

Layton, Kimberly

From: Tom Plant [tplant@aee.net]
Sent: Sunday, June 08, 2014 10:44 PM
To: Comments, Urc
Subject: Comments to the Indiana URC from Advanced Energy Economy
Attachments: IURC Comments from AEE.pdf

To Whom it may concern:

Advanced Energy Economy respectfully submits the attached comments in response to the request for public comments on the Indiana Energy Savings Program.

Sincerely,

Tom Plant

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Comments to the Indiana Utility Regulatory Commission (IURC)

ENERGY EFFICIENCY (EE) AND DEMAND SIDE MANAGEMENT (DSM) RECOMMENDATIONS

INTRODUCTION

Advanced Energy Economy (AEE) is a national business organization representing leaders in the advanced energy industry. In the report *Advanced Energy Now – 2014 Market Report* it was shown that advanced energy represents a global market of over \$1.1 trillion and that the US share of this market grew from 11% in 2012, to 15% in 2013.

This growth in advanced energy is being driven rapid technological change, and is supported by policies and regulations designed to maximize the efficiency, intelligence and effectiveness of the energy sector. AEE supports a broad portfolio of technologies, products and services that enhance US competitiveness and economic growth through an efficient energy system that is clean, secure and affordable.

Energy efficiency (EE) represents the first opportunity in developing a modern, high-performing electricity grid. While there are many important generation, distribution and energy management decisions to be made by public utility commissions around the country, the effect of those decisions is always improved when placed upon the foundation of a system that is operating efficiently and that has customers that are using energy in an efficient manner.

Indiana has great opportunities to increase energy productivity, and in so doing, increase the benefit to ratepayers of all other utility investments. Energy efficiency investments represent the greatest value to the ratepayer on a per kWh basis.

After taking an inventory of energy efficiency programs from around the country, the Lawrence Berkley National Laboratory¹ determined that, on average, energy efficiency investments nationwide were delivered at a cost of just 2.1¢/kWh and \$0.56/therm. In the Midwest, these improvements were delivered at a nation-leading 1.4¢/kWh. Contrast this with the 9¢/kWh the average customer pays for electricity in Indiana. Furthermore, the study found that commercial and industrial (C&I) investments in natural gas efficiency programs were achieved at just \$0.17/therm. If efficiency is viewed as a resource for meeting demand just like any other resource, it represents the lowest cost option. Clearly, investments in energy efficiency are in the economic interests of all Indiana ratepayers.

Moreover, investments in energy efficiency may help ease anticipated capacity shortfalls over the next few years. Recent rules regarding emissions of mercury and other toxins from coal and oil generators, coupled with low natural gas prices, have led to a wave of plant closures. As this wave crests in the next few years, reserve margins throughout the Midwest – especially in Indiana and Michigan – are expected to fall. To keep the lights on during peak days, grid

¹ US Department of Energy, *The Program Administrator Cost of Saved Energy for Utility Funded Energy Efficiency*

operators will need new capacity resources to meet potential shortfalls. Energy efficiency can help do this in a quick and affordable way.

Finally, recently released draft rules from the Environmental Protection Agency² include direct reference to the acceptance of strong energy efficiency objectives as a mechanism for compliance with upcoming regulations of greenhouse gases under section 111(d) of the Clean Air Act. As Indiana develops a plan for section 111(d), strong energy efficiency targets will represent one of the most cost-effective mechanisms for state compliance.

BACKGROUND ON CURRENT RECOMMENDATIONS

On March 28, 2014, Indiana Senate Enrolled Act 340 (SEA 340) became law in Indiana. SEA 340 provides that certain industrial customers may opt out of participation in utility energy efficiency programs and that after December 31, 2014, the IURC may not require an electricity supplier to meet a goal or target established in their December 9, 2009, DSM/EE order.

On April 9, 2014, the IURC issued a General Administrative Order requesting comments regarding what should be considered as part of their EE and DSM recommendations to Governor Pence and the Indiana General Assembly. Specifically, Governor Pence requested the IURC address the following issues:

1. Include appropriate energy efficiency goals for Indiana.
2. Reflect an examination of the overall effectiveness of current DSM programs in the state.
3. Reflect any and all issues that may improve current DSM programs.
4. Reflect a thorough benefit-cost analysis of the cost impact to ratepayers of possible DSM programs
5. Allow for an opt-out whereby large electricity consumers can decide not to participate in a DSM program

In the comments below, AEE has focused on issues 3, 4 and 5.

