State of New Jersey

Board of Public Utilities

44 South Clinton Ave, 3rdFloor, suite 314

P.O. Box 350

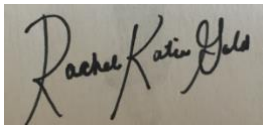
Trenton, New Jersey 08625-0350

RE: IN THE MATTER OF THE IMPLEMENTATION OF P.L. 2018, c.17 REGARDING THE ESTABLISHMENT OF ENERGY EFFICIENCY AND PEAK DEMAND REDUCTION PROGRAMS – DOCKET NO. QO19010040

Dear Secretary Camacho-Welch:

The American Council for an Energy-Efficient Economy ("ACEEE") is pleased to submit these comments to the Board of Public Utilities ("BPU") in the above reference proceeding.

Sincerely,



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I. INTRODUCTION

The American Council for an Energy-Efficient Economy ("ACEEE") is a nonprofit research organization based in Washington, D.C., that conducts research and analysis on energy efficiency. ACEEE is one of the leading groups working on energy efficiency issues in the United States at the national, state, and local levels. We have been active on energy efficiency issues for more than three decades.

ACEEE appreciates the opportunity to provide comments and recommendations on the establishment of new energy efficiency and peak demand reduction programs related to P.L. 2018, c. 17, the Clean Energy Act. We submit these comments to provide the BPU with context and data to support a framework for a successful energy efficiency industry in New Jersey.

Refining the BPU's regulatory policies and procedures to maximize cost-effective deployment of energy efficiency is critical to enabling New Jersey to meet its long-range sustainability and societal goals. Research has demonstrated that energy efficiency programs are on average the least-cost resource available to electric utilities nationally, generally cheaper than adding new supplies.[1] In addition, energy efficiency provides a variety of corollary benefits including local employment, comfort, health and safety improvements for customers, reduced environmental emissions, improved efficiency and competitiveness of local businesses, and reductions in customer energy burdens. Research also consistently demonstrates the substantial value of energy efficiency to reduce system costs and defer the need to invest in costly distribution and transmission infrastructure.[2]

ACEEE has identified a variety of strategic opportunities and policies available to regulators and policymakers in New Jersey to help strengthen energy efficiency across multiple end-use sectors. The *State Energy Efficiency Scorecard*, an annual report published by ACEEE that benchmarks state progress on energy savings programs across several dozen metrics, ranked New Jersey 18th nationally in energy efficiency and ninth among northeast states.[3] The signing of Senate Bill 2314 created new long-range utility savings targets which helped the state improve beyond its 2017 ranking of 23rd. However, the development of robust annual efficiency portfolios to meet incremental annual goals will be essential to maintaining and improving New Jersey's future standing. Though program administrator-reported electric savings edged upwards in 2017, they remained below the national average, such that New Jersey earned just 6.5 out of a possible 20 points in the Scorecard for its utility programs. Recommendations provided below, particularly those related to clarifying program administrator roles

[1] Molina, M. & G. Relf. 2018. *Does Efficiency Still Deliver the Biggest Bang for Our Buck? A Review of Cost of Saved Energy for US Electric Utilities*. 2008 ACEEE Summer Study on Energy Efficiency in Buildings. aceee.org/files/proceedings/2018/index.html#/paper/event-data/p191.

[2] See Lamont. D. & J. Gerhard. 2013. *The Treatment of Energy Efficiency in Integrated Resource Plans: A Review of Six State Practices.* Regulatory Assistance Project for an overview of the process of including energy efficiency in integrated planning; a key example is the 7th Northwest Conservation and Electric Power Plan (https://www.nwcouncil.org/reports/seventh-power-plan)

[3] Berg, W. et al. 2018. The 2018 State Energy Efficiency Scorecard. aceee.org/research-report/u1808.

and adjusting the utility business model to align incentives with investments in efficiency, will help strengthen programs by enabling utilities to take full advantage of efficiency as a resource.

Below we provide responses to questions 1-12. For each subject area, ACEEE can share additional in-depth research upon request.

II. Responses

1. What are some best practices for energy efficiency and peak demand reduction programs from leading states (Massachusetts, Rhode Island, California, Illinois, etc.) – including, but not limited to, administrative structures, performance incentives, cost-benefit analyses, decoupling policies, and evaluation – that New Jersey can implement to reach its energy efficiency and peak demand reduction goals?

A vital first step to successfully achieving energy savings targets is to establish a clear and robust funding mechanism that can adequately support implementation of programs that meet those targets. States typically recover costs of programs through a combination of several pathways: base rate adjustments, system benefit charges, and other surcharges. Policies should clarify expectations regarding how these funds are to be distributed among programs addressing different fuel types and customer sectors. It is common for minimum spending requirements to be set for low-income customers, which have historically been underserved due to a variety of factors despite often living in older less efficient housing. Maine, for example, requires at least 10% of funds go towards supporting low-income residents, and at least 10% of funds must support energy programs for small business customers.[4]

In recovering direct costs, the most common approach is to treat program costs as an expense, which is then recovered as an additional element of the revenue requirement during the next rate case, or through the levying of a public benefits charge. For example, the Arizona Corporation Commission authorized the Arizona Public Service Company (APS) to funds its DSM programs through an annual $10 million addition to its base rate, and through implementation of an adjustor averaging $6 million per year.[5] Connecticut's programs are funded by a monthly systems benefit charge of 0.3 cents per kWh, which can also be increased through an adjustment mechanism. Additional funds are provided through revenues the Connecticut electric utilities receive from the ISO-New England Forward Capacity Market (FCM) and from Regional Greenhouse Gas Initiative (RGGI) funds. However, some states have not adopted implementation rules providing adequate funding to support state savings targets, e.g. Delaware and Florida. Their energy savings achievement has suffered as a result. Both states reported utility electric savings far below the national median in 2017 of 0.66%. ACEEE's State Scorecard ranked Delaware and Florida, 35th and 37th, respectively, in terms of the strength of utility program and policies supporting energy efficiency.[6]

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[4] L.D. 1559, "An Act to Reduce Energy Costs, Increase Energy Efficiency, Promote Electric System Reliability and Protect the Environment." mainelegislature.org/legis/bills/getPDF.asp?paper=HP1128&item=6&snum=126.

[5] Arizona Corporation Commission. Docket No. E-01345A-03-0437, Decision No. 67744. April 7, 2005. https://www.azcc.gov/divisions/utilities/electric/APS-FinalOrder.pdf.

[6] Berg, W. et al. 2018. *The 2018 State Energy Efficiency Scorecard*. aceee.org/research-report/u1808.

