

Alternative Energy Committee

Submitted by:

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TESTIMONY OF JANINE L. MIGDEN-OSTRANDER
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BEFORE THE ALTERNATIVE ENERGY COMMITTEE
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Good Morning. I am Janine Migden-Ostrander, the Consumers' Counsel for the State of Ohio, representing Ohio's 4.5 million residential households. As the representative of the largest stakeholder in this process, I would like to commend Representative McGregor for the having the foresight to do what is needed for the energy policy in Ohio by submitting this extremely comprehensive bill.

Detailed discussions of energy efficiency, renewable energy, deregulation, regulation or hybrid approaches matter greatly to us. However, to Ohio's working families, the discussions are quite simply about the bottom line. My clients are your constituents. We hear that they are very concerned about their cost of living issues: providing for their families, keeping their jobs, managing health care costs, maintaining a home and having reliable and affordable utility services. We also hear a growing concern about global warming, the environment and the desire for an energy policy that balances the needs of Ohioans with responsible stewardship.

As you are making decisions on this bill and look toward ways to achieve the lowest rate with reliable service through energy efficiency, renewable energy and other methods, please consider the following facts about Ohio's electric customer population and electricity prices that consumers are facing:

- According to the Office of Strategic Research in the Ohio Department of Development, there are 807,345 households in Ohio at 150 percent of the poverty guideline. That is approximately 18 percent of all Ohio households that are that are eligible for assistance through the Percentage of Income Payment Plan Program (PIPP), Home Energy Assistance Program (HEAP) or the Home Weatherization Assistance Program (HWAP). The number of households at 175 percent of the poverty guideline jumps to 1,066,618, nearly one quarter of all Ohio households. That translates into an additional 259,273 low-income Ohio households that do not have access to most of the programs and who must somehow find resources to pay rising energy bills.
- There are approximately 67 years of economically recoverable supplies of natural gas left in North America. Nevertheless, the reliance on natural gas to fuel power plants is increasing – projected at 24 percent regionally by 2010 as opposed to 11 percent in 2000.
- Natural gas prices have more than doubled in the last several years and as the United States seeks supplies of natural gas from overseas, we will be competing with Europe and emerging countries like China and India for supplies from countries like Venezuela, Algeria and Nigeria.

- Worldwide demand for electricity is expected to double by 2030. The growth in electricity demand in the United States is projected to increase by 40 percent by 2030.
- Just as the cost of natural gas will continue to rise as more countries compete for diminishing supplies, the cost for coal fired plants will increase dramatically as well, due to environmental compliance with some form of Greenhouse Gas (GHG) regulation and other existing regulations.
- The price of new nuclear plants is estimated at \$4,000 per kilowatt – a high price tag; however, that may very well be an optimistic projection. Remember when they said that nuclear would be too cheap to meter?

Given this, we need to develop an energy strategy that provides affordable rates for customers now and in the future; ensures reliability; minimizes price risk; contributes to energy independence which in turn helps our national security; and is compatible with growing concerns about our environment. This important piece of legislation sets Ohio on the path to accomplish these objectives.

After analyzing the bill put forth by Representative McGregor, there are important items that I am in full support of, but have several recommendations that I believe would enhance the future of energy in Ohio.

The OCC is supportive of the recommendation to require utilities to provide, at cost, standby power purchased through the Regional Transmission Organizations. We have been advocating this at the Public Utilities Commission of Ohio (PUCO) for several years. Studies have shown that co-generators have a higher efficiency factor, as high as 70 percent as compared with 35 percent for traditional coal fueled electric generation plants.

The OCC also supports Representative McGregor's proposal to repeal the one percent limitation on net metering. This constraint is counterproductive and has the potential to shackle consumers and businesses from controlling all or a portion of their energy bills.

Energy efficiency impacts everyone whether or not each person follows energy efficient practices. When a group of people reduce their energy use through energy efficiency, they are not only reducing their own monthly utility bills, but also are helping to reduce the cost for all of the utility's customers because energy efficiency brings down the overall system costs. As demand for electricity grows, utilities have the option of building more power plants to meet that demand or choosing energy efficiency to reduce demand. Energy efficiency is the lowest cost option when compared to all other options. While the OCC believe that the energy efficiency requirements outlined in this bill are a good start, more needs to be added to provide the maximum benefit for residential consumers. The same can be said of the outlook for peak demand. The amended language recommended is meant to align with the Energy Security and Climate Stewardship

Platform for the Midwest (MESCS¹) that Governor Strickland just signed on to. OCC's and the MESCS recommended requirements both end up at 22% energy efficiency by 2025 with OCC's rollout having an earlier and smoother ramp up period. Attachment A contains a comparison of what energy efficiency and peak demand requirements are that the OCC is advocating as compared with HB 357, Senate Bill 221 and the Illinois legislation. OCC's approach is a little more modest than the Illinois approach, however, OCC supports both. I am also supplying attachment B that highlights the cost advantage that energy efficiency has over all new supply sources.

