House Subcommittee on Conservation, Credit, Energy, and Research
of the Committee on Agriculture
Testimony on Financing of Renewable Energy Sources
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March 7, 2007

Chairman Holden and members of the Committee: I appreciate the opportunity to appear before you today to talk about the vital role of federal funding in development of new renewable energy projects that attract investment, create jobs and bring agriculture into the forefront of America's new energy economy.

Federal energy dollars have been vital to our efforts to invest in renewable energy to cut our reliance on imported fuels, increase our energy security, and generate tremendous new economic opportunities.

Production of fossil fuels – coal, oil, natural gas – has been a mainstay of Pennsylvania's economy for over 200 years, providing good jobs and building an industrial economy that helped make America a world power. But we now face a new energy economy dominated by imported fuels that drain billions of dollars from our state each year and give little back to support our communities.

As we've seen time and again, from the Arab oil embargoes of the 1970s to the dramatically higher prices following disruptions of oil and gas supplies in the wake of Hurricanes Rita and Katrina, our reliance on imported fuels leaves us at the mercy of severe weather events and political upheavals in an unstable world.

It has become apparent to all of us that it is time to rethink our energy policies and make production of homegrown, renewable energy an engine for economic growth. We need to stop exporting money and start putting our farmers and businesses to work producing the fuels that will allow us to declare our energy independence.

Four years ago, Pennsylvania's renewable energy program was not even on the map. Today we are a world leader as a result of investment partnerships forged between state and federal government and private industry, and a strategic shaping of our energy policy.

In 2003, when Governor Rendell took office, Pennsylvanians were spending approximately $30 billion each year on energy resources that were produced outside of the state. The Governor mounted a focused effort to start keeping these energy dollars at home to support our own economy and make Pennsylvania a national leader in the production of renewable energy sources.

This effort started with a small investment in our farmers called the Energy Harvest grant program that channeled federal energy dollars and state funds to agriculture to encourage

development of clean energy from Pennsylvania's indigenous resources to ensure reliable, affordable and secure energy supplies.

The first year we awarded 32 grants for $5 million, which was leveraged with $12.8 million in private investment. Among those early investments were $2.5 million in grants to build five bio-digesters that helped farmers turn an environmental challenge – manure management – into clean energy and an opportunity for economic growth. Other grants that first year went to energy efficiency measures and renewable energy projects such as waste coals.

Over the past three years, the Energy Harvest Grant Program has awarded a total of $21 million and leveraged another $51.9 million in private funds to develop renewable energy sources such as wind, solar, biomass, waste coal and recycled energy.

The Governor also revived the Pennsylvania Energy Development Authority which had been dormant for many years and made it part of his strategy to build a diversified energy industry for the state that would build our energy security. Over the past three years, PEDA has used a mix of federal and state dollars to award $21 million in grants and loans to develop 57 large-scale clean energy projects that leveraged an additional $240 million in private investment. The projects financed by PEDA will create 975 permanent and construction jobs.

As I mentioned earlier, we must do more than just distribute money and fund research. Without policies to create a business climate that encourages growth in the renewable energy industry, we will see little return on this investment.

In 2004, we enacted one of the most ambitious Alternative Energy Portfolio Standards in the country to ensure that by 2020, 18 percent of all energy generated in Pennsylvania will come from efficient and renewable sources.

Pennsylvania's alternative energy law provides strong incentives for clean and renewable energy. We were the first restructured state to include demand-side management measures, or "negawatts," as a means to achieve portfolio standard compliance. This better ensures that approximately 5,000 megawatts of new electricity generation that comes on line over the next 15 years will be from resources indigenous to Pennsylvania, thereby reducing our demand for natural gas in the electricity sector while improving the quality of our environment.

By mandating the use of alternative energy sources, we have given business the confidence to invest in clean energy development in our state.

The results have been impressive. In the past four years, our efforts have attracted some of the world's largest renewable energy companies to Pennsylvania including international wind energy giants Gamesa and Iberdrola, BioEnergy (in partnership with Russian oil giant Lukoil), and the world's largest solar energy project integrator, German-based Conergy AG.

In the coming months we expect to announce that a Canadian advanced battery manufacturer and one of the world's largest renewable energy electricity producers will be locating facilities and business enterprises in Pennsylvania. We are confidant that many other announcements will be forthcoming.