Energy efficiency policies in leading states align utility business models with energy efficiency by approving of a decoupling mechanism, as well as performance incentives that reward utilities for reaching specified program goals. Together with direct cost recovery, these mechanisms are sometimes described as the "three-legged stool" of utility energy efficiency. Decoupling seeks to remove the disincentive to efficiency investment by severing the link between utility sales and revenues. This is achieved through a periodic adjustment of revenue recovery based on the difference between projected and actual sales ensuring full cost recovery of authorized revenue requirements regardless of impacts of efficiency on sales. Ideally these adjustments are symmetrical, meaning customers are also protected and permitted refunds in the event of utility over-recovery. As of 2018, 17 states have approved some form of revenue decoupling for electric utilities, and 26 have adopted decoupling for gas utilities.[7] For additional detail, see the Regulatory Assistance Project's guide for making decoupling design decisions based on state-specific goals.[8]

Finally, ACEEE has found that performance incentives are also among the most important factors contributing to higher savings. Performance incentives allow utilities to earn return on investment related to efficiency in a way that is competitive with the returns they receive on other assets and infrastructure. A December 2018 ACEEE topic brief provides the latest on the utility performance incentive landscape.[9] Past ACEEE research has also profiled types of regulatory tools available to align utility business models with energy efficiency.[10]

Administrative structure is critical, and program administration should clearly define roles and responsibilities and align with both the targets and the utility business model incentives. In determining an appropriate administrative structure for delivering efficiency programs to New Jersey customers, a variety of options and examples are available from other states that include both utility-led structures, government administration, independent third-party administration, or some hybrid. In Question 3, we outline the markets which might be most appropriate for statewide administration and discuss the tradeoffs between different types of private and public administrators.

2. HOW SHOULD "FULL ECONOMIC, COST EFFECTIVE POTENTIAL" BE DEFINED IN TERMS OF THE ENERGY EFFICIENCY TARGETS TO BE ESTABLISHED BY THE BOARD?

Currently seven states have mandates requiring all-cost effective efficiency: California, Connecticut, Maine, Massachusetts, Rhode Island, Vermont, and Washington. These requirements generally call for

[7] Sullivan, D. and D. DeCostanzo. 2018. *Gas and Electric Decoupling. https://www.nrdc.org/resources/gas-and-electric-decoupling*

[8] Migden-Ostrander, J. and R. Sedano. 2016. Decoupling Design: Customizing Revenue Regulation to Your State's Priorities. Regulatory Assistance Project. raponline.org/wp-content/uploads/2016/11/rap-sedano-migdenostrander-decoupling-design-customizing-revenue-regulation-state-priorities-2016-november.pdf.

[9] Relf, G. & S. Nowak. 2018. *Snapshot of Energy Efficiency Performance Incentives for Electric Utilities*. ACEEE. aceee.org/topic-brief/pims-121118.

[10] Molina, M. and M. Kushler. 2015. *Policies Matter: Creating a Foundation for an Energy-Efficient Utility of the Future*. aceee.org/white-paper/policies-matter.

investment in all available energy efficiency and demand reduction resources that are less expensive than supply. Past ACEEE research has reviewed and analyzed different state regulatory language related to the all cost-effective mandate.[11] While interpretations of "all cost-effective" can differ somewhat depending on perspective, key strategies for determining an optimal target include conducting a comprehensive cost-effectiveness assessment that also includes a consideration of often over-looked non-energy benefits (see Question 8), as well as receiving input from a diverse group of stakeholders to capture a holistic understanding of all cost and benefits.

For example, while Massachusetts acknowledges that there is "no simple, algebraic method to evaluate" all cost-effective energy efficiency, the Department of Public Utilities considers several factors in weighing whether it has been achieved: "(1) the steps the Program Administrators (PAs) have taken to implement energy efficiency given the current state of energy efficiency supply and demand; (2) the steps PAs will take to expand future energy efficiency opportunities; and (3) the results of potential studies".[12] PAs are required to conduct these potential studies every three years to inform planning for each program cycle. These studies look at technical, economic, and achievable potential savings and determine both what is technically feasible given current technologies and economic conditions, as well as what is practically achievable based on current real-world program and market barriers. Through review of these studies, and a collaborative stakeholder process defined in the Green Communities Act, the state's Energy Efficiency Advisory Council, program administrators, and DPU arrive at a negotiated agreement regarding reasonable cost-effective potential for programs.

Also underpinning determinations of all cost-effectiveness is the type of cost-effectiveness test chosen by regulators to screen programs. The most commonly used are the total resource cost (TRC) test (including costs and benefits experienced by the entire customer base, including nonparticipants), the utility cost test (UCT) (focused on energy costs and benefits experienced by the program administrators), and the participant cost test (PCT) (including costs and benefits experienced by efficiency program participants). ACEEE has recommended the UCT, also known as the Program Administrator Cost test (PACT), due to its simplicity and the fact that it most closely mimics utility investment decisions on transmission, distribution, and generation investments. While most states primarily rely on the TRC, the way it is commonly applied suffers from several deficiencies, including its frequent neglect of many non-energy benefits. The National Standard Practice Manual (NSPM), developed by the National Efficiency Screening Project and E4TheFuture, is a helpful resource providing guidance regarding how to improve C/E practices and selection of cost and benefits to include in screening.[13] Please see our response to Q8 for additional details.

[11] Gilleo, A. 2014. Picking All the Fruit: All Cost-Effective Energy Efficiency Mandates. aceee.org/files/proceedings/2014/data/papers/8-377.pdf.

[12] Mass Save. 2018. Massachusetts Joint Statewide Electric and Gas Three-Year Energy Efficiency Plan: 2019-2021. ma-eeac.org/wordpress/wp-content/uploads/Exh.-1-Final-Plan-10-31-18-With-Appendices-no-bulk.pdf.

[13] Woolf, T., C. Neme, M. Kushler, S. Schiller, and T. Eckman. 2017. *National Standard Practice Manual for Assessing Cost-Effectiveness of Energy Efficiency Resources*. Framingham, MA: NESP (National Efficiency Screening Project). nationalefficiencyscreening.org/wp-content/uploads/2017/05/NSPM_May-2017_final.pdf.

3. WHAT MARKETS SHOULD BE SERVED STATEWIDE? WHAT PROGRAMS SHOULD HAVE CONSISTENT INCENTIVES, ELIGIBILITY CRITERIA AND RULES ACROSS ALL SERVICE TERRITORIES? SHOULD THE PROGRAMS BE DELIVERED BY A SINGLE STATEWIDE IMPLEMENTER? WHAT ARE THE BARRIERS TO IMPLEMENTING A STATE-WIDE APPROACH, AND HOW CAN THEY BE OVERCOME?

