

**Committee on Environmental Resources & Energy
Pennsylvania Senate
Testimony on the Increased Use of Biofuels, Governor Edward G. Rendell's PennSecurity
Fuels Initiative
Secretary Dennis C Wolff
Pennsylvania Department of Agriculture
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Introduction

Chairwoman White, Chairman Musto, and members of the Committee, thank you for the opportunity to appear before you today to discuss Governor Rendell's plan to strengthen our homeland security and create new economic opportunities by increasing the use of homegrown biofuels in Pennsylvania's transportation sector.

Last February, the Governor unveiled his Energy Independence Strategy, designed to save Pennsylvania consumers \$10 billion over the next decade, increase investment in the state's alternative and renewable energy production industries, and create 13,000 jobs for our hard working men and women. A major component of that plan—the PennSecurity Fuels Initiative—supports the construction and expansion of new facilities that will produce nearly one billion gallons of homegrown, renewable transportation fuels annually.

This one billion gallon target will directly benefit Pennsylvania's farmers, create new jobs, and substantially enhance our energy security. By 2017, that level of production will match what Pennsylvania imports from the Persian Gulf at that time. It also means that we'll be able to inject more of the \$30 billion Pennsylvania consumers spend each year on liquid fuels produced beyond our borders into our own economy.

The PennSecurity Fuels Initiative sets production and use requirements for biodiesel and ethanol. The requirements phase-in the use of these renewable fuels based on Pennsylvania's in-state production capacity.

For biodiesel, all diesel fuel sold in the commonwealth must have a minimum renewable content of 2 percent once annual in-state biodiesel production reaches 30 million gallons. That content requirement increases to 5 percent once production reaches 75 million gallons per year, 10 percent after production reaches 150 million gallons annually, and 20 percent when in-state production of biofuels reaches 300 million gallons per year.

Pennsylvania is also blessed with abundant coal resources. The PennSecurity Fuels Initiative puts those resources to work as well, enabling carbon-capture coal-to-liquids to count toward the biodiesel mandate.

The PennSecurity Fuels Initiative also calls for the statewide use of 10 percent ethanol in all gasoline sold in the commonwealth once annual in-state production capacity reaches 200 million gallons.

A variety of questions are presented in the use of biofuels. The economic potential of this industry, air quality, the price of food, and the ability of our farmers to make a profit are among the topics that arise when considering biofuels. Each of these are serious considerations, which we will address in turn below.

However, one point is clear: as the United States' demand for foreign oil escalates, so too does the threat to our national security and economic prosperity. We, as a nation, must dedicate ourselves to finding alternatives to liquid fossil fuels from nations led by unstable regimes or with political philosophies and ideologies that run counter to America's.

Some might ask why must we mandate the use of biofuels. The answer is this: the time for being fickle, temperamental or irresolute about homegrown fuels has come and gone. We need to act now with all due determination and resolve. The people of Pennsylvania, the citizens of the United States more broadly, and investors in the market place need to understand that we are now determined to "stick and stay" on the course to better energy security.

Are there challenges? Sure. But these challenges pale in comparison to the catastrophic harm that will come to our country if we fail or flinch with respect to energy independence once again.

President Bush has called for the country to move with dispatch in this direction. The opportunity and the imperative is Pennsylvania's to help lead the way.

The Security Imperative

The U.S. imports roughly 60 percent of its oil, much from unstable or hostile regimes. Fuel supplies and infrastructure are also insecure because they are vulnerable to severe weather events. In 2005, hurricanes Katrina and Rita graphically exposed that vulnerability. If the number and intensity of storms grow as predicted, supply challenges will only become more daunting.

Additionally, there is mounting evidence that supplies of oil are increasingly constrained. For example, in August, Petroleos Mexicanos, the Mexican state-owned oil company, declared that the company would likely be out of oil for export in as little as seven years. According to a report by Petroleos Mexicanos, until Dec. 31, 2005 proven reserves were about 8.978 billion barrels, while yearly production was 1.322 billion barrels. The report says if that pace continues oil will run out in the time stipulated. This news is particularly worrisome given Mexico is the second largest exporter of oil to the United States.

