

Testimony before the House Joint Energy Policy Committee

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**On Behalf of the Following Members of
Advocates for Affordable Energy**

**Citizen Power
Safe Energy Communication Council
Ohio Public Interest Research Group
Coalition for a Nuclear Free Great Lakes
Environmental Health Watch
Citizens Protecting Ohio
Toledo Coalition for Safe Energy
Earth Day Coalition**

Ohio Clean Energy Policy Plan

Introduction

Electricity—it turns on the lights, powers our industries, and fuels our economy. It has also caused nationwide alarm.¹ In 2001, consumers watched in shock as Californians suffered from rolling blackouts and unconscionable energy prices due to shortsighted and potentially illegal market decisions made by electric utility companies, as well as an inherently flawed utility deregulation program. In the Midwest, the citizens of Michigan watched in shock as the state attempted to further open the Great Lakes to short-sighted oil and gas drilling. In response, they passed the first state-level ban on drilling in the Midwest.

In Ohio, flawed attempts to control rampant coal-fired power plant pollution have led to the wholesale purchase of an entire town, Cheshire, Ohio. The threat from coal-fired power plants is real, with over 2.5 million children in Ohio living within 30 miles of a coal-fired power plant – plants which are all exempt from the full health-based standards of the Clean Air Act. At the same time, the Nuclear Regulatory Commission has documented a frightening pattern of managerial neglect at one of the state’s nuclear facilities, prompting a criminal investigation into the events leading to the unprecedented degradation of the reactor head at Davis Besse.

As the nation debates our energy future and struggles to deal with our energy problems, several questions are on every Ohioan’s mind: Will we be able to keep the power on—and our economy running—in the years ahead? Must we degrade our environment in order to meet our growing energy needs? Can economic progress and efficient energy usage go hand in hand? Can Ohio’s economic growth come from clean energy solutions, rather than conventional energy problems?

Now is the time to take steps towards cleaner, more sustainable electricity sources with less volatile costs. In Ohio, this means both state and regional projects to generate and use energy in the smartest, cleanest ways possible. Fortunately, Ohio has a wealth of energy efficiency potential, as well as proven renewable energy opportunities. With a stable energy demand market, and increasing consumer desire for clean power, Ohio need only press forward with common-sense, long-range policies to chart a path towards a new energy future.

State of Ohio: An Energy Leader

The state of Ohio should be an energy leader, a steward of the economy and the environment. In that capacity, Ohio is not alone. State throughout the Midwest – and the entire country – have taken the initiative to use taxpayer dollars efficiently, effectively, and cleanly. Part of that taxpayer accountability must seek to grow a healthy, vibrant economy while simultaneously achieving significant environmental progress. Ohio must strike that balance if we wish to create a competitive environment for growth in this new century.

To achieve real, sustainable economic growth in the coming decades, Ohio’s government must be a leader in clean energy initiatives. Consider the recent actions of other state governments.

¹ Thanks to PennPIRG for the use of their report, Blueprint for Pennsylvania’s Energy Future (www.pennpirg.org), in preparing these opening statements.

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- ✓ In Pennsylvania, state government has awarded a contract to purchase renewable energy to supply 5 percent of state government's power needs for the next two years.
- ✓ In Michigan, Gov. Engler has announced the NextEnergy program, which includes a 700-acre alternative energy investment zone, complete with per-job tax rebates, renaissance zone tax abatements, and other state incentives for clean energy research and development.
- ✓ In Illinois, state government has a long-standing energy use reduction program that awards the use of new energy saving technologies and processes throughout all state-owned buildings.
- ✓ In New York, the state has undertaken the task of developing a long-range strategy for the development of new renewable energy and energy efficiency opportunities, including state support for feasibility inventories, promotion of energy efficiency and renewable energy manufacturing opportunities, and new public benefits programs.

Given the strong manufacturing and agricultural history of Ohio's economy, it makes sense for the state to promote those sectors as we look for economic growth opportunities. Ohio can and should position itself to become the energy efficiency and renewable energy manufacturing base for the nation. With a skilled manufacturing workforce, the state need only attract new emerging technology companies for Ohio.

In addition, investment in the next generation of skilled workers will be vital to the longterm growth of an Ohio economy based, in part, on the development and manufacture of emerging energy technologies. For this reason, Ohio PIRG supports the development of Create a revolving loan fund of \$250 million to assist in the development and manufacture of renewable energy and energy efficiency technologies, as well as develop regional emerging energy research and teaching centers at state universities such as University of Toledo and Ohio University.