While there are some states with purely utility or statewide administration, many assign some activities to statewide program administrators and other activities to local utility program administrators. Energy efficiency markets best served statewide are those for which the market itself is not specific to a utility service territory – where markets don't stop at utility service territory boundaries, and where there are economies of scale associated with statewide or even regional administration. Our research finds that market transformation (including codes and standards and upstream/midstream programs), research and development, new construction, low income programs, and workforce, marketing and education programs are the most common categories for statewide administration in hybrid models. Below we describe potential rationales for each type of market or program and provide examples from leading states.

Market Transformation

Market Transformation programs deliver long-lasting, sustainable changes in the structure or functioning of a market. They include activities to promote one set of efficient technologies, processes or building design approaches until they are adopted into codes and standards (or otherwise substantially adopted by the market), while also moving forward to bring the next generation of even more efficient technologies, processes or design solutions to the market.[14] These programs often involve activities that generate economies of scale at a statewide or even regional level for marketing and working with major suppliers and other market actors.

In New York, the New York State Energy Research and Development Authority (NYSERDA), delivers market transformation programs through its Clean Energy Fund, tracking against 10-year goals, while utilities provide resource acquisition savings through annual goals. The Pacific Northwest delivers market transformation programs at the regional level through NEEA, the Northwest Energy Efficiency Alliance, which is jointly funded through each of the regional utilities. Many of California's market transformation-focused programs, including codes and standards development and support and midstream and upstream programs, are delivered statewide by individual utilities designated as the "lead" utility for that program.

Research and Development

Research and development and emerging technologies programs are commonly administered at the state level, both to leverage findings across the state and because partnerships with universities and other education institutions may be most effectively pursued at the state level. NYSERDA maintains an Innovation and Research portfolio to catalyze innovations, with a focus on "key points where

[14] CPUC, Guidelines for Selecting Market Transformation Indicators (MTIs). Guidelines for Selecting Market Transformation Indicators. ftp.cpuc.ca.ftp://ftp2.cpuc.ca.gov/PG.../2011/10/SB_GT&S_0821661.pdf

commercialization can stall and the private sector is less likely to fill gaps."[15] Similarly, the California Energy Commission manages R&D through its Energy Research & Development program, including offices for energy efficiency and deployment and market facilitation. However, many states also allow or require utilities to conduct local innovation activities. In California, individual utilities manage statewide emerging technologies programs, but each program administrator has the ability to continue local pilots that are not yet ready for statewide treatment.[16]

New Construction

New construction programs provide design assistance, training and incentives for more efficient new buildings. Construction markets vary in size and scope of design and builder companies, and some may work across utility service territory boundaries. Furthermore, complementary activities like real estate benchmarking and codes development may have efficiencies at the state level. In New York, NYSERDA runs new construction programs. In California, new construction is managed statewide, but by one lead utility, Pacific Gas & Electric.

Low income

Statewide administration of low-income programs may be most efficient where the state is able to combine funds from related sources like housing authorities or health departments, or as a part of state administration of state and federal weatherization funds. NYSERDA delivers low income programs in New York state. Absent low-income assistance programs, utilities may struggle to secure income verification data; states may have access to that information through qualification for other state programs.

One example is Maryland, where the Department of Housing and Community Development has administered the state's limited-income energy efficiency programs since 2012. Those programs have been effective in delivering substantial energy savings for each participating household, although overall participation has been low.[17] However, utilities lead low income energy efficiency program administration in many states. In Illinois, the legislature transferred responsibility of low-income energy efficiency programs to utilities in late 2016.[18]

Workforce, marketing and education

Programs that support training and development of an energy efficiency workforce may have operational efficiencies at the statewide level through connections to state labor agencies and talent pipelines from statewide educational institutions. California's Workforce Education and Training programs organize training around technology categories (e.g, HVAC and lighting) and building types

[15] NYSERDA. 2017. *Annual Investment Plan and Performance Report through June 30, 2017*: Final Report. Annual Investment Plan and Performance Report through June 30, 2017

[16] CPUC. D.18-05-041

[17] Stefen Samarripas, Lauren Ross, and Tyler Bailey. 2017. *Making Maryland Homes More Affordable through Energy Efficiency.* https://aceee.org/research-report/u1711

[18] Illinois General Assembly. 2016. *Public Act 099-0906: FEJA (Future Energy Jobs Act)*. Springfield: Illinois General Assembly. www.ilga.gov/legislation/publicacts/99/PDF/099-0906.pdf.

(e.g, commercial and residential) and collaborates with educational institutions including community colleges, trade organizations, and universities.[19] Similarly, while marketing and education efforts may have a local component, there may be efficiencies from statewide administration where media markets do not neatly align with service territories.

Regulators also face the question of who should serve statewide markets – utilities, state agencies, or third-parties? Our research finds that each model can be successful – the top ten scorers in ACEEE's *2018 State Scorecard* are populated by utility, third party, and hybrid administration models. Below we outline examples and some considerations for each model of statewide program administration. The Regulatory Assistance Project provides a more detailed resource for evaluating the strength of each model based on compatibility with broader policy goals, accountability, and effectiveness.[20]

> **State-run program administrators:** Examples of pure statewide administration include Hawaii Energy, Energy Trust of Oregon, and the D.C. Sustainable Energy Utility. Benefits of non-utility administration include the ability to create a single-purpose organizational objective in support of energy efficiency and to become a trusted, independent authority. However, successful non-utility administration requires special effort to ensure customer recognition and trust, to secure needed customer and system data to run programs, and to ensure that funding and contracting are stable, timely and responsive, and not subject to political change.
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> **Utility program administrators:** In some states, like Massachusetts, utilities serve all markets as the primary program administrator. In others, like California, utilities serve some markets in their specific service territory, and also take the lead for coordinating a specific set of statewide programs. Utility administration can leverage customer relationships, organizational structure, and in-house expertise on energy use, marketing, accounting, and other aspects of program delivery. However, successful utility administration requires that shareholder and management incentives are aligned with energy savings objectives of customer programs, and that funding is predictable.
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> **Hybrid models:** Within states, there is rarely a true "statewide" program---in many cases there are mixed models, such as statewide public benefits programs and separate or parallel utility programs, like New York and Maryland, or primarily utility programs with some non-utility programs, as in Michigan. Vermont has a state-wide non-utility program for electric customers and utility programs for natural gas customers, which are coordinated with the statewide electric programs. In Pacific Northwest states, where the Northwest Energy Efficiency Alliance runs regional market transformation programs in parallel with utility or statewide program administrators.