The final section entitled “Modernizing utility program offerings” contemplates additional considerations for the IURC as they seek to improve utility energy efficiency offerings on behalf of the state’s ratepayers.

ISSUE #3: REFLECT ANY AND ALL ISSUES THAT MAY IMPROVE CURRENT DSM PROGRAMS

EXPEDITE APPROVAL OF CURRENT EE PROGRAMS

Energy efficiency programs are providing cost savings benefits for consumers as well as avoiding costly future investments in generation and transmission infrastructure around the country. Additionally, the energy efficiency industry provides jobs that can’t be outsourced and contribute to the state’s economy. By these measures, utility investments in EE programs are good for the state and the utility’s ratepayers.

Such experiences have been studied and documented in many other states. For example, a recent economic impact study conducted in Michigan estimated the creation of 101 annual full-time equivalent jobs for every \$1 million spent

² Environmental Protection Agency, “Clean Power Plan – Carbon Pollution, Emissions guidelines for existing stationary sources: Electric Utility Generating Units”, (June 2014)



on energy efficiency programs.³ In Wisconsin, a report conducted by Cadmus and commissioned by the state's Public Utilities Commission⁴ found that efficiency measures cost the consumer on average 2.5¢/kWh – and reduced demand by 88 MW. In Ohio, Ohio State University ran a Dynamic Energy-Economic Policy Simulation (DEEPS) and found that their energy efficiency standard:

“resulted in a 1.4% reduction in Ohio electricity bills. In addition, increased investments in the energy sector stimulated GDP by \$160 million in 2012, and created over 3,200 Ohio jobs in the period from 2008 to 2012.”

A recent study from the American Council for an Energy-Efficient Economy (ACEEE)⁵ estimated that a 1.5% annual energy efficiency standard in Indiana, implemented cost-effectively, would drop demand by over 5,800 GWh/year by 2020. This would reduce customer bills substantially while avoiding future generation costs.

At a time when Indiana is still recovering from the recession, it is more important than ever that the IURC send a signal to businesses regarding the 2015 EE/DSM programs that will allow them to retain their investments and workforce in the state. Furthermore, this will ensure continuity while the IURC evaluates future EE/DSM program offerings. To put current programs on hold would not only have near-term negative impacts on the state's economy, but would also burden future programs with start-up costs and delays and lead to customer confusion associated with an interruption in program outreach efforts.

Recommendation 1: To ensure continuity in program delivery, customer engagement and private industry investment, the IURC should expedite approval of regulatory filings aimed at continuing EE/DSM programs in 2015. The goal should be to complete approvals by September 1, 2014, to minimize disruption among consumers and market providers by allowing program implementation contractors sufficient time to transition and/or startup programs.

ESTABLISH AN ENERGY EFFICIENCY TARGET BASED UPON A RIGOROUS ASSESSMENT OF MARKET AND TECHNOLOGY POTENTIAL

With the recent legislation removing the statutory directive on energy efficiency targets, the IURC now has an opportunity to look at the system-wide potential to achieve energy efficiency savings beyond the 2015 program year. The legislation frees the commission to conduct an analysis of the current opportunities and look toward leading practices throughout the country that will best serve the Indiana ratepayer. There is also the opportunity to engage with stakeholders and build consensus on a set of EE targets and an implementation plan that will receive broad-based support.

Recommendation 2: AEE recommends the IURC hire an experienced, impartial third party to conduct a rigorous assessment of the market potential for cost effective energy efficiency programs in Indiana. This analysis should include an evaluation of existing market potential studies, the savings that will likely be achieved through market evolution, and what savings can be driven by utility program implementation. The market study should evaluate

³ http://www.michigan.gov/documents/mpsc/econ_impact_ee_investments_402572_7.pdf

⁴ “Focus on Energy - Calendar Year 2013 Evaluation Report, Volume II”, Public Service Commission of Wisconsin, (May 2014)

⁵ Hayes, S. et al. 2014. *Change Is in the Air: How States Can Harness Energy Efficiency to Strengthen the Economy and Reduce Pollution*. Washington, DC: American Council for an Energy-Efficient Economy. <http://aceee.org/research-report/e1401>



those programs that are both technologically and economically achievable as well as recommendations on appropriate evaluation, measurement and verification (EM&V) procedures.

