

COMMONWEALTH OF PENNSYLVANIA
HOUSE OF REPRESENTATIVES
ENVIRONMENTAL RESOURCES AND ENERGY COMMITTEE

NORTH OFFICE BUILDING
HEARING ROOM NO. 1

JANUARY 25, 2006
9 A.M.

BEFORE :

HONORABLE WILLIAM ADOLPH, CHAIRMAN
HONORABLE CAMILLE GEORGE
HONORABLE MARTIN CAUSER
HONORABLE JACQUELINE CRAHALLA
HONORABLE ART HERSHEY
HONORABLE SCOTT HUTCHINSON
HONORABLE RON MILLER
HONORABLE JEFFREY PYLE
HONORABLE KATHY RAPP
HONORABLE DAVE REED
HONORABLE CHRIS ROSS
HONORABLE CAROLE RUBLEY
HONORABLE RICHARD STEVENSON
HONORABLE DAVID LEVDANSKY
HONORABLE JENNIFER MANN
HONORABLE MICHAEL McGEEHAN
HONORABLE JIM WANSACZ
HONORABLE JOHN YUDICHAK

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1 CHAIRMAN ADOLPH: Good morning. The hour of
2 9:00 having arrived, I'd like to call to order an
3 informational meeting of the House Environmental
4 Resource and Energy Committee. I'd like to welcome
5 everyone to this meeting.

6 I'd also like to extend a special welcome and
7 thank you to all of our presenters. I know each one
8 of them have spent an awful lot of time preparing for
9 today, and we certainly appreciate it.

10 Today is the fifth session of our energy
11 policy hearings for Pennsylvania. I look forward to
12 hearing from today's panelists. The subjects are
13 quite timely ranging from a perspective about energy
14 resource and development to alternative fuels to
15 energy efficiency with a focus on small business.

16 Energy prices, supply and demand all continue
17 to be very important issues. The price of oil is over
18 \$60 a barrel. This sustained price per barrel has had
19 a significant effect upon our nation and our State's
20 economy and the pocketbook of our average
21 Pennsylvanian.

22 The global nature of this problem has been
23 reflected in various world events such as the unrest
24 in West Africa and the concern over nuclear programs
25 in Iran.

1 This instability has caused the world's oil
2 market to react to the by-products as it affects the
3 price of crude oil.

4 It is certainly not my intent to paint such a
5 gloomy picture this morning. Through the energy
6 policy meetings we have received a variety of good
7 ideas to help shape and secure an economically viable
8 energy future for Pennsylvania.

9 I anticipate today's meeting to be a
10 continuation of publicly discussing these ideas and to
11 be helpful for our members in providing further
12 background making reasoned and informed decisions
13 about energy policy.

14 What I would like to do is I would like the
15 members starting on my left to identify themselves and
16 the county or legislative district they represent.

17 REPRESENTATIVE HUTCHINSON: Scott Hutchinson,
18 64th Legislative District in Venango and a portion of
19 Butler Counties.

20 REPRESENTATIVE CAUSER: Marty Causer, McKean,
21 Potter, and Cameron Counties; 67th District.

22 REPRESENTATIVE RAPP: Kathy Rapp, 65th
23 District; Warren, Forest, and McKean County.

24 REPRESENTATIVE CRAHALLA: Jackie Crahalla,
25 150 District, Montgomery County.

1 REPRESENTATIVE PYLE: Jeff Pyle, 60th
2 District; Armstrong and India Counties.

3 CHAIRMAN ADOLPH: Representative Bill Adolph,
4 165th, Delaware County.

5 REPRESENTATIVE GEORGE: Representative Bud
6 George, 74th; Clearfield County.

7 REPRESENTATIVE JIM WANSACZ: Representative
8 Jim Wansacz, Lackawanna, Wyoming, and Susquehanna
9 County.

10 REPRESENTATIVE STEVENSON: Representative
11 Dick Stevenson, 8th District; Mercer and Butler
12 County.

13 REPRESENTATIVE RUBLEY: Carole Rubley,
14 Chester and Montgomery Counties.

15 CHAIRMAN ADOLPH: That looks like everybody.
16 Chairman George has informed me that himself and
17 Representative Rubley are going to be leaving to
18 attend a PennVest meeting at 9:30. I want to let the
19 presenters know that it certainly is not your
20 testimony the reason why some walk out.

21 There are scheduled meetings. We haven't
22 been able to organize our committee meetings
23 throughout the Capitol. So people come and go, but
24 your testimony is very important. And Chairman George
25 has informed me that he will be leaving around 9:30.

1 Smalley of Rice University who says that energy is the
2 most important problem facing humanity today.

3 In addition to that, it is the largest
4 enterprise on earth. It includes agriculture. It
5 includes many things. So it is an important issue to
6 be talking about.

7 Let me start by talking a little bit about
8 Penn State University. In my role as Associate Dean
9 for Graduate Education and Research, I oversee a cadre
10 of faculty that are committed to performing energy
11 research. And the University has also committed to
12 having energy research a priority.

13 We have an Energy Institute in our college.
14 It coordinates the energy research activities in the
15 college and President Graham Spanier has a task force
16 looking at better coordinating and facilitating energy
17 research campus-wide. So it is high on our priority
18 list.

19 What I would like to do is just give you two
20 examples of faculty members who are intimately
21 involved in energy research, the types of things they
22 do, and from where they receive their funds because I
23 think it illustrates a point.

24 In the written testimony you'll see the
25 details of the research of Professor Chunshan Song.

1 Dr. Song is an international expert on catalysis and
2 of applying catalysis to solving fuel chemistry
3 problems. He does things like produce low sulfur
4 diesel fuel.

5 He does things like look at how to separate
6 carbon dioxide from exhaust gases so that we can
7 sequester the carbon dioxide. And what he does is do
8 research that brings ideas up to a certain level of
9 development. And that is the role I think of a
10 research university.

11 And the funding that he gets, the last five
12 years almost \$4 million of research funding brought
13 into Penn State by this particular faculty member. Of
14 that funding 60 percent of it comes from the private
15 sector as is appropriate, 36 percent from the federal
16 government, another 3 percent from a foreign
17 government, and 1 percent from the Commonwealth of
18 Pennsylvania.

19 The second faculty member is Dr. Andre
20 Boehman. He is an engine expert. He works on solving
21 problems -- emission problems associated with
22 automobiles, gasoline engines, diesel engines.

23 And what he has discovered in the course of
24 his work is that there are problems associated with
25 converting conventional diesel engines to burn on

1 biodiesel. And the State obviously is interested in
2 biodiesels and supporting biodiesel production and use
3 by the general public and in its fleet of vehicles.

4 It turns out that the properties of biodiesel
5 are such that unless you make any modifications both
6 to the fuel handling system and the firing system, the
7 advantages of biodiesel is lowering the nitrogen oxide
8 emissions; lowering particulate emissions will not be
9 realized. And so that is the kind of research, again,
10 that can be used by energy developers, commercializers
11 to improve their products.

12 Now let me say a word about the
13 Commonwealth's energy strategy. From my perspective,
14 the Commonwealth has a range of excellent programs
15 which are directed towards energy technology
16 deployment.

17 You have programs like Energy Harvest,
18 Growing Greener, EDGE, Alternative Fuels. I can go
19 down the list. And most of these are directed towards
20 deploying energy technologies.