Regardless of the structure and specific markets chosen for statewide administration, the key is to make sure that targets or goals, business model incentives, and administration structure are aligned.

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[19] CPUC. 2018. *Energy Efficiency Portfolio Report.* *http://www.cpuc.ca.gov/uploadedFiles/CPUCWebsite/Content/About_Us/Organization/Divisions/Office_of_Governmental_Affairs/Legislation/2018/13-15%20Energy%20Efficiency%20Report_Final.pdf*

[20] Sedano, R. 2011. *Who Should Deliver Ratepayer-Funded Energy Efficiency? A 2011 Update*. raponline.org/knowledge-center/who-should-deliver-ratepayer-funded-energy-efficiency-a-2011-update.

Obligated entities for goals, incentives, and penalties should have clear administrative responsibility that enables them to meet those goals and earn those incentives. Furthermore, staff competency is critical regardless of the administrative structure. Staff should be well trained, encouraged to succeed by management, and should have the contracting resources, authority, financial resources, and data required to successfully administer programs without too much delay and "red tape."

4. HOW CAN THESE PROGRAMS BE DELIVERED AT THE LOWEST COST TO RATE PAYERS, WHILE ALSO PROVIDING OPTIMAL EASE OF USE AND CUSTOMER SERVICE AND MAXIMIZING MARKET UTILIZATION? AND 5. WHAT IS THE BEST WAY TO MINIMIZE ADMINISTRATIVE COSTS AND AVOID DUPLICATIVE ADMINISTRATIVE STRUCTURES?

Any ratepayer investments should be reasonably scrutinized to ensure that they are delivered in a way that balances cost and efficiency with equity considerations about ease of access to programs as well as quality of program delivery.[21] However, it is important to consider this question in the broader context of other resources. Energy efficiency continues to be one of the lowest cost system resources. ACEEE research shows that in the 2015 program year, energy efficiency programs cost utilities, on average, about 3.1 cents per kilowatt-hour nationally, including program costs and performance incentives.[22] Because investments in energy efficiency reduce total electric load at a low cost, they mitigate reliance on more expensive utility investments in generation, transmission and distribution resources. This reduces costs for all customers in the system by reducing fuel costs and market purchases.

We recommend considering the factors outlined in this question as criteria for effective program delivery in a framework to maximize societal *net* benefits, rather than minimizing program costs. A net benefits framework enables the BPU to consider both the inputs of cost and outputs of value. In addition, where these factors are policy priorities, the BPU can consider setting Quantitative Performance Indicators that measure success at meeting goals like ease of use, customer service, and market utilization. When program administrators face carefully designed outcome-based performance incentives, they are typically successful at delivering on policymaker priorities. If the BPU chooses to set Quantitative Performance Indicators (QPIs) based on cost, it should focus on metrics that minimize system cost rather than energy efficiency program costs. While energy efficiency program costs should be minimized where possible, the primary objective should be delivery of all cost-effective energy efficiency.

Finally, there are specific tactics to support each of these objectives. To minimize program cost, the program administrators can avoid duplicative programs and run effective and timely procurement

[21] Hoffman, G. Leventis, and C. Goldman, Tren*ds in the Program Administrator Cost of Saving Electricity for Utility Customer-Funded Energy Efficiency Programs* (Berkeley: LBNL, 2017), http://eta-publications.lbl.gov/sites/default/files/lbnl-1007009.pdf; Lazard, *Lazard's Levelized Cost of Energy Analysis: Version 11.0*(2017), https://www.lazard.com/media/450337/lazard-levelized-cost-of-energy-version-110.pdf.

[22] Maggie Molina & Grace Relf. 2018.Does Efficiency Still Deliver the Biggest Bank for Our Buck? A Review of Cost of Saved Energy for Electric Utilities, Am. Council for an Energy-Efficient Econ). aceee.org/files/proceedings/2018/index.html#/paper/event-data/p191

processes. In addition, program costs can be minimized by reducing unnecessary customer touchpoints, automating processes where possible, and bundling measures into comprehensive programs.[23] Upstream or midstream programs that target entities up the value chain like manufacturers and distributors can yield more cost-effective savings in some cases.[24]

6. WHAT CONSIDERATIONS SHOULD BE MADE DURING A TRANSITION PERIOD THAT WOULD RESULT IN AS FEW DISRUPTIONS AS POSSIBLE TO THE MARKET PLACE?

Given the goals in Senate Bill 2314, annual energy efficiency savings will need to more than triple over the next five years. To achieve such a large increase will likely require a larger role for utilities, particularly utilities who show a sincere interest in implementing creative and successful programs. BPU staff should meet with each of the utilities and assess their interest and ability to operate programs that meet the SB 2314 goals, either individually or through the Independent Advisory Council process. From our observations of NJ utilities, we suspect that some utilities will be more able to deliver successfully on efficiency than other utilities. Based on these meetings and their assessment of utility interest and abilities, the BPU should plan on at least some utilities playing a much larger role on energy efficiency implementation.

Even for these utilities, it may make sense for the BPU to continue to operate a few statewide programs as discussed in our answer to Question 3. And for these utilities, a gradual transition from primarily BPU programs to primarily utility programs should be planned. For example, when New York State made this transition recently, they developed a gradual three-year transition plan to allow new programs to ramp-up and to minimize disruptions in the market place. However, it is possible that some NJ utilities do not have the interest or ability to ramp up programs to meet the SB 2314 goals. If this is the case, the BPU or another utility acting in a statewide role could continue to operate and potentially scale up their programs in these service areas, working with the utility to design a set of complementary utility and BPU programs that will best serve the market.

7. WHAT IS THE BEST WAY TO MAXIMIZE THE USE OF CONSUMER DATA HELD BY THE UTILITIES, AND WHAT PROCEDURES ARE RECOMMEND FOR SHARING THAT DATA?

Improving accessibility of energy use data is crucial for maximizing energy efficiency potential by providing information to residents and businesses about baseline energy usage and enabling them to make more informed choices regarding how to improve future performance. Access to aggregated energy use data is also important to help local governments improve delivery of energy efficiency programs and better meet sustainability and benchmarking goals. Pending proposals to roll out

[23] R. Gold, M. Henchen & L. Guccione. 2017. *Customer-Centric Energy System Transformation: A Case Study of the Opportunity with Green Mountain Power*. Rocky Mountain Institute. https://www. rmi.org/insights/reports/customer-centric-energy- transformation/

[24] M. Quaid & H. Geller. 2014. *Upstream Utility Incentive Programs: Experience and Lessons Learned* http://www.swenergy.org/data/sites/1/media/documents/publications/documents/Upstream_Utility_Incentive_Programs_05-2014.pdf

advanced meter infrastructure (AMI) across the state provide an opportunity to empower customers and policymakers with more granular data to unlock potential savings if paired with clear supportive policies, guidelines, and tools to streamline data sharing.