The OCC is in support of the repeal of any provision that prohibits consumers from being able to hang their laundry outside to dry. This saves on electricity and potentially natural gas usage resulting in lower energy bills and also provides a benefit for the environment.

The OCC has many recommendations on several aspects of Representative McGregor's bill. First, the OCC is opposed to a cap on energy efficiency rate increases. We believe that this could hinder energy efficiency/demand side management efforts that are in the works with several utilities. Energy efficiency is at the forefront of least-cost options that can help keep consumer bills lower and should not have caps in regard to rates. If a cap must be put in for energy efficiency, then the OCC recommends that caps be put in place for all other energy technology as well.

The OCC has proven itself as a leader in energy efficiency programs over the past three years as it has worked with utilities such as FirstEnergy, Duke Energy (on both the electric and natural gas industries) and Vectren Energy Delivery of Ohio. Due to the successes that we have been able to bring, the OCC believes that the utilities should be required to consult with the OCC as well as the Ohio Department of Development on the development and implementation of energy efficiency programs. By doing so, all interests surrounding the programs will be represented. However, the OCC would like to ensure that all energy efficiency programs developed will be open to all consumers who are paying for the programs. While we appreciate the need to continue to do more for the low-income households in Ohio to help them better afford their energy bills, we believe that in addition to the low income programs, other programs ought to be put in place to provide opportunities for all residential customers to reduce their usage.

For several years, we as an agency have been advocating for renewable portfolio standards. We were appreciative to see these outlined in this legislation because it is important for Ohio to move forward on using more renewable resources. By using solar, wind and other forms, less dependence is created for fossil fuels and other forms of energy that can generate pollution and create other waste that must be dealt with because of the environmental impact. Carbon dioxide and nuclear waste, by-products of most of

¹ The energy efficiency commitment is as follows: "Meet at least 2 percent of regional annual retail sales of natural gas and electricity through energy efficiency improvements by 2015, and continue to achieve an additional 2 percent in efficiency improvements every year thereafter." See <http://www.midwesterngovernors.org/resolutions/Platform.pdf>.

the energy use today, is costly to clean up and reduce. The cost for using renewable is less in the long run than having to reduce or dispose of the traditional by-products.

We support the requirement that the utilities must submit reports to the PUCO on their renewable energy efforts, however, we do have one recommendation. We would like to see these reports docketed so that anyone has access to this information, whether it be OCC or other interested consumers. Further, we would recommend that a sworn affidavit be submitted to ensure that the Renewable Energy Credits (RECs) are not used in other states. Also, utilities who construct renewable energy facilities using ratepayer funds should be free to sell these credits in the market with any revenue from the credits being shared with consumers.

As for the penalties for noncompliance or failure to meet the requirements, the OCC recommends that criteria be established that would guide the Commission with respect to the assessment of fines. For example, companies that fail to take measures toward energy efficiency requirements would be subject to higher penalties than those that are working toward the goals but fail to meet them. Additionally, we want to ensure that there is an incentive for the utilities to work toward energy efficiency programs by making the penalties stiffer than the cost of the programs.

Another area that the OCC is concerned about is the allowance for a complaint for noncompliance. The OCC believes that the Commission should be required to issue an order within nine months from the date that the complaint is filed. Without a statutory timeline, the complaint could languish at the Commission without resolution. In relation to this, we are recommending that the provision that requires the respondent utility to be served within 15 days of the hearing should be changed such that the complainant must serve the respondent at the time the complaint is filed. Currently if a party files a complaint against a company, it can take months or even years before any decision is made, however, when utilities file cases a resolution is typically quick to be made.

OCC would caution against the use of restrictive language that only RECs produced in the state can meet the requirement. This language may not withstand an Interstate Commerce Clause challenge. One way to avoid this issue is to broaden the area from which RECs can be purchased to interconnected utilities in MISO or PJM or to define a region like Reliability First.

Rather than require the state to develop a registry for the tracking of RECs, OCC recommends added language to allow for the use of existing registries. For example, PJM and MISO already have this capability in their GATS and M-RETS database service so the commission should not have to recreate their efforts.

