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

Aida Camacho-Welch April 13, 2020

Secretary of the Board
Board of Public Utilities
44 South Clinton Avenue, 9th Floor P.O. Box 350
Trenton, New Jersey 08625-0350

RE: Straw Proposal for New Jersey's Energy Efficiency and Peak Demand Reduction Programs

Dear Secretary Camacho-Welch:

The American Council for an Energy-Efficient Economy (ACEEE) welcomes this opportunity to provide comments in response to the "Straw Proposal for New Jersey's Energy Efficiency and Peak Demand Reduction Programs," (the "Straw Proposal") issued by the New Jersey Board of Public Utilities' ("BPU" or the "Board") Office of Clean Energy ("OCE") on March 20, 2020.

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 and have actively participated in the Energy Efficiency Transition stakeholder engagement process in New Jersey to share our research and understanding of best practices.

The Straw Proposal takes important steps forward towards implementation of New Jersey's Clean Energy Act and fulfillment of Staff's objectives to increase access to all New Jersey residents and businesses and to expand job opportunities and increased economic benefits of energy efficiency for New Jersey. At a time of unprecedented crisis, the economic development supported by good energy efficiency jobs and bill savings for customers and businesses is more important than ever. The energy efficiency industry supported more than 36,000 workers in New Jersey in 2018 but ranked near the bottom of states on efficiency jobs per capita (47th).[1] By successfully implementing energy efficiency programs to meet the Clean Energy Act goals, New Jersey can significantly increase its energy efficiency workforce and stimulate the state's economy.

The Straw Proposal also makes progress on the other objectives set out by Staff for the energy efficiency transition. However, we recommend twelve improvements in our comments below to better meet a number of the stated objectives:

---

[11] https://www.e2.org/wp-content/uploads/2019/09/NEW-JERSEY_2019_Final.pdf and https://e4thefuture.org/wp-content/uploads/2019/10/2019_EE_Jobs_Per_Capita.pdf

To increase accountability and reporting of spending and savings related to energy efficiency and peak demand reduction, we propose that Staff:

1. Clarify accountability mechanisms for NJCEP and align NJCEP schedules and timelines with utility targets and timelines
2. Consider a QPI, or other incentive mechanism, to encourage utility motivation and support for achieving the overall savings goal, including NJCEP programs
3. Strengthen codes and standards initiatives in the straw proposal and move from "additional state-led initiatives" to "state-administered core programs" section.
4. Strengthen evaluation, measurement and verification (EM&V) practices by:
    - Clarifying that the Statewide Evaluation Manager will be selected by the BPU and report to the BPU;
    - Clarifying that the EM&V Working Group may select contractors via competitive RFP and oversee some evaluations directly (e.g., for statewide programs; certain joint programs; etc.), and will develop guidelines for Individual Program Administrators (IPAs) to use in EM&V activities that IPAs directly manage, including guidelines for RFPs and contractor selection as well as methods and protocols for EM&V procedures and reporting; and
    - Clarifying the roles for Independent Evaluation Contractors in various circumstances, to facilitate effective project management and avoid conflicts of interest
5. Clarify that in the interim before a New Jersey specific RVT can be developed, the primary cost-effectiveness test shall be a Societal Cost Test
6. Over the long term, strengthen the Energy Efficiency Advisory Group, and bring proposed working groups into advisory group as subcommittees

To set New Jersey on a path to 100% clean energy by 2050 as laid out in the Energy Master Plan:

7. Include a QPI target that tracks greenhouse gas reductions or primary BTU savings
8. Provide specific pathways for energy efficiency programs to promote beneficial electrification in market segments where measures save energy, costs and emissions
9. Implement full revenue decoupling, or if that is infeasible, create a clear pathway and criteria for full revenue decoupling proposals in base rate cases

To reduce costs for energy saved through reliable and consistent program delivery, and reduce administrative costs passed through to ratepayers:

10. Strengthen program flexibility by eliminating prescriptive cost requirements
11. Ensure that allocation of savings approaches do not unintentionally prohibit savings from fuel oil and propane customers or from beneficial electrification measures

To decrease energy burdens for all ratepayers with a specific focus on lower income customers and environmental justice communities, and increase access to efficiency opportunities for customers and communities with low and moderate income levels:

12. For the period before the low-income QPI goes into effect, establish a minimum spending and/or savings target requirement for low-income energy efficiency programs.