To start, the BPU can take steps to develop standard language identifying terms of allowable data usage for different types of data and types of users. For example, a growing number of states have approved rules enabling the use of automated tools, such as Green Button Connect (GBC),—including California, Colorado, New York, and Illinois—enabling easy sharing of customer energy information from a utility to a Third Party with customer consent. Guidelines for third-party access typically include a statement of purpose, a discussion of prohibitions or allowable data-sharing with consideration of consumers' rights to privacy, and an authorization period with an expiration date. Illinois Docket 15-0073 laid the groundwork addressing many issues related to third-party data usage guidelines that paved the way for the ICC's approval of the Open Data Access Framework in which Ameren Illinois and ComEd agreed to implement GBC.[25] Mission: Data offers a helpful 10-point framework for utility regulators seeking to create a comprehensive energy data sharing policy, such as defining the categories of information to be shared (billing, usage, and systems data), as well as eligibility criteria for third parties seeking authorization, and terms of use, including privacy policy.[26]

For multi-family or commercial building owners, access to building-level aggregated data is important to help building managers distinguish and better manage energy used in common areas. The Sustainable DC Act of 2014 includes a provision mandating that both electric and gas utilities provide aggregated whole-building data when building owners request it. These data are then made available for download, as well as for automated upload to ENERGY STAR® Portfolio Manager. Excel Energy in Colorado also provides a helpful model of robust energy benchmarking services made available to buildings owners.[27]

In addition to providing individual customer data to consumers, building owners, and authorized third-parties, there are multiple other use cases for when guidelines should be developed to facilitate data sharing. For example, a California Public Utilities Commission rulemaking recognizes specific use cases for local governments seeking access to customer data in aggregate form to assist in climate action planning; for research institutions seeking anonymous energy consumption data to evaluate energy policies; and for environmental groups seeking customer data regarding energy efficiency measures pre- and post-retrofit (Decision 14-05-016).[28]

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[25] Proceeding to Adopt the Illinois Open Data Access Framework, Docket No. 14-0507 (ICC Jul. 26, 2017), https://www.icc.illinois.gov/downloads/public/edocket/450960.pdf.

[26] Murray, M., L. Kier, and B. King. 2017. *Energy Data: Unlocking Innovation with Smart Policy*. Mission: Data and Advanced Energy Management Alliance. static1.squarespace.com/static/52d5c817e4b062861277ea97/t/5a3a8c66c8302509260492b2/1513786475950/Energy-data-unlocking-innovation-with-smart-policy.pdf.

[27] Xcel Energy. 2018. *Energy Benchmarking Services User Guide*. https://www.xcelenergy.com/staticfiles/xe/PDF/Marketing/Bus-Solutions-Benchmark-User-Guide.pdf.

[28] California Public Utilities Commission. Decision 14-05-16: Decision adopting rules to provide access to energy usage and usage-related data while protecting privacy of personal data, May 1, 2014. http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M090/K845/90845985.PDF.

For more information please see the ACEEE policy brief *Best Practices for Working with Utilities to Improve Access to Energy Usage Data*.[29] ACEEE's State Policy Toolkit also provides recommendations for regulators in developing data access guidelines for a variety of users, along with links to state examples.[30]

8. What data, assumptions, methodology, and considerations (e.g., non-energy benefits) should be used to perform cost-benefit analyses?

New Jersey currently uses a variety of standard cost-effectiveness tests outlined in the *California Standard Practice Manual* (CA SPM) but should consider reviewing and updating their terms to adhere to best practice principles. The *National Standard Practice Manual* (NSPM), published in May 2017 by the National Efficiency Screening Project and E4TheFuture, provides a comprehensive and improved approach to current cost-effective practices, as well as guidance on selecting the appropriate categories of cost and benefits to include in screening.[31]

The NSPM includes: (1) Universal Principles for developing and applying cost-effectiveness assessments, (2) a Resource Value Framework (RVF) in the form of a step-by-step process for utility commissions to use in developing a primary cost-effectiveness test, and (3) neutral, objective guidance for selecting a test and its components, and applying and documenting policies and data defining the test. Issues addressed include defining and estimating utility system impacts, accounting for impacts external to the utility system, determining discount rates, defining the analysis period, dealing with free-riders and spillover, and accounting for rate and bill impacts.

Developing a comprehensive understanding of utility system costs and benefits should provide the foundation for every cost-effectiveness test. Ideally, all costs and benefits associated with energy efficiency that are relevant to the state's policy goals should be calculated. This includes a thorough estimation of avoided costs based on comprehensive and up-to-date analysis, such as avoided energy costs, generating capacity costs, transmission & distribution, and other avoided ancillary services. In addition, efficiency provides a wide range of valuable non-energy benefits that include participant impacts (productivity, comfort, health and safety), water impacts (e.g. decreasing consumption and related treatment costs), environmental benefits associated with reducing pollution, GHG, and land use, as well as economic development and job creation benefits.

In selecting and tracking types of impacts to include in the test, it is essential that close attention is paid to maintaining symmetry, that is for each type of cost recorded, the corresponding benefit must also be included. The National Efficiency Screening Project's *Resource Value Framework Template Reporting*

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[29] ACEEE. 2014. *Best Practices for Working with Utilities to Improve Access to Energy Usage Data*. aceee.org/files/pdf/toolkit/utility-data-access.pdf.

[30] ACEEE. "Energy Usage Data Access: A Getting-Started Guide for Regulators." aceee.org/sector/state-policy/toolkit/data-access.

[31] Woolf, T., C. Neme, M. Kushler, S. Schiller, and T. Eckman. 2017. *National Standard Practice Manual for Assessing Cost-Effectiveness of Energy Efficiency Resources*. Framingham, MA: NESP (National Efficiency Screening Project). nationalefficiencyscreening.org/wp-content/uploads/2017/05/NSPM_May-2017_final.pdf.