21 The Pennsylvania Energy Development Authority
22 was recently reauthorized, refunded. And they have a
23 series of programs, some fundamental research but
24 mainly energy technology deployment.

25 What is the situation in other states? Let

1 me use Indiana, Kentucky, and Illinois as examples.
2 In the recent 2005 Energy Act, there is \$85 million
3 appropriated for three universities; the University of
4 Kentucky, Southern Illinois University, and Purdue
5 University in Indiana.

6 And this is directed towards research on
7 producing transportation fuels from Illinois corn, a
8 program run by the Department of Energy. And if you
9 read the literature and announcements around that
10 appropriation, you will see that the states have
11 provided substantial support to those universities in
12 preparing themselves to be recipients of \$85 million
13 worth of research over the next years from the federal
14 government.

15 Penn State has support from the federal
16 government from the Department of Energy. We do about
17 \$14 million a year worth of research from DOE. DOE
18 has used Penn State to manage some industrial
19 consortia. So we have a partnership with the federal
20 government and the private sector.

21 And I list in my testimony the type of
22 consortia that involves over a hundred private
23 companies that Penn State runs programs on behalf of
24 the Department of Energy.

25 Here is my concern, however. It is that most

1 Department of Energy programs require a 20 percent
2 cost share. That is the Department of Energy will
3 only pay for 80 percent of the research. To date,
4 Penn State faculty have been very successful in
5 generating the required cost share from the private
6 sector.

7 But the private sector is only interested in
8 participating in certain types of technology
9 development programs. They are not necessarily
10 interested in some of the fundamental research that
11 the federal government is prepared to sponsor.

12 So we really need a partnership. And I think
13 this is where -- this is my message to the committee.
14 If we could enter into a partnership with the State
15 such that the Commonwealth would join with us, would
16 join with the private sector, and join with the
17 federal government in this partnership, it would be a
18 benefit to not only Penn State but to the citizens of
19 the Commonwealth.

20 It would be a benefit because it would allow
21 us to bring more federal research funding into the
22 Commonwealth. It would allow us to develop ideas to
23 the extent such that the pipeline is full when these
24 excellent deployment programs that the Commonwealth
25 has reaches into that pipeline and wants to pull out

1 technologies to commercialize, to implement, to
2 deploy.

3 There has to be something there to deploy.
4 And so if those programs, those deployment programs
5 which are very successful in creating jobs, in
6 minimizing emissions in the environment, in displacing
7 foreign oil with Pennsylvania resources, with the
8 economic development attendant with all of those
9 programs, if they are to continue to be successful,
10 they have to be fed by the research conducted at
11 places like Penn State University.

12 Now I concentrated on Penn State, but the
13 other research universities in the Commonwealth, of
14 course, also play a significant role.

15 Some of us when PEDA reauthorized had hoped
16 that PEDA might serve in that capacity to provide
17 those kinds of funds that we could use to leverage
18 with the federal government.

19 The faculty members that I talk about, for
20 every dollar of research they receive from the
21 Commonwealth, generate over \$90 from the private
22 sector and the federal government.

23 Other states are becoming players in this
24 game. For Penn State faculty to continue to be
25 successful in competition with the faculty in other

1 states who automatically they tell me anecdotally
2 receive the required cost share from the State
3 government when they want to submit proposals.

4 We need your support, and we need your help.
5 And maybe PEDA is the vehicle for doing that, maybe it
6 is somebody else. Thank you very much.

7 CHAIRMAN ADOLPH: Thank you, Doctor. Our
8 next presenter I'd like to introduce is Ms. Rosemary
9 McAvoy. Good morning, Rosemary.

10 MS. McAVOY: Good morning.

11 CHAIRMAN ADOLPH: Ms. McAvoy leads the
12 Renewable Energy Council, a statewide organization
13 dedicated to the promotion and development of
14 alternative fuels. Go right ahead.

15 MS. McAVOY: Thank you. Thank you, Mr.
16 Chairman. I'm pleased to be here before the committee
17 this morning and discuss the current barriers to
18 commercialization of alternative fuels.

19 I am the founder and the CEO of the
20 Alternative Fuels Renewable Energies Council that
21 started out in Pennsylvania and now has branched out
22 nationally. And we have fortune 500 companies as well
23 as international companies involved in what we're
24 trying to do with the commercialization of alternative
25 fuels.

1 The Alternative Fuel Council is an organized
2 and renewable energy stakeholder group that builds
3 collaborations with industry to overcome the
4 technical, economic, and social barriers to commercial
5 utilization of alternative fuels.

6 We meet four times a year at the State
7 Capitol where we hold business roundtables where the
8 manufacturers, the scientists, the producers, the
9 consumers can meet and discuss and brokerage
10 information about alternative fuels.

11 And when you start to think about alternative
12 fuels and you think about all of the wonderful things
13 it can bring to the United States, you think about
14 this is such a win-win situation because this is good
15 for the Pennsylvania farmers and this is good for Penn
16 State University and this is good for the small
17 business development centers because we have all of
18 these entrepreneurial ventures that are coming out
19 with waste energy projects that this is -- you know,
20 this is just a no brainer.

21 Why shouldn't we use alternative fuels? So
22 what I would like to do this morning is I would like
23 to explain to you just how complicated this is, that
24 this is not simply farmers growing soy beans and
25 having some type of an issue to be able to use this as

1 a value-added product to get more money for farmers in
2 Pennsylvania and we can be the biodiesel capital of
3 the world.

4 Agriculture is Pennsylvania's leading
5 industry. And many of the alternative fuel products
6 are made from feedstock crops. Alternative energy
7 provides a value-added product for the feedstock.

8 Local access to the bio-based fuel additives
9 helps create sustainable business in the Commonwealth.
10 That's how easy it sounds.

11 But by providing the testimony today, I want
12 you to understand the underlying factors that impede
13 the commercialization of alternative fuels. So today
14 I'm going to address three different issues.

15 One will be the factors that influence the
16 use of alternative fuels in the marketplace. Two will
17 be the existing barriers to the commercialization of
18 alternative fuels. And three are the Alternative
19 Fuels Renewable Energy Council recommendations for
20 actions.

21 Transportation fuel usage accounts for the
22 bulk of the petroleum consumption in the United
23 States, currently representing two-thirds of the total
24 petroleum use and roughly one-quarter of the nation's
25 total energy consumption.

1 Each day, vehicles in the United States
2 consume about 10 million barrels of petroleum fuels,
3 primarily gasoline and diesel.

4 According to the projections by the Energy
5 Information Administration, this figure will rise to
6 about 15 million barrels per day by 2010, many of
7 which will be met by importing oils.

8 One would think with the rising fuel oil
9 cost, the increasing air pollution, and the need to
10 develop local economies would drive the renewable fuel
11 industry.

12 However, in the near term, these fuels will
13 not replace a substantial portion of the fossil fuel
14 base. Potential oil import savings are potentially
15 less than 2,000 barrels a day.

16 So my testimony today will specifically
17 discuss the extent of alternative fuel usage and some
18 of the critical barriers inhibiting the greater use of
19 alternative fuels. This is why there has been limited
20 progress made in the most recent years.

21 We have identified three factors which may
22 influence the use of alternative fuels in the
23 marketplace. One is the volatile pricing of gasoline
24 and fuel -- and it is probably going to double in the
25 next five to ten years.

1 Two are the vehicle miles traveled will
2 decrease by 10 to 15 percent in the next 20 years
3 which will decrease the usage of fuel. Fuel economy
4 is simply described as the miles per gallon that a
5 vehicle used.