But this problem is not isolated to the Western hemisphere. Even nations of the oil-rich Middle East have diminishing reserves.

Nearly two years ago, Kuwait's Burgan field—the second largest known reserve in the world—was labeled "exhausted" and that future output would be below previous estimates. Then, in

January 2006, internal government documents stated that the nation's proven and non-proven remaining oil reserves were far less than previously believed—down to 48 billion barrels from 99 billion.

Production of crude oil in the Arab kingdom of Dubai has dropped as much as a third over the last two years. Industry analysts use the output from this nation as one of the top three oil price reference points. According to calculations by Dow Jones Newswires, in 2007, output is approximately two-thirds below that which is stated by the Dubai government. Other estimates suggest the nation's reserves will be exhausted within 20 years.

According to WTRG Economics, worldwide excess oil production capacity decreased roughly 85 percent between 2002 and 2003. The U.S. Energy Information Administration also has stated that total global production through the first quarter of 2007 lagged demand, and it projects that global oil demand will continue to increase dramatically, from 83 million barrels per day in 2004, to a projected 97 million in 2015.

In its "Facing the Hard Truths about Energy" report, the National Petroleum Council echoed those concerns by questioning whether the world's supply of oil was sufficient to keep pace with demand, asserting that, "It is the hard truth that the global supply of oil and natural gas from the conventional sources relied upon historically is unlikely to meet projected 50-60 percent growth in demand over the next 25 years."

Make no mistake, this situation reflects a decline in commercially viable resources—not an artificial situation brought about by for example, lack of investment by oil companies. Indeed, the Baker Hughes Rig Count that tracks the deployment of oil exploration and production rigs shows an unprecedented level of investment in exploration and development. The bottom line is that new discoveries have not been there, with the consequence that we now consume 3 barrels of oil for every new one barrel discovered.

The oil industry realizes the need to find and use alternative supplies. Red Cavaney, president and chief executive officer of the American Petroleum Institute, noted as much in his April 12, 2007 testimony before the United States Senate Committee on energy and Natural Resources. Said Mr. Cavaney, "The existing RFS [the federal Renewable Fuels Standard] has done its job well in stimulating the ethanol industry. Last year, our industry utilized 25 percent more than the target amount of ethanol established under the RFS."

The upshot is now an already extensive use of ethanol. Mr. Cavaney reported that, "nearly 50 percent of all gasoline consumed in the U.S. now includes ethanol."

The Higher Price of Food

Over the last two years, corn prices have increased significantly over the historic average, as have retail prices for milk, meat and eggs, and those increases have coincided with a number of developments. Many suppose that ethanol is a leading driver of these rising corn costs and is adversely affecting food costs as well. Actually, the reverse is more likely the case. Conventional energy costs -- and their impact on the agricultural industry -- are today among the

leading reasons for corn price increases. According to the U.S. Department of Agriculture (USDA), “higher costs from purchased inputs such as fuel, fertilizers, and pesticides explain much of the rise in total farm production expenses. The input prices paid for fuel and fertilizer in 2005 spiked 61.5 percent and have tripled in 3 years.”

By diversifying into ethanol and other biofuels, we will relieve mounting pressures on oil supply and conventional refining capacity, without seeing dramatic price differences. On Aug. 23, ethanol traded on the spot market at two or three cents a gallon less than conventional gasoline. Wholesale prices for E10, 10 percent ethanol and 90 percent gasoline, are also very similar to the wholesale prices for gasoline with no ethanol. For instance, as of Aug. 16, E10 was selling on the wholesale market in Pennsylvania for \$2.16 a gallon, E100 (100 percent ethanol) for \$2.15, and gasoline for \$2.13. Generally speaking, prices for E10 and gasoline track each other very closely. For instance, according to data from the Oil Price Information Service (OPIS), E10 and gasoline prices in Pennsylvania both fell approximately 30 cents per gallon in the month of July 2007. From February 2007 through August, the price differential between E10 and gasoline never grew larger than 6 cents.