Table, provided in Appendix A, is a helpful tool for considering utility and non-utility costs and benefits. Northeast Energy Efficiency Partnerships (NEEP) has also published an informative guide to quantifying NEBs for inclusion in cost-effectiveness testing, including examples and links to different methods and analyses used for specific NEBs in many neighboring states.[32] ACEEE also documented different ways in which states calculate and account for environmental and health benefits of energy efficiency in a December 2018 topic brief.[33] Most of the 19 states we profile account for these benefits either directly by monetizing them based on jurisdiction-specific studies or estimates from other areas, or through using proxies and other substitutes. ACEEE has also surveyed state practices for valuing benefits and cost-effectiveness of low-income programs.[34]

Also critical to successful cost-effectiveness screening is the use of appropriate discount rates, which are used to calculate the net present value of benefits for programs producing energy savings over multiple years. Using a high discount rate that doesn't accurately reflect the lower level of risk associated with efficiency programs can significantly undervalue their benefits, especially for those with longer measure lives, such as building retrofit programs and new construction programs. The most commonly used discount rate for the total resource cost test and the program administrator cost test is the utility weighted average cost of capital (WACC). However, a review of cost-effectiveness screening practices by Synapse Economics and Woolf et al note that a lower rate than the WACC should be used to recognize the lower financial risk of efficiency investments, which can be quickly recovered through system benefit charges or through balancing accounts in rates.[35] They instead recommend using the interest rates on US Treasury Bills which are considered a good indication of low-risk investments, and are used by several states, including Massachusetts.

9. WHAT SHOULD THE MEMBERSHIP OF THE INDEPENDENT ADVISORY COMMITTEE BE? WHAT IS THE PROPER ROLE OF THE INDEPENDENT ADVISORY COMMITTEE? WHAT EXISTING MODELS OR BEST PRACTICES SHOULD THE BOARD CONSIDER IN ESTABLISHING THE INDEPENDENT ADVISORY COMMITTEE?

ACEEE lauds the recent legislation for creation of an Independent Advisory Committee in its energy efficiency program governance structure. Stakeholder processes offer an important opportunity to build stronger energy efficiency portfolios that better reflect the needs of different customer groups, leverage the knowledge and expertise of DSM business and service providers, and align program development

[32] NEEP. 2017. *Non-Energy Impacts Approaches and Values: an Examination of the Northeast, Mid-Atlantic, and Beyond*. neep.org/sites/default/files/resources/NEI%20Final%20Report%20for%20NH%206.2.17.pdf.

[33] Kubes, C. 2018. *Cost-Effectiveness Tests: Overview of State Approaches to Account for Health and Environmental Benefits of Energy Efficiency*. Washington, DC: ACEEE. aceee.org/topic-brief/he-in-ce-testing.

[34] Berg, W. & A. Drehobl. 2018. *State-Level Strategies for Tackling High Energy Burdens: A Review of Policies Extending State- and Ratepayer-Funded Energy Efficiency to Low-Income Households*. 2018 ACEEE Summer Study on Energy Efficiency in Buildings. aceee.org/files/proceedings/2018/index.html#/paper/event-data/p390.

[35] Woolf, T., W. Steinhurst, E. Malone, and K. Takahashi. 2012. Energy Efficiency Cost-Effectiveness Screening: How to Properly Account for 'Other Program Impacts' and Environmental Compliance Costs. Montpelier, VT: Regulatory Assistance Project. synapse-energy.com/sites/default/files/SynapseReport.2012-11.RAP_.EE-CostEffectiveness-Screening.12-014.pdf.

and monitoring with public policy. Permanent committees are particularly useful for "providing general critiques of energy efficiency program design, owning specific tasks on behalf of the commission, and allowing a community of interveners to become familiar with the issues involved in energy efficiency program design."[36]

We recommend that the BPU define a clear objective or objectives, then track and report progress toward that goal. That shared purpose should be reflected in its activities, membership structure, and how its recommendations are used. The Clean Energy Act specifies a few roles for the Independent Advisory Committee, including evaluation of achievable energy efficiency and peak demand reduction requirements, review of rate adjustments, evaluation of quantitative performance indicators, and review of the process for evaluation, measurement and verification of energy usage reductions and peak demand reductions.

Approaches to collaboratives range from utility-led collaboratives designed to provide input on program design, like Georgia Power's energy efficiency process, to Arkansas Parties Working Collaboratively, which began as short-term exercise focused on quick-start energy efficiency, but was continued as a permanent collaborative because of its value,[37] to Rhode Island's Energy Efficiency and Resource Management Council, which oversees National Grid's energy efficiency programs, guides planning and budgeting, and monitors and evaluates the effectiveness of efficiency programs.[38] New Jersey is likely to require a more comprehensive approach, similar to Massachusetts, Rhode Island, Connecticut, and Illinois for such a broad mandate and set of substantive objectives.

As to membership of the committee, at a minimum, the Clean Energy Act requires participation from "the public utilities, the Division of Rate Counsel, and environmental and consumer organizations." Other groups worth considering include representatives of specific customer groups, such as residential customers, large end users, the manufacturing industry. In addition, businesses that conduct energy efficiency work in different sectors and their labor counterparts may be important, as they more directly interact with customers and the programs themselves. Some states include other departments as well: Massachusetts includes the department of environmental protection, the attorney general, the executive office of housing and economic development, and the state energy office in their group.[39] Finally, the committee should include experts in energy efficiency program design and evaluation, either from these groups, or through additional expert participants.

Collaboratives depend on the willingness of stakeholders to volunteer their time to participate, so the BPU should balance those time demands and ability to meaningfully engage with the importance of

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[36] *Energy Efficiency Collaboratives*, State and Local Energy Efficiency Action Network pg. 5, https://www4.eere.energy.gov/seeaction/system/files/documents/EECollaboratives-0925final.pdf

[37] Johnson, K. & M. Klucher, A*ll Together Now! How Collaboration Works in Arkansas*, Johnson Consulting Group & Arkansas Public Service Commission, http://www.johnsonconsults.com/presentations/IEPPEC%202014%20All%20Together%20Now%20AR.pdf.

[38] Abigail Anthony & William Ferguson, *Putting the Pieces in Place to Make Giant Leaps in Efficiency Investment: The Rhode Island Experience*, Environment Northeast & Council of Rhode Island, https://aceee.org/files/proceedings/2012/data/papers/0193-000255.pdf.

