ACEEE
American Council for an Energy-Efficient Economy
529 14th Street, N. W., Suite 600 Washington, D.C. 20045 202.507.4000 202.429.2248 www.aceee.org

August 31, 2015

Beth Krogel Roads
General Counsel
Indiana Utility Regulatory Commission
101 West Washington Street Suite 1500 East
Indianapolis, IN 46204

Dear Mrs. Roads,

The American Council for an Energy-Efficient Economy (ACEEE) appreciates and welcomes the opportunity to provide written comments on the Integrated Resource Planning (IRP) and Energy Efficiency Plan Rulemaking (RM #15-06). ACEEE is a nonprofit research organization that works on programs and policies to promote energy efficiency. ACEEE is one of the leading groups working on energy efficiency issues in the United States at the national, state, utility and local levels. We have been active on energy efficiency issues for more than three decades.

While ACEEE was disappointed with the recent decision in Indiana to end the statewide energy efficiency goals and implementation process, the opportunity to achieve cost-effective energy efficiency in Indiana still exists. Energy efficiency programs can provide numerous benefits to Indiana ratepayers and to the state economy. First, efficiency can reduce energy bills for all customers because demand-side resources avoid or defer the need for more expensive investments in generation, transmission and distribution infrastructure. Secondly, efficiency programs bolster the economy by supporting local, labor-intensive industries. Also, by avoiding or deferring new capacity needs, efficiency programs can reduce the costs of environmental compliance.

These benefits have already been demonstrated in Indiana. The final evaluation report for the statewide Core Programs shows the programs were highly cost-effective (TRC of 2.99, UTC of 2.94) and valuable in creating new jobs in Indiana (nearly 20,000 jobs in a three year period).[1] Another independent report, from the Energy Center of Wisconsin,[2] confirmed the positive net benefits of both core and core plus programs to date.[3]

[1] 2014 Energy Indiana Evaluation Report. May 1, 2015. p. 160 & 165.
[2] The Energy Center of Wisconsin is now Seventh Wave.
[3] Indiana's Core and Core Plus Energy Efficiency Programs: Benefits, Costs, and Savings. August 14, 2014. Energy Center of Wisconsin. http://www.in.gov/iurc/files/DSM_Report_to_General_Assembly_w_Cover_Letter_8-15-2014(2).pdf.

Our comments are focused in four areas. First, we will discuss the process to establish utility specific energy efficiency goals. Second, we will discuss lost revenue adjustment mechanisms (LRAM) and our concern that misguided lost revenue policies could severely limit low-cost energy efficiency resources. Third, we will discuss the definition of program costs of energy efficiency, specifically as used in integrated resource planning. Finally, we will discuss timing of IRP and energy efficiency planning.

Issue: Establishing energy efficiency goals

From our reading of SEA 412[4] and the proposed IRP rule[5], the establishment of energy efficiency goals is not clearly defined. In SEA 412, energy efficiency goals are supposed to be presented in energy efficiency plans for specific utilities no less than once every three years. The energy efficiency goal for each utility will be set based on "all energy efficiency produced by cost effective plans that are: reasonably achievable; consistent with an electricity supplier's integrated resource plan; and designed to achieve an optimal balance of energy resources in an electricity supplier's service territory."[6] While ACEEE applauds the Indiana legislature for requiring Indiana electric utilities to set goals at all cost-effective energy efficiency, there are several key concerns with the goal setting process, as written in SEA 412.

First, "reasonably achievable" is not defined in SEA 412 or elsewhere in Indiana law. ACEEE recently completed a meta-review of current market potential studies for electric and gas energy efficiency, attached as Attachment A.[7] The study found that while definitions of economic and technical potential are well established and accepted, the definition and methodology for achievable potential is not. According to interviews conducted by ACEEE staff, assumptions and methodologies for determining achievable potential are highly subjective and dependent on professional judgement of the analyst performing the study. Our study also found that given this subjectivity, these assumptions vary noticeably across entities leading to widely varying results in projected achievable potential. While the study did not examine "reasonably" achievable potential explicitly, it can only be assumed that the additional of "reasonably" would only further confuse the definition of this term.[8]

Recommendation: If energy efficiency goals are established through the process outlined in SEA 412, the IURC should clearly define what is meant by "reasonably achievable" and carefully evaluate any goals established under this standard.