**Increase Accountability and Reporting of Spending and Savings**

We commend staff for identifying increased accountability as a principle for the EE Transition. The Straw Proposal includes a number of elements, such as a clarified EM&V structure and updated goal setting structure for utilities, which support this principle. Below, we recommend changes to the Straw Proposal in order to strengthen accountability, EM&V, and expectations for all program administrators.

**1. Clarify accountability mechanisms for NJCEP, align NJCEP schedules and timelines with utility targets and timelines, and further develop NJCEP's codes and standards efforts.**

The "Application of Utility Targets" section of the Straw Proposal outlines a structure for utility target setting, with a set of principles for how Staff designed the targets. Those principles – including meeting CEA targets, responsiveness to individual potential by service territory, a focus on long-lived measures, input of all stakeholders on metrics, and transparency in performance review – are critical to the success of New Jersey's EE Transition. In addition, ACEEE recommends that the final order more clearly outline how those programs administered by New Jersey's Clean Energy Program will be set in a way that meets those principles, in particular:

- "All program administrators and stakeholders should have input on performance metrics; and,
- The process for reviewing the results of utility performance should be transparent, objective, and replicable."

We noted the importance of a focus on transparency and accountability for NJCEP in our February 11, comments Re: Energy Efficiency Transition - application of utility energy use reduction targets. ACEEE sees this as crucial for the success of New Jersey's programs for two reasons. First, our experience in hybrid states shows that those states with clear targets, reporting structures, and stakeholder input are more successful in delivering savings. Examples include New York (#5 in the 2019 *State Scorecard*), where the hybrid state program administrator, NYSERDA, files an annual Metrics and Financial Report compiling the performance in relation to the minimum goals established in a commission order establishing their Clean Energy Fund framework, and where goals are set in a transparent public process,[2] Maryland (#7 in the 2019 *Scorecard*), where the Department of Housing and Community Development files and reports on the same cycle as the utilities,[3] and Vermont (#3 in the 2019 *Scorecard*), where the statewide Efficiency Vermont and local Burlington Electric Department both complete Demand Resources Plans in a public proceeding with the PUC, file Triennial Plans, then report yearly on results.[4]

---

[2] NYSERDA. Annual Investment Plan and Performance Report through December 31, 2018. Final Report May 2019.

[3] Department of Housing and Community Development - EmPOWER Maryland Program Limited-Income Program Plan 2018-2020. Case Nos. 9153-9157

[4] https://www.efficiencyvermont.com/about/annual-plans-reports

In addition, New Jersey has had a challenging record of performance in recent years while the state took the lead on energy efficiency program administration. Performance in the State Scorecard dropped from a ranking of #8 in 2007, with the state ranking #34 for net incremental savings from electric energy efficiency and #24 for gas energy efficiency savings for the 2018 program year.[5] While many factors may have led to this performance, one may be challenges with accountability, including significant delays in reporting and evaluation and a lack of clarity about how the BPU separates those staff who conduct oversight and address policy questions from those who administer programs.

The Straw Proposal's structure and process for applying utility targets relative to NJCEP targets is clear. However, unlike the Overall Annual Energy Use Reduction targets, which have a clearly articulated basis in the Potential Study, the division of goals *amongst* the NJCEP Savings Target and the Utility Program Savings targets in each service territory is not detailed in the record. Furthermore, as noted in our February 11th comments, the draft is not specific about the process and timing by which the board would determine program by program projected savings, nor what sources of data would be used to set those estimates in future cycles.

To support accountability and transparency in the use of ratepayer dollars and achievement of public policy goals by NJCEP, we recommend:

- For the Board's forthcoming decision, articulating in the record the basis for the division of savings between the NJCEP Savings Targets and the Utility Program Savings Targets for the 2022-2026 period.
- For future cycles, articulating a process for setting NJCEP Savings Targets and sharing initial proposed metrics for stakeholder comment alongside Utility Program Savings Targets.
- Setting multi-factor metrics to allow the Board to set QPIs for NJCEP that match its role in meeting multiple policy objectives statewide. Then, determining a weighting structure aligned with the NJCEP's policy goals, with more emphasis on those metrics which best support State policies, such as codes and standards or lead-by-example programs, or that encourage investment in those programs that may not naturally rise to the top based on costs or savings.
- Creating a performance review structure that mirrors[6] the utilities in timing and structure, with filings of program budget and performance as well as evaluations of actual performance in comparison to each established QPI. While filings for cost recovery will not be necessary for NJCEP, the results should be published in the same timely fashion as utility programs, should be available for public scrutiny, and should be used to update targets, inform decisions about roles and responsibilities between program administrators, and redesign and update programs.