6 As fuel prices continue to rise, automobile
7 makers will respond by manufacturing more efficient
8 vehicles through -- we're hoping through market demand
9 if not by regulation.

10 Based on the current fuel structure, research
11 shows consumers will not alter their driving behavior
12 within the next five years.

13 And three is the fleet mile per gallon will
14 increase significantly greater than 15 percent in the
15 next five to ten years. Most alternative fuels are
16 biobased and are fuel additives or extenders.

17 If there are factors that could encourage
18 alternative fuel use, we must make sure that when the
19 product is brought to market that we have to resolve
20 these existing barriers to the commercialization of
21 alternative fuels today.

22 We recently researched a pilot program that
23 was created by DOE, the Department of Energy, created
24 for a fleet transportation use of alternative fuels.

25 The summary of the project: Some fleets had

1 bad experiences with alternative fuels. A few fleet
2 managers even said they would never use alternative
3 fuels again. But some fleets are happy using
4 alternative fuels and now appear willing to even use
5 more developed vehicle technologies.

6 There was a great deal of interest in the
7 next generation of hydrogen fuel cells. Considering
8 financial impacts, there was considerable concern from
9 the payback from the increased upfront capital cost.
10 In general the vehicle price premiums were considered
11 an obstacle. And in a number of cases, fuel prices
12 were considered a side issue.

13 This opinion was cited by many organizations
14 with a distinct capital and operating budgets. While
15 there is a lack of refueling infrastructure, many
16 fleet managers believe that the infrastructure for
17 sufficient use was just not there. So there was a
18 reluctance to install expensive private fueling
19 stations and corresponding willingness to support
20 public infrastructure rather than in-house refueling.

21 There were mixed reviews on alternative fuel
22 vehicle reliability. There was negative impact on
23 performance when using bio-fuel vehicles. Although,
24 cold starting was improved. In some cases tank space
25 restricts vehicle usefulness.

1 Fleet managers indicated the range needs to be
2 the same as existing vehicles and sometimes is too
3 short for some applications.

4 In the opinion of the fleet managers,
5 alternative fuel equipment is simply not ready.
6 Manufacturers are not marketing the vehicles but
7 rather waiting for customers who are interested to
8 approach them. Once the vehicles are ordered, there
9 were common complaints of vehicle delivery.

10 Except in isolated cases, fleet managers
11 consistently complained about the lack of technical
12 assistance from the alternative fuel industry and
13 limited field support from the dealers.

14 In their opinion, proven technology does not
15 exist. Sometimes it is actually demonstrated that the
16 tested emissions were not lower than gasoline. There
17 was also widespread recognition that there has been
18 improvement in gasoline, diesel vehicle emissions
19 performance.

20 Now given the scenario, I think you'll be
21 able to better understand what I'm going to talk about
22 when I talk about the barriers to commercialization.
23 The most critical of all barriers in this issue cannot
24 be solved domestically. It is directly tied to the
25 cost of global pricing of imported oil.

1 The most critical factor is the relatively
2 low price of oil. Even today's prices are not even
3 high enough to induce many people to give up their
4 conventional gasoline and diesel vehicles in favor of
5 alternative fuels and alternative fuel vehicles.

6 Domestically our primary impediment is the
7 insufficient availability of alternative fuel
8 refueling infrastructure.

9 Pennsylvania and the nation have a limited
10 number of refueling stations for alternative fuels
11 compared with gasoline and diesel stations. Less than
12 five years ago, there were only 6,000 refueling
13 stations for alternative fuels in the entire United
14 States. That compared with 180,000 refueling stations
15 that were available for the conventional fuels.

16 So the scarcity of the oil is not the issue.
17 In Pennsylvania, it's the scarcity of the alternative
18 fuel refueling stations that makes it less convenient
19 to acquire alternative fuels which in turn deters the
20 general public from buying the vehicles that use them.

21 This is the old chicken or the egg story.
22 Consumers need an easy, accessible supply of
23 alternative refueling stations. However, the cost of
24 the entire refueling infrastructure dedicated to the
25 cost of implementing a widespread infrastructure would

1 be of a significant cost.

2 So who or what business is willing to
3 underwrite the cost with the hope of if you build it
4 they will come? Given the insignificant number of
5 alternative fuel vehicles in the nation's vehicle
6 fleet, owners of gasoline refueling stations are
7 reluctant to provide refueling facilities for them
8 which brings us back to the reluctance of consumers to
9 switch to alternative fuel vehicles and alternative
10 fuels.

11 Major automobile manufacturers must produce
12 more alternative fuel vehicles that use alternative
13 fuels. Without the engines that use alternative fuel,
14 the push for the alternative fuel will meet its
15 demise. Presently General Motors builds about 400,000
16 cars and trucks that burn E85.

17 Deimler Chrysler will only build about 11,000
18 flexible-fuel vehicles this year, but they planned a
19 significant ramp up next year.

20 Ford has recently announced to build 250,000
21 flexible-fuel vehicles this year, up from 201,000 in
22 2005.

23 So when you talk about resource availability,
24 I want you to consider this. I recently spoke with a
25 businessman from Toyota concerning the sales of

1 alternative fuel vehicles. They have the Prius. He
2 told me, business is business. Dealers need to move
3 product. Why invest in a car that is going to sit in
4 a showroom where there are no refueling stations
5 around to fuel this car?

6 There is no incentive for that dealer to sell
7 that particular vehicle. People need to be able to
8 drive their cars and have access to fuel. A
9 specialized engine that uses ethanol needs to use
10 ethanol. When is the last time you saw a Sheetz that
11 sold ethanol?

12 Capital cost tends to be higher for
13 gas-powered vehicles than for the mass-produced
14 alternatives. The high cost of providing alternative
15 fuels at existing gasoline stations reduces station --
16 the owners of stations willingness to provide the
17 facilities.

18 So the relatively higher cost of certain
19 alternative fuel vehicles -- on the average,
20 alternative fuel vehicles cost more than the
21 conventional vehicles which reduces the incentive for
22 purchase.

23 Now, the different types of automobiles use
24 different types of alternative fuel systems. But I'd
25 like to just give you an example of that. A vehicle

1 that runs on compressed natural gas generally costs
2 \$3,000 to \$5,000 more than the same type of vehicle
3 that runs on gasoline.

4 An electric-powered vehicle generally ranges
5 from the low 30,000 to mid 40,000. And these are
6 figures from the Electric Vehicle Association of
7 America.

8 So what does this mean for a person who is on
9 a low and limited income? The higher the cost of the
10 car actually disenfranchises the category of people
11 with lower incomes from voluntarily choosing to buy or
12 maintain this type of a car.

13 Because of the high purchase price, most of
14 the estimated 3,500 electric vehicles in operation
15 have been identified as having been leased, not
16 bought. The costs of the alternative fuel vehicles
17 are often higher and they run on the fuels that cost
18 more money. So the consumer demand for them is not
19 great.

20 Many organizations that the Alternative Fuel
21 Council has contacted, they are interested in a better
22 public image. They are interested in using
23 environmentally acceptable fuels. They have a great
24 desire for green operation, but not without the
25 financial penalties.

1 Business is business. They have to make a
2 profit. Any significant increase in the use of
3 alternative motor fuels in vehicles by the general
4 public will, therefore, depend on two main factors.