Ohio's commitment to new energy solutions must begin with a state commitment to the purchasing of clean energy for all government buildings. The renewable portion energy purchased for use in Ohio's government buildings should increase by 1% per year, though 2010. This not only indicates the state's commitment to clean energy solutions, it also creates greater incentives for the development of Ohio's homegrown renewable energy resources.

The State of Ohio also has a duty to properly steward funds provided by the state's taxpayers. A central part of this charge is the efficient and cost-effective energy usage of state buildings. This should begin with a pledge to use the best available technologies in constructing or renovating state-owned facilities. In addition, the state should support domestic manufactures, such as Whirlpool, by purchasing EnergyStar rated appliances. With advances in "green building" technologies, coupled with lifecycling costing of all construction projects, the state can build more cost-effective and environmentally-friendly facilities.

Finally, it is incumbent upon Ohio's governmental leaders to identify common-sense opportunities to increase the efficient use of energy at all state facilities. For every tax dollar invested in using energy more efficiently, the state can save taxpayers over three dollars. As this startling figure suggests, Ohio's governmental energy efficiency can dramatically decrease energy demand at a substantial benefit to taxpayers. For this reason, Ohio PIRG suggests a state energy use reduction target of 1% per year through 2010, for a total energy use reduction of 8%.

In sum, Ohio PIRG supports the following policies for the State of Ohio:

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Clean Power Purchasing – One percent of the energy purchased by the state of Ohio must come from renewable sources each year until 2010, for a total of 8%.

Taxpayer Stewardship Energy Program – Set a target to reduce government energy use by 1% per year from 2002 to 2010; utilize BAT (Best Available Technology) for the design and renovation of all state-owned buildings; and purchase EnergyStar rated appliances.

Investment in a New Energy Future – Create a revolving loan fund of \$250 million to assist in the development and manufacture of renewable energy and energy efficiency technologies; and develop regional emerging energy research and teaching centers at state universities such as University of Toledo and Ohio University.

Renewable Energy: The Key to Long-Term Energy Needs

The primary step necessary to ensure long-range energy generation stability in Ohio is reliance on homegrown renewable fuels. Renewable energy refers to any energy source that does not run out as it is used. Clean biomass, solar, wind, geothermal, and low impact hydro are examples of clean renewable energy. A Renewable Portfolio Standard (RPS) is one mechanism to produce a diverse, stable, and clean electricity generation portfolio. Put simply, an RPS states that energy utilities must provide their consumers with a certain percentage of renewable energy in a certain period of time. For Ohio, we recommend adding 1% renewable energy per year, through 2020, for a total energy portfolio of 18% renewable energy.

Naysayers can no longer mischaracterize renewable and efficient energy technologies as “futuristic” or impractical. These technologies are available today, are being used successfully and economically around the world, and can be just as dependable as fossil fuel and nuclear power.² However, current state and federal energy policies create unfair advantages for fossil fuels and nuclear power. These industries receive billions of dollars in tax breaks, subsidies and bailouts, while operating under weak environmental and safety standards. As a result, clean energy providers are struggling to compete for a significant share of the energy market.

Increased reliance on renewable energy sources will be vital to the development of stable, affordable, and reliable energy in Ohio. Our current energy mix is almost solely reliant on coal and nuclear energy, both of which are limited resource bases that currently pose unacceptable threats to the health and safety of Ohioans and their environment. Emissions from coal-fired power plants in Ohio have been associated with 1,900 deaths per year. Nuclear energy, as will be discussed later, may hardly be considered a clean energy option.

In Ohio’s withering economy, homegrown renewable energy can stimulate up to \$3.8 billion in new growth³ and up to 59,000 new jobs.⁴ Ohio farmers could earn millions by leasing space for wind

² See, for example, *Minnesota Wind Energy Factsheet*, available at <http://www.me3.org/projects/seed/windfact.html>.

³ *Generating Solutions*, Ohio PIRG. March, 2002. Available at www.ohiopirg.org.

