



**THE BUCKEYE INSTITUTE**

**Interested Party Testimony Before the Ohio Senate Energy  
and Natural Resources Committee on House Bill 114**

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Chairman Balderson, Vice Chair Jordan, Ranking Member O'Brien, and members of the Committee, thank you for the opportunity to testify today regarding renewable energy and House Bill 114.

My name is Greg R. Lawson. I am the research fellow at **The Buckeye Institute**, an independent research and educational institution—a think tank—whose mission is to advance free-market public policy in the states.

Members of this committee have diligently worked to find a responsible path forward for Ohio's renewable energy policy. And we appreciate that. We also recognize that the Renewable Portfolio Standard (RPS) would be modified in the Senate's substitute version of House Bill 114 to max out at 8.5 percent in 2022 rather than continue the march up Mandate Mountain to 12.5 percent in 2026 as under current law. Although that substitution certainly improves the status quo, we do not support Ohio having *any* RPS mandate.

To be clear, we support renewable energy and encourage the growth of the renewable energy industry in Ohio. But we do not support government-imposed energy mandates of any kind. Our position against government mandates extends far beyond the renewable energy sector. As our previous testimony against the Ohio Valley Electric Company bailouts<sup>1</sup> and the Zero Emissions Nuclear Resource Program<sup>2</sup> made clear, The Buckeye Institute consistently opposes *any* mandates, subsidies, or bailouts for *any* energy resource.

On principle, we maintain that all customers, whether residential, commercial, or industrial, should remain free to use and purchase from a menu of energy options voluntarily. Government mandates that require quotas and compelled consumption not only infringe upon such freedom but are, in fact, unnecessary in today's energy market.

The Business Council for Sustainable Energy recently found, for example, that 18 percent of all energy generation in the United States comes from renewable sources,<sup>3</sup> which means that consumers are already choosing renewable energy. Furthermore, large renewable energy consumers like Amazon and EnerBlu just enlarged their footprint in Kentucky, right next door—and Kentucky does not have renewable energy mandates.<sup>4</sup> EnerBlu, in fact, relocated its headquarters to Kentucky just this spring.<sup>5</sup> Other financial incentives perhaps enticed these companies to expand in Kentucky, but they did so voluntarily, choosing a non-RPS state over Ohio.

As they make Ohio less attractive and less competitive for businesses, energy mandates will generate their own harmful downstream effects on the state's economy.

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<sup>1</sup> Greg R. Lawson, *Utility Subsidies Hurt Competition and Hurt Ohio*, The Buckeye Institute, October 3, 2017.

<sup>2</sup> Joe Nichols, *An Ohio Cure for the Nuclear Subsidy Contagion*, *Akron Beacon Journal*/Ohio.com, July 18, 2017.

<sup>3</sup> *2018 Fact Book: Sustainable Energy in America, Executive Summary*, Bloomberg New Energy Finance and the Business Council for Sustainable Energy, February 15, 2018.

<sup>4</sup> Dees Stribling, *Amazon Moving Ahead With Prime Air Hub at Cincinnati/Northern Kentucky International Airport*, *Bisnow National*, May 4, 2018.

<sup>5</sup> *EnerBlu Completes Relocation of Corporate Headquarters to Lexington, Kentucky*, EnerBlu press release, May 2, 2018.

Last year, The Buckeye Institute’s Economic Research Center used its dynamic macroeconomic model to study the potential effects of Ohio’s current RPS program under four different scenarios (explained in the attached Appendix).<sup>6</sup> Using historical data from the Public Utilities Commission, we calculated the percent increase in electricity prices caused by the cost of RPS compliance. Under the RPS, electricity providers purchase renewable energy credits—or RECs—which add expenses above and beyond the cost of buying and distributing wholesale electricity. Providers pass that additional cost on to consumers. Thus, RPS functions very much like a tax on electricity by increasing the product’s price without providing the consumer with any additional benefit or value. Our dynamic economic model applied past and projected price increases caused by RPS to estimate the effect of this tax on state GDP and employment growth. The results, though not surprising, should concern this Committee as the model revealed that RPS reduces Ohio’s GDP and curbs job growth across the state by increasing the costs of producing energy.