Second, SEA 412 has not defined which benefits should be considered in cost benefit analysis for program selection. Energy efficiency provides substantial benefit to all customers in a utility system. ACEEE recently completed a study on utility system benefits of energy efficiency programs. These

---

[4] Indiana Senate Enrolled Act 412. First Regular Section, 119th General Assembly. 2015. http://in.gov/iurc/files/SEA412.pdf.

[5] Draft Proposed Rule from IURC RM #11-07 October 4, 2012. http://www.in.gov/iurc/files/RM11-07_IRP_Draft_Proposed_Rule_-_10-04-2012(1).pdf.

[6] *See* SEA 412 Section 4, Sec. 10(c)

[7] Neubauer, M. 2014. Cracking the TEAPot: Technical, Economic, and Achievable Energy Efficiency Potential Studies. American Council for an Energy-Efficient Economy. August. Report U1407. http://aceee.org/research-report/u1407.

[8] Other terms such as "realistically achievable" or "maximum realistic achievable" all may have different assumptions and methodologies and do not have universally accepted definitions.

benefits not only accrue to program participants, but also accrue to all ratepayers in a utility system through reduced costs and reduced rates in future years. A review of the utility system benefits can be found in Attachment B.[9] Similarly, a recent report from the Regulatory Assistance Project outlines the benefits to the program participants and society as a whole. This report is included as Attachment C.[10] These reports demonstrate best-practice accounting and full valuation of the multiple benefits of energy efficiency. The benefits of energy efficiency have been studied for multiple decades now producing a rich historical archive of literature to rely on in determining the benefits to Indiana. If the benefits of energy efficiency are not properly accounted for in cost benefit analysis of programs, cost-effective energy efficiency will be excluded from implementation. This in turn will lead to inefficient allocation of resources and ratepayer dollars as utilities will have to pursue more costly infrastructure investments which may have been met through lower cost energy efficiency.

Recommendation: The IURC should require utilities to include all relevant benefits in cost benefit analysis presented in program plans. The IURC should also carefully review the avoided cost and other benefit methodologies to ensure reasonable estimates and consistent methodology. Finally, the IURC should require transparency in quantification of benefits, especially avoided cost of energy and capacity.

Third, by redefining program costs to include utility lost revenues, SEA 412 appears to require utilities to screen programs using the Ratepayer Impact Measure or RIM test. The RIM test is the only cost-effectiveness test for energy efficiency that includes utility lost revenues. The RIM test is deeply flawed in several respects, and has been largely abandoned as a determinative test for energy efficiency programs. In ACEEE's most recent national survey[11], only one state still relied on the RIM test as their primary cost-effectiveness test.[12]

While this test is meant to measure whether or not customer rates will increase as a result of a specific energy efficiency program, in reality it fails to even do this properly. For example, in NIPSCO's most recent IRP, the Company included five energy efficiency programs. None of the NIPSCO programs included passed the RIM test, meaning the implementation of these programs would lead to higher rates for all customers. However, the IRP modeling finds otherwise. The IRP finds that rates would actually *decrease* over time for all customers through the implementation of the programs. This is evident through the difference in net present value of revenue requirements between the plans with the programs and those without. This result demonstrates potential issues with using a simple test like the RIM to determine real impacts on rates over time in a utility system.

In 2014, the National Efficiency Screening Project released the Resource Value Framework (RVF). The RVF is a set of principles and recommendations to provide guidance for states to develop and

---

[9] Baatz, B. 2015. Everyone Benefits: Practices and Recommendations for Utility System Benefits of Energy Efficiency. June. American Council for an Energy-Efficient Economy. http://aceee.org/everyone-benefits-practices-and-recommendations.