Recommendation 3: AEE supports the development of a well-defined binding target for cost effective energy efficiency deployment. In our experience, a binding target sends a clear signal to utilities and market participants, and provides the certainty necessary for development and execution of business plans and investment.

COPY OR EXPAND THE SCOPE OF THE SUCCESSFUL NATURAL GAS DSM OVERSIGHT BOARD MODEL

The natural gas DSM Oversight Board governance model offers a good model for consideration by the IURC. This board ensures representative governance and sufficient focus on energy efficiency while allowing the utilities to administer programs in an efficient manner. It has served Indiana well since 2006, and could be replicated or extended to include the electricity efficiency programs.

Recommendation 4: AEE recommends either copying or expanding the natural gas DSM oversight board model to include electricity. The board approval process should be limited to only those changes in the program that exceed a specified threshold of modification in the established objectives for the utility program offerings. Utilities should be granted the authority to administer modifications below such a threshold, which will avoid delays due to oversight board approval for relatively small changes in the program.

CONSIDER ENERGY EFFICIENCY AS A RISK REDUCTION INVESTMENT STRATEGY

Historically, Indiana has seen a steady rise in electricity prices (see Figure A below). While this trend can be attributed to many factors, as has already been pointed out above, the most cost-effective way to mitigate this impact on the consumer is to maximize investments in energy efficiency as a resource. Beyond this direct economic benefit, EE has an important risk mitigation function. In their study entitled *Practicing Risk Aware Regulation*,⁶ CERES identified energy efficiency as the utility investment with the lowest long-term risk (Figure B). From a consumer protection standpoint, this is an important part of a diversified utility investment portfolio.

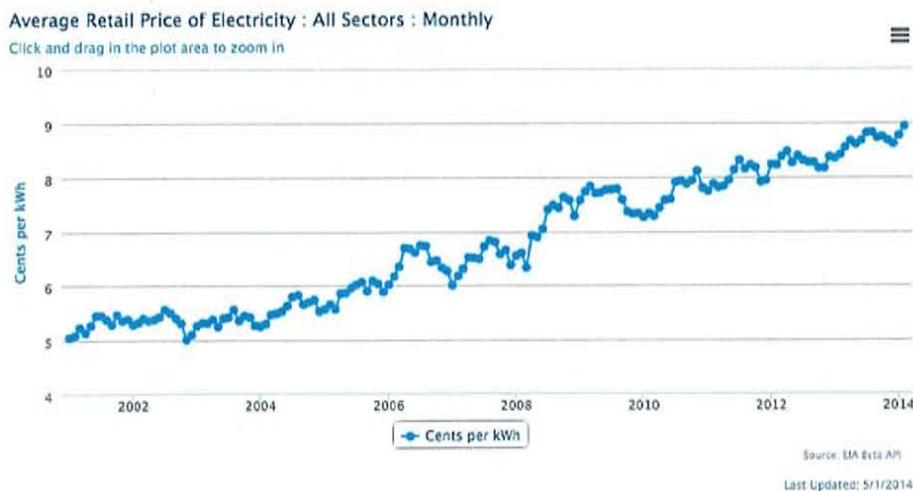


Figure A - Average retail price of electricity, Ohio - Source: Energy Information Agency

⁶ Binz, Sedano, Furey, Mullen, *Practicing Risk Aware Electricity Regulation: What every state regulator needs to know*, April 2012.