Possible Factors Behind High Corn and Food Prices:

- Increased Energy Costs: Most significantly, just as increased energy costs have affected the residential and commercial sectors with increased heating bills and transportation fuel prices, so they have affected the agricultural sector as well. Increases in energy prices in the form of diesel fuel, natural gas, electricity, and petroleum needed for the planting, fertilizing, harvesting, transportation, processing and distribution of corn have gradually led to higher market prices. This in turn, has and will continue to affect the costs of other products for which corn is a feedstock.
- Weather: With a lack of rain during critical times in the growing season in some areas, and hail and wind damage in others, the USDA is estimating lower crop yields in Pennsylvania this year compared to last year and a lower corn harvest, despite a higher planted acreage on the part of farmers. According to the Pennsylvania State Emergency Board, *farmers in 22 Pennsylvania counties have suffered a loss of at least 30 percent to one or more major crops*. Fifty-eight of the State’s 67 counties have been under a drought watch since August 6. In 2007, weather is having a tremendous direct and immediate impact on Pennsylvania corn prices and livestock producers.
- Congress and the Commodities Market: As with all commodities, corn prices are also vulnerable to the actions of Congress and the vagaries of the commodities markets. For instance, a congressional subcommittee decided on June 19 to extend the provisions of the 2002 bill providing commodity support programs to farmers. The day after that action, corn futures on the Chicago Board of Trade opened at \$3.96, a drop of 20 cents in 24 hours. One month later, the full House Committee on Agriculture voted to extend the 2002 farm bill’s commodity provisions, and corn futures opened the next morning at \$3.18¼. Such price swings – be they decreases or increases - are common with all commodities in response to developments such as the actions of Congress.

- **Increasing Foreign Demand for Food Products:** While retail prices for milk, egg and meat prices are all at historic levels, these prices are influenced by much more than the cost of the grains, vegetables, oilseeds, and meats produced on the farm. A leading cause of record-high milk prices is that international demand for dairy products has outstripped international supply. The lack of supply is a result of drought in Australia, a drop in subsidized milk production in the European Union, and a lack of profits in the U.S. dairy industry in recent years. Strong world demand is a result of continued strong income growth in China, India, and other Asian countries, and growing U.S. demand for cheese. The excess world demand for dairy products has pulled U.S. products onto world markets, thereby raising U.S. prices. Instead of fighting foreign competition, U.S. milk producers are now benefiting from international markets.

In addition, a recent study demonstrates that increases in corn and soybean prices do not necessarily translate into equally higher overall food prices. Researchers at the University of Iowa's Center for Agricultural and Rural Development (CARD) estimated that a 30 percent increase in the price of corn, and associated increases in the prices of wheat and soybeans, would increase egg prices by 8.1 percent, poultry prices by 5.1 percent, pork prices by 4.5 percent, beef prices by 4.1 percent, and milk prices by 2.7 percent. For all food consumed at home, however, the average is much lower. Even with a 30 percent increase in corn, the average price for all food consumed at home would increase by just about 1.3 percent.

Relief on the Way?

Corn is currently the primary feedstock for biofuels, and as market prices for corn have increased, so have acres planted. In dramatic response to these high prices, Pennsylvania farmers planted 1.45 million acres of corn this year, a remarkable increase of 100,000 acres over last year. For much of the last decade, Pennsylvania farmers – most of whom use corn as feed for their livestock - have found it more economically sensible to import corn from the Midwest than to grow it. Now the economics are reversing. Whatever the impact of ethanol on corn prices in Pennsylvania, it can be mitigated by the degree to which livestock producers who currently use their own corn (primarily dairy and beef) sell the corn instead and switch to feeding their livestock the dried distiller's grains that remain after processing corn into ethanol. The opportunity to have locally available feed in the form of dried distillers grain for livestock operations increases as the manufacturing of ethanol increases in the state.