[10] Lazar, J., and K. Colburn. 2013. Recognizing the Full Value of Energy Efficiency (What's Under the Feel-Good Frosting of the World's Most Valuable Layer Cake of Benefits). Regulatory Assistance Project. September. http://www.raponline.org/document/download/id/6739.

[11] Kushler, M. et al. 2012. *A National Survey of State Policies and Practices for the Evaluation of Ratepayer-Funded Energy Efficiency Programs*. American Council for an Energy-Efficient Economy. February. http://aceee.org/research-report/u122.

[12] Even this state does not rely exclusively on the RIM test but also considers other cost effectiveness tests to screen programs.

implement energy efficiency cost-effectiveness tests that are consistent with sound principals and best practices.[13] The RVF resulted from a national collaboration of a diverse set of energy efficiency program stakeholders and technical experts. Indiana should use the RVF as a tool in developing its own guidance on energy efficiency cost-effective screening. The RVF is included at Attachment D.

Recommendation: The IURC should not reject a program or set of programs based on a single cost-effectiveness test, especially the RIM test. *The IURC should instead consider principals and recommendations of the Resource Value Framework and incorporate this guidance into the final DSM rule.*

Issue: Rules related to lost revenue adjustment mechanisms

Existing DSM rules in Indiana allow utilities to recover lost revenue from energy efficiency programs. However the existing rules are unclear on the length of time a utility may recover lost revenue. A recent report by ACEEE examined lost revenue adjustment mechanism policies in the United States, included as Attachment E.[14] According to the report, of the 15 states with LRAM policies, eight states allow utilities to recover lost revenues for up to the first three years of the life of a measure. Six of the remaining states allowed utilities to recover lost margin until the next base rate case. Most of the states among those six require utilities to file rate cases on a regular schedule.

Absent a rate case, lost revenue mechanisms do not reset causing large balances of lost revenue to accrue for collection. While regular rate cases can avoid this "pancake effect" of lost revenues, Indiana does not currently require regular rate cases. For example, Indianapolis Power and Light recently went over twenty years between rate cases.

Recommendation: Indiana should limit lost revenue collection to a maximum of three years as the state does not have a requirement for regular rate cases. This is consistent with practice in several other states and avoids the pancaking effect of lost revenues over a long period of time.

The report also highlighted some of the other fundamental problems associated with LRAM policies. LRAM tracking systems can be very difficult and costly to manage. An accurate system would need to keep track of tens of thousands of measures over several program years. Monitoring and review of such a system is difficult and would require substantial resources. LRAM is also awarded based on net program savings, which require the Commission to focus additional time and effort into review of costly evaluation studies to determine free ridership. When millions of dollars of revenue becomes tied to net-to-gross estimates, the focus of stakeholder attention shifts from improving the programs and savings energy, to reviewing costly evaluation studies and litigating the results.

The IURC should consider evaluating full revenue decoupling as an alternative to LRAM. Full revenue decoupling is a regulatory mechanism which adjusts or trues up utility revenues based on the difference between actual and expected sales. The adjustments can be up or down, but utility revenues are

---

[13] Woolf, T. et al. 2014. "Unleashing Energy Efficiency." Public Utilities Fortnightly October 2014. http://www.homeperformance.org/sites/default/files/hpc_nesp-unleashing-energy-efficiency_201410.pdf.

[14] Gilleo, A. et al. 2015. Valuing Efficiency: A Review of Lost Revenue Adjustment Mechanisms. June. American Council for an Energy-Efficient Economy. http://aceee.org/valuing-efficiency-review-lost-revenue-adjustment.

insulated from deviations in sales for any reason, typically including weather or energy efficiency. Full revenue decoupling offers several advantages to LRAM policies. These advantages include:

1. Decoupling is relatively easy to administer.
2. Decoupling does not require quantifying the amount of reduced energy sales that result from energy efficiency programs.
3. Decoupling is symmetric: rate adjustments are made both up and down according to actual energy sales. Customers receive both refunds and surcharges under decoupling.