If, for example, the RPS mandates cap out at 8.5 percent, as proposed in the substitute version of House Bill 114, and the price of renewable energy credits increases to historical highs, we expect employment to be 1.4 percent less and the state’s GDP to be 1.3 percent smaller. Such reductions will mean 63,000 fewer jobs in Ohio by the time the RPS is fully implemented. Even if REC prices remain constant at historical lows as the mandates resume to 8.5 percent, Ohio will employ 25,400 fewer people and produce nearly \$2.8 billion less output by the final year of compliance.<sup>7</sup>

Advocates of the RPS mandates contend that increasing investments and job growth in the renewable energy sector offsets the program’s economic costs and losses. Our model accounts for such green job growth. By using Ohio’s historical RPS, electricity, and employment data, our model calculates green job growth and changes to non-green sectors attributable to the mandate. The model found that green job growth did not make up for the heavier job losses in other sectors.

Other studies, of course, claim to find economic benefits from RPS programs. Our model and analysis, however, better reflects the likely economic effects of the policy because it is closely tailored to the renewable mandate and does not conflate RPS costs with reduced bills from energy-efficiency mandates. Moreover, our fully documented and transparent model is *dynamic*, showing changes over time, and does not rely on a static input-output analysis.<sup>8</sup>

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<sup>6</sup> Orphe Divounguy PhD., Rea S. Hederman, Jr., Joe Nichols, and Lukas Spitzwieser, *Economic Research Center Analysis: The Impact of Renewables Portfolio Standards on the Ohio Economy*, The Buckeye Institute, March 3, 2017.

<sup>7</sup> REC prices likely will rise for three reasons. First, demand for RECs will grow as (1) annual compliance targets increase in states with existing RPS laws, (2) many states (e.g., New York and California) seek to increase existing or implement new RPS targets, and (3) companies (e.g., Amazon and Facebook) seek to offset more of their fossil fuel- and nuclear-generated electricity with renewables. Second, the demand for RECs will likely outpace the supply of renewable energy, causing REC prices to rise. Building new renewable generation sources greatly depends on federal tax credits and subsidies—and the most significant of those are scheduled to sunset within the next three to seven years (i.e., 2020 for wind and 2024 for solar). With the Trump Administration in office for at least two more years, new federal support and regulations favoring renewable generation investments appear less likely.

<sup>8</sup> Larry Dwyer, Peter Forsyth, and Ray Spurr, “Assessing the Economic Impacts of Events: A Computable General Equilibrium Approach,” *Journal of Travel Research*, Volume 45, Issue 1 (August 2006) p. 59-66.

Dynamic economic models are better suited than static input-output models for assessing the potential economic impacts of policies like RPS. Input-output models fail to account correctly for behavioral changes such as the effects that a price increase has on electricity demand and total output—especially in energy-intensive industries.<sup>9</sup> In other words, static input-output models incorrectly assume that green jobs will be created without taking resources away from other, non-green sectors of the economy. In theory, however, the increase in electricity prices caused by the RPS should force job losses and reductions in hiring growth in other sectors that do not receive the benefits of the mandate—and our findings confirm that theory. Thus, unlike other studies, our analysis accounts for economic realities like higher electricity prices and non-green sector layoffs rather than assuming or wishing them away.

Before concluding, I would like to highlight a problem with the current and proposed wind turbine setback rules. The current rule restricts the wind energy industry too severely. Unfortunately, House Bill 114 proposes a flawed solution to the current restrictions that will likely do further damage to property rights in Ohio.

Wind setback rules create a classic property rights conflict. Landowners have a right to place windmills on their property, but their neighbors also have a right to enjoy their own property. Unfortunately, the current setback rule—requiring the consent of every neighbor adjacent to the proposed windmill—fails to answer this rudimentary property law question correctly. Neighbors should not hold an absolute veto power over what other property owners may and may not do on their own land. But the proposed solution in House Bill 114 that reduces the setback distance between the windmill and the neighbors is unsatisfactory as well because it infringes upon the neighbors' right to enjoy their property free of windmills.