⁴ *Clean Energy: Jobs for America’s Future*. Tellus Institute. October 2001: 11. These numbers are the results of looking at net benefits from implementing renewable and efficiency policies. Any potential job losses in the coal and traditional utility sector were subtracted from the expected gains. They are broken down from the national numbers in various

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turbines. In fact, clean bioenergy crops would provide 75% of the energy needed to fuel a 1% per year RPS in Ohio. The huge potential for generating energy from clean biomass is virtually untapped. Another study by the State of Wisconsin found that increased use of clean renewable energy sources would create three times more jobs than increased use of traditional sources of electricity.⁵

According to the Union of Concerned Scientists,⁶ a regional Renewable Portfolio Standard of 10% by 2010 and 18% by 2020 would produce the following benefits for the Midwest:

- ✓ \$7.5 billion in new capital investment
- ✓ Less than 0.5% increase in consumer energy bills, per year
- ✓ \$1.78 per month increase in monthly electricity bills
- ✓ \$(0.48) MMBtu decrease in natural gas prices (10%)

As these facts clearly indicate, renewable energy should play a significant role in shaping Ohio's energy future. For that reason, Ohio PIRG makes the following policy recommendations regarding renewable energy development in Ohio:

Renewable Portfolio Standard – 1% of the energy sold in Ohio must come from renewable sources each year until 2020, for a total of 18% by 2020.

Renewable Purchasing Allowances – allow utilities to purchase regional renewable trading credits for no more than 25% of renewable energy sold in Ohio.

Renewable Energy Sources – Rely on clean renewables, such as solar, wind, geothermal, low-impact hydro, and clean biomass.

Energy Efficiency: The Path to Energy Independence

The cheapest, fastest and safest way to meet our energy needs is to reduce demand through energy efficiency measures. The cleanest kilowatt is one that is never used. Furthermore, energy efficiency saves consumers and businesses significant amounts of money – and the savings can begin immediately. For these reasons, Ohio PIRG advocates the expansion and revision of Ohio's Systems Benefit Fund, as created by the state's electric deregulation bill (SB 3). Ohio PIRG also supports targeted efforts to simulate the efficient usage of existing electricity sources in the state.

Regrettably, energy efficiency is frequently confused with energy conservation. As a result, many consumers envision Former President Carter in a sweater or midnight rendezvous' with the washing machine. Energy efficiency, however, refers to targeted actions that allow for the same quality of life and energy use patterns that are currently enjoyed by Ohioans.

sectors and calculated as if the results would be evenly distributed amongst the states. Text available at http://www.worldwildlife.org/climate/clean_energy_jobs.pdf.

⁵ *The Economic Impacts of Renewable Energy Use in Wisconsin*, Wisconsin Energy Bureau. For complete text email energy@doa.state.wi.us or call the WI Energy Bureau at (608) 266-8234.

⁶ *Renewing Where We Live*, 2002. Available at www.ucs.org

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A Public Benefits Fund (PBF) is one of the most effective ways to fund and administer energy efficiency programs for consumer benefit. A PBF reduces energy demand by encouraging home weatherization, promoting the use of energy efficient appliances, helping consumers modify their energy use, and other programs. Under Ohio's deregulation laws, a Systems Benefit Fund was created, but the yearly cap of \$15 million is not sufficient to adequately support energy efficiency policies in the state.

The impact of a strong energy efficiency program in Ohio could be enormous. According to a study by American Council for an Energy-Efficient Economy (ACEEE),⁷ the five most proactive states in energy efficiency spending and savings invested an average of 1.56% of utility revenue on efficiency programs, resulting in a savings of 5.1% of consumer sales. In Ohio, total energy sales in 2001 were \$10,470,364,000, with 161,093,460,000 kWh used. Based on the ACEEE findings, an annual investment of \$163 million would reap energy savings of \$534 million dollars. This produces a return on investment of roughly \$3 for every \$1 spent.

Energy efficiency saves are not limited to direct consumer benefits. Economists refer to the "economic multiplier" as a measure of how much economic activity could be generated in a community by different types of investments. Money spent on fossil fuels, like oil and gas, has an economic multiplier of \$1.48, but money spent on energy efficiency has an economic multiplier of \$2.32. This means that for every dollar spent, energy efficiency generates \$.84 more economic activity in local economies than buying oil and gas.⁸

As these facts indicate, energy efficiency makes economic and environmental sense in Ohio. For those reasons, Ohio PIRG supports the following energy efficiency policies:

Public Benefit Fund – Increase existing systems benefit fund to \$250 million per year, with a maximum charge of \$0.002/kWh; and funds to benefit a state energy efficiency and renewable energy development committee within the Office of Energy Efficiency.⁹

Energy Growth Initiative – Target "Zero Net Increase" for energy usage in the state of Ohio.