One primary concern of decoupling mechanisms has been rate impacts to customers. In a recent study conducted by ACEEE and others, rate impacts for decoupling mechanisms were reviewed nationally. This report is included with these comments at Attachment F.[15] This research shows that rate impacts have been minimal. Morgan examined a set of 1269 rate adjustments made due to decoupling mechanisms since 2005. She found that the vast majority (64%) of such adjustments have been only plus or minus 2% of retail rates. This translates to customer surcharges or credits of $2.30 per month for the average electric customer and about $1.40 per month for the average natural gas customers. About 80% of all such adjustments are within the range of plus or minus 3%. In short, decoupling does not lead to wide rate swings. Of all the adjustments included in Morgan's research, 63% were surcharges and 37% were refunds. She concludes that there is no pattern of either rate increases or decreases.

Recommendation: Indiana should investigate the potential of full revenue decoupling as an alternative to LRAM policies. As noted above, full revenue decoupling provides many advantages to LRAM.

Issue: Defining program costs of energy efficiency for IRP analysis and energy efficiency plans

Currently, the definition of energy efficiency program costs in both the draft IRP rule and existing DSM rules are identical. These rules define program costs as all expenses incurred by a utility in a given year for operation of a DSM program whether the cost is capitalized or expensed. SEA 412 redefines program costs to include costs of evaluation, measurement, and verification (EM&V) and utility lost revenue. ACEEE strongly disagrees with defining utility lost revenues as a program cost and can find no other examples of states treating lost revenues as a program cost in this manner. Dollars collected in lost revenue adjustment mechanisms are not program costs, but are instead the collection of already-authorized utility revenues.

Including utility lost revenues as a program cost in an integrated resource-planning context is inappropriate for several reasons. As discussed earlier in these comments, utility lost revenues are not a cost of an energy efficiency program. In resource planning, the associated costs of each resource are included and the least cost, least risk plan is selected for implementation. The Northwest Power and Conservation Council has modeled energy efficiency on a comparable basis to supply side resources since 1983. The analysis approach relies on the principle of equality of resource cost effectiveness, that energy efficiency resources are compared to other resources based on their economic and other relevant resource characteristics. These principles and concepts are explained in greater detail in

[15] Morgan, P. 2012. A Decade of Decoupling for US Energy Utilities: Rate Impacts, Designs, and Observations. November. http://aceee.org/collaborative-report/decade-of-decoupling.

Attachment H, a short whitepaper on energy efficiency as a resource by the director of resource planning for the Northwest Power Conservation Council.

A recent ACEEE study on the cost of saved energy for utility sponsored energy efficiency programs showed energy efficiency to be the least cost resource for utilities, shown in figure 1. This report is included at Attachment G.[16] Other studies have produced similar results.[17] Given energy efficiency is regarded to be a low cost resource, inappropriately including lost revenues as a program cost in the context of IRP would result in Indiana not capturing this low cost resource.

