

THE SENATE PUBLIC UTILITIES SUBCOMMITTEE

Energy Policy

Testimony by Dr. Alan R. Schriber, Chairman,
Public Utilities Commission of Ohio

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OUR MISSION:

To ensure all residential and business consumers access to
adequate, safe, and reliable utility services at fair prices,
while facilitating an environment that provides
competitive choices.



Mr. Chairman and members of the Senate Public Utilities Subcommittee, thank you for the opportunity to testify before you today with respect to energy issues, the urgency of which continues to mount. Let me begin with the old adage of an economist that all of us are familiar with and say that “nothing is free”. As we search for solutions to our energy problems not just state-wide, but also nationally, we must force ourselves to realistically examine the viability of the possibilities before us.

As the price of oil has risen on the world markets it follows convention that the price of all fossil fuels has similarly gone up. We are all acutely aware of the price of natural gas, propane, coal and other fuels that we use to heat our homes and operate our vehicles, but also power the engines of our industries. As has happened time and again throughout the last century and undoubtedly before, is that as these fuel prices escalate, the search for alternatives intensifies. I am prepared to forecast right now that the viability of everything that we are about to talk about under the aegis of advanced energy will be noted with great interest by those who produce oil world wide. As we have seen time and again, when “big oil” perceives a competitive threat, prices will drift back down and the interest in advanced fuels that has been generated so aggressively these past couple of years will begin to diminish. This is a cycle that we can recognize in virtually all markets for all commodities. Will we again fall back into our zones of false comfort or will we continue to move forward? I understand that the purpose of this committee is to continue to move us forward. I commend you for your initiative.

In order to alleviate the burden of high energy prices and help meet Ohio’s long-term energy needs, the Governor asked the PUCO to develop and implement measures to promote new sources of energy. As chair of the Governor’s Jobs Cabinet Energy Working Group, I am working with the other members of the Governor’s Cabinet to explore and develop new technologies to create an advanced energy environment for our families, farmers, businesses, and industries. In doing so, we will better position Ohio to meet our future energy needs. We have been working with stakeholders to address potential obstacles to the expansion of decentralized or “distributed” generation of power from local sources. Specifically, we have reviewed the actions our state has taken regarding provisions of the Federal Energy Policy Act of 2005, including net metering, smart metering, demand response, cogeneration, and small power

production. We recently concluded a series of technical conferences for all interested persons to learn more about these important issues.

Ohio is also moving forward to develop renewable energy production. The Ohio Biomass Energy Program housed within the PUCO promotes the development of renewable bio-energy resources in Ohio including wood and agricultural residues, ethanol and bio-diesel bio-fuels, landfill gas to energy, and energy crops.

The benefits of advanced energy systems are significant. The primary advantage is that it alleviates our need to rely upon sources outside of our boundaries for the fuels that fulfill our energy requirements.

In 2003 and 2004, Ohio's first utility-scale wind turbines were installed in Bowling Green providing a capacity of 7.2 megawatts. The four turbines installed are the largest wind turbines east of the Rockies. Bowling Green is meeting 20 percent of its electric load with green power generation.

The Governor's Residence is equipped with a 3.2 kilowatt grid-tied photovoltaic solar power system. Additionally, 47 schools, zoos, museums, colleges and universities are participating in Ohio Schools Going Solar. Under this program, two-kilowatt photovoltaic solar panels have been installed at these participating locations throughout 22 Ohio counties.

While there are clear benefits to these alternative energy sources, there are also some drawbacks. What they all have in common is the following: first, the installed cost of each one of these projects is vastly more expensive than the cost to install coal-powered generator plants. Second, power generated from these alternatives is simply not available for enduring amounts of time. In Northern Ohio for example, the wind turbines provide power about 27 percent of the time, this means that 73 percent of the time there is insufficient wind to spin those turbines. Similarly, where hydropower has played principal role in the production of electricity, a drought can wreak havoc on the reliability of energy.