Nuclear Power: Not Clean, Not Cheap, and Not Safe

Nuclear power has cost us dearly. The lifecycle cost of a new nuclear plant is prohibitively expensive. Original estimates predicted that these plants would cost \$472-\$1,256/kW (weighted for dollars, 1999) and take between 52 and 74 months to construct. In reality these plants cost between \$986-\$3,373/kW (weighted for dollars, 1999) and took from 91 to 132 months to construct. As a result of these costs, customers of FirstEnergy, owners of Ohio's only nuclear generators, have long been burdened by excessive electric rates 30 to 50% higher than the rest of the state. First Energy

⁷ "State Scorecard on Utility Energy Efficiency Programs." Nadel, Kobu, Geller; American Council for an Energy-Efficient Economy (ACEEE); Report Number U004, April 2000.

⁸ U.S. DOE, Energy Efficiency Strengthens Local Economies located at http://www.eren.doe.gov/cities_counties/enrgyeff.html

⁹ The SBF would be determined by dividing the target amount (250 million) by the total kWh usage of the previous year (161,093,460,000 kWh), for a total of \$0.00155/kWh.

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customers are also paying nearly \$9 billion in stranded costs, much of which is the result of the utility's flawed investments in nuclear power.

Nuclear power is not economically viable. After decades in business, nuclear power plants still rely heavily on government subsidies to remain in business. Consider one nuclear subsidy – the Price-Anderson Act, which provides indemnity protection to the nuclear industry in the case of a nuclear accident and establishes a no-fault insurance regime for compensation of public damages. The current total annual subsidy provided by the Price Anderson Act is, therefore, between \$366 million and \$3.4 billion, given the 106 reactors currently covered.¹⁰ An industry that is decades old should be able to stand on its own two feet – a feat that has escaped the nuclear power business.

Nuclear power is risky. Look no further than the abysmal safety record of plants such as the Davis-Besse reactor in Oak Harbor. After years of managerial neglect, the unthinkable – and unconsidered – issue of massive reactor head degradation has focused national attention on the incomparable risks associated with nuclear power. A government safety study estimated that a major nuclear accident could cause damage of \$24.8 billion to \$590.4 billion in dollars (weighted for dollars, 2000).¹¹

Nuclear power is unsafe. Security evaluations by U.S. Nuclear Regulatory Commission (NRC) demonstrate that nearly 50% of the country's nuclear plants have failed security tests when teams of privately contracted mock terrorists have repeatedly defeated perimeter security detection at atomic facilities, in some cases entering the control room with a fake gun and pretending to destroy key safety components of the reactor to simulate core damage. Furthermore, the NRC admits that all but one¹² of the nation's nuclear power plant containment structures were not designed to survive a commercial airline crash.

Nuclear power is not a “clean” energy source. Nuclear power plants produce the deadliest and longest living wastes ever created, with absolutely no proven technology to dispose of it safely. Every year a 1,000 MW nuclear generator (FirstEnergy's Perry plant is 1,250 MW) produces 20-30 metric tons of spent fuel – enough to produce 40 nuclear bombs. At this moment there are 44,000 metric tons of high-level radioactive waste in the United States, much of which national leaders plan to ship to an ill-suited dump in Nevada. But first it will have to pass by truck and train near the homes, businesses and farms of millions of Ohioans.

For all of these reasons, Ohio PIRG recommends that the State of Ohio adopt the following policy positions with respect to nuclear power:

¹⁰ Heyes, A. and C. Liston-Heyes, “Liability Capping and Financial Subsidy in North American Nuclear Power: Some Financial Results Based on Insurance Data,” Department of Economics, University of London; Dubin, J.A. and G.S. Rothwell, “Subsidy to Nuclear Power Through Price-Anderson Liability Limit,” *Contemporary Policy Issues* 3, 7 (1990).

¹¹ Sandia National Laboratory, Calculation of Reactor Accident Consequences (CRAC-2) for U.S. Nuclear Power Plants (Health Effects and Costs) (Washington, DC: Nuclear Regulatory Commission, 1982).

¹² According to Chris Sherry with the Safe Energy Communication Council, TMI Unit 1 was designed to survive a commercial airliner impact. However, it was only designed to survive the impact of a plane weighing 200,000 lbs., which is smaller than most airliners flying today, and traveling at 200 knots (230 mph). A fully loaded 767-400 weighs 450,000 lbs. and has a cruising speed of 530 mph.

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Existing Plants – Plan for the orderly phase-out of all nuclear power plants in Ohio as soon as possible.

New Nuclear Plants – Oppose the siting of any new nuclear power plants in Ohio.

Taxpayer Subsidies for Nuclear Power – Oppose the use of any taxpayer funds, state properties, or government resources for the siting of nuclear power plants in Ohio.

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Summary of Policy Recommendations

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