Such transparency is as critical for NJCEP as it is for utility programs; as a steward of public funds, NJCEP should have clear metrics for how they will achieve public policy goals using the unique

[5] Berg et al. 2019 State Energy Efficiency Scorecard. https://www.aceee.org/research-report/u1908 .

[6] If the Board first determines projected savings from NJCEP and then holds utilities responsible for the remainder of the overall service territory targets, the process for NJCEP reporting may need to precede that for the utilities. However, filings and reporting for each should be on a coordinated scheduled to support parts of the process where one is an input to the other.

contributions of a state agency. Aligned expectations and accountability for all program administrators will help to encourage NJCEP to acquire all cost-effective potential in their areas of responsibility, provide clarity for and encourage coordination with other program administrators, and will provide the transparency needed for stakeholders to track progress toward CEA and EMP goals. ACEEE sees such transparency in goal setting and alignment with other program administrator efforts as a minimum expectation for hybrid administration.

**2. Consider a QPI, or other incentive mechanism, to encourage utility motivation and support for achieving the overall savings goal, including NJCEP programs, as well as a framework and requirement for such coordination**

The proposed approach for energy savings targets is somewhat unique, in that targets would be set as "overall utility-specific energy use reduction targets", but would be comprised of two components: "NJCEP annual energy savings target"; and "utility program annual energy savings targets." This sets up a dynamic where each of the two entities (NJCEP and utilities) are motivated to meet their own goals, but not necessarily motivated to ensure that the other party achieves their goal, or that the "overall" goal is met. In fact, there could be a potential for conflict between the two entities over who is able to capture particular savings opportunities.

In recognition of these concerns, ACEEE recommends that at least one QPI, or other incentive mechanism (e.g., perhaps an overall incentive "bonus"), be focused on achieving the combined goal, so that the utilities and NJCEP have incentive to cooperate and support each other's success. That cooperation and coordination will be essential in order to avoid conflicts and make programs workable, and to enable the achievement of overall goals. In addition to a QPI (or other incentive), we also recommend the BPU establish a framework and requirement for coordination between the utilities and NJCEP.

**3. Strengthen codes and standards initiatives in the Straw Proposal and move from "additional state-led initiatives" to "state-administered core programs" section.**

Codes and standards are a core function of market transformation initiatives and should be core initiatives of NJCEP.

New Jersey recently adopted more energy-efficient building energy codes for new construction and the EMP recommends further efforts to improve codes (p. 73). However, the state may not be capturing the full savings opportunities. This is because energy code compliance is far from 100% and can vary significantly by local government, which leads to remaining energy savings potential left untapped. The state's efforts can help fill this gap and result in significant energy savings. For example, the state could claim energy savings for providing energy code training, outreach, and technical assistance to local governments, builders and trade allies to support code compliance activities. In our most recent State Efficiency Scorecard, NJ only earned partial credit for code compliance studies because while a compliance study had been completed in the last five years it did not follow standardized protocols or

was not statistically significant.[7] We support staff's statement that the Board should procure an Energy Code Compliance baseline study and review and adopt as appropriate recommendations arising from such a study.[8] We also support the recommendation to form an energy codes review panel to examine how that subject should be treated. A critically important component will be to establish methodologies to determine what portion of savings in that category should be attributed to utility efforts, if any.

However, the Straw Proposal gives very limited attention and details to specific activities NJCEP plans to pursue regarding code support and appliance and equipment efficiency standards. We recommend that staff strengthen its codes and standards initiative because the state can capture significant energy savings from these efforts. In California, codes and standards have even accounted for 40-50% of energy savings in recent years.[9] This is a unique state example but serves as an upper bound of possible savings. NJCEP can also look to other states and regions that are promoting codes and standards improvements for energy savings, and how those jurisdictions attribute or determine the share of energy savings.[10]

For appliance efficiency standards, NJCEP can directly support the adoption of state and federal appliance standards by dedicating staff time to the development of statewide appliance standards and by commenting on Department of Energy proceedings at the federal level. The Northwest Efficiency Alliance (NEEA), which is a regional energy efficiency organization that develops market transformation programs, is a good model for New Jersey to follow. NEEA integrates standards into their program plans from the outset and have multi-year plans that have both program components and regulatory components. NEEA has dedicated staff that are fulltime on standards work. NYSERDA similarly has been actively engaged in state level appliance standards and would be another example. They have performed potential savings studies, participated in coalition meetings, and hired contractors to plan implementation. They also have a dedicated staff person and budget to hire contractors.

