

Pennsylvania Senate Informational Hearing

Consumer Protection and Professional Licensure Committee

Veterans Affairs and Emergency Preparedness Committee

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Senators, thank you for the opportunity to address you today about an issue of great significance for the future of the Commonwealth.

My name is Bryce Shriver. I have served as president of PPL Generation since 2004 and currently lead the development of PPL's comprehensive strategy for nuclear power operations.

My career in the nuclear power industry spans 25 years at PPL, at the Tennessee Valley Authority and at Virginia Power. Prior to that, I was director of the nuclear research reactor facility at the University of Virginia, and a nuclear engineer with the United States Navy.

Today, I will address:

- Importance of nuclear power to the United States and to Pennsylvania;
- PPL's commitment to nuclear power; including the strong integration of security and emergency preparedness with nuclear power plant operations;

- The role of federal and state government in the regulation of nuclear power and what government can do to encourage the growth of nuclear power to meet future energy needs.

PPL has transitioned over the past decade from a regional regulated utility known as Pennsylvania Power & Light Company to an international energy company. However, we remain a Pennsylvania-based company focused on electricity generation, energy marketing and electricity distribution.

PPL Generation is an unregulated subsidiary that controls more than 11,000 megawatts of generation in six states: Pennsylvania, New York, Connecticut, Maine, Illinois and Montana. To give you some perspective, 11,000 megawatts of generation can produce enough electricity to power more than 8 million homes.

Our power plants use a diversity of fuel types: uranium, coal, natural gas, oil and water. PPL's generating capacity is 39 percent coal, 32 percent gas or oil, 18 percent nuclear and 11 percent hydroelectric and renewable energy.

In 2006, we generated 52.5 billion kilowatt-hours of electricity. Nearly 40 percent of that total – more than 20 billion kilowatt-hours – came from sources that do not emit greenhouse gases.

Recently, PPL conducted a strategic evaluation of future energy needs in the markets we serve. Because of continuing growth in electricity use, and the importance of electricity to the economy and to our way of life, we concluded that additional nuclear generation is an important option.

Why consider nuclear?

First, there is a need for additional base load generation — power plants that run around the clock to meet consumer demand for electricity on a continuing basis. Reserve margins in the PJM Interconnection are dropping. As a result, higher-cost oil and natural gas plants run more of the time to meet the demand.

Second, fuel sources for the electricity we produce should be stable, secure and diverse. Use of uranium and coal help us to avoid over-dependence on fuel sources from volatile regions of the globe.

Third, the move toward regulation of greenhouse gases to address changes in the Earth's climate dramatically reduces the potential for development of new fossil-fuel generation, particularly in the absence of technology to capture and sequester carbon dioxide emissions. Nuclear power is the only large base load power source that does not emit greenhouse gases.

These factors — combined with federal government incentives for nuclear power development — have reinforced PPL's commitment to nuclear power as a safe and reliable source of electricity for today and for the future.

The federal incentives, which include loan guarantees for construction costs of new nuclear plants and production tax credits, are essential for giving generation companies and potential investors the confidence to make multi-billion capital investments that will be required to build nuclear generating facilities.

PPL operates the Susquehanna nuclear power plant in Luzerne County. We own 90 percent of the plant. The remaining 10 percent is owned by Allegheny Electric Cooperative, providing an economical and reliable source of electricity to rural electric cooperative members across the Commonwealth.

Susquehanna generated more than 17 billion kilowatt-hours of electricity in 2006, which is enough to power more than a million and a half homes.

The plant also is an economic engine for northeastern Pennsylvania. It provides more than 1,000 good-paying, family-sustaining jobs. It pays more than \$18 million a year in state, local and school taxes. PPL and its employees support a wide range of community organizations and agencies.

Susquehanna is a low-cost source of electricity that emits no greenhouse gases, and — most importantly — operates well within safety margins.

The existing regulatory structure — with strong oversight from both federal and state government — ensures that Susquehanna and all nuclear power plants operate with the absolute highest level of commitment to safety.

PPL is making two major commitments at the Susquehanna plant that recognize its 25-year record of safe operation, and its tremendous value to the company, to the community and to electricity consumers in the Commonwealth.

First, we are seeking approval from the Nuclear Regulatory Commission to increase the plant's power output by about 200 megawatts — enough electricity to power another 160,000 homes. Approval of this request, combined with previous smaller increases in power level, will mean that Susquehanna safely can produce 20 percent more electricity than it did when the units first began operation: 1982 for Unit 1 and 1984 for Unit 2.

Second, we have applied to the NRC for a 20-year extension of the operating licenses for each unit, which will allow the units to operate until 2042 for Unit 1 and 2044 for Unit 2.

One of the important reasons for our confidence in Susquehanna is the strong integration of security, emergency preparedness and plant operations. As a result, public safety and emergency preparedness are essential elements of our business.

Nuclear power plants are among the most secure facilities in the country. They have multiple security features, which combine robust physical barriers, advanced technologies and well-trained forces to detect and repel threats.

Susquehanna security officers are PPL employees — well equipped and well trained. They provide a high state of readiness, which is regularly reviewed and tested by the NRC. Our security force maintains a solid working relationship with state and local law enforcement.

Since the terrorist attacks on our nation in September 2001, PPL has increased the size of Susquehanna's security force, invested more than \$20 million in capital improvements related to security, and doubled the annual security operating budget.

We have a comprehensive emergency preparedness program that is constantly reviewed and upgraded. Susquehanna's emergency plan, now in its 49th revision, includes the most up-to-date guidance for public protection. The plan involves state, county and municipal agencies, who practice regularly with us in

emergency exercises. PPL devotes particular attention to special-needs facilities including day care centers, schools, nursing homes and hospitals.

PPL's experience with the Susquehanna plant, the growing need for electricity, and the solid community support that the plant enjoys, have led us to take the first steps toward building an additional nuclear generating unit at Susquehanna.

PPL is considering submitting a license application to the NRC in 2008 for the additional unit. It's important to point out, however, that we have not made a decision to proceed with either a license application or construction.

An important component of our decision-making is confidence in the regulatory process. The most important thing the state can do is ensure a stable regulatory environment in two key areas.

First, Pennsylvania's competitive electricity market is providing the right economic signals for PPL and other companies to consider building new generation.

In Pennsylvania, developers of new generation assume the financial risk of plant construction. The multi-billion cost of new nuclear power projects will be funded by investors, who must have confidence that plants can be built with a known cost and schedule, and that investors will earn an acceptable rate of return.