Figure ES-4

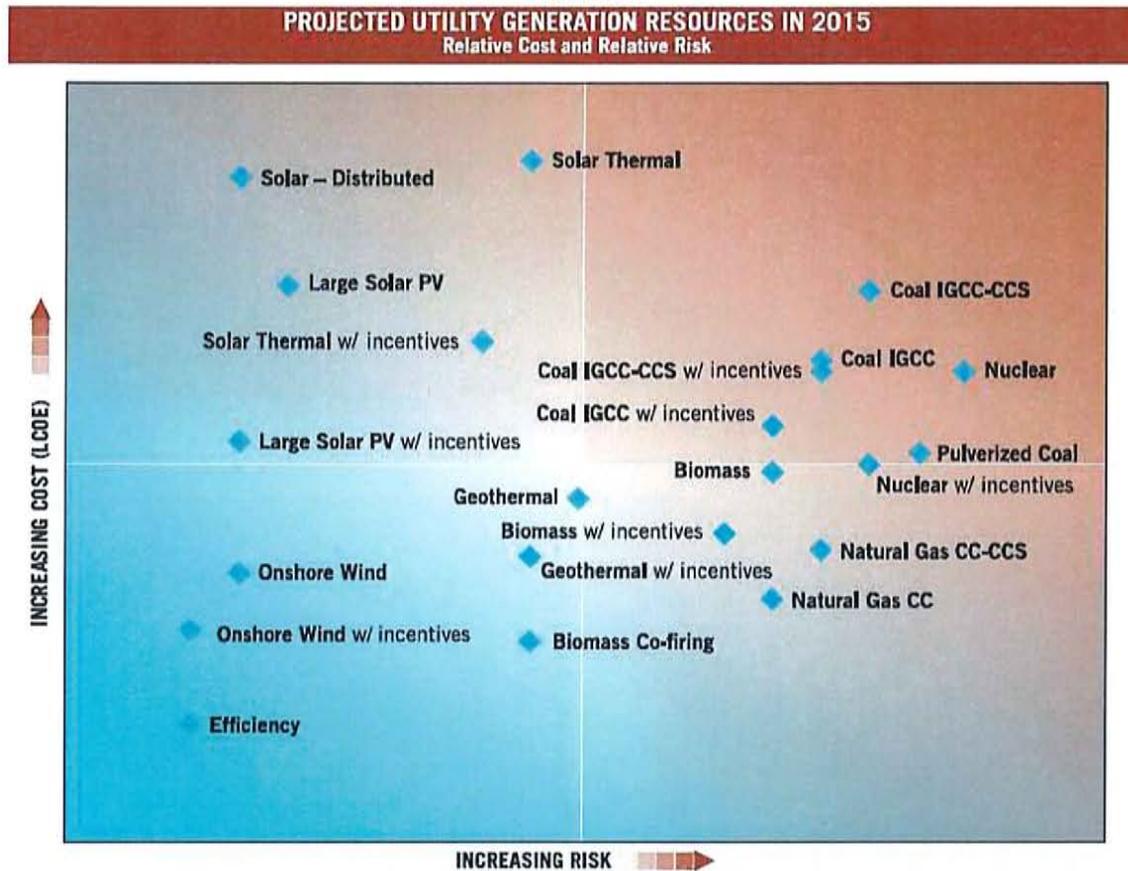


Figure B - Relative Cost vs Risk of Resources

Recommendation 5: By including risk mitigation in IRP investment decisions, the IURC can ensure they are performing their fiduciary duty to not only choose the least cost resource, but also mitigate consumer risk of increasing energy costs in the future.

Energy efficiency programs can involve short-term savings as well as longer term system improvements. Both of these types of programmatic structures serve to make the energy system more productive, but exhibit differing characteristics related to short and long term returns as well as long term risk reduction for consumers.

Recommendation 6: The IURC should establish lifecycle savings goals as well as annual incremental goals within the DSM portfolio. This will allow for a diversity of program offerings that can balance immediate “low-hanging fruit” with energy efficiency measures that deliver greater savings over time and reduce the overall risk to the ratepayer.

PROVIDE UTILITIES WITH A BUSINESS INCENTIVE TO ACHIEVE AND EXCEED NEWLY ESTABLISHED EFFICIENCY GOALS

Utilities operate under a business model that provides an inherent disincentive to their investors to employing an efficient utility system – particularly on the demand side. Since demand side efficiency is one of the primary objectives



of an effective DSM program, the commission should establish an incentive structure whereby the utility earns lost revenue + an added bonus for achieving the goals with an additional bonus for exceeding the goals. Utility shareholders should see a significant return on equity in cost effective efficiency investments to support the utility business case for such investments. By employing such a policy, Indiana can be certain the utility and the investors will see a financial benefit to achieving energy productivity goals.