5 One is a dramatic and sustained increase in
6 the price of gasoline. And two, incentives far above
7 the current levels to reduce the cost of using
8 alternative fuels in vehicles. And depending on what
9 happens to the conventional fuel prices, any
10 incentives that are now in place are going to have to
11 be sustained.

12 And what happens? You know, where do these
13 subsidies come from? They come out of the taxpayers'
14 pockets.

15 So this brings us to three reasons that the
16 Alternative Fuel Council believes that alternative
17 fuels have only achieved a negligible market
18 penetration.

19 One is alternative fuels have been held below
20 the replacement values by subsidies and regulatory
21 controls. Two, new technologies take time to be
22 accepted. Three, the initial capital cost for the
23 equipment are high.

24 And until price signals accurately reflect
25 the full costs of fossil fuels, significant investment

1 in renewable fuels will be small. Alternative fuels
2 are forecasted to emerge in the next five to ten
3 years, not tomorrow. And it won't be until the next
4 10 to 20 years that the United States' fuel portfolio
5 will actually show renewable energy as an investment.

6 Now we have this unusual twist of fate. The
7 Alternative Fuel Council sees a challenge with
8 alternative fuels and agriculture.

9 Our bio-based fuel additive products are made
10 from corn, soybeans, mustard, grape seed, and canola.
11 At first glance you think this is a win-win situation
12 for the farmer and the fuel distributors. In fact, we
13 end up with a dichotomy.

14 The more biomass that is demanded for the
15 fuel additive, the higher the price of the bushel of
16 for like soybeans for our farmer. We think this is
17 good. This is good for agriculture, a leading
18 industry in Pennsylvania.

19 However, the same product is used in the
20 petroleum industry in biofuel. So the cost of the
21 biomass ingredient only gets more expensive as the
22 demand increases. So we end up with these two
23 factions at war.

24 We have the Pennsylvania Department of
25 Agriculture who wants to increase the prices for a

1 bushel of soybeans. And on the other hand, we have
2 the Department of Environmental Protection saying that
3 we need to have biodiesel at a cost that is less than
4 the market for diesel fuel.

5 So you have these two different issues at
6 stake. We have a war. And we have both -- two
7 different economies of scale that stand to gain from
8 the use of alternative fuels.

9 So in conclusion, I'd just like to say it is
10 all about money. Our farmers need good trading prices
11 for their product, and energy needs inexpensive prices
12 for their products as well.

13 So this is how complicated this alternative
14 fuel industry is and why there are so many problems in
15 bringing this product to market.

16 So what can we do through the Alternative
17 Fuel Council to hasten alternative fuel advocacy?
18 We'd like you to consider the following actions: One,
19 create a short, medium, and long-term state fuel and
20 vehicle supply strategy.

21 Two, no tolls for vehicles that use
22 alternative fuels. Three, educate and promote transit
23 and telecommute options. No taxes on the sales of
24 alternative fuels. Provide competitive grants to gas
25 stations to install or convert pumps so they can

1 dispense these types of alternative fuels.

2 Create a favorable environment for
3 alternative fuel investments. We have many companies
4 that are looking to come to Pennsylvania that see this
5 as a place where they can start a new business, and
6 they won't because of all of these different
7 complications that we have.

8 Replace all state vehicles with vehicles
9 that can use alternative fuels. And I'd also like to
10 see -- I'd like to see the State implement a statewide
11 alternative fuel corridor.

12 By establishing a corridor, we could identify
13 and anchor tenants that need enough volume and these
14 could be determined by Key Partnerships through state,
15 federal and fleet transportation maybe where we have a
16 military base, where we have PennDOT vehicles, where
17 we have commuters, waste haulers, couriers, utilities
18 and the major transportation companies that need fuel,
19 can get fuel, and be re-fueled within the State
20 corridor.

21 The very last thing to consider is that to
22 continue consumer education and outreach by creating a
23 major marketing campaign that promotes alternative
24 fuel vehicles, engines, and fuels.

25 In conclusion, let me say that the

1 Alternative Fuel Council is proud to be a catalyst and
2 a leader in the advocacy of alternative fuels and
3 renewable energy industries. We believe that
4 businesses, small and large, can participate in
5 creating an opportunity provided by energy products
6 that ensures security and product prosperity for us
7 and other generations.

8 And lastly, I'd like to thank Penn State
9 University who has been working for many years with
10 the entrepreneurs in Pennsylvania who happen to be
11 members of the Alternative Fuel Council. Without
12 their help, without their assistance, their support,
13 without them going out on their own to secure funding
14 to look into how can we bring these products to
15 market, in particular Dr. Boehman, we wouldn't be as
16 far as we are today. And thank you very much.

17 CHAIRMAN ADOLPH: Thank you, Rosemary. I'd
18 like to acknowledge the presence of some legislators
19 that came in during the last two presenters.
20 Representatives Levdansky, Mann, Hershey, Ross, Reed,
21 Miller, and McGeehan.

22 Our next presenter, I'd like to call upon is
23 Mr. Christopher Lynch. Mr. Lynch is the director of
24 the Environmental Management Services, Small Business
25 Development Center, and the Wharton School.

1 The Small Business Development Center has a
2 very active energy efficiency program, specifically
3 helping small businesses with their energy costs.
4 Good morning.

5 MR. LYNCH: Good morning, Mr. Chairman.

6 CHAIRMAN ADOLPH: Thank you for coming.

7 MR. LYNCH: Thank you. Thank you to the
8 members of the committee. I appreciate the
9 opportunity to be here this morning to discuss energy
10 efficiency, particularly as that relates to the small
11 business community.

12 You know, I think energy efficiency is really
13 an important part of the energy strategy going forward
14 as you just heard. Some of the alternative fuels are
15 actually ten years out before we will actually be able
16 to use them whereas energy efficiency is something we
17 do right now to achieve immediate savings.

18 I applaud this committee's leadership in
19 holding these energy policy hearings. Ultimately, I
20 think whether we are talking about alternative
21 technology like fuel cells or advanced diesel and
22 other engines, whether we are talking about
23 alternative energy or alternative biofuels, or whether
24 we are even talking about basic light and technology
25 upgrades at a small business, I submit that one of the

1 greatest challenges is getting these innovations into
2 practice.

3 Energy efficiency is the quickest and
4 cleanest way that we can stretch our existing energy
5 resources to meet the constantly growing demand for
6 energy.

7 Right now I'm afraid that while energy
8 efficiency is included in the Alternative Fuel
9 Portfolio Standards Act, there is a danger that energy
10 efficiency, especially when it comes to the small
11 businesses, will be lost in the mix as utilities
12 possibly meet their obligations through investments in
13 new power generation rather than efficiency
14 improvements.

15 How can this committee help get energy
16 efficiency into practice at small businesses? While
17 there are many factors, I would like to concentrate on
18 two of the most critical issues.

19 First, small businesses have a need for
20 technical assistance in order to analyze their energy
21 usage and make good decisions regarding energy
22 efficiency investments.

23 And second, small businesses have limited
24 capital overall and, as a matter of public policy,
25 Pennsylvania should invest in making a range of

1 financial incentives available to help small
2 businesses implement energy efficiency improvements.

3 Why should we care so much about the small
4 business community when setting an energy policy? For
5 one simple reason, small business energy use is huge.

6 For example, in the aggregate, small
7 businesses account for 74 percent of all commercial
8 electricity consumption. When about half of all power
9 used in commercial building is for lighting if every
10 small business took steps and implemented energy
11 efficiency technology for lighting alone, the
12 accumulated savings would be staggering.