Likewise, NJ program implementers can play a role in the development of new state building codes, both by providing input in the code development process, but also by using the NJCEP-administered New Construction programs to lay the groundwork for future codes. For example, programs to encourage zero energy buildings can lay a foundation for possible future state requirements at these performance levels, as California, Oregon and N.Y. have been doing.

**4. Strengthen evaluation, measurement and verification (EM&V) practices by:**

---

[7] https://www.aceee.org/research-report/u1908

[8] Straw Proposal, pg 53

[9] CPUC, California Public Utilities Commission. 2018. Energy Efficiency Portfolio Report. https://www.cpuc.ca.gov/WorkArea/DownloadAsset.aspx?id=6442459323

[10] See Cadmus, December 2018. "Attributing Codes and Standards Savings to Program Administrator Activities: Review of Approaches in Canada and the United States." Appendix CC of BC Hydro filing: https://www.bchydro.com/content/dam/BCHydro/customer-portal/documents/corporate/regulatory-planning-documents/regulatory-filings/rra/bch-f20f21-rra.pdf

a. **Clarifying that the Statewide Evaluation Manager will be selected by the BPU and report to the BPU;**
b. **Clarifying that the EM&V Working Group may select contractors via competitive RFP and oversee some evaluations directly (e.g., for statewide programs; certain joint programs; etc.), and will develop guidelines for Individual Program Administrators (IPAs) to use in EM&V activities that IPAs directly manage, including guidelines for RFPs and contractor selection as well as methods and protocols for EM&V procedures and reporting; and**
c. **Clarifying the roles for Independent Evaluation Contractors in various circumstances, to facilitate effective project management and avoid conflicts of interest**

More detailed comments on EM&V are provided below.

ACEEE is very supportive of the general framework for EM&V outlined in the Staff proposal on page 12, including:

1. The need to use a common set of protocols for measuring energy savings;
2. Allowing stakeholder input in the process for developing key EM&V assumptions;
3. Ensuring consistent measurement of outcomes and reporting; and
4. Establishment of an ongoing working group to update and improve analyses, as well as recommend program improvements that might result from information provided by EM&V

ACEEE is also very supportive of some of the specific approaches presented on page 12, including:

1. Assessing cost-effectiveness at the portfolio level
2. Pursuing development of a New Jersey specific primary cost-effectiveness test (e.g., a NJ "Resource Value Test")
3. Establishing a stakeholder process to gather input regarding development of a NJ RVT

We also support the general framework, objectives, and "guiding principles" for EM&V outlined by Staff, and find those to be consistent with what we have observed as best practices around the nation in our previous and ongoing monitoring of state approaches to the evaluation of utility ratepayer-funded energy efficiency programs (e.g., Kushler, et.al., 2012).[11]

We fully support the recommendation to use shared/common evaluators to evaluate programs that are co-managed or largely consistent throughout the state.[12] That will reduce EM&V costs and avoid duplication and confusion.

We support the strategy of including stakeholder engagement in developing key inputs for EM&V, and would further clarify that there should be a common and publicly available Technical Reference Manual (TRM) that should contain key inputs and assumptions for all evaluations conducted in the state.[13]

[11] Straw Proposal, pg 45

[12] Straw Proposal, pg 44

[13] Straw Proposal, pg 44

We are very supportive of the concept of establishing an EM&V Working Group, and have a lot of experience working with such entities.[14] However, we have a couple of recommendations for modifications to consider:

- Strengthen the provisions for stakeholder input from "may also engage" to a more structured and scheduled process for obtaining input from key stakeholders.
- Re-think and clarify any role for "Independent Evaluation Contractors." There would be potential conflict of interest if contractors who might bid on evaluation work are also involved in establishing methods, reviewing plans, developing RFPs and selection processes, etc. An alternative (which p. 47 suggests you are envisioning) would be for Staff to hire a specific evaluation consultant to assist the workgroup, and who would be ineligible to bid on actual evaluation projects in the state. Then Independent Evaluation Contractors who do actual evaluation work in the state could be invited to provide information/have discussions with the Working Group as necessary, but would not technically be "members" of the Working Group.