I thank you for the opportunity to present testimony to you today on behalf of Ohio's 4.5 million residential utility customers. In closing, I believe that the proposed legislation presents a framework for Ohio's energy future, however, some of the modifications that we proposed would benefit the goal of greater energy efficiency and renewable energy.

Again we thank Representative McGregor for his foresight and vision in sponsoring this legislation. Thank you and I would be pleased to answer any questions you may have.

Comparison of Senate Bill 221 and McGregor Bill Energy Efficiency Requirements												
Year	Energy Efficiency SB 221		HB 357		Illinois Law		Illinois Law Cumulative		OCC		MESCSP*	
	SB 221	Cumulative	HB 357	Cumulative	Illinois Law	Cumulative	OCC	Cumulative	OCC	Cumulative	SB 221	Cumulative
2008			0.002	0.002	0.002	0.002	0.002					
2009	0.003	0.003	0.002	0.004	0.004	0.006	0.003	0.003	0.003	0.003	0.006	0.006
2010	0.003	0.006	0.002	0.006	0.006	0.012	0.005	0.008	0.006	0.008	0.006	0.012
2011	0.003	0.009	0.002	0.008	0.008	0.02	0.007	0.015	0.006	0.018	0.006	0.018
2012	0.003	0.012	0.002	0.01	0.01	0.03	0.008	0.023	0.006	0.024	0.006	0.024
2013	0.003	0.015	0.004	0.014	0.014	0.044	0.009	0.032	0.006	0.029	0.006	0.029
2014	0.003	0.018	0.004	0.018	0.018	0.062	0.01	0.042	0.006	0.035	0.006	0.035
2015	0.003	0.021	0.002	0.02	0.02	0.082	0.01	0.052	0.006	0.041	0.006	0.041
2016	0.003	0.024	0	0.02	0.02	0.102	0.01	0.062	0.006	0.047	0.006	0.047
2017	0.003	0.027	0	0.02	0.02	0.122	0.01	0.072	0.006	0.053	0.006	0.053
2018	0.003	0.03	0	0.02	0.02	0.142	0.01	0.082	0.006	0.059	0.006	0.059
2019	0.003	0.033	0	0.02	0.02	0.162	0.02	0.102	0.006	0.065	0.006	0.065
2020	0.003	0.036	0	0.02	0.02	0.182	0.02	0.122	0.006	0.071	0.006	0.071
2021	0.003	0.039	0	0.02	0.02	0.202	0.02	0.142	0.006	0.076	0.006	0.076
2022	0.003	0.042	0	0.02	0.02	0.222	0.02	0.162	0.006	0.082	0.006	0.082
2023	0.003	0.045	0	0.02	0.02	0.242	0.02	0.182	0.006	0.088	0.006	0.088
2024	0.003	0.048	0	0.02	0.02	0.262	0.02	0.202	0.006	0.094	0.006	0.094
2025	0.003	0.051	0	0.02	0.02	0.282	0.02	0.222	0.006	0.100	0.006	0.100
Notes: SB 221 annual energy efficiency savings are estimated based on 20 year PUCO projected Ohio electricity growth of 1.2% per year. See http://www.puco.ohio.gov/emp/library/files/util/UtilitiesDeptReports/OhioLTFEnergyReq2003-2023final.pdf . Based on actual data however, from 1990-Present, there would have been 7 years with no energy efficiency requirement under SB 221 due to lack of load growth. HB 357 has a rate cap of half a cent per year per kilowatt hour. Some have interpreted the HB 357 energy efficiency requirements as equivalent to the Illinois legislation. For that to be true, the language needs to be amended for clarification. * Stands for Midwest Energy Security and Climate Stewardship Platform signed on to by Governor Strickland.												