Furthermore, on the national level, USDA notes that U.S. farmers expect to produce the largest corn crop in history in 2007, which is an increase of more than 10 percent from the previous record crop in 2004.

Environmental Implications

The PennSecurity Fuels Initiative takes an environmentally responsible approach to the important work of reducing our dependence on foreign oil. Biodiesel reduces many types of air pollutants, including carbon monoxide, volatile organic compounds (VOCs), air toxics, sulfur dioxide and particulate matter.

Ethanol, when blended at 10 percent with 90 percent conventional gasoline, does lead to some increase in VOCs and nitrogen oxides. Recent EPA analyses find, however, that the increases are not significant enough to cause difficulty in meeting air quality standards. It is important to note that EPA reaches that conclusion even without taking into account the drop in carbon monoxide pollution realized when using ethanol.

In addition, EPA has also said that the use of renewable fuels, such as biodiesel and ethanol, results in a significant reduction in lifecycle greenhouse gas emissions compared to the petroleum fuel that is displaced. For corn-based ethanol and biodiesel, when comparing fuels on an energy equivalent or BTU basis, the reductions are estimated to be 21.8 and 67.7 percent respectively. These estimates considered CO₂, as well as methane and nitrous oxide.

EPA's Air Quality Assessment

Because of the Federal Renewable Fuels Standard (RFS) enacted by the Energy Policy Act of 2005, the U.S. Environmental Protection Agency has begun to study air quality impacts from biofuels in both highway vehicle fleet and non-road sources. The information is preliminary, and EPA and the states are continuing to study the long and short-term air quality impacts of biofuels usage.

Biodiesel:

- EPA estimates that the use of biodiesel blends results in significant decreases in carbon monoxide, total volatile organic compounds, air toxics, sulfur dioxide and particulate matter 10 and 2.5 as compared to a comparable amount of conventional diesel. EPA estimates either a decrease or slight increase of oxides of nitrogen (NO_x), depending on the drive cycle of the vehicle tested. For example, the use of biodiesel in school buses is likely to result in decreased NO_x levels, whereas highway driving results in a slight increase.

Ethanol:

- Gasoline distributors in the Greater Philadelphia area voluntarily chose to replace the gasoline additive MTBE with 10 percent ethanol. That area accounts for approximately 25 percent of the gasoline consumption of the state. As ethanol use is already in place, PennSecurity will not affect the air quality in that area.
- EPA estimates the use of 10 percent ethanol in gasoline in areas that had not used ethanol previously will result in substantial decreases in carbon monoxide and benzene. The reduction of benzene results in a reduction in the overall risk from all air toxics. EPA estimates an increase in oxides of nitrogen and volatile organic compounds emissions.
- EPA estimates that ambient ozone levels in areas in which ethanol use increases significantly is likely to increase no more than 0.35 percent of the current 0.08 ppm standard. EPA's analysis may overstate the amount of the increase as it did not take into

account the effect of the reductions of carbon monoxide (a minor ozone precursor) or the lower ozone-forming potential of neat ethanol (E100), both of which could reduce EPA's ozone formation estimates.

Ethanol and Infrastructure

Since ethanol is hydrophilic, it typically is not transported through pipelines as conventional fuels are carried. Instead, it usually is delivered by truck and railcar.

A question then arises as to whether Pennsylvania has the requisite infrastructure to support a robust biofuels business. The same question would need to be posed of course throughout the United States since our country, unlike Europe for example, made a strategic decision post-World War II to pipe fuels.

Pennsylvania is in a strong position in this regard as compared to other states. The commonwealth enjoys one of the most extensive road networks in the country and we are in the top five in the country with respect to rail miles.