We support the tasks outlined for the EM&V Working Group outlined on those pages.[15] We would suggest adding a task related to having the EM&V WG selecting contractors and directly overseeing certain types of evaluations (e.g., evaluations of statewide programs; meta-evaluations of combined/overall effects across multiple programs; perhaps the evaluation of NJCEP programs; etc.) A single central entity, with desired credibility and transparency, would be ideal for performing that function.

We generally support the tasks outlined for the State Evaluation Manager (SEM).[16] We recommend clarifying here that the SEM will be selected by the BPU and report to energy efficiency oversight staff, not NJ CEP staff, in this role.

In addition, the roles for Independent Evaluation Contractors need some clarification, to address differences in circumstances depending upon which programs they are evaluating (i.e., NJCEP programs, joint programs, statewide programs, individual utility programs).[17] Roles and reporting obligations, etc. may vary depending upon which entity is hiring them and for whom they are technically "working" (e.g., who has authority to direct them to do something). The role of the EM&V WG will vary, depending upon the specific roles of any particular Independent Evaluation Contractor. These include roles for contractors selected by and reporting to the EM&V Working Group, perhaps for statewide or co-managed programs, vs. contractors hired by an individual utility for evaluation of that utility's programs. In some cases it would be desirable for the EM&V Working Group to select and oversee evaluation contractors directly, with utilities jointly furnishing the funds, and in other cases the Working

[14] Straw Proposal, pg 46

[15] Straw Proposal, pg 47-48

[16] Straw Proposal, pg 48

[17] Straw Proposal, pg 49

Group would provide guidance to utilities that directly select and oversee evaluation contractors (e.g., guidance on RFPs, evaluation and reporting protocols, etc.).

Comments on Benefit Cost Analysis/Cost-Effectiveness Testing are provided below.

**5. Clarify that in the interim before a New Jersey specific RVT can be developed, the primary cost-effectiveness test shall be a Societal Cost Test applied at the portfolio level**

ACEEE supports the objective of moving to create and adopt a New Jersey specific RVT.[18] However, the proposal's description of the interim period until that is developed could be problematic. Reference is made to the 5 traditional "California Tests", in the context of the stated requirement for achieving a B/C ratio equal or greater to 1.0. How that would be operationalized is unclear and could lead to practical problems. For example, energy efficiency programs virtually never pass the RIM test (as explained in the NSPM, the RIM test is not really a test of cost-effectiveness).[19] Of the five tests, conventional practice by states around the nation has been to use one of three tests: (Utility Cost Test, Total Resource Cost Test, or Societal Cost Test). Looking at the list of benefits outlined on page 51, the Societal Cost Test would clearly be the best fit. Best practice supports inclusion of appropriate non-energy benefits and costs, and the Societal Cost Test would best align with the benefits included in the CEA at N.J.S.A. 48:3-87.9(d)(2). We recommend using the Societal Cost Test (SCT) as the primary B/C test for New Jersey, until a New Jersey specific RVT can be developed. An SCT should use a societal discount rate[20], should take into account benefits of savings in all fuels (including those from fuel switching), and should include carbon benefits.

We support applying benefit-cost requirements at the portfolio level. That is increasingly the best practice of leading states, because it allows for flexibility in program design while still ensuring overall cost-effectiveness. We also support the allowance of B/C ratios less than 1.0 for specific programs deemed in the public interest, particularly for programs targeted to low-income customers, as well as other special circumstances such as pilot programs and emerging technologies. At least 40 states provide some form of special treatment for low-income programs in terms of cost-effectiveness, with many simply exempting low-income programs from cost-effectiveness requirements. That may be the simplest approach to that issue for New Jersey.

**6. Over the long-term, strengthen the Energy Efficiency Advisory Group (EEAG) and bring proposed working groups (WGs) within the EEAG advisory group as subcommittees**

Collaboration is a foundational principle for successful implementation of efficiency programs and becomes even more important with increased investment and ambitious policies, as New Jersey has established with the CEA. Structured stakeholder advisory groups are a best practice that puts this

[18] Straw Proposal, pg 50-51

[19] National Standard Practice Manual, Appendix C.2 "Limitations of the Ratepayer Impact Measure test"