Unlike other states, Ohio has an abundant supply of coal. The benefits of coal power generators are clear; the installed costs, as mentioned earlier, are significantly less than those of advanced systems, and they can be relied upon to generate electricity virtually around the clock. Of course there are some disadvantages; as the cost of oil and other fossil fuels rise, the price of coal can also be subject to price increases. Also there are the externalities associated with burning coal, the most significant of which is air pollution. Reducing air emissions, while continuing to use coal, requires that the installed costs need to increase such that the cost of maintaining clean air is internalized by those who benefit from the electricity generators.

In directing the Ohio Assured Fuels Initiative, we have sought ways to utilize Ohio coal as an alternative to other fuel sources. We received word yesterday that the House Appropriations Committee approved this week \$7 million in funding for a coal to liquid fuels project. The joint initiative including Wright-Patterson Air Force Base, the Ohio Coal Association, Ohio universities, the PUCO, ODNR, ODOD, and EPA will focus on coal to liquid fuels technology.

At the end of the day what is clearly called for is some combination of advanced energy systems and base load generation (with the latter being technologically enhanced such as with an Integrated Gasification Combined Cycle facility). My thinking on advanced systems is that their best use can be as an adjunct energy provider in the form of storage. We know you cannot store electrons very efficiently or effectively but there are certain types of storage systems that utilize water or air to generate electricity. For example, in Northern Ohio there is a proposed system where a cavern is filled with compressed air during off peak periods when power to pump that air is relatively cheap. During peak periods the air is released to spin turbines. It is altogether possible that photovoltaics and wind, when available, could be the means to power the pumps that fill the caverns. In other parts of the region there are pumped storage facilities which utilize water, wherein water is pumped up to the top of a mountain into a reservoir during off-peak periods, and when on-peak, water flows back down the mountain to the turbines which generate electricity. Here again the role of advanced energy systems might be to provide that power during off-peak periods when available. I have emphasized the use of these alternative power sources as compliments to storage devices because I have little confidence in the reliability of most of these advanced systems to deliver power when they are most needed.

Serving as the chair of the Ohio Power Siting Board for the past seven years, I am pleased to report that Ohio is among the most progressive states in getting utility facilities up and running. Affected parties are afforded hearings, and certificates are granted only after an extensive range of issues are examined. These include environmental, health, agricultural, and others. The 11-member board is comprised of representatives of the PUCO, the Ohio Environmental Protection Agency, the state departments of Development, Natural Resources, Agriculture and Health, the Ohio General Assembly, and the public. Our state's siting process compels us to take into consideration the effects on the region, not just the state. Our state siting process has been so effective that it has been promoted a model that other states have adopted.

Over the past seven years, we have further developed Ohio's electric generation portfolio and supported the development of new electric generating facilities in Ohio. Since 1999, 15 new facilities have become operational adding 7,200 megawatts of generating capacity in Ohio. There are two facilities currently under construction that will create an additional 1,254 megawatts of generating capacity within the next two years. We are expecting additional applications in the near future to meet the growing electric demand. Additional generation ensures that energy resources will meet the increasing demand of Ohio's existing and new industries, as well as Ohio's residential customers.

Our state, as most others, relies quite heavily upon natural gas, particularly during daytime peak periods. What Ohio and other states need is diversity of supply. As of now most of our natural gas comes through pipelines that originate in the Gulf of Mexico. The lessons of the last year have taught us that we need to tap supplies of natural gas that exist in vast quantities elsewhere, such as in the mid-continent area at the base of the Rocky Mountains. We have before us several proposals that would bring vast quantities of that natural gas to our area to supplement or compliment the natural gas coming from the Gulf of Mexico. Diversity is imperative and there is movement right now to fulfill our diversity objectives. As part of this objective we are also encouraged by the industry interest in synthetic natural gas provided by integrated coal gasification using Ohio resources. We, at the PUCO, are determined to push our natural gas companies to embrace greater diversity. Further, the Ohio Power Siting Board structure enables

us to site these new opportunities effectively and efficiently both through the state process as well as through a cooperative effort with the Federal Energy Regulatory Commission.

I could continue for a much greater time than you probably wish to hear. Needless to say, I would be happy either to return sometime or engage you “offline”! Of course I’d be happy to entertain questions now.

Again, many thanks for inviting me to share some thoughts on a most vital topic.