thing about that
15 statute is it sets some goals that we ought to
16 achieve, but it's -- it's fairly quiet on how we
17 specifically ought to be getting there and how that
18 should happen.

19 And what I want to talk about a little bit
20 is how we go about building that clean energy future,
21 and by clean energy I refer to renewable energy. I
22 also refer to advanced clean technology, such as fuel
23 cells, energy efficiency, and even -- even some of
24 the -- of the cleaner fossil technologies.

25 There's not one silver bullet to solve this

1 problem. We're going to be needing to call on all of
2 these resources. I very much agree with Bill Prindle
3 that energy efficiency and conservation is the most
4 cost effective resource, the resource we can bring on
5 line the fastest, and a no brainer, frankly, in my
6 mind.

7 But there are many things that we ought to
8 be doing and let me talk about how we do that. I'm
9 just going through the first ten slides of this. I
10 brought a bunch of others to give you background
11 information, specifics about the Reinvestment Fund and
12 the Sustainable Development Fund, but I'm not going to
13 go through those.

14 But I did want to go through some key
15 principles, learning that we have had, both the
16 approach of the Reinvestment Fund and also what we do
17 at the Sustainable Development Fund, very much a
18 pragmatic market-based approach.

19 I'm an energy wonk. I used to work for the
20 Governor's Energy Council and for the Pennsylvania
21 Energy Office. I was the lead author of the 1986
22 Pennsylvania energy policy. I understand all of
23 those.

24 But I'm not an advocate of that approach
25 frankly. I think what happens is all the interests

1 weigh in and the things get reduced to the lowest
2 common denominator and then when you're done at the
3 end of the day nobody reads the thing anyway.

4 So what I think is much more effective is
5 trying to identify what are the opportunities that
6 we're trying to capture, what are the barriers to
7 doing that, and then how are we to overcome those
8 barriers.

9 There -- there are many good questions all
10 up and down the line here, and we can jump in anywhere
11 and start solving problems. And so that's the
12 pragmatic approach we are looking at, I think much,
13 much more than the broad energy policy of documents.

14 Key Lesson Number 1. And we've seen this in
15 the work we've done with the Sustainable Development
16 Fund. Clean energy has huge public support. Please
17 don't understate that.

18 I think people are way ahead of the
19 government on these issues, these technologies and so
20 on. They're excited about it. They want more of it.
21 They're -- they're proud of their government when it
22 works to implement these things.

23 It's -- it's a powerful concept and I think
24 we're all working in the right field when we -- we
25 push on this. I think the real question here is how

1 much does Pennsylvania want to be in the forefront of
2 what -- of what I think is an inevitable energy
3 future? Or do we want to leave that -- those
4 advances, those technologies, those companies to other
5 countries and other states?

6 And I think a lot is to be gained if we can
7 jump in quickly. And my point there is know that the
8 voters, the people will support us on that. It's
9 something that they're clamoring for.

10 Lesson Number 2 is the -- is the importance
11 of rigorous due diligence and I'm talking about
12 technical due diligence and financial due diligence of
13 energy products and energy ideas and proposals.

14 We don't have enough money to be able to
15 afford dollars on projects that don't work very well.
16 When you're pushing the envelope, when you're
17 exploring new technologies, you're always going to
18 have some things that don't turn out quite as well as
19 you want them to.

20 But the way to minimize that is -- is not
21 just simply giving out candy and lots of brass but
22 very, very carefully reviewing what those proposals
23 are.

24 And there's an interesting thing, I think,
25 with the energy community. It -- it gets some very

1 unusual thinkers and if -- and that ranges all the way
2 from the perpetual motion machines to somebody that
3 has that revolutionary idea that could really change
4 the world.

5 And you need to think through those
6 alternatives and figure out what's real, what's solid,
7 what do you want to invest your money in, and what do
8 you want to take a pass on.

9 So -- so it's important to just stress that
10 due diligence aspect of how we ought to be moving
11 forward in any of our activities.

12 Lesson Number 3 is that we need to figure
13 out in our support for clean energy, our public
14 support, how to merge that with the private
15 marketplace. I -- I envy the clean energy funding in
16 New Jersey and New York and some of these other
17 states. As Bill pointed out, their budgets are -- are
18 orders of magnitude higher than they are in
19 Pennsylvania.

20 But even they cannot do it alone. They need
21 public capital -- private capital to be -- to be
22 brought to bear on these issues and so -- so we need
23 to figure out how do we do -- do our financing, how do
24 we do our lending, our grant making and so on, in ways
25 that bring private capital in and doesn't really

1 frustrate it.

2 We've often seen where we have grant
3 programs that the marketplace stops any investment
4 until you figure out -- until they hear what your
5 grant program is. Then it becomes how do we structure
6 our deal to fit for the grant program as opposed to
7 what makes good economic sense in the private market.

8 So just figuring out how to -- how to
9 address private capital issues. That's the third one.

10 The fourth one is that when we do use
11 subsidies -- and we all, I think, need to figure out a
12 better word than subsidies because I don't -- I don't
13 think that when we're paying dollars for clean energy,
14 what we're really doing is prepaying for the other
15 benefits, for the economic security, for the national
16 security, for the employment and economic growth, for
17 the environmental and health benefits. We're paying
18 for those up-front. So it's really not a subsidy per
19 se but a prepayment. But let's use that phrase
20 anyway.

21 Subsidies need to be designed smartly and in
22 very disciplined ways. The Reinvestment Fund has done
23 this throughout its whole life. It's figuring out
24 what's the minimum amount of capital needed to -- to
25 make the rest of the project work.