Recommendation 7: The IURC should establish incentives including lost revenue recovery plus a bonus structure that rewards the utility and their investors for achieving, and exceeding, energy efficiency goals. The objective should be to make energy efficiency investments attractive for the utility business model.

ISSUE #4: REFLECT A THOROUGH BENEFIT-COST ANALYSIS OF THE COST IMPACT TO RATEPAYERS OF POSSIBLE DSM PROGRAMS

The cost effectiveness test is one of the most important tools to ensure Indiana's ratepayers are getting the best value for their investment in all resources, including energy efficiency. A great deal has been written recently⁷ on the use of cost effectiveness tests in DSM programs, and a uniform conclusion is that the Total Resource Cost (TRC) test is not necessarily the best measure for the cost effectiveness of utility investments in DSM programs.

The legislative language within SEA 340 directing that costs of utility programs should include only "program costs, lost revenues and incentives approved by the commission" supports this conclusion. With this language, the legislature suggests a move away from the TRC test and toward a cost-benefit test such as the Program Administrator Cost (PAC) test or a Levelized Cost of Saved Energy (CSE) test. AEE agrees with this recommendation from the legislature.

The PAC test is not only a much better comparison of demand side investments versus supply side investments, but it also provides a more flexible mechanism for utilities to identify the appropriate level of incentive for a broad range of energy efficiency technologies. In their assessment of cost tests, Cadmus's utility DSM experts⁸ concluded that:

⁷ US Department of Energy, *"The Program Administrator Cost of Saved Energy for Utility Funded Energy Efficiency Programs"*, Lawrence Berkeley National Laboratory (March 2014)

Ellsworth, et al, "Energy Efficiency at a Crossroads: Opportunities for the Future", (August 2013)

"Picking a Standard: Implications of Differing TRC Requirements," by Elizabeth Daykin with Jessica Aiona and Brian Hed- man of Cadmus (presented at the AESP National Conference and Expo, January 2011).

"Best Practices in Energy Efficiency Program Screening: How to Ensure that the Value of Energy Efficiency is Properly Accounted For," Synapse Energy Economics, July 2012.

"Valuing Energy Efficiency," by Hossein Haeri and M. Sami Khawaja. Public Utilities Fortnightly (July 2013): pp. 28-36.

"Is it Time to Ditch the TRC? Examining Concerns with Current Practice in Benefit-Cost Analysis," Neme and Kushler, 2010 ACEEE Summer Study on Energy Efficiency in Buildings.

⁸ "Valuing Energy Efficiency," by Hossein Haeri and M. Sami Khawaja. Public Utilities Fortnightly (July 2013): pp. 28-36.



"The advantages of using the PAC test are many and obvious. It reduces the uncertainties associated with estimating incremental measure costs, avoids the complexities of estimating potential non-energy benefits to participants and worrying about how to discount them; above all, it provides a more rational basis for designing programs and incentive structures that are more compatible with how utilities' procure resources."

A recent report from the Lawrence Berkeley National Laboratory proposed the use of a similar "Cost of Saved Energy" Test (CSE) to determine cost effectiveness, but also allows for the application of a discount rate over time to arrive at a "levelized cost of saved energy". The American Council for an Energy Efficient Economy agrees. In their March 2014 report, *The Best Value for America's Energy Dollar: A National Review of the Cost of Utility Energy Efficiency Programs*, the ACEEE states:

*"The levelized CSE is the best measure for comparing energy efficiency to other energy resource options"*⁹

In either case, use of the PAC or the CSE tests would provide a better measure of DSM program cost effectiveness than the current TRC. Adoption of either of these mechanisms would allow the IURC and utilities to determine the most cost effective program design allowing for an adjustment up (to drive the market) or down (to increase cost effectiveness). The TRC does not allow for an effective measure of either of these important considerations. Finally, the TRC does not allow for a comparison on a cost per kWh, or per therm, basis of demand side resources with supply side resources. Efficiency saves money for the ratepayers when it is less expensive than generation or transmission alternatives. The PAC and CSE allow for an accurate comparison of those costs.