13 What's more, lighting retrofits are typically
14 easy and the technologies are well-proven. For the
15 small business owner, however, these can be new and
16 complicated issues. And assistance is needed to take
17 advantage of energy efficiency measures that make most
18 sense for each individual business.

19 For this reason, the Environmental Management
20 Assistance Program of the Pennsylvania Small Business
21 Development Centers has been providing energy
22 efficiency assistance to retail, service, and
23 manufacturing businesses as part of our services since
24 1997.

25 Since increasing our staff in 2000 of the

1 more than 1,200 small businesses who have sought our
2 assistance, about 25 percent of these received some
3 kind of energy efficiency assistance. Looking at just
4 the last two years as energy prices have climbed, a
5 full 53 percent of our clients have sought energy
6 efficiency help.

7 Our approach to technical assistance is to
8 simplify it as much as possible. Our comprehensive
9 step-by-step program begins by taking a year's worth
10 of energy bills to determine a business' energy
11 intensity or their annual usage per square foot. We
12 then take that figure and compare the individual
13 business to other Pennsylvania businesses in the same
14 industrial classification.

15 So if a business has an energy intensity way
16 above the average, we know there are good savings
17 opportunities and we can begin planning what to look
18 for when we conduct an on-site evaluation. Even a
19 business performing around the average can still
20 potentially save 20 to 25 percent on their average
21 cost.

22 We have yet to have a client who did not have
23 at least one significant opportunity for reducing
24 their energy costs.

25 Once our on-site evaluation is complete, we

1 provide the business with recommendations and
2 suggestions that can be used to make sound energy
3 efficiency investments. As we connect the business
4 owners with contractors who can provide further
5 estimates and actually complete project installations,
6 we continue to play a part as we work with the
7 business owners to evaluate the various financing
8 options that they might have -- whether it's grants,
9 loans, self-financing, or a combination thereof.

10 And this leads me to my second and probably
11 most important point, the need for small business
12 financial incentives. Most of the small business
13 owners we work with do not have the up-front capital
14 needed to make energy efficiency improvements or they
15 need a little extra incentive to make that investment.

16 Unfortunately, when energy prices jump, what
17 we see is small business owners taking a short-term
18 view, swallow hard, and paying the few extra hundred
19 dollars each month or more on their utility bills.

20 Although it often feels easier to come up
21 with that extra amount each month rather than coming
22 up with a large, up-front lump sum to make an energy
23 efficiency investment, what happens over time is that
24 capital reserves are depleted and energy efficiency
25 improvements get further and further out of reach of

1 the small business.

2 One way of getting over the investment hurdle
3 has been the creation of a micro-grant program for
4 environmental and energy efficiency improvements at
5 small businesses. It was very encouraging to us when
6 the Department of Environmental Protection Secretary
7 McGinty announced in 2004 that she would act on our
8 suggestions and seek our advice in creating a Small
9 Business Advantage Grant program. As we predicted,
10 the need for this program and the demand for this
11 program is very high.

12 Offering a 50 percent cost share up to
13 \$7,500, the program ran through its allotted funding
14 in just over six months the first year it was offered.

15 In the second year of grants, this current
16 fiscal year, the program funds were exhausted in just
17 over five months.

18 We continue to receive inquiries about the
19 grant program almost daily. Many of our clients have
20 energy efficiency projects right now that are sitting
21 on shelves hoping that the program will open up again.

22 As it now stands, the Department's own web
23 site says only that the program may reopen in July
24 2006 if funds should become available. Speaking just
25 for the small businesses assisted by the Environmental

1 Management Assistance Program, we've had 39 clients
2 obtain Small Business Advantage Grants totaling over
3 \$229,000.

4 These grants have been leveraged to implement
5 energy efficiency projects totaling over \$536,000.
6 And most significantly, these 39 projects will save
7 Pennsylvania small businesses in excess of \$189,000
8 annually on their energy costs with an aggregate
9 payback period on the owner investment of just 1.6
10 years.

11 Imagine the economic, environmental, and
12 energy security benefits if the Commonwealth invested
13 a greater amount in this cost share program so that
14 more of Pennsylvania's 906,000 small businesses could
15 do what our clients have already done and realize
16 energy cost reductions of approximately \$4,800.

17 If it is true that energy expenditures are
18 increasingly flowing out of state, these savings that
19 are kept can be kept in Pennsylvania and re-invested
20 in the economy for new equipment and inventory
21 purchases, new product development, or even new jobs.

22 Given the tremendous positive impact to
23 individual small businesses and the Commonwealth's
24 economy as a whole from this modest public investment,
25 I strongly encourage the General Assembly to establish

1 a dedicated funding source for the Small Business
2 Advantage Grant program and to increase the annual
3 program allocation above the current \$1 million level.

4 Given the oversubscription to the Small
5 Business Advantage Grant program, we also see a need
6 for additional options. The grant program can
7 certainly help get the ball rolling, but I also
8 suggest this committee continue its leadership role in
9 the energy arena by making Pennsylvania the next state
10 to offer "on bill financing" as a mechanism for
11 helping small businesses put energy efficiency into
12 practice.

13 Utilities in Connecticut, Massachusetts, and
14 Rhode Island have been offering on bill financing for
15 about ten years. In just the last six months,
16 California has begun taking steps offering on bill
17 financing through its electric utilities.

18 With on bill financing, energy efficiency
19 projects are accomplished with no up-front capital
20 required of the small business installing a project.
21 The basic concept is that utilities will cover the
22 up-front costs and then provide a modest rebate and a
23 zero percent interest loan to cover the financing.

24 In turn, rather than seeing its bills
25 immediately decrease after the project has been

1 implemented, the business will continue paying one
2 bill at the same rate as before participating in the
3 program.

4 The loan repayment is rolled into that
5 monthly bill and is based on the estimated savings
6 which are shared with the utility and applied to the
7 project cost until it is paid off.

8 So again, there is no up-front investment
9 required with the small business to do the project,
10 and the savings are paid off as part of the bill. So
11 the savings actually are paid off on that monthly bill
12 and are directly applied to the cost of the project
13 until it is paid off.

14 Once the bill is paid, the initial project
15 cost and savings go directly to the small business
16 owner.

17 Given the small business up-front capital
18 experience that I mentioned earlier, this is a unique
19 option that we think should be fully explored in
20 Pennsylvania.

21 I appreciate the opportunity to be here this
22 morning and share my thoughts on small business energy
23 efficiency.

24 I hope that you share our views that public
25 investments in technical assistance and financial

1 incentives help increase small business energy
2 efficiency well serves the public good and should be
3 considered a critical part of energy strategy going
4 forward. Thank you.

5 CHAIRMAN ADOLPH: Thank you, Mr. Lynch. I
6 thank all three testifiers for your testimony. We do
7 have many members that have questions.

8 First I'd like to acknowledge the presence of
9 Commissioner Bill Shane of the Pennsylvania Utility
10 Commission; also former Deputy Secretary of DEP, Dave
11 Hess. Good morning, gentlemen.

12 MR. SHANE: Good morning.

13 CHAIRMAN ADOLPH: Representative Dick
14 Stevenson has a question.

15 REPRESENTATIVE STEVENSON: Thank you, Mr.
16 Chairman. Actually, I have a couple questions. First
17 of all for Dr. Scaroni, I'm interested in the funding
18 from the Department of Energy Federal Partner. Is
19 that funding a competitive process?

