

**Public Hearing of the Philadelphia Energy Authority
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Testimony of
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Secretary
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Department of Environmental Protection

Good afternoon members of the Authority and thank you very much for the opportunity to come and speak to you. I'm very excited and honored to be doing so as the Delaware Valley is my home.

Let me get right into it because I know your time is valuable. My topic is how can we reduce energy usage and expense, promote and assist in the development of alternative sources of energy benefitting the retention and development of a local workforce and educate Philadelphia's consumers regarding choices available in the energy marketplace.

First, let me say that we need a diverse energy portfolio. We are blessed in Pennsylvania to have a very diverse energy generation portfolio: coal, nuclear, natural gas, wind and solar and more. Pennsylvania truly is the energy capital of the country.

We are also blessed in that we have competitive electricity markets. That gives all consumers choice. But it also gives consumers cheaper electricity. Competitive electricity markets work more efficiently than the vertically integrated utility model. Also, competitive markets gives employers the opportunity to actually make money (generate revenue) from how and when they use electricity. Competitive markets have also been a boon to Demand Response which is, basically, electricity conservation. In the PJM capacity auction of last week we saw 809 MW of Demand Response cleared the market. DEP is also working on a plan to partner with the Energy Efficient Buildings Hub (formerly Greater Philadelphia Innovation Cluster) to provide energy training to the existing workforce and achieve documented energy savings.

And make no mistake about it; energy equals jobs. Every economy needs the most affordable and plentiful energy it can have to sustain itself and to grow. Energy demand is projected to increase 50% worldwide in the next 20 years. The majority of that growth will come from the developing world. 80% of that increased demand will have to be met with hydrocarbon based energy. This presents us with a daunting task and a tremendous opportunity because we have tremendous domestic energy resources right here in Pennsylvania and in America. You really need ask three basic questions: (1) do we want energy; (2) do we have it here; and (3) who can develop it in a more environmentally sensitive manner than we here in America.

We have a great resource right here in Pennsylvania and other states around us—natural gas. The supply we have right here is huge and the technology to enable us to get it in a

safe and environmentally protective manner is here. The department I lead oversees the safe development of this resource.

Uses of this abundant, available, domestic, cheap and clean fuel are limitless. We can use it to generate electricity for heat and cooking. We are already seeing the dramatic impacts of this right here in the Delaware Valley. In December, the Philadelphia Inquirer reported that “the five big regional utilities that serve Pennsylvania and New Jersey customers have reduced their prices on the gas portion of bills by amounts ranging from 37 percent to 52 percent since Dec. 1, 2008, reflecting the steady fall in market prices that experts attribute to new supplies of shale gas.”

This means the typical PGW customer is saving nearly \$600 per year and a PECO customer is saving about \$350 per year. A PSE&G customer’s bill during the winter is down about 34% from 2008. UGI on May 17th announced a proposed rate reduction. The good news in this regard will continue. In the PJM capacity auction held just last week about 5 GW on new gas-fired generation capacity cleared.

We can use natural gas to fuel vehicles.

Natural gas vehicles, or electric vehicles powered by electricity generated from burning natural gas, can hold the key to reducing energy expense and to getting cleaner and healthier air in Philadelphia and our other urban areas. Vehicles are our number one contributor of air contaminants. I heard a statistic that the conversion of about half of the fleet vehicles in just one of our counties in Delaware Valley would have the effect of taking one large coal fired power plant off line. Converting one waste hauler to run on compressed natural gas is the equivalent of taking 325 cars off the road. Natural gas as a transportation fuel emits 30 percent less carbon dioxide, 70 percent less carbon monoxide, 75 percent less nitrogen oxide, 90 percent less particulate matter and 89 percent fewer volatile organic compounds as compared to diesel or gasoline.

And the cost figures are stunning. At today’s prices, filling up a natural-gas-powered vehicle would cost about \$2 per gallon equivalent, compared to more than \$3.50 per gallon for gasoline or diesel. At the same time, the price of gasoline and diesel fuel is the most volatile it has ever been in history and few believe it is going down. It is plainly evident that natural gas can provide significantly reduced expenses for the city, while at the same time clean our air.