Recommendation 8: AEE recommends that the IURC adopt either the PAC or CSE cost-effectiveness tests for its DSM programs.

PROMOTE INNOVATION AND EVOLUTION OF INDIANA'S DSM PROGRAMS

While the cost-effectiveness test is a critical tool for establishing a comprehensive DSM program it is important to continue to innovate and provide a pathway for new technologies in the DSM portfolio. Technologies early in their lifecycle may not meet such a cost effectiveness screening, but carefully applied, a pathway toward market adoption for such technologies can attract investment to Indiana and spur innovation.

Recommendation 9: To promote continued innovation and investment in Indiana, the IURC should consider a pathway toward market adoption for technologies that the commission determines may show technological promise but may not currently meet cost effectiveness tests. Such a pathway should allow for both an analysis of those promising technologies, a structure for accelerated market deployment with an eye toward evaluation for inclusion in the state's energy efficiency program offerings. Furthermore, utilities should be allowed to capture the program savings associated with these new and innovative technologies and count those savings toward their energy efficiency targets.

DEVELOP A PATHWAY FOR JOINT PROGRAMS TO IMPROVE COST EFFECTIVENESS

Oftentimes there are co-benefits in energy efficiency investments on the natural gas side and the electric side. For example, improved insulation in a home not only reduces the natural gas needed for heating, but also reduces electricity used for air conditioning. The IURC should develop a standard for the allocation of costs between electric and natural gas utilities when operating joint programs or when they cover common measures, which will improve overall program cost-effectiveness.

⁹ Maggie Molina, "The Best Value for America's Energy Dollar: A National Review of the Cost of Utility Energy Efficiency Programs", (March 2014)



Recommendation 10: AEE recommends allocating costs based on the proportion of benefits associated with each fuel type to maximize the deployment and investment in energy efficiency technologies that show impacts in both the electric and the gas sectors, and ensures an equitable distribution of cost among both electric and natural gas ratepayers.

PROVIDE UTILITY WITH SUFFICIENT PROGRAMMATIC TIMEFRAME TO ACHIEVE THEIR GOALS

The IURC should allow for multi-year, not annual, savings goals to provide flexibility in program implementation for the utility. Oftentimes, laying the foundation for a successful program takes time and requires an extended period of evaluation. Providing a sufficiently long timeframe for program implementation avoids costly program stops and starts and allows for modifications and course corrections as needed. Even with a multi-year approach it will be important to have interim goals to ensure that programs are on track.

Recommendation 11: The IURC should combine the utility's DSM program design with the utility's Integrated Resource Plan (IRP). In doing so, the commission both allows time for the programs to succeed while incorporating energy efficiency as a resource within the utility's overall strategic investment plan.

ISSUE #5: ALLOW FOR AN OPT-OUT WHEREBY LARGE ELECTRICITY CONSUMERS CAN DECIDE NOT TO PARTICIPATE IN A DSM PROGRAM

This is an approach that has been pursued by a number of states. The mechanism for implementation is the most critical component in achieving the desired outcome.

Large electricity consumers argue they should be allowed an opt-out from ratepayer supported efficiency programs because 1) there is a disproportionately large financial impact when an efficiency surcharge is allocated on a cost/kWh basis for large consumers and 2) they invest separately in their own efficiency improvements as a regular course of business.

Clearly, it is in the interests of both the large industrial customer and the overall customer base for large energy users to make investments in energy efficiency. Therefore, an opt-out provision should be structured to ensure those investments are being made – if not by the program, then by the large industrial customer themselves. If there aren't existing opportunities, the large industrial customer should be rewarded for already making those investments by being excluded from participation in the DSM program.

Recommendation 12: A large industrial consumer opt-out program should be structured to both drive investment in energy efficiency and reward early adopters. The IURC should adopt an opt out program that includes the following components:

- Require a thorough audit of operations to identify and quantify the best investments the company can make in cost-effective energy efficiency improvements
- The company should develop a Strategic Energy Management Plan (SEMP) to prioritize and plan for investment in improvements that show a five-year simple payback or less
- Report to the IURC on their progress toward achieving the efficiency objectives and share with the utility the results of their investment



- Require verification of the results achieved by an unbiased third-party consistent with the treatment of utility funded programs

This will ensure not only that the industrial customers are contributing to the efficiency of the overall utility system through an alternative mechanism, but that they are investing in the most cost effective measures for their industrial processes.

