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RESEARCH SUMMARY

OHIO'S ENERGY EFFICIENCY RESOURCE STANDARD
Where Are the Real Savings?

In 2008 the Ohio legislature enacted Senate Bill 221, a law devoted to facilitating alternative energy and efficiency. SB 221 introduced an "Energy Efficiency Resource Standard" (EERS) that requires regulated utilities to achieve annual percentage reductions in customer energy consumption. As of late 2013, 24 other states had enacted their own versions of EERS programs. SB 221 specifies annual percentage reductions for households and businesses that will cumulate to 22 percent by 2025. There are no records of how that percentage was determined and no known benefit-cost studies of alternative requirements.

Events since SB 221's passage have led to widespread concern about whether its standards are achievable, cost-effective, and economically efficient. Despite a lobbying coalition of environmentalists, businesses that might profit from the law's requirements, and concerned citizens, pushback against SB 221's standards led to the passage of SB 310 in 2013. This bill freezes SB 221's requirements for two years.

In a new study for the Mercatus Center at George Mason University, economist Robert J. Michaels reviews possible economic rationales for compelling electricity users to spend more on efficiency than they otherwise would. The study shows that some benefit-cost tests that have been used to evaluate the Ohio programs are inappropriate and that other data purportedly showing SB 221's success are far less clear than many believe. Even in these early years of the EERS, the benefits that supposedly stem from SB 221 have been distributed asymmetrically among Ohio's citizens and businesses, the great majority bearing extra costs with few discernible benefits in return.

FREE RIDING AND NET SAVINGS

This study presents data showing the importance of adjusting reported data to account for "gross" and "net" savings. The "gross" effect of the law (e.g., high sales of efficient lightbulbs at subsidized discounts) substantially exceeds the "net" effect (new bulb purchases that would not occur without

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the subsidy). The difference is due to "free riders" who would have purchased the bulbs even in the absence of a subsidy.

- *Free riders are subsidized by higher bills for other consumers.* Despite hopes that the EERS would encourage efficiency innovation that would produce "green jobs," since the EERS became law there has been very little such innovation. Instead, utilities have relied heavily on lighting-related discounts for compliance. For some utilities in some years these discounts have accounted for more than 80 percent of EERS expenditures.

- *Ohio does not account for the effects of free riding on EERS benefits and does not produce estimates of its volume.* Beyond the inequity of many customers paying for bulbs that light the homes of others, a proper accounting for free riders would show that the purported benefits of the EERS have been grossly overstated. Free riding is difficult to estimate, but applying data from Texas and California (which require such estimates) to Ohio often transforms favorable benefit-cost ratios into losses for the state as a whole. For example, studies from California indicate that free riding accounts for about 70 percent of the state's subsidized bulb purchases.

- *Other states consider net savings.* Ohio is among a minority of states whose regulatory agencies do not estimate free ridership and do not use such estimates to correct for free riding. With the exception of environmentalists, virtually every major interest group in the state supports this use of unadjusted data in official reports and approves not accounting for free riders. None of these interests has provided an economically coherent rationale for the use of figures that almost certainly overstate the success of the EERS.

RISING FEDERAL STANDARDS

Unlike energy reduction programs in most other states, the Ohio standard only counts reductions in power use that are above the amounts required under changing federal regulations. Compliance reports since SB 221's enactment show that the vast majority of reported savings (by both households and businesses) have come from discounts on certain types of energy-efficient lightbulbs. Ohio's regulators only count savings above federal standards, so as more efficient bulbs become the federal standard, Ohio's utilities will no longer be able to count savings in this area.

- *No justification exists for requiring savings in excess of federal standards.* If the benefits of a federal standard exceed its costs, this in no way implies that a more stringent standard is even better. Claims that "green jobs" will originate in the state if Ohio alone raises its standards are also likely to be overstated, since—absent the EERS—households and businesses would spend funds elsewhere, creating employment in other industries.

- *Rising standards will necessitate costly new programs.* Environmental consultants to Ohio utilities (required for the EERS by the Public Utilities Commission of Ohio) show that the pool of unexploited opportunities for saving may be smaller than many expect. Others who favor the EERS, including the American Council for an Energy Efficient Economy, have admitted that without costly new programs, some Ohio utilities will likely be unable to achieve more than half of the law's 2025 goal of 22 percent savings.

ENVIRONMENTAL IMPACT ANALYSIS

Unlike the Environmental Protection Agency, which must generally perform a benefit-cost analysis before issuing major regulations, at no point in the legislative process was there an attempt by any interested party to weigh the costs and benefits or consider alternatives to the EERS with regard to environmental impact. Whether the law's energy efficiency standards improve the environment is an open question left unanswered by the legislature, and there is little reason to expect that more stringent standards unique to Ohio will do so or produce benefits that exceed their costs.

COSTS ARE PASSED ON TO CONSUMERS

Utilities pass on to their customers the costs imposed by the EERS by charging higher rates and adding "riders" to their bills. These strategies protect utility incomes while satisfying the preferences of certain advocacy groups, such as environmentalists.

CONCLUSION

The requirements in Ohio's EERS are likely unachievable and pass on significant new costs to consumers. Despite claims of energy savings since the passage of SB 221, most savings have been due to free-riding consumers taking discounts for purchasing energy-saving lightbulbs that they would have purchased anyway. With no economic or empirical justification for the requirements and timelines imposed by Ohio's EERS, SB 310's two-year freeze will only delay the consequences of SB 221's economic inefficiencies and wealth redistributions. The failure to conduct a proper analysis of costs and benefits, both in 2008 and today, has set Ohio energy consumers on a path toward higher prices and fewer energy-saving opportunities.