Comparison of Senate Bill 221 and McGregor Bill Renewable Portfolio Standard									
Renewable Energy Requirements									
	SB 221	SB 221	HB 357	HB 357	HB 357	OCC	OCC	OCC	
		Cumulative		Cumulative	Cumulative		Cumulative	Cumulative	Solar
2008									
2009	0.007	0.007			0.0125	0.0125	0.0125	0.00009	
2010	0.007	0.015	0.02	0.02	0.0250	0.0250	0.00056		
2011	0.007	0.022	0.02	0.04	0.0375	0.0375	0.00112		
2012	0.007	0.029	0.02	0.06	0.0500	0.0500	0.00185		
2013	0.007	0.037	0.02	0.08	0.0625	0.0625	0.00268		
2014	0.007	0.044	0.02	0.10	0.0750	0.0750	0.00367		
2015	0.007	0.051	0.02	0.12	0.0875	0.0875	0.00498		
2016	0.007	0.059	0.02	0.14	0.1000	0.1000	0.00670		
2017	0.007	0.066	0.02	0.16	0.1125	0.1125	0.00898		
2018	0.007	0.074	0.02	0.18	0.1250	0.1250	0.01000		
2019	0.007	0.081	0.02	0.20	0.1375	0.1375			
2020	0.007	0.088	0.02	0.22	0.1500	0.1500			
2021	0.007	0.096	0	0.22	0.1625	0.1625			
2022	0.007	0.103	0	0.22	0.1750	0.1750			
2023	0.007	0.110	0	0.22	0.1875	0.1875			
2024	0.007	0.118	0	0.22	0.2000	0.2000			
2025	0.007	0.125	0	0.22	0.2125	0.2125			

Technology	IGCC AVG (1)		IGCC AVG (1)		Latest IGCC Project estimate AEP & Duke (2)	Pulverized Coal (1)				Latest PC Plant Estimate (3)	Natural Gas Combined Cycle (1)		Nuclear (4)	Latest Nuclear Project Quote (5)	Wind Actual Cost (6)	Energy Efficiency (7)	Solar Electricity (8)	Biomass (9)	
	w/o CC	with CC	w/o CC	with CC		Subcritical	w/o CC	with CC	Supercritical		w/o CC	with CC							2 x 7FB
Case #																			
\$/kW	\$1,841	\$2,496	\$1,474	\$2,626	\$4,000	\$1,508	\$2,635	\$2,600	\$554	\$1,172	\$2,000	\$4,000	\$1,480	\$400	\$4,840			\$1,510	
LCOE, Cents/kWh*	7.79	10.63	6.40	11.88		6.33	11.48		6.84	9.74	6.70		4.90	1.3 - 3.2	15.3 - 21.4			7.3	
% increase in COE with Capture		36.4		85.6			81.4			42.4									
Notes:	<p>* 20 year LEVELIZED COST OF ELECTRICITY (LCOE). Includes estimate of capital cost, fixed operating cost, variable and operating cost and fuel cost.</p> <p>1. Average of 3 IGCC designs (GE, CoP E-Gas, Shell). "Cost and Performance Baseline for Fossil Energy Plants", Exhibit ES-2. DOE, May 2007. CO2 transport, storage and monitoring adds <0.5 ¢/kWh, increase in COE ~ 3 cents/kWh (36%).</p> <p>2. Based on latest IGCC estimates, see 9/10/07 Power Daily, page 5, for Duke \$2.0 billion estimate and 6/18/07 \$2.23 billion filing of AEP's 629 MW W. Virginia plant. http://www.litassets.com/news/arc/2006/nz9491.php.</p> <p>3. Based on expected cost of Longview supercritical, pulverised coal-fired generating facility in West Virginia at \$1.8 billion for 695 MW, or about \$2,600/kW.</p> <p>4. "The Future of Nuclear Power", Table 5.3, MIT, 2003. These figures are in 2002 dollars and do not include an estimated decommissioning cost of \$350 million per plant.</p> <p>5. "Realistic" costs of nuclear power as expressed by AEP CEO Mike Morris, "AEP not interested in nuclear plants", Bloomberg, AP and Staff Reports, 8/29/2007.</p> <p>6. Annual report on U.S. Wind Power Installation, Cost and Performance Trends: 2006, DOE. Figures are capacity weighted averages and include a federal production tax credit of 2 cents/kWh.</p> <p>7. Levelized cost of saving electricity, Martin Kushler, "The Midwest Energy Crisis and Why Energy Efficiency Should Be a Top Policy Priority", ACEEE 2005. The capacity costs are modeled after a residential direct load control program.</p> <p>8. These prices are for the modules and assume a volume purchase such as an industrial customer would make. Adding installation labor and the inverter (\$700 per installed kW) raises the total cost. However, there is a 30% federal tax credit and also an additional 8% can be subtracted because most of the solar will be distributed generation and will not experience line losses. Adjusting for the latter yields a cost of 15.3 cents for the solar module and the inverter. See http://www.solarbuzz.com/.</p> <p>9. Direct fired biomass, LCOE value interpolated for 2005 from Table on page 9, "Power Technologies Data Book", NREL/DOE 2005.</p>																		