Here are some examples where local governments are capitalizing on the fuel cost savings and gaining better air quality at the same time:

- A joint agreement between Pittsburgh, DEP and EQT is allowing the city to purchase natural gas fueled waste haulers, saving tens of thousands of dollars per year in fuel costs while reducing emissions.

- Williamsport River Transit Authority with assistance from DEP is constructing a CNG fueling station for its police, fire, emergency response, public transportation and school bus fleets.
- Butler Transit Authority is installing a CNG fueling station that will be open to the public and provide support for its 10 buses and 20 shuttles that will be powered by the cheaper, cleaner burning fuel and be used for public transportation. This project will displace a quarter-million gallons of diesel fuel per year.
- Lower Merion School District, which borders on Philadelphia, has become a key player in alternative fuel school buses. Its program started in 1992. The district's buses transport 9,000 students to 136 schools. Today the district's 72 buses are fueled by compressed natural gas which is the largest fleet of CNG buses on the East Coast. Lower Merion's program was recognized by the U.S. Department of Energy as "Pennsylvania's primary success story for alternative fuels." Lower Merion has its own refueling stations, one in Ardmore and one at my alma mater, Harriton High School. The program results in the creation or retention of more than 160 jobs and represents a reduction in air emissions equivalent of removing 3,000 passenger cars from our roads. Lower Merion has eliminated the use of more than 22,000 gallons of conventional liquid fuel per year.

There are similar examples in the private sector:

- Cranberry Taxi of Allegheny and Butler counties is purchasing 25 CNG-fueled taxis that will reduce air pollution, create jobs and save the company thousands on fuel costs.
- Talon Logistics, the distribution arm of Giant Eagle, is replacing 20 diesel fueled delivery trucks with CNG fueled trucks, with the net result of displacing 180,000 pounds of diesel fuel, reducing greenhouse gasses by several thousand pounds, and saving tens of thousands in fuel costs each year.
- Heckmann Corporation, which operates the largest water disposal trucking fleet in the Marcellus shale play, has on hand the largest LNG fleet in the US and is starting to transition its Pennsylvania fleet to LNG so that its fuel is coming from the very industry it is involved in. With a longer life than a typical diesel fueled truck, a fuel savings of about 30%, and NOx and VOC reductions of 50% and CO2 reductions of 25%, we again see that natural gas is a real winner for both the economy and the environment.

Act 13, which the Governor signed on February 14th of this year, expands even further these types of possibilities by providing \$20 million in grant funding for clean fuel projects across the state over the next several years. While DEP will have more detail regarding these grants in the coming months, I would encourage this board and the city to closely examine the feasibility of converting some of its large trucks and vehicles to

clean-burning natural gas – a fuel source that is readily available and cheap, and is providing jobs to the southeast and other areas of the state, and which can provide the city with even cleaner air.

Infrastructure for charging EVs is already coming on line. Just last year I participated in the ribbon cutting of the EV fueling station at the nearby King of Prussia Mall. I can report that DEP and the Pennsylvania Turnpike Commission have also committed to installing electric vehicle fueling stations at all Turnpike rest stops over the next year. Paired with already expanding electric vehicle infrastructure in the southeast, this technology will work well with natural gas to reduce dependency on foreign oil and provide the city with the clean air we all know it needs.

Our domestic natural gas and oil reserves now obtainable have also “fueled” a few other things which are dramatic and meaningful to us right here in the Delaware Valley. I mean tremendous employment and supply chain activity, the possible reinvigoration of one or more of our southeastern Pennsylvania refineries and the renaissance of the American petrochemical industry right here in our home town. The southeast region is making significant contributions to the natural gas industry supply chain and, as a result, creating jobs. Just ask companies like West Chester-based, employee-owned Schramm, which manufactures drilling equipment. And ask Berwyn-based ModSpace, which provides building solutions for the drilling industry.

The crude oil from the Bakken Shale formation in the Midwest may provide the game-changer which turns the Philadelphia refinery’s economics around saving thousands of jobs. Also, Energy Transfer Partners’ recent acquisition of Sunoco – coupled with a strong statement on its commitment to Marcellus Shale-related activity – is another tangible example of this opportunity benefiting southeastern Pennsylvania.

Thank you for your time and I look forward to working with you in the future.