Having said that, additional distribution and delivery investment will be needed as the biofuel industry scales up. It is for this reason that the PennSecurity Fuels Initiative expressly conditions the start of the ethanol mandate on the availability of sufficient rail capacity in the commonwealth, as determined by the state Department of Transportation (PENNDOT), in consultation with DEP.

Substantial new investments have already been made by the private sector and the commonwealth.

PPC Corporation, for example, one of the largest owners of distribution terminals in the state, is planning to upgrade its Neville Island facility on the Ohio River to accept a 25-car-train for off-load of biofuels, with the potential for future expansions. Neville Island is also barge capable, but the dock is currently not in active service. Biofuels could be distributed out to other terminals in the Pittsburgh area from Neville Island. For instance, the PPC facility in Coraopolis, which is a large pipeline-fed truck distribution facility, could receive shipments of biofuels by barge from producers elsewhere or from Neville Island after delivery by train.

Moreover, Farm and Home Oil's Macungie division/terminal, which is located between the company's other three terminals in the Lehigh Valley area, upgraded a rail offload site to include a biofuel platform and a dedicated 500,000 gallon tank to the storage of biofuels.

PENNDOT has also invested in new rail lines to support biofuels businesses, including commitments for \$1.5 million in funding for rail and loading/offloading equipment for a biodiesel plant in Erie County, \$100,000 in grant money to rail improvements for a biodiesel in Beaver County, and \$206,150 in funding for rail improvement work for Choice Fuel's biodiesel operation in South Williamsport.

In addition to these important investments, the Governor made a commitment of some \$30 million from the Alternative Fuels Incentive Grant Program to support the biofuels industry and his Energy Independence Fund highlights biofuels as a priority investment area.

In discussing infrastructure needs, it is important to note where new infrastructure is not required. Since the mandate is limited to a 10 percent ethanol blend with 90 percent conventional gasoline, no new pumps or hoses, or storage tanks are needed at refueling stations and no change is needed in the vehicle. No modifications are required in truck engines either when biofuel is limited to 20 percent as in PSFI. In fact B20 improves engine performance by enhancing the lubricity of low sulfur conventional diesel fuel.

Finally, it is also important to realize that E-10 has been in use throughout the five county Philadelphia area for some time. This means that fully 25 percent of all of the fuel consumed in the commonwealth is already supported by the needed ethanol distribution and delivery infrastructure.

The Energy Balance

Debate has surrounded the question of whether biofuels are "net energy positive or net energy negative." That is, do biofuels deliver more useful energy than is required to produce those fuels in the first place?

The answer with respect to biodiesel is a resounding "Yes." For every unit of energy put into making biodiesel from soy, some 3.2 units of useful energy are produced.

It is a closer call with respect to ethanol. After much research and analysis, the scientific community seems to agree that ethanol too is net energy positive. For every unit of energy in, some 1.34 units of useful ethanol energy are produced.

Is that a sufficient positive margin to make ethanol a good energy investment? When compared to conventional fuels, the answer here too is a strong yes. Conventional fuels are decidedly net energy negative. Diesel fuel, for example, has a net energy deficit of some 20 percent, and the Argonne National Laboratory reports that gasoline returns some 23 percent less energy than is required to make it.

The energy picture with respect to biofuels, already positive, is getting better. Agricultural production and handling practices have been improved such that the amount of petroleum product required has dropped considerably. For example, nearly 50 percent of Pennsylvania farmers have switched to "no till" farming methods that use only a quarter of the fossil fuels and petroleum-based products that conventional agricultural practices require. And that means that ethanol is even more energy positive than the available studies suggest. At the same time, conventional fuels are ever more energy negative, as the easily and cheaply recovered oil reserves have been depleted and ever more energy is required to discover or produce from remaining fields.

The Hidden Cost of Oil

Questions also are sometime presented as to whether biofuels are cost effective. Implicit in these questions is an assumption that conventional fuels are not subsidized and therefore beat biofuels with respect to the level of government support needed.