[20] *Ibid.*

principle into action.[21] These groups offer an opportunity to: 1) build stronger efficiency portfolios that better reflect the needs of different customer groups, 2) leverage the expertise of efficiency business and service providers, and 3) align program development with public policy. Statewide collaboratives improve efficiency policy and program effectiveness and can improve timeliness of implementation when designed well.[22]

We commend the BPU for proposing working groups (WGs) in the Straw Proposal focused on designated topic areas. These groups should help expedite efforts to work through stakeholder issues and improve communication on the various topics. Going forward, we recommend that working groups be used as subcommittees to an expanded and strengthened Energy Efficiency Advisory Group (EEAG). The EEAG can serve as a starting point for a statewide efficiency collaborative but would need to be strengthened significantly to maximize its benefits. We recommend that the EEAG's participation be expanded as should its scope, giving it a dedicated budget and specific responsibilities to develop stakeholder consensus on key topics. An independent facilitator, unaffiliated with a consulting firm or contractor doing business with the state or a utility, would be important to support the design and execution of EEAG procedures, and support group efforts to meet objectives by providing supplementary fact-based analysis and research. These changes to the EEAG will require dedicated funding. We also recognize that these recommendations may require statutory changes.

An expanded and strengthened EEAG should make recommendations to the BPU. At a minimum, the EEAG should achieve the following two objectives:

1. *Support the BPU and program administrators by making it easier and faster to get stakeholder input, advice and collaboration on efficiency implementation matters.* BPU should rely on the EEAG and its subcommittees to work through key issues. The EEAG can act in an advisory capacity and through its subcommittees work toward consensus on key program implementation, policy, and technical issues, as needed.

2. *Make statewide efficiency results transparent and actionable by regularly summarizing progress toward energy efficiency progress goals and metrics*. The EEAG should summarize the impacts of efficiency programs delivered by utilities and NJCEP. The EEAG can then report back to regulators on behalf of all members with informal advice and commentary on progress toward goals.

The BPU's proposed EM&V WG would serve as one of the subcommittees. We recommend that the EM&V WG be responsible for oversight and input into decision making regarding EM&V considerations.[23] Having a well-designed working group stakeholder process to oversee EM&V activities and reporting can help assure that evaluation is independent and objective, and minimize subsequent disputes and litigation over reported results. Because EM&V is an ongoing activity --

---

[21] See State and Local Energy Efficiency Action Network. (2015). *Energy Efficiency Collaboratives*. Michael Li and Joe Bryson. https://www4.eere.energy.gov/seeaction/system/files/documents/EECollaboratives-0925final.pdf

[22] Former Chairwoman Colette Honorable of Arkansas PSC noted that their statewide collaborative shortened the amount of time required to complete tasks.

[23] For example, see Michigan: http://www.michigan.gov/mpsc/0,1607,7-159-52495_53750_54587-217193--,00.html ; and Arkansas: and see Garland, Glen. "Collaborating for Success – How Arkansas Got it Right." 2008. http://aceee.org/files/proceedings/2008/data/papers/5_183.pdf;

occurring throughout the energy efficiency planning, implementation, and evaluation process--- there is need for continuous involvement by the EM&V working group throughout the process.

**Set New Jersey on a Path to 100% clean energy by 2050**

The Straw Proposal takes important steps to set New Jersey on a path to 100% clean energy by 2050. The Energy Master Plan ("EMP") found that maximizing energy efficiency and conservation is a critical component of New Jersey's pathway. In addition, the EMP includes a strategy focused on reducing emissions from the buildings sector, shifting toward being "largely decarbonized and electrified by 2050 with an early focus on new construction and the electrification of oil- and propane-fueled buildings."[24]

The energy efficiency programs offer an important vehicle for energy savings by fuel in electricity, natural gas, and unregulated fuels, and such savings are a critical first step for decarbonization. However, the infrastructure and workforce that deliver within-fuel savings can also be used to support market transformation towards fully decarbonized buildings. To that end, we recommend that the Energy Efficiency Transition be structured to enable building decarbonization, especially in the contexts of new construction and electrification of oil-and propane-fuel buildings identified in the EMP.

**7. Include a QPI target that tracks greenhouse gas reductions or primary BTU savings**

Specifically, ACEEE reiterates our comments from February 11th on the utility energy use reduction targets to encourage the addition of a metric for greenhouse gas (GHG) mitigation or primary BTU savings. Our research[25] finds that states that prioritize the greenhouse gas emissions reductions from their energy efficiency portfolios are increasingly tracking or utilizing fuel-neutral goals which may not specify the resources from which utilities must derive energy savings.