Governor Rendell announced last Friday that Pennsylvania's economic growth continues at a record-setting pace, recording the largest one-month gain in the last 18 months. January's statewide job count also set a new record for the seventh straight month. In just four years, Pennsylvania has grown from 48th in the nation to number 1 in creation of manufacturing jobs as a direct result of our investment in production of clean, renewable energy.

This success has not been without it difficult moments. We have a textbook example of what is both right and wrong with the process as it relates to a cutting-edge clean energy project slated for Congressman Holden's district in Schuylkill County, Pennsylvania.

At a time when many have asserted that oil refineries can't be built in the United States, and haven't been for decades, private industry is preparing to break ground for the nation's first plant to turn waste coal into no-sulfur diesel fuel – a plant that essentially is a refinery. The project is being developed by WMPI, Inc. near Frackville.

Public funding for this project includes a $100 million no-interest loan from the Department of Energy and $47 million in tax incentives, but even with this level of support, the financial community was reluctant to invest in a technology that did not have a guaranteed customer base. At the Governor's direction, we assembled a coalition of public and private customers to purchase nearly all of the plant's output, enabling this new technology the opportunity to attract financing and compete in the energy marketplace. The Commonwealth put its purchasing power to work, committing to purchase some 19 million gallons of fuel for transportation and heating needs, and lock in that purchase for 20 years or more.

Once the WMPI facility is operating, it will convert 1.7 million tons of waste coal per year into 60 million gallons of non-petroleum based liquid fuel, of which 40 million gallons will become zero-sulfur diesel fuel and 20 million gallons will become naptha, a gasoline production feedstock.

The added benefit here is that in addition to creating liquid fuels to reduce imports of foreign oil, the proposed plant will -- at no cost to the taxpayers -- reclaim dangerous abandoned mine sites and remove waste coal piles that pollute thousands of miles of our waterways. Pennsylvania has over two billion tons of waste coal, and more than 180,000 acres of abandoned mine lands left over by the unregulated mining practices of the past, and investments in waste coal technologies will help us to keep chipping away at this problem and help our former mining communities develop new economic opportunities.

As some of you may be aware, a $100 million no-interest loan for the project, promised by the Department of Energy in 2003, was pulled from the President's proposed fiscal 07-08 budget. Through the hard work of Congressman Holden, Governor Rendell, Senators Specter and Casey and other members of Pennsylvania's congressional delegation, that funding has been restored, but the continued uncertainty surrounding how clean energy projects are funded does nothing to calm the fears of potential investors.

Wall Street remains very cautious about new clean energy technologies and will look for strong state and federal support to mitigate risk. However, delays and confusion in enacting the federal loan guarantee program on the part of the Department of Energy have further shaken investor confidence in this cutting edge project. This delay has been incredibly injurious to the project. Private sector financing has been on hold, awaiting federal action. Further, the Chinese have moved forward to order some dozen similar plants, reducing the availability and increase the cost of the required equipment. Third, construction costs generally have increased in the intervening years, inflating the overall cost of the project.

Make no mistake: The loan guarantee is very important to the viability of the WMPI plant and other cutting-edge clean energy initiatives. But steps must be taken to ensure expeditious, efficient, effective implementation of the federal loan guarantee program.

Federal and state government, in partnership with private industry, has been the key to development of many other renewable energy sources including Pennsylvania's wind energy market. With 179 megawatts of wind energy capacity, Pennsylvania is a leader in wind generation east of the Mississippi.

Federal dollars funded the development of a business plan for Community Energy, Inc. to market wind energy from Pennsylvania wind farms, and a wind energy marketing program for the Mid-Atlantic region, which has expanded the voluntary market and paved the way for development of the approximately 4,000 Megawatts of wind energy capacity expected by 2020 through full implementation of the Alternative Energy Portfolio Standard.

More recently, Pennsylvania established collaborative partnerships between the wind industry, state and federal agencies, local governments and non-profits to create a model local government ordinance, a clarified tax policy, and best practices to insure that development of wind energy will ensure thorough protection of our wild resources.

For the second consecutive year, the U.S. Environmental Protection Agency has recognized Pennsylvania for its national energy leadership in putting landfill gas to work, powering economic growth and reducing greenhouse gas emissions. Pennsylvania is home to 24 operational gas-to-energy projects. We estimate these projects generate more than 100 megawatts of electricity, enough to power more than 250,000 homes for a year. Additionally, the projects annually generate approximately 7,000 million standard cubic feet of landfill gas for industrial/commercial uses.