The assumption is in error, and in fact is that conventional fuels are very substantially subsidized by the American taxpayer.

Tax incentives, accelerated depreciation schedules, and below market lease rates from federal properties are among the financial supports afforded the oil industry. Less apparent, but perhaps even more dramatic are the expenditures in military and defense related assets necessary to secure oil supplies and transportation routes.

In October 2003, the National Defense Council Foundation released the results of a year-long investigation into the oil-related defense costs. The study looked at multiple components of the U.S. armed forces operation and the entire Department of Defense budget. The foundation's research concluded that the fixed costs of defending Persian Gulf oil amounted to \$49.1 billion annually. But, as the NDCF noted in its January 2007 publication, *The Hidden Cost of Oil: An Update*, these figures were based on data collected prior to Operation Iraqi Freedom. The Foundation again looked at the numbers for 2006 and found that the total cost had jumped to *\$137.8 billion*.

Testifying before the US Senate Foreign Relations Committee on March 30, 2006, Milton Copulos, the president of the National Defense Council Foundation added up the "hidden cost of oil."

The result is sobering.

If consumers paid directly at the pump the dollars they expend in defense and military support for oil, "the 'real' cost of filling up a sedan is \$217.20, and filling up a large SUV \$325.80."

Therefore, while support is needed for the fledgling biofuels industry, expenditures still made by taxpayers to support the mature oil industry offer important perspective and need to be borne in mind.

Economic Development

The increased production and use of biofuels holds enormous potential for Pennsylvania's economy, above and beyond those opportunities discussed earlier with regards to an expanded infrastructure. Transitioning from an economy largely dependent on fossil-fuels to one powered by greater amounts of biofuels and coal will bring jobs and investments to the commonwealth.

A study commissioned for Citizens for Pennsylvania's Future by LECG, LLC examined the benefits of offsetting 900 million gallons of petroleum-based transportation fuel with renewable

and coal-derived fuels by 2017, as called for in the Governor's plan. The study concluded the following:

- Replacing 900 million gallons of petroleum-based transportation fuel with domestically-produced biofuels by 2017 will add nearly \$1.5 billion to the Pennsylvania economy. The Pennsylvania economy, measured by gross state product, will be \$14.8 billion larger by 2017 than would be the case without increased production and use of biofuels and coal-derived fuels.
- The increase in gross output (final demand) resulting from the production and construction of new capacity will help create as many as 25,775 new jobs in all sectors of the Pennsylvania economy by 2017.
- Increased economic activity and new jobs will generate additional income for Pennsylvania households. The production of biofuels and coal-derived fuels will put an additional \$6.6 billion into the pockets of Pennsylvanians over the next decade.
- The combination of increased higher personal and corporate income will generate additional revenue for the commonwealth. The full impact of the annual operations to produce biofuels and coal-derived transportation fuels will add more than \$900 million of new tax revenue for Pennsylvania over the next decade. This figure includes spending for new construction.
- Pennsylvania farmers will benefit from expanded markets for their corn and soybeans that will be used as feedstock for ethanol and biodiesel. Increased demand can be expected to raise the statewide average price received by farmers by 10 to 20 cents per bushel, thereby increasing income. This will provide an incentive for farmers to bring additional land back into production in counties where planted area has declined due to poor profitability. Livestock, dairy and poultry producers will benefit from increased supplies of medium-protein distiller's grains, a byproduct of corn dry mill ethanol production, and soybean meal that will be produced as more soybeans are crushed for oil to produce biodiesel.
- Ethanol, biodiesel and coal-derived transportation fuels will displace imported oil and keep more money in the commonwealth. The production and use of 900 million gallons of biofuels and other alternative by 2017 will mean that the U.S. will need to import 122 million fewer barrels of crude oil over the next decade. At current prices, this means that the \$6.8 billion typically sent abroad to finance these imports will stay in the U.S. and Pennsylvania.

As we've noted in this section, coal-derived fuels are not ignored under this proposal. Governor Rendell firmly believes we should have a balanced and diverse energy supply, and that includes the use of fuel sources indigenous to Pennsylvania.

We all know that coal has long been a mainstay of Pennsylvania's energy economy. Under the PennSecurity Fuels Initiative, no-sulfur diesel fuel derived from coal may also be used to meet these commitments provided the producer captures or offsets the carbon emissions generated during the production of coal-derived fuel.

But there are more opportunities here beyond existing technologies. Cellulosic ethanol is a promising technology that could help answer our demands for alternative fuels, without many of the adverse consequences corn-based ethanol presents. And given the conditions and effects on the corn markets, it's important that we continue making investments to support the development of cellulosic ethanol technology.

Ethanol also can be produced by converting cellulose into its constituent sugars, which then are fermented and distilled into alcohol. Examples of cellulosic materials include wood and other fibrous plant material such as crop residues and waste materials such as paper and cardboard.

The resources necessary for cellulosic ethanol production are widespread and abundant. For example, forests comprise about 80 percent of the world's biomass. In Pennsylvania, our vast forest resources provide a significant competitive advantage for cellulosic ethanol production. The state contains enough plant matter to produce more than 500 million gallons of cellulosic ethanol per year. Plus, cellulosic materials are a relatively inexpensive feedstock for ethanol production since they are abundant and outside the human food chain.

The ultimate profitability of cellulosic ethanol depends in large part on improvements in technology. Pennsylvania has the ready availability of cellulose feedstocks, largely in the form of wood, and access to markets make Pennsylvania an excellent candidate for cellulosic ethanol production.

Through PDA's Ag Research Program, significant research is being devoted to addressing these issues and the Federal government has stepped up with funding, especially through Congress's current version of the 2007 Farm Bill. These projects will be eligible for Energy Independence Grant and Loan Funding, as well as \$30 million in funding from the Alternative Fuels Incentive Grant Fund.

In Clearfield County, Bionol Clearfield LLC, a subsidiary of BioEnergy International, recently selected the site for its proposed \$200 million traditional dry milled corn ethanol plant. This represents a significant investment in northcentral Pennsylvania. The plant will employ conventional corn-based technology and will be among the largest east of the Mississippi River, and one of the nation's top 10, based on output.

And while this is fantastic news for Pennsylvania's economy, what's notable about BioEnergy's plan is the second component. Apart from the corn ethanol plant, the company has committed to developing a pilot cellulosic ethanol plant. The smaller pilot-cellulose plant—an approximately \$70 million venture—will use BioEnergy's groundbreaking technology to produce fuels using locally available organic wastes, such as wood and agricultural residue.

As similar projects are undertaken in Pennsylvania and elsewhere in the country, this technology will improve, and the costs associated with developing this fuel will decrease, making it more

economically viable. However, it is only through continued investment that it can grow and expand. We must do everything possible to ensure Pennsylvania is a leader in that pursuit.

Conclusion

In closing, we would again like to thank the committee for the opportunity to discuss Governor Rendell's PennSecurity Fuels Initiative. This special session of the legislature represents an historic opportunity to come together and enact an energy policy that will enhance our security, protect our environment and keep energy dollars invested here at home..

As former CIA director R. James Woolsey noted in his Nov. 16, 2005 testimony before the U.S. Senate Committee on Foreign Relations, America borrows approximately \$1 billion each working day to import oil. Such mounting debt imperils our security and it erodes our economic vitality.

It is because of this perfect storm of problems that dependence on foreign fuels presents that President Bush has called for the country to use some 35 billion gallons of biofuels by 2020, an increase of nearly 5 times above the current mandate of 7.5 billion gallons by 2012. The nation will only be able to meet the president's call if states like Pennsylvania stand up with a resounding, "Count us in!"

The PennSecurity Fuels Initiative makes that pledge for the commonwealth

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