The answer lies in compensation. Landowners who want windmills should be required to pay their neighbors fair compensation for the windmills' effect on the neighbors' enjoyment of their property. State law should embrace and recognize the property interests of both parties—without subjugating one to the other—and facilitate negotiations for fair compensation that must be paid to directly affected landowners. Preserving vetoes and shrinking setbacks are well-intended, half-measures that unfortunately threaten to exacerbate the current conflict rather than resolve it.

Thank you for your time. I would be happy to answer any questions from the Committee.

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<sup>9</sup> *Ibid.*

## Appendix

The Buckeye Institute estimates the RPS program’s future economic impact under four scenarios.

- Scenario I assumed the RPS remained suspended at 2014-2016 levels indefinitely and that renewable energy credits prices stayed constant at 2014 levels.
- Scenario II assumed the RPS was suspended indefinitely at 2014-2016 levels and that renewable energy credits prices gradually rose from 2014 levels to their historical maximum in 2022.
- Scenario III assumed the RPS mandates increased to 12.5 percent in 2022 and that renewable energy credits prices stayed constant at 2014 levels.
- Scenario IV assumed that the RPS mandates increased to 12.5 percent in 2022 and that renewable energy credits prices gradually increased from 2014 levels to their historical maximum in 2022.

These four scenarios are measured against a baseline estimate without RPS costs. That baseline provides a counterfactual that predicts what the Ohio economy would have looked like without an RPS in place, and what the economy would likely become if the RPS were repealed entirely.

Table 1 shows the model’s estimate for all Ohio employers:

**Table 1: Effects of RPS on the Ohio Economy**

Year	Baseline Levels No RPS		Effect of RPS (Deviations from No RPS Baseline)							
			Scenario I		Scenario II		Scenario III		Scenario IV	
	GDP	Empl.	GDP	Empl.	GDP	Empl.	GDP	Empl.	GDP	Empl.
2011	440,925	4,403,600	-1,183	-12,200	-1,183	-12,200	-1,183	-12,200	-1,183	-12,200
2012	449,850	4,497,000	-820	-8,600	-820	-8,600	-820	-8,600	-820	-8,600
2013	453,837	4,573,000	-1,033	-10,900	-1,033	-10,900	-1,033	-10,900	-1,033	-10,900
2014	465,828	4,646,800	-680	-6,800	-680	-6,800	-680	-6,800	-680	-6,800
2015	473,206	4,646,800	-643	-6,700	-720	-7,200	-643	-6,700	-720	-7,200
2016	480,701	4,646,800	-653	-6,300	-810	-8,300	-653	-6,300	-810	-8,300
2017	488,315	4,646,800	-836	-8,400	-1,204	-11,900	-1,168	-11,900	-1,659	-16,500
2018	496,050	4,646,800	-836	-8,300	-1,335	-12,900	-1,510	-14,900	-2,360	-23,400
2019	503,907	4,646,800	-849	-8,300	-1,470	-14,000	-1,826	-17,600	-3,233	-31,100
2020	511,888	4,646,800	-812	-7,700	-1,623	-15,500	-2,138	-20,400	-4,225	-40,400
2021	519,996	4,646,800	-824	-7,700	-1,819	-17,200	-2,460	-22,800	-5,456	-50,800
2022	528,232	4,646,800	-785	-7,200	-2,020	-18,600	-2,791	-25,400	-6,859	-63,100

Source: The Economic Research Center’s dynamic scoring model.  
 Note: GDP and tax revenues in millions of 2009 dollars. Employment in units of full-time equivalent non-farm jobs, rounded to the nearest hundred.

***About The Buckeye Institute***

*Founded in 1989, The Buckeye Institute is an independent research and educational institution – a think tank – whose mission is to advance free-market public policy in the states.*

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