[39] Massachusetts Legislature. 2008. Green Communities Act, Section 22.

gathering diverse input. In addition to the members of the committee, the committee will need funding and ideally dedicated staff to support facilitation, evaluation and reporting of committee efforts, and any necessarily potential studies and technical reference manual development or modifications. SEEAction defines principles for successful collaboratives in more detail, including rules of the road, transparency and inclusivity, regular evaluation of efforts, and strong facilitation, as well as a clear relationship between the group and the commission.[40]

10. HOW SHOULD SAVINGS FROM THE CLEAN ENERGY PROGRAM, EXISTING UTILITY PROGRAMS, BUILDING CODE MEASURES, APPLIANCE EFFICIENCY STANDARDS, OTHER STATE SPONSORED EE OR PEAK REDUCTION PROGRAMS, ETC., THAT MAY CONTRIBUTE TO MEETING SAVINGS TARGETS BE FACTORED INTO A UTILITY'S SAVINGS TARGETS, QPIS, AND PERFORMANCE INCENTIVES?

The Clean Energy Act specifies that each public utility achieve annual savings of 2% for electricity and 0.75% for natural gas to be met within five years of implementation of its programs. As a net incremental annual target, previously installed measures still producing savings as part of the Clean Energy Program and existing utility programs would not contribute to meeting targets, only savings from new measures installed.

With regard to building code measures and appliance efficiency standards and programs which might be state-managed going forward, savings from these efforts should be calculated and can contribute toward statewide goals, additive to but tracked separately from utility programs. We recommend that the BPU clearly designate an entity who is obligated to fulfill these responsibilities, and that there are agency performance metrics for these statewide efforts.

Utility performance against savings targets, quantitative performance indicators, and performance incentive should be based on the programs and portion of the statewide savings goals for which they are designated as the responsible entity. These may vary by utility.

In addition, utilities should be able to claim credit where they directly support statewide activities like codes and standards. Protocols for claiming and attribution of savings from utility Codes & Standards support activities are still an emerging field, but several states offer examples of approaches. The BPU should take steps to verify that C&S targets and savings are tied to actions and programs substantially supported by utilities, and not to general C&S statewide activities outside the scope of utility efforts. These measures may include EM&V studies and/or review by Delphi panels of industry experts to review factor weights. Methodologies range from the simple to more complex. Arizona has passed rulemaking authorizing utilities to count a pre-negotiated one-third of verified energy savings resulting from codes and standards support toward meeting the state's annual savings goals.[41] Utilities still have to demonstrate that the savings are being realized through an EM&V study, and document that they were involved in supporting the codes, but the exact attribution rate is predetermined. Other states such as California and Massachusetts have sought to create more robust methodologies to derive the level of utility-attributed savings based on estimates of code compliance and naturally occurring market adoption. While development and refinement of these protocols are still an ongoing discussion,

[40] *Energy Efficiency Collaboratives*, State and Local Energy Efficiency Action Network pg. 5, https://www4.eere.energy.gov/seeaction/system/files/documents/EECollaboratives-0925final.pdf

[41] Docket No. RE-00000C-09-0427, Title 14, Chapter 2, Article 24.

California and Massachusetts have both published resources describing their respective methodologies.[42]

11. HOW SHOULD PERFORMANCE INCENTIVES AND PENALTIES BE IMPLEMENTED? WHAT LEVEL OF INFORMATION WILL BE NEEDED? HOW SHOULD THEY BE COLLECTED/PAID, WITH WHAT FREQUENCY AND WHEN SHOULD THEY BEGIN IMPLEMENTATION?

The performance incentives adopted by states generally fall into four different categories: a percentage of shared net benefits (12 states), incentives based on meeting pre-established energy savings goals (three states), incentives based on meeting multiple pre-established goals (nine states), and rate of return incentives (four states). PSE&G has proposed a return on its net energy efficiency investments based on return on equity and capital structure.[43] The proposed mechanism is not currently tied to performance on energy savings or other targets.

ROE incentives without performance metrics reward spending rather than actual energy efficiency results. For this reason, ACEEE has generally supported utility incentive mechanisms based on energy efficiency performance , in order to help encourage outcomes tied to goals. That being said, Illinois provides an example of a state that has combined a rate-of-return approach with performance criteria as a required qualification for approval of earnings. These incentives provide opportunities for increased return based on the level of savings achieved, and also include penalties for significantly missing targets. The ACEEE Policy Brief, *Snapshot of Energy Efficiency Performance Incentives for Electric Utilities*, provides additional information regarding how ROEs are adjusted each year based on third-party evaluation of the utility's energy efficiency portfolio.[44] So far the increase in utility energy efficiency spending by Illinois utilities has indicated that the state's new EERS and performance incentive structure are functioning as intended.

Policymakers have found that when basing incentives on achieved savings and shared net benefits, successful implementation requires strong evaluation frameworks and protocols that are integrated with performance incentive mechanisms. As such, cost-effectiveness and EM&V should be closely tied to structuring performance incentives.

Also important is the question of the scale of performance incentives. These should be set high enough to motivate utilities to meet targets while still providing cost-effective value to ratepayers. In determining this amount, almost all PIMs have been structured with (1) a minimum threshold savings

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[42] Mass Save. 2015. *Savings & Evaluation Methodology for Codes and Standards Initiative*. ma-eeac.org/wordpress/wp-content/uploads/Savings-Evaluation-Methodology-for-Codes-and-Standards-Initiative.pdf.; California Public Utilities Commission. 2017. *Findings from Review of the Process for Codes & Standards Program Cost-effectiveness Reporting*. http://www.calmac.org/publications/CS_CE-Report_FINAL_10-10-2017_with_comments.pdf.

[43] PSE&G. 2018. *In the matter of the petition of Public Service Electric & Gas Company for approval of its Clean Energy Future – Energy Efficiency, Clean Energy Future – Electric Vehicle and Energy Storage and Clean Energy Future – Energy Cloud Programs on a Regulated Basis.*

[44] ACEEE. 2018. *Snapshot of Energy Efficiency Performance Incentives for Electric Utilities*. Washington, DC: ACEEE. aceee.org/sites/default/files/pims-121118.pdf.

goal the utility must exceed in order to be eligible for earning an incentive and (2) a maximum amount or cap that can be collected. ACEEE analysis has found award amounts ranging from 4% to as high as 15% relative to efficiency costs—typically on a sliding scale such that higher rates are awarded based on savings levels exceeding targets.[45] Higher ratios and payout amounts were reported for performance incentives based on net benefits, possibly due to the fact that benefits are calculated over the full measure life rather than just for the first year. At whatever levels incentives are set, they should be tied to aggressive yet reachable goals.