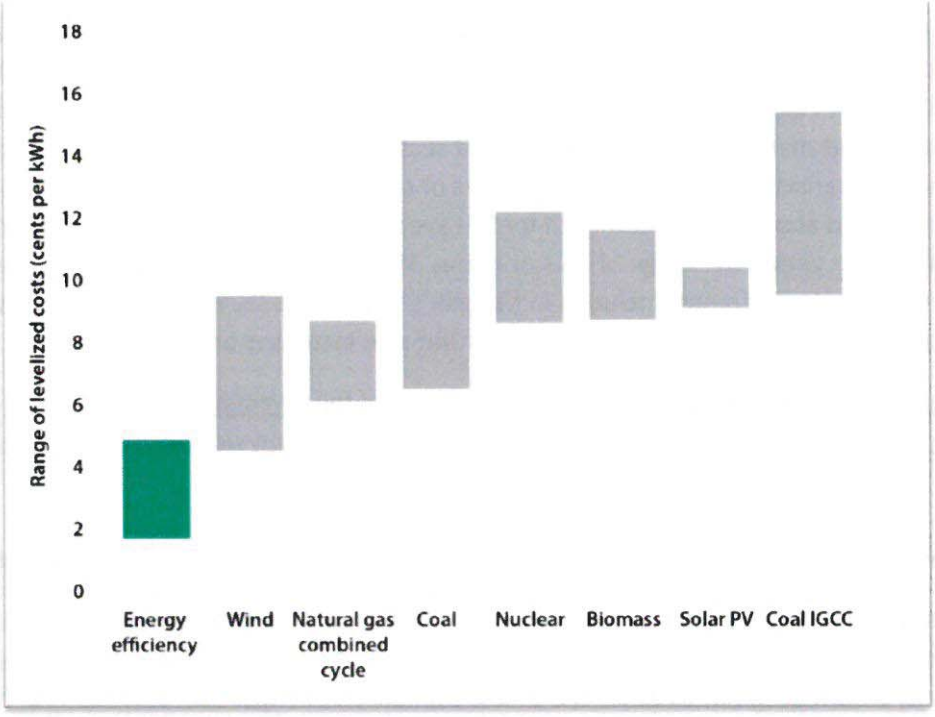

Figure 1. Levelized costs of electricity resource options. Source ACEEE 2014.

Arbitrarily adding costs to energy efficiency in integrated resource planning violates one of the central tenets of Indiana's IRP rules: comparability of resources in analysis. In a review of 2013 IRPs, IURC electric division director Dr. Brad Borum stated a requirement of an IRP in Indiana is to "demonstrate that supply-side and demand-side resource alternatives have been evaluated on a consistent and comparable basis."[18] According to Borum, the rules clearly require utilities to evaluate resources in

[16] Molina, M. 2014. The Best Value for America's Energy Dollar: A National Review of the Cost of Utility Energy Efficiency Programs. American Council for an Energy-Efficient Economy. March. http://aceee.org/research-report/u1402.

[17] See Billingsley, M. et al. 2014. The Program Administrator Cost of Saved Energy for Utility Customer-Funded Energy Efficiency Programs. Lawrence Berkeley National Laboratory. http://emp.lbl.gov/sites/all/files/lbnl-6595e.pdf.

[4] Report of the Indiana Utility Regulatory Commission Electricity Division Director Dr. Bradley K. Borum Regarding 2013 Integrated Resource Plans. April 30, 2014. http://in.gov/iurc/files/Director_2013_IRP_Report_-_Final_4-30-14.pdf. Page 4-5.

"something resembling a comparable matter." In this report, Dr. Borum concluded all four IRPs evaluated failed to meet this requirement.[19] Adding unreasonable costs such as lost revenues to energy efficiency will make it impossible for utilities to evaluate these resources on a consistent and comparable basis to other resources. Disadvantaging energy efficiency in IRP will lead to utilities selecting higher cost resources and will increase Indiana electric customers' bills in the future.

Recommendation: The IURC should not allow lost revenues to be defined as program costs in integrated resource planning analysis. Including lost revenues as a cost will violate the principal of comparability of resources in this process and will lead to economically inefficient resource outcomes.

Issue: Timing of Integrated Resource and Energy Efficiency Plans

Currently in Indiana, IRPs are filed every two years. According to SEA 412, energy efficiency plans are to be filed not less than once every three years. Ideally the energy efficiency plans would follow the IRP process. Utilities should model energy efficiency as a resource in IRP analysis to determine the optimal level of energy efficiency over the study period. The optimal level of energy efficiency determined in the IRP should then guide the program planning and implementation process. If instead the program plans are completed prior to the IRP analysis, the level of energy efficiency will be predetermined in a utility program plan rather than modeled and truly considered on a comparable basis to supply side resources in an IRP. To align the timing of the two processes, the IURC should consider requiring the IRP filing every three years, instead of every two years.

Recommendation: The IURC should require the energy efficiency program planning process to align directly with the integrated resource planning process to ensure optimal levels of energy efficiency are considered and pursued by utilities. We recommend a three year planning cycle.

Sincerely,

Maggie Molina
Program Director, Utilities, State and Local Policy

Brendon Baatz
Senior Research Analyst

[19] Ibid. page. 9.