We are pleased to see that impact evaluations will include greenhouse gas emissions reductions, and that minimum filing requirements include a description of how proposed programs comport with New Jersey state policy including the Energy Master plan and the greenhouse gas emissions reports from the Department of Environmental Protection.

However, we believe that a focus on greenhouse gas in the QPIs themselves will best incent utilities and NJCEP to prioritize that outcome. We recommend either an energy goal, measured in British thermal units (Btus), or in a GHG reduction goal, measured in carbon-dioxide equivalents. Tracking in BTUs may be a good interim step, as it offers the opportunity to support those fuel switching activities that meet New Jersey's cost-effectiveness standards through energy efficiency programs. Although more complex to implement, tracking GHGs enables both expansion of possible eligible measures to include fuel switching from fossil fuels (including unregulated fuels), and prioritization of those energy efficiency measures, programs, and approaches that deliver the most GHG reductions. New York uses

[24] 2019 New Jersey Energy Master Plan Pathway to 2050, pg 13

[25] Gold, Gilleo, and Berg. 2019. *Next Generation Energy Efficiency Resource Standards.*

one overarching Btu goal, with sub-targets for electricity savings; Massachusetts includes GHG and source and site Btu goals alongside annual and lifetime energy savings targets measured in kWh and therms.[26]

ACEEE supports the approach in the Straw Proposal to track and report performance based on all metrics, but base incentives and penalties only on annual and lifetime energy savings in MWh and therms (th). Those energy savings goals align well with metrics specifically referenced in the CEA and are a good starting place as programs ramp up savings to meet CEA requirements. However, we recommend tracking GHG or Btu savings during this energy efficiency transition period to build capacity for using fuel-neutral or GHG-based metrics so that the state can more easily transition to such metrics for program administrators in future.

**8. Provide specific pathways for energy efficiency programs to promote beneficial electrification in market segments where measures save energy, costs and emissions**

The energy efficiency transition should serve as a tool for resource acquisition of currently available savings, and should support market transformation of emerging products and end uses that offer promise as greenhouse gas mitigation solutions. The Energy Master Plan highlights the importance of beneficial electrification in buildings to support the state's climate goals. The BPU should use Energy Efficiency transition to begin incentivizing utility buy-in to the states' broader climate goals, including an electrified buildings sector.

Our 2018 analysis found that high efficiency electric heat pumps and heat pump water heaters produce emissions reductions and energy savings in New Jersey for propane and oil boiler retrofits.[27] These measures also produced customer bill savings, with paybacks of 5-10 years for replacing propane boilers and 2-5 years for replacing oil boilers in New Jersey. Given these favorable savings and economics, ACEEE recommends that the Board require utilities to file WarmAdvantage and COOLAdvantage programs that include or pilot fuel switching options in homes with propane or oil boilers, to lower the cost of electrification technologies and build the workforce for implementing such measures with the most promising end uses first. Similarly, the Board should require that the state-administered new construction programs pilot all-electric options.

**9. Implement full revenue decoupling, or if that is infeasible, create a clear pathway and criteria for full revenue decoupling proposals**

---

[26] NY PSC. CASE 18-M-0084 - In the Matter of a Comprehensive Energy Efficiency Initiative. "Order Authorizing Utility Energy Efficiency and Building Electrification Portfolios Through 2025". January 16, 2020.; MA EEAC. 2019-2021 Energy Efficiency Plan Term Sheet. October 19, 2018. http://ma-eeac.org/wordpress/wp-content/uploads/Term-Sheet-10-19-18-Final.pdf

[27] https://www.aceee.org/research-report/a1803

The Straw Proposal reflects the Staff's careful consideration of utility business model issues, noting the importance of ensuring that robust deployment of energy efficiency programs does not negatively impact a utility's bottom line, making these investments less attractive than traditional utility investments. Crucially, the Straw Proposal includes and considers each of the "legs" of the "three-legged stool": program cost recovery, lost revenue recovery, and earnings opportunities for performance in delivering energy efficiency savings.

The Straw Proposal takes important steps forward from the current state of affairs in New Jersey:

1. It continues to address cost recovery through a mechanism which allows for recovery of energy efficiency expenditures, with program investments amortized over seven years;
2. It partially addresses lost revenue recovery for electric utilities with a lost revenue adjustment mechanism. That mechanism includes