Finally, incentives based on achievement of multiple goals should be considered. These can help focus utilities on other policy goals beyond the bounds of energy efficiency to help shape the type and quality of savings achieved, as well as encouraging extension of savings to underserved customers. For example, Michigan has a multifactor incentive in place for DTE and Consumers Energy, including not only savings-based metrics, but also program goals for expanding low-income programs, creating consistency in rebate amounts, promoting deep energy savings, and reducing peak demand.[46]

For more information regarding treatment of performance incentives in different state contexts and strengths and weaknesses associated with different types, please see ACEEE's 2015 report *Beyond Carrots for Utilities: A National Review of Performance Incentives for Energy Efficiency*.

12. UNDER N.J.S.A. 48:3-88(3)(E), EACH ELECTRIC AND GAS PUBLIC UTILITY MUST FILE AN ANNUAL PETITION WITH THE BOARD TO DEMONSTRATE COMPLIANCE WITH ENERGY EFFICIENCY AND PEAK DEMAND REDUCTION PROGRAMS, COMPLIANCE WITH TARGETS ESTABLISHED PURSUANT TO THE QUANTITATIVE PERFORMANCE INDICATORS, AND FOR COST RECOVERY OF THE PROGRAMS. WHAT INFORMATION SHOULD THESE ANNUAL PETITIONS INCLUDE?

Broadly speaking annual reports should provide a comprehensive account of energy and demand savings achieved, as well as program expenditures and the cost of saved energy, per NEEP's *Common Statewide Energy Efficiency Reporting Guide*.[47] The BPU should develop a standard reporting template to enable clear and uniform reporting across New Jersey's utilities and facilitate accurate data aggregation to track progress towards statewide goals. In addition, any remaining statewide programs should report on progress using similar templates to facilitate analysis of progress toward total statewide goals.

Reports should provide a multidimensional accounting of annual savings data that clearly documents underlying assumptions and adjustments. Savings should be provided on an annual incremental basis, meaning savings specifically achieved during the year that the program was run, and includes only savings attributable to that program. At a minimum annual reported savings should include:

[45] Nowak, S. et al. 2015. *Beyond Carrots for Utilities: A National Review of Performance Incentives for Energy Efficiency*. Washington, DC: ACEEE. aceee.org/research-report/u1504.

[46] Consumers Energy Company and Michigan Public Service Commission, Settlement Agreement, Case No. U-18261, December 19 (Lansing: MI PSC, 2017). https://mi-psc.force.com/s/filing/a00t0000005pmNSAAY/u182610093

[47] NEEP. *Common Statewide Energy Efficiency Reporting Guidelines: Version 1.0*. Lexington, MA: NEEP. https://neep.org/file/1054/download?token=OHDutcHc.

- Net savings: These are changes in energy consumption or demand that are directly attributable to an energy efficiency program, separating out impacts that may result from free riders, weather, participant or non-participant spillover, or from previous-year programs. Net savings should be presented at both the portfolio and program level, and broken down by measure where applicable, including citations referencing studies informing any adjustments made. Program categories should be grouped into residential non-low income, residential low-income, and commercial & industrial. Other potential categories include multifamily, renter, and small business. Savings programs should also be grouped by fuel type: electric, gas, and other fuels such as fuel oil or propane. These savings should be presented alongside annual program-specific targets to illustrate the degree to which these were achieved.
- Gross savings: Changes in energy consumption that result directly from program-related actions taken by participants in an energy efficiency program, regardless of why they participated. A 2016 NEEP report provides a discussion of key issues and considerations, as well as a decision-framework for calculating and applying net and gross savings based on energy policy objectives.[48]
- Details regarding whether savings are tracking estimates based on a previous year's evaluation studies, or informed by current program year evaluation.
- Details regarding whether savings are reported at the generator level or meter level to clarify whether transmission and distribution line losses have been included in the calculation. If savings are reported at the meter, information should be shared regarding types of T&D adjustments performed.
- Additional information, citations, links, or appendices providing supporting data behind savings calculations, such as technical reference manuals, potential studies, and EM&V protocols.

In addition, reporting should include the following elements:

- Lifetime energy savings, both net and gross, should be reported for each program, including weighted average measure lives for each.
- Program and portfolio-level accounting of expenditures: These should make a clear distinction between spending on energy efficiency programs, and costs associated with other programs such as demand response, load management, or renewable energy programs. Reporting protocol for program expenditures should use the following categories: program administration and marketing costs, customer rebates and incentives, performance incentives earned by utility shareholders or PAs for achieving certain metrics, research & evaluation costs, and a separate category addressing other miscellaneous costs. These should be presented alongside each program's planned budget to identify deviations from anticipated spending.
- Number of participants per program, expressed both annually and cumulatively, and as a percentage of eligible customers.
- Reporting should also include the cost of saved energy per program, expressed in benefit-cost ratios according to each cost-effectiveness test employed as discussed in the response to Q8. The levelized cost of energy ($/kWh) should also be provided corresponding to each B/C test.

[48] NEEP. 2016. *Gross Savings and Net Savings: Principles and Guidance*. neep.org/sites/default/files/FINAL%20GS%20and%20NS%20Principles%20and%20Guidance%20Document_2016May17.pdf.

- For each program, additional description should also be provided to explain and factors contributing to deviations from targeted spending or savings, as well as changes or adjustments planned for the next program year.

The table below provides an example from Entergy Arkansas's annual demand-side management report showing a portfolio summary that clearly describes the adjustments made in verifying and evaluating the utility's annual gross and net savings.

EAI's Gross Savings (*ex ante*)	259,481 MWh[9]
As adjusted by Tetra Tech (*ex post*)	278,307 MWh
As adjusted for Net-To-Gross ("NTG") and realization rate ("RR") ratios	253,290 MWh
EAI MWh Targets adjusted for SD	161,478 MWh
% of Target Achievement Based on Evaluated Energy Savings	157%

Finally, the BPU should make annual efficiency reporting by utilities easily accessible to the public in formats that allow for analysis. A few state PUCs have created separate web pages making all utility DSM reports available to download from one location, such as Pennsylvania's site tracking progress towards meeting savings targets under Act 129.[49]

III. CONCLUSION

ACEEE appreciates this opportunity to provide comments and is available as a resource to discuss any of the issues raised herein or others that the BPU may be considering regarding the treatment of energy efficiency. We welcome further discussion on ways that ACEEE can help New Jersey utilize energy efficiency to strengthen the economy, create jobs, and reduce pollution.

[49] Pennsylvania Public Utility Commission. "Electric Distribution Company Act 129 Reporting," accessed February 2019, puc.pa.gov/filing_resources/issues_laws_regulations/act_129_information/electric_distribution_company_act_129_reporting_requirements.aspx.

APPENDIX A: National Standard Practice Manual Efficiency Cost-Effectiveness Reporting Template (Version May 2017)