EXPAND OPPORTUNITIES FOR COMBINED HEAT AND POWER (CHP)

Combined heat and power (CHP) has met with great success in Indiana, but there is additional potential that has not been captured. In a report from the Great Plains Institute, over 3,000MW of technical capacity was identified.¹⁰ Technical potential is defined as the CHP electrical capacity that could be installed at existing industrial and commercial sites based on their electric and thermal needs.

Recommendation 13: The IURC should consider a separate program for large industrial consumers to drive deployment of CHP in combination and coordination with any large industrial user opt-out provisions.

MODERNIZING UTILITY PROGRAM OFFERINGS

Utilities face a critical challenge throughout the country attempting to achieve compliance with energy efficiency targets. Specifically, with the advent of new federal lighting standards, utilities can no longer claim lighting upgrades toward compliance with these targets. This is significant, because utilities around the nation have relied heavily on lighting upgrades in their efficiency program offerings.

Lighting has represented the low-hanging fruit of electric efficiency efforts for quite some time. The recent LBNL study found that lighting accounted for 44% of the national residential program savings at a cost of just 0.7¢/kWh. However the national average cost for residential efficiency programs of 1.8¢/kWh only increased to 2.8¢/kWh when lighting programs were completely removed, demonstrating that efficiency programs are still very cost effective investment even without traditional lighting retrofits.¹¹

In a Cadmus study released in August 2013,¹² they acknowledged these challenges, but argued against eliminating energy efficiency targets because of them. In making this argument, they highlighted a number of programmatic changes (including a reform of the cost effectiveness tests discussed earlier) that would benefit the utility customer, the efficiency of the system, as well as allowing utilities to continue to meet their efficiency objectives.

Included in these recommendations were:

- Incorporating promising new technologies including
 - LED Lighting
 - Heat Pump Water Heaters
 - Advanced Controls

¹⁰ "Combined Heat and Power Fact Sheet" <http://www.betterenergy.org/sites/gpisd.net/files/Indiana.pdf>

¹¹ US Department of Energy, "The Program Administrator Cost of Saved Energy for Utility Funded Energy Efficiency", Lawrence Berkeley National Laboratory (March 2014)

¹² Ellsworth, et al, "Energy Efficiency at a Crossroads: Opportunities for the Future", (August 2013)



- Alternative Program Design Concepts
 - Upstream Programs
 - Instant Rebates
 - Off-site residential audits
 - Residential Performance Contracting
 - Leveraging Codes and Standards
 - Behavior Based Programs
- Advanced Financing Programs
 - While financing should not be considered a way of driving demand, it can be an effective way to remove barriers for deployment. States such as Hawaii, Connecticut and Michigan among others have developed loan funds for accelerating adoption of energy efficiency measures.
 - Utilities can be partners in the deployment of these funds through on-bill loan repayment programs (as contrasted with on-bill financing) that leverage private sector capital and use the convenience of the utility bill to collect repayment of loans.
 - Private capital can be effectively leveraged with a robust energy performance-contracting program that maximizes efficiency targets in the MUSH (Municipal, University, Schools, Hospitals) market.

All of these are available program modifications to the current DSM plan that would contribute to consumer savings and modernize the program offerings to provide system-wide improvements in energy efficiency.



CONCLUSIONS

The legislative actions under SEA 340 allow the IURC to conduct a thorough examination of Indiana's demand side management programs and make comprehensive changes that will accelerate growth of Indiana's growing efficiency industry while reducing costs for utility customers.

The IURC should embrace this opportunity by considering the following recommendations contained in our comments:

Recommendation 1: To ensure continuity in program delivery, customer engagement and private industry investment, the IURC should expedite approval of regulatory filings aimed at continuing EE/DSM programs in 2015. The goal should be to complete approvals by September 1, 2014, to minimize disruption among consumers and market providers by allowing program implementation contractors sufficient time to transition and/or startup programs.