Turning to the farm, we are confident that animal wastes, like municipal waste, can also be a robust source of clean gas that can either be used as natural gas substitute or to generate electricity.

With an effective partnership among state, federal and private sector interests, alternative transportation fuels face a bright future in Pennsylvania, and farmers and rural communities will reap significant benefits.

The commonwealth is already a national leader in the production of renewable fuels. Construction preparation has begun on one of the largest ethanol plants in the east, and approximately 340 million additional gallons of ethanol production are planned to come on-line in the next two years.

Similarly, companies in Pennsylvania are expected to produce 60 million gallons of biodiesel by the end of 2007, and other new plants being built are expected to produce an additional 170 million gallons within the next two years. To put that into perspective, current national production of biodiesel amounts to 225 million gallons, putting Pennsylvania's total production near the top of all states.

The possibilities for exponential growth of homegrown renewable energy received a significant boost on Feb. 1 of this year when Governor Rendell unveiled his Energy Independence Strategy -- a visionary plan to invest $850 million to cut consumer energy costs by $10 billion over the next decade, stabilize electricity rates for businesses, significantly expand Pennsylvania's alternative fuel and clean energy industries and reduce our dependence on foreign oil.

To guarantee that the shift to cleaner alternative fuels occurs, and to bring economic stability to the alternative fuels sector in PA, The Energy Independence Strategy will codify the "PennSecurity Fuels Initiative" by requiring that we use one billion gallons of domestically-produced clean and renewable fuels. One billion gallons of biofuel represents about 12.5 percent of all fuel consumption in the state, and by 2017, would equal approximately the amount of fuel Pennsylvanians buy from the Persian Gulf. Instead of sending billions of dollars overseas each year, more of these funds will be spent purchasing fuel from Pennsylvania's companies and farmers.

Fuel sold in the five-county Philadelphia area is already required to contain 10 percent ethanol, and the Governor's plan calls for expanding that requirement to include all 67 counties in the state.

Additionally, we will invest in developing and expanding agricultural energy industries in Pennsylvania, and require increasing amounts (up to 20 percent) of soy or other renewable biofuels in all diesel sold in Pennsylvania as production increases.

We have made investing in farmland and open space preservation a priority, and Pennsylvania now has the biggest program in the country. But even with this effort, we still lose three acres of farmland for every acre we save. If we give our farmers a chance

to grow our energy, we can turn that around and help our farming families while we bolster our energy security.

Pennsylvania's renewable and alternative energy programs have been called a success story, but the story is far from over and federal energy program funding will be critical to expanding the work we've started.

Roughly 1 out of every 4 to 5 dollars of funding used for Energy Harvest has come from federal energy programs. Since 2003, approximately $7.5 million in federal expenditures have resulted in the outlay of $21 million in state funds and leveraged another $51.9 million in private funds for 59 energy projects.

Nationally, for every federal dollar invested, over $7 is saved on energy costs and over $10 in state, local or private funds are leveraged for renewable and energy efficient programs and projects, according to testimony from the National Association of State Energy Officers (NASEO).

Long-term benefits to Pennsylvania include $10 billion in increased output for the commonwealth, $3 billion in additional earnings and as many as 4,000 news jobs for residents over the next 20 years.

Due to the importance of the State Energy Program to our efforts to encourage the growth of renewable and alternative energy, we fully support the efforts of NASEO to lobby for restoration of these funds in the federal budget in light recent attempts to zero-out SEP funding entirely. Those efforts are proving successful, at least initially, as proposed funding has been tentatively restored by the Bush Administration in the FY08 budget.

Currently, the proposed Bush Administration budget includes $35 million for the base grant to be divided among the various states, and an additional $10.5 million which would be awarded competitively. This is below the FY '07 budget request of $49.5 million for the base amount, and will be the fourth straight year that this grant amount has been reduced.

So many of the renewable energy opportunities we have talked about today directly benefit farmers and rural communities, and the US Department of Agriculture has an opportunity to significantly shape the future of America's energy economy. To do this, the Department of Agriculture, and the federal government should focus on funding partnerships of state, federal and private interests, and enacting policies that will give our clean energy sector opportunities to succeed. My suggestions include:

1) Use Federal Purchasing Power to create demand for alternative fuels - direct federal departments to purchase and use domestically produced fuels and distributed electricity systems (solar, wind, fuel cells, methane digesters, etc).