20 You mentioned several other states where they
21 have an ongoing process of matching funds to get those
22 federal dollars. Is that competitive? Is there an
23 unlimited source of that money? How is that set up?

24 DR. SCARONI: Principal funds that come to
25 Penn State from the Department of Energy are won

1 competitively. There is, however, an increasing
2 tendency elsewhere and in other states to -- to
3 announce in appropriation bills.

4 Nonetheless, if that is the source of funds,
5 the Department of Energy still applies the same
6 criteria to those funds as it does to its other
7 programs. So that the institution receiving those
8 funds still has to provide the 20 percent cost share
9 to the program.

10 REPRESENTATIVE STEVENSON: In fact, you
11 mentioned several other states in your testimony. The
12 State University of Kentucky, Purdue, Southern
13 Illinois, and so forth. Is that the process they go
14 through?

15 DR. SCARONI: I referred to those three
16 particularly for the one situation for the
17 appropriation or the authorization -- not
18 appropriation -- the authorization in the federal
19 energy bill as an illustrative example of how their
20 state governments are working with those folks in
21 order to procure such language in the federal
22 appropriation bill.

23 REPRESENTATIVE STEVENSON: That is a straight
24 line item appropriation in the federal budget?

25 DR. SCARONI: Yes, it is.

1 REPRESENTATIVE STEVENSON: That has to come
2 through the State. Is that what you're saying, the
3 State applies for it?

4 DR. SCARONI: No. Actually, it will go
5 directly to the institution. But the institutions
6 need to generate separate from that the cost share
7 of -- the 20 percent cost share associated with that
8 \$85 million. And so the State's role is to provide
9 some or all of that cost share to allow those
10 universities to receive the federal dollars.

11 REPRESENTATIVE STEVENSON: I see. I see. In
12 that line if I can follow that just a little bit
13 further, do these universities share with each other
14 in terms of their research; Penn State and the
15 University of Kentucky as this research goes along in
16 these various areas?

17 DR. SCARONI: Absolutely. I mentioned
18 several consortium that Penn State runs on behalf of
19 the Department of Energy, and those consortia has as
20 members many of the other research -- energy research
21 universities.

22 We have West Virginia University. We have
23 University of Kentucky. We have universities from
24 Texas and also across the country. So we do work
25 collaboratively with the other institutions doing

1 energy research.

2 REPRESENTATIVE STEVENSON: Thank you. For
3 Ms. McAvoy, I have a question. In your research have
4 you developed any estimate of what level current
5 prices of conventional fuel would have to attain in
6 order to make alternative fuels suddenly become much
7 more interesting and more competitive to the
8 marketplace?

9 You say the current price of gasoline and
10 diesel is not high enough to encourage the private
11 market to get into the other alternative fuels. Do
12 you have any idea what level that would have to reach?

13 MS. McAVOY: With the price fluctuations, we
14 had diesel oil -- or diesel fuel being more expensive
15 than alternative fuel. So that's what I refer to when
16 I talked about volatile pricing.

17 Right now if we didn't have the subsidies in
18 place to blend our alternative fuel to get a biodiesel
19 fuel, you're talking about a 20 cent price difference.

20 But we have the Energy Act and we have a
21 dollar incentive on biodiesel in blending which
22 actually reduces the price.

23 So there is a complicated formula that is in
24 there, and some of it has to do with subsidies that
25 are offered by the state and federal government. And

1 they change daily depending on the price of diesel
2 fuel.

3 REPRESENTATIVE STEVENSON: Some of your
4 initial estimates you said you felt the price of
5 conventional fuel is going to increase exponentially
6 in the next five to ten years.

7 It is your sense during that process while
8 certainly it would be advantageous to make alternative
9 fuels more available, during that process as
10 conventional prices go up, this would become more
11 attractive than just through the natural give and take
12 in the marketplace and become more available as it is
13 produced because of the interest in the marketplace?

14 MS. McAVOY: That is exactly right. And
15 proof in point is that we saw the -- and I'll refer to
16 the price of gas because we're all more familiar with
17 gas than diesel fuel.

18 We saw the gas prices spike to over \$3 a
19 gallon recently and then they dropped back to \$2.05
20 and we all thought we had a bargain. We forgot last
21 year it was \$1.45. So the comfort level and the
22 education of the consumer is kind of edging them to be
23 more comfortable with gee, I got a bargain at \$2.45
24 this week because I paid \$1.45 last year and then it
25 spikes to \$3 but then goes back down.

1 And we see this trend over the next five
2 years. That's why it will inch up and people will be
3 more -- people will just be more comfortable with the
4 price. And our job is to be able to shift the
5 people's attention to make them to want to buy
6 alternative fuels. But we can't do that unless we
7 have the infrastructure. Because if we want to turn
8 businesses and in particular fleet transportation into
9 using diesel fuel and can blend with biobased
10 products, if we want to turn their attention there,
11 there has to be a place where they can get it. And it
12 has to be refueling stations.

13 So it's -- you know, it's just this mixed bag
14 of things that -- and we have a chance to get things
15 in place right now.

16 Right now because we're a little bit ahead of
17 the curve, we actually could create a statewide
18 corridor where we could connect the different
19 companies and the different transportation -- fleet
20 transportation companies that can require a volume of
21 fuel that can use alternative fuel that we know that
22 the stakeholders are in place. And we could actually
23 create a pilot program that would be just for that
24 vicinity of the State. And we could have that in
25 place and then roll it out as the price of fuel went

1 up.

2 REPRESENTATIVE STEVENSON: Thank you. Thank
3 you very much. And thank you, Mr. Chairman.

4 CHAIRMAN ADOLPH: Thank you. Representative
5 Wansacz.

6 REPRESENTATIVE WANSACZ: Thank you, Mr.
7 Chairman. I have a few questions. First, I'd like to
8 start with Mr. Lynch.

9 Do you know how much the request is each year
10 for the small business development grant that the
11 people are requesting? You said we're out of money in
12 the first five or six months. Do you know what the
13 annual request is for the small business community?

14 MR. LYNCH: I'm not sure what the actual
15 request is because they close the application process.
16 They get to a point where they don't accept any more
17 applications. So you don't continue to receive
18 applications at the Department. So it is hard to tell
19 how many projects once they shut off the application
20 process period, how many are still sitting out there
21 that would have applied had the application process
22 been open.

23 REPRESENTATIVE WANSACZ: I'm sorry. What is
24 the current funding for that?

25 MR. LYNCH: \$1 million.

1 REPRESENTATIVE WANSACZ: \$1 million.

2 MR. LYNCH: As I said, in the first year that
3 was exhausted after about six and a half months. And
4 this year it was just over five months.

5 REPRESENTATIVE WANSACZ: And my second
6 question for you is, does every SBDC offer this
7 service that you provide?

8 MR. LYNCH: Yes, we do.

9 REPRESENTATIVE WANSACZ: So a small business
10 let's say in my area of the northeast part of the
11 state in Scranton, you can go to the University of
12 Scranton Small Business Development Center and say we
13 are interested in cutting our energy costs. They
14 would be able to provide this service obviously for
15 free; and you give them the recommendations, correct?

16 MR. LYNCH: Yes, that is correct. We have a
17 team of environmental specialists and one energy
18 efficiency coordinator to serve the whole state. So
19 all our centers provide assistance.

20 REPRESENTATIVE WANSACZ: Thank you. Ms.
21 McAvoy is it?

22 MS. McAVOY: Yes.

23 REPRESENTATIVE WANSACZ: I have a couple
24 questions concerning alternative fuels. I just
25 recently read an article out in the Midwest where

1 their gasoline prices off the corn-based fuel is
2 actually cheaper than regular gasoline maybe because
3 of the surplus of corn I'm assuming. I'm not exactly
4 sure.

5 But also the same article stated that fuel
6 prices in some other parts of the country are more
7 expensive than regular gasoline.

8 MS. McAVOY: You ask the perfect question.
9 Peter Bell and Willie Nelson called me about a month
10 and a half ago for the committee's information.
11 Willie Nelson and Peter Bell formed a venture that is
12 called BioWillie which they are launching a national
13 campaign to actually create some type of
14 infrastructure to use biodiesel fuel.

15 And my question to Peter Bell was, well, if
16 you -- you know, if you're moving in this direction,
17 why are you concentrating on the Midwest and why don't
18 you want to put in Pennsylvania?

19 And the answer to the question was that there
20 are so many other subsidies and so many other
21 incentives for the farmers in those states that even
22 though the farmers can get the higher price for their
23 corn and soybeans, the amount of money they are
24 getting back in subsidies drives down the price of the
25 fuel additive. And why would they want to move over

1 to a state like Pennsylvania where if we -- you know,
2 if we're creating our bio additive that drives up the
3 price of the agricultural product?

4 So for the instance of soybeans when we had
5 this move towards biodiesel in Pennsylvania, our
6 farmers were thrilled because what it has done was
7 driven up the price of a bushel of soybeans 26 cents.
8 However, that drives up the price of the oil.

9 So for the distributors and for the people
10 who want to blend their diesel fuel in with our own
11 Pennsylvania product which is tied directly to the
12 Alternative Fuel Investment Grant, it is cost
13 prohibitive for them to come up with a product that
14 they can bring to market and they can be competitive
15 in their price. So they are buying their soybean oil
16 and their corn oil from the Midwest.

17 REPRESENTATIVE WANSACZ: Are you seeing in
18 the Midwest greater, I guess, chances to buy this and
19 more vehicles being made that can use these types of
20 alternative fuels?

21 MS. McAVOY: They have a concentrated effort
22 to create the infrastructure where there have a buy in
23 from the engine manufacturers to put these types of
24 engines in their trucks.

25 They have commitments from their -- I'll just

1 say convenience store stations that dispense diesel
2 fuel. They will sell the biodiesel. And the biggest
3 concern is from the trucking companies. Once they put
4 these certain types of fuel in their truck, they have
5 to be able to travel a distance and be able to
6 re-fuel.

7 The only type of fuel that you can put into a
8 truck that it doesn't matter whether you refill it
9 with certain diesel fuel is a biodiesel.

10 But when you talk about ethanol, you can only
11 run them on ethanol products. So you have to make
12 sure that if you are a truck transportation company or
13 a company that relies on transportation to move its
14 products, that your truck has to either have an
15 on-site fueling tank that holds that particular type
16 of alternative fuel or their traveling distance is so
17 diminished because they have to be able to fuel up and
18 then get back on the same tank of fuel.

19 REPRESENTATIVE WANSACZ: I'm going to
20 switch -- thank you for that. I'm going to switch
21 gears a little bit. I also noticed that you also deal
22 with other alternative energy such as geothermal and
23 solar energy.

24 Obviously with the high cost of energy to our
25 homeowners -- I mean obviously this is something that

1 homeowners have been looking at for years. Is that --
2 is there something that the State can be doing to try
3 to even help our residents afford some of these
4 systems? The cost is very expensive. And you can see
5 the return probably within seven years with any type
6 of system that you put in.

7 MS. McAVOY: We really -- our council deals
8 with companies. And that is very important because we
9 need to get down to the homeowner, the basic consumer,
10 because they are going to buy the products from our
11 companies.

12 The best thing the State can do is to
13 continue to work with the different alternative fuel
14 manufacturers in Pennsylvania to help drive down that
15 cost to make it more efficient for Pennsylvania fuel
16 dealers to be able to mix a bioproduct with a home
17 heating oil.

18 And there is just far more benefits than just
19 price to the people who are using the bio in their
20 home heating oil. What it is going to do is give them
21 a cleaner air. It is going to make their heating
22 system run cleaner which will require less
23 maintenance.

24 So there are tangible values to using the
25 product, but then there are also those intangible

1 things that people can't measure at the pump. So in
2 answer to your question, whatever you can do to help
3 businesses who are now into this industry of
4 manufacturing alternative fuels or blending
5 alternative fuels or supplying the oil that needs --
6 the beans that need to be crushed for the oil, that's
7 where we need the help.

8 And my point today was that maybe State
9 subsidies are not always the answer. Our people are
10 business people.

11 We don't want to rely on -- we don't want to
12 have to rely on the back of the government that what
13 if that dollar, that federal dollar, on a gallon is
14 ripped for some reason and all of a sudden all of our
15 people in Pennsylvania who are distributors of fuel
16 are now left with a price that is a dollar higher than
17 what it is right now on the market?

18 So what we encourage is do things to make a
19 more favorable business climate for our people to buy,
20 sell, and bring their product to market. That's why I
21 keep going back to the State -- the creation of this
22 statewide corridor.

23 That would cost far less money to the State
24 to be able to set up an environment where we can now
25 have people who can sell, buy, trade, crush the beans,

1 and put it into the Pennsylvania trucks that are
2 running all of the product. And it's business to
3 business. We need to make profitability.

4 As I kept saying in the beginning, it is just
5 such a -- it is such a mess. It's a can of worms.
6 But if we can have business-to-business help, that's
7 the best thing that you can do for us.

8 REPRESENTATIVE WANSACZ: Thank you.

9 CHAIRMAN ADOLPH: Thank you. Representative
10 Ross.

11 REPRESENTATIVE ROSS: Thank you, Mr.
12 Chairman. And just to follow-up first of all with Ms.
13 McAvoy, one thing that I'm a little worried about with
14 the creation of this corridor, we have cars that run
15 on ethanol. We have cars that run on natural gas. We
16 have cars that run on biodiesel. We have cars that
17 run on hydrogen. We have cars that run on electric.

18 And what we're looking at here is guessing
19 what is going to happen with technological
20 improvements over the next 10 to 15 years.

21 Suppose we back soybeans and soybeans turns
22 out to be not the cheapest answer, maybe substantially
23 more expensive than hydrogen -- somebody comes up with
24 a great new idea with hydrogen -- don't we run a risk
25 of setting up this corridor with the wrong technology

1 and winding up investing in buggy whips at the
2 beginning of the 20th century?

3 MS. McAVOY: We have to start somewhere. And
4 again, you raise a good point. Because that's one of
5 the concerns we've had with the Alternative Fuel
6 Council in that some of the legislation that is passed
7 and some of the regulations actually had narrowly
8 defined what is an alternative fuel and renewable
9 energy and actually disenfranchised some of the new
10 developments that are coming out of our state
11 university.

12 So what I'm suggesting by a statewide
13 corridor is to look at those companies right now
14 that -- let's take Ward Trucking who has several
15 hundred trucks that are interested in running on a
16 biofuel. And we know that bio -- or diesel fuel is
17 dispensed by Sheetz convenience stores. And we know
18 that we also have a -- you know, a military facility
19 somewhere in the same area.

20 What I'm suggesting is that we create a pilot
21 project of things right now. People that need a
22 volume, not create something brand new out of the
23 blue. But we have to start somewhere. Maybe it is
24 bio. And, you know, bio makes the right sense right
25 now.

1 But if you don't have some type of an
2 infrastructure that sells something, we're not going
3 to be able to have a company -- we are not going to
4 have anybody in place that is going to be able or even
5 interested in buying or supporting any of the
6 technologies of the future.

7 Because what we come back to is often that
8 there was a move in the '70s and '80s for methanol.
9 And the companies -- the big distributors with the --
10 you know, the PECs in Middletown that support most of
11 the oil distribution in Central Pennsylvania. If they
12 take a tank and specifically use that to hold a type
13 of a fuel and then the fuel goes -- you know, it is no
14 longer in fashion, they are all stuck.

15 That's why you don't -- that's why the fuel
16 dealers and fuel stations are reluctant to be able to
17 put these types of pumps in that just dispense this
18 particular type of product.

19 But what I'm suggesting is that we work with
20 what we do know. We do know that right now that
21 biodiesel is a hot product. We do know that there's a
22 coal gasification project in Pennsylvania that will
23 drive down the price of diesel. And we want to be
24 able to start with something. And we can't be, you
25 know, the end all and be all to everybody. But we

1 need to start somewhere.

2 REPRESENTATIVE ROSS: With all due respect,
3 we have to be kind of careful with our tax dollars.
4 And I heard a wonderful presentation from the hydrogen
5 people about a month ago. And they explained exactly
6 the same concept, that a corridor -- a transportation
7 corridor -- California is doing something along this
8 line. And they had their version of how that should
9 be created.

10 And my concern is that if we're talking about
11 long-term energy policy here, what may look good today
12 may not look good five to ten years from now. Moneys
13 that we spend today may look bad five to ten years.

14 And those of us that set these projects up
15 and use your tax dollars for them have to be very
16 concerned about that. Now perhaps there is a way to
17 deal with something that is readily convertible
18 between technologies.

19 But as you know when we were trying to do the
20 alternative energy portfolios, we had a broad array of
21 options. And one of the key elements of that was to
22 make sure we weren't trying to pick winners and losers
23 at this point. So I would caution you that whatever
24 you talk about in the way of a corridor or a structure
25 that you're talking about, from my point of view it

1 would have to be readily adaptable to a number of
2 different technologies so that we don't have to decide
3 today which one is the winner and loser. Because I'm
4 guessing we're probably going to be wrong.

5 MS. McAVOY: We don't actually have to create
6 a state -- a program that creates a state-wide
7 corridor. We might already have some of the
8 infrastructure in place, but we just don't know about
9 it.

10 If there -- you know, the simplest way and
11 the least expensive way to identify a state-wide
12 corridor would be pull together a group of
13 stakeholders who represent a transportation industry
14 who are involved with the fuels that are being used
15 right now to be able to pinpoint them on a map and see
16 if we don't have some type of corridor that is
17 already, you know, working and then just try to do
18 something to enhance that.

19 REPRESENTATIVE ROSS: Thank you. Mr.
20 Chairman, can I throw one more out here? For Mr.
21 Lynch, I appreciated all of what you said. You did in
22 the beginning of the discussion talk about the
23 alternative energy portfolio standards, and I know
24 you're aware credits are generated out of those
25 standards. You kind of hopped right over those

1 credits and got into all of the incentives you were
2 looking for.

3 I'm assuming -- and maybe I'm wrong here --
4 that someone could take a number of small businesses
5 as a private-for-profit entity, aggregate them
6 together, generate a bunch of credits that could be
7 sold, and use that money in turn for the cost of
8 creating some of these new energy efficiencies in each
9 of the different companies, couldn't they?

10 MR. LYNCH: I think that is a possibility. I
11 think many of the credits are focused towards the
12 large businesses. But yes, it could be.

13 REPRESENTATIVE ROSS: When you were putting
14 this together, I didn't see any reason -- as a matter
15 of fact, I was thinking this -- someone ought to be
16 able to do that. And so before we figure out how much
17 incentive we need to add on top of that, don't we need
18 to really calculate what that might be and make sure
19 that we're not incentivizing the situation twice?

20 I'm totally in favor of what you're
21 describing. But I'm wondering if we're not sort of
22 sticking with the old way of doing things and not
23 factoring in the alternative here.

24 MR. LYNCH: I think that's definitely
25 something that we can explore further.

1 REPRESENTATIVE ROSS: Thank you.

2 CHAIRMAN ADOLPH: Thank you. Dr. Scaroni, in
3 your testimony you mentioned that your colleagues from
4 other states report matching funds from their home
5 states. Where do these states get their funding from
6 for these matching programs?

7 DR. SCARONI: Where does the state
8 governments get their funding from?

9 CHAIRMAN ADOLPH: Yes.

10 DR. SCARONI: I presume from the taxpayers.

11 CHAIRMAN ADOLPH: I guess my question is,
12 have they set up any type of dedicated funding for
13 these matching grants or are they just taking --
14 coming right out of the general budget?

15 DR. SCARONI: To my knowledge, different
16 states are doing it differently. For example, I'll
17 use the example of Kentucky. They have established
18 the Kentucky Energy Cabinet.

19 And this is a state -- all of the
20 State-funded organizations which is charged with
21 facilitating energy research in the State of Kentucky.

22 There are councils -- similar councils in
23 Ohio, in Illinois that have different names. Some of
24 them -- but they are all -- some of them are
25 specifically geared towards say the Ohio Coal

1 Development Office for example. And in that case they
2 are specifically geared to promoting the use of Ohio
3 coal. So different states do it differently.

4 CHAIRMAN ADOLPH: Other than funding, what
5 other ways can a state partner with universities as
6 far as research and development?

7 DR. SCARONI: Well, I think that the
8 partnership -- it does come back to money, but not
9 necessarily money from the taxpayers or the citizens
10 of -- or at least state tax money.

11 We have a lot of support from our
12 congressional delegation, Senate and Congressmen. And
13 I mentioned some names in my testimony. And they are
14 looking to partner with us, with the State. It helps
15 their cause to provide money to procure money for
16 places like Penn State University if there is a buy in
17 by the State of Pennsylvania.

18 So whether or not it is direct dollars, it
19 really is support for the programs. And the other
20 thing, of course, is whether or not interested we do
21 it on a limited scale of our energy outreach.

22 We would very much like to expand our energy
23 outreach activities -- not dissimilar from the
24 testimony you heard here -- where we could use our
25 energy experts to help the private sector analyze

1 their energy situation, not just energy efficiency but
2 the alternatives that are available to them.

3 And so, you know, we would like to work
4 closely with the State on identifying a process for
5 doing that.

6 CHAIRMAN ADOLPH: Okay. Thank you very much.
7 I'd like to thank all three of you for your testimony
8 today. It is very informative. I'd like to thank the
9 committee members for their participation and their
10 attendance. And without further ado, the meeting is
11 adjourned. Thank you very much.

12 (The hearing concluded at 10:15 a.m.)

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1 I hereby certify that the proceedings and
2 evidence are contained fully and accurately in the
3 notes taken by me in the proceedings of the above
4 cause and that this copy is a correct transcript of
5 the same.

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Sherri A. Reitano
Notary Public

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