1 Our wind deals, for example -- in the back
2 of the slides here there's some numbers -- but for
3 every dollar that we've invested in wind, we've
4 leveraged 21 and a half dollars from private sources.
5 That's -- that's a subsidy that's very effective
6 and -- and -- and it's something we ought to be
7 addressing.

8 In addition to -- to -- to dollars,
9 sometimes the problems are something other than not
10 enough money. Maybe it's a matter of risk. Maybe
11 it's a matter of uncertainty.

12 And so there may be other financial
13 products, like insurance or something, that we ought
14 to be figuring out how -- how to put together to help
15 build this marketplace.

16 Lesson Number 5, regulatory and political
17 barriers still exist. We've -- we've heard about them
18 several times today. We just need to figure out how
19 to reduce those because they do add tremendous risk to
20 a project.

21 If it's permitting risk and things are
22 delayed, if it's liability risks down the road, if
23 it's all sorts of issues, that's going to chill
24 projects I think even more so than the cost of some
25 technologies.

1 So however we -- we identify what those --
2 those regulatory barriers are, what the appropriate
3 modification is, we don't want to throw over
4 environmental rules. I'm a very strong
5 environmentalist. We don't want to throw over public
6 safety rules.

7 But we need to really ask the questions do
8 these make sense? Can we be smarter about how to do
9 this? And it's that being smarter that's critical
10 because often there's -- there's multiple benefits
11 that can come if you simply look at the problem from
12 a -- from a different -- different way.

13 And then Number 6. This is the idea of
14 supporting projects that have multiple benefits.
15 There's -- there's really -- if we're talking about
16 how do we promote new technologies and -- and where we
17 ought to begin is looking at where they make the most
18 economic sense. Where -- where are those market
19 niches that they really work and have value today that
20 require the least amount of subsidy?

21 The idea of -- the example I would give is
22 the emergency road signs that you now see along the
23 highway. Used to be little engine generator sets but
24 now they are all photovoltaic systems with battery
25 backup. High cost PV panels but a good technology

1 because it's low maintenance, requires -- does not
2 require you to come out and fill the generator with
3 gasoline every day or so. And it's a market niche
4 where PV makes good economic sense right now.

5 We need to figure out where those
6 opportunities are that allow you to capture multiple
7 benefits so that it no longer needs the deep subsidy
8 that you once had, and in our projects we've been
9 working to do all that.

10 Let me just end with a point I think from
11 the financial situation, and it often does come down
12 to money here. The real question is how does
13 Pennsylvania maintain and grow its ability to provide
14 favorable capital for clean energy projects and
15 companies?

16 And up to now the Sustainable Energy Funds
17 that were created out of the electric utility
18 restructuring, one of the main vehicles, we've been in
19 recent years seeing much greater support from the
20 Department of Environmental Protection. All of those
21 I think are tools.

22 The question is where is the funding coming
23 from? Are you to continue it with the Sustainable
24 Energy Funds? The current funding is -- is -- we're
25 getting near the end of many of those dollars. It's

1 certainly not on a -- on a long-term basis. I think
2 it's probably time to begin talking about other ways
3 of financing that activity, system benefits charge,
4 just to sort of throw the bomb in the middle of the
5 room here, but other -- other vehicles to make that
6 term more -- or that funding more long term and more
7 predictable I think is critical to help build these
8 marketplaces.

9 We've been seeing many in Pennsylvania -- in
10 southeastern Pennsylvania we compete a lot with New
11 Jersey. Solar businesses -- and we'd have a solar PV
12 program -- businesses look at New Jersey and they see
13 long-term funding. They see a -- a growing market
14 that's guaranteed for a long period of time. And then
15 they look at us at our \$4 million, and they decide I
16 think the better bet is in New Jersey.

17 We need to change that. I think we're
18 losing a lot with -- with the -- with what we have.

19 I've -- I've not been bothered by the modest
20 amount of funding we've had to date. I think in the
21 early years it's appropriate not -- not to overload
22 with too much capital.

23 We've seen in other states budget raids as
24 clean energy funds have all this money in the bank and
25 in these times of imbalanced budgets, their money has

1 been raided. So I've not objected to the funding so
2 far, but we need to figure out how we -- how we move
3 it forward, and that's going to mean some more money.

4 That's a lot of information here about the
5 SDF and the Reinvestment Fund and I'd be happy to talk
6 about any of those issue as well.

7 So thank you very much.

8 CHAIRMAN ADOLPH: Thank you, Mr. Clark. I
9 do not believe there's any questions from members.

10 MR. CLARK: Okay.

11 CHAIRMAN ADOLPH: I want to thank all three
12 presenters for their testimony today, and I'd also
13 like to thank the members for their attendance and
14 their participation in the question-and-answer period.

15 I'd like to remind the members that the next
16 energy policy meeting will be held on Wednesday,
17 November 16th. Our speaker that day will be DEP
18 Secretary Kathleen McGinty.

19 Without further ado, I'd like to adjourn
20 this meeting. Thank you very much.

21 (The proceedings adjourned at 10:18 a.m.)

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1 REPORTER'S CERTIFICATE

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I HEREBY CERTIFY that I was present upon the hearing of the above-entitled matter and there reported stenographically the proceedings had and the testimony produced; and I further certify that the foregoing is a true and correct transcript of my said stenographic notes.

Brenda S. Hamilton, RPR
Notary Public