2) Direct federal departments to purchase fuel from manufacturers situated close to federal facilities, where feasible, to reduce energy consumed in transporting fuel,

cut costs otherwise needed to extend infrastructure from more central points of fuel production, enhance security by using less-centralized stations and enable farm-based operators and organizations to compete in the fuel marketplace.

3) Pass a federal renewable electricity portfolio standard, similar to what Pennsylvania and other states have enacted, calling for at least 18 percent of the nation's electricity to come from renewable energy sources.

4) Pass a federal "net metering" requirement to ensure that generators of clean, distributed energy are paid a fair market rate for electricity they generate and sell to the grid.

5) Pass a federal "interconnection" requirement that ensures the reliability of the grid, while preventing excessive interconnection tariffs or study charges.

6) Fully Fund Reauthorization of Section 9006 – Renewable Energy Systems and Energy Efficiency Improvements. This section of the 2002 Farm Bill provides grants, loans and loan guarantees to farmers, ranchers, and rural small businesses to purchase renewable energy systems, and make energy efficiency improvements. This program was authorized at $23,000,000 for fiscal years 2003 through 2007.
    1. There should be some changes to the way this program is managed. Historically, funds have primarily been directed to only a few states, i.e. Louisiana and Minnesota. Funds should be dispersed regionally or on a state formula basis, instead of a single national competition. The single national competition leads to one-off projects that don't maximize the potential for state partnership. A regional or state focused program could coordinate financial opportunities and leverage additional funds.

7) Promote no-till farming – Farm Bill 2007 should include incentives to encourage and reward the agricultural community for adopting alternative farming techniques, such as no-till farming. Alternative farming practices can meaningfully reduce nutrient run-off and sequester carbon, while being significantly less energy-intensive and expensive than conventional farming practices. However, up-front capital costs and some loss of yields during the transition from conventional farming is a barrier to many farmers. Capital funding and bridge assistance for farmers adopting alternative farming techniques should be provided.

8) Solar Farmers – Farm Bill 2007 should specifically include a "Solar Farmers" section that provides grants funds to farmers for the installation of solar systems.

9) Consider changing the farm bill energy programs from once-annual award programs to state allocations like the State Energy Plan administered by the Department of Energy.

10) Increase funding for the Conservation Reserve Enhancement Program, but ensure that the program is restricted to stream side practices and does not lock up whole farms.

11) Fix the federal loan guarantee program that the Department of Energy is charged with implementing. Loan guarantees are needed for qualifying projects in real time and delays have been extremely injurious to important energy security projects.

12) Set aside more funding for residential energy and energy efficiency projects, both of which are vitally important if we are to cut our electricity demand during extreme hot and cold weather, and forestall or even eliminate the need to build expensive new power plants or interstate transmission lines to handle projected growth in electricity use. Rural Electric cooperatives have some of the best programs in this regard, and should serve as a model for broader-based federal action.

13) Make permanent the current 'Production Tax Credit' and the 'Investment Tax Credit' programs that support renewable electricity projects. The short-term nature of the credit programs is very harmful to renewable energy production since it causes uncertainty, cost increases and instability in the industry.

14) Increase federal support for basic and early state energy technology research. Breakthroughs are still needed to enhance the efficiency and affordability of renewable electricity technology. And advancements are needed to broaden the feedstocks that are be used in renewable fuel production, and the ensure consistency in project quality and performance.

15) Improve the methods by which USDA promotes and solicits Title 9 grant applications for clean energy projects. At a time when Pennsylvania can only fund one in every ten dollars of funding requests, USDA is receiving and funding on average, fewer than ten applications per year. The Cooperative Extension and County Conservation District offices are well suited to help promote federal energy grants to farmers.

I have long believed that environmental challenges present economic opportunities, and our experience in Pennsylvania over the past four years has shown that even small investments in renewable energy projects can yield big results -- drawing billions in investment, creating new jobs and setting us on the path to energy independence.

Governor Rendell and I look forward to working with you to help our farmers grow and deliver the homegrown fuels and jobs that will strengthen and diversify our energy supply and our economy.

Chairman Holden, members of the Committee: I thank you for your time and attention. I'd be happy to answer any questions you have at this time. Thank you.

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