Recommendation 2: AEE recommends the IURC hire an experienced, impartial third party to conduct a rigorous assessment of the market potential for cost effective energy efficiency programs in Indiana. This analysis should include an evaluation of existing market potential studies, the savings that will likely be achieved through market evolution, and what savings can be driven by utility program implementation. The market study should evaluate those programs that are both technologically and economically achievable as well as recommendations on appropriate evaluation, measurement and verification (EM&V) procedures.

Recommendation 3: AEE supports the development of a well-defined binding target for cost effective energy efficiency deployment. In our experience, a binding target sends a clear signal to utilities and market participants, and provides the certainty necessary for development and execution of business plans and investment.

Recommendation 4: AEE recommends either copying or expanding the natural gas DSM oversight board model to include electricity. The board approval process should be limited to only those changes in the program that exceed a specified threshold of modification in the established objectives for the utility program offerings. Utilities should be granted the authority to administer modifications below such a

threshold, which will avoid delays due to oversight board approval for relatively small changes in the program.

Recommendation 5: By including risk mitigation in IRP investment decisions, the IURC can ensure they are performing their fiduciary duty to not only choose the least cost resource, but also mitigate consumer risk of increasing energy costs in the future.

Recommendation 6: The IURC should establish lifecycle savings goals as well as annual incremental goals within the DSM portfolio. This will allow for a diversity of program offerings that can balance immediate "low-hanging fruit" with energy efficiency measures that deliver greater savings over time and reduce the overall risk to the ratepayer.

Recommendation 7: The IURC should establish incentives including lost revenue recovery plus a bonus structure that rewards the utility and their investors for achieving, and exceeding, energy efficiency goals. The objective should be to make energy efficiency investments attractive for the utility business model.

Recommendation 8: AEE recommends that the IURC adopt either the PAC or CSE cost-effectiveness tests for its DSM programs.

Recommendation 9: To promote continued innovation and investment in Indiana, the IURC should consider a pathway toward market adoption for technologies that the commission determines may show technological promise but may not currently meet cost effectiveness tests. Technologies early in their lifecycle may not meet such a cost effectiveness screening, but carefully applied, a pathway toward market adoption for such technologies can attract investment to Indiana and spur innovation. Such a



pathway should allow for both an analysis of those promising technologies, a structure for accelerated market deployment with an eye toward evaluation for inclusion in the state's energy efficiency program offerings. Furthermore, utilities should be allowed to capture the program savings associated with these new and innovative technologies and count those savings toward their energy efficiency targets.

Recommendation 10: AEE recommends allocating costs based on the proportion of benefits associated with each fuel type to maximize the deployment and investment in energy efficiency technologies that show impacts in both the electric and the gas sectors, and ensures an equitable distribution of cost among both electric and natural gas ratepayers.

Recommendation 11: The IURC should combine the utility's DSM program design with the utility's Integrated Resource Plan (IRP). In doing so, the commission both allows time for the programs to succeed while incorporating energy efficiency as a resource within the utility's overall strategic investment plan.

Recommendation 12: A large industrial consumer opt-out program should be structured to both drive

investment in energy efficiency and reward early adopters. The IURC should adopt an opt out program that includes the following components:

- Require a thorough audit of operations to identify and quantify the best investments the company can make in cost-effective energy efficiency improvements
- The company should develop a Strategic Energy Management Plan (SEMP) to prioritize and plan for investment in improvements that show a five-year simple payback or less
- Report to the IURC on their progress toward achieving the efficiency objectives and share with the utility the results of their investment
- Require verification of the results achieved by an unbiased third-party consistent with the treatment of utility funded programs

This will ensure not only that the industrial customers are contributing to the efficiency of the overall utility system through an alternative mechanism, but that they are investing in the most cost effective measures for their industrial processes.

Recommendation 13: The IURC should consider a separate program for large industrial consumers that drive deployment of CHP in combination and coordination with any large industrial user opt-out provisions.

Advanced Energy Economy submits these recommendations on behalf of the energy efficiency companies that make up our membership and are committed to maximizing efficiency opportunities within a high-performing electric utility system. AEE is willing to assist the commission in this endeavor and continue to work with the commission to expand investment opportunities in Indiana while bringing utility customers a more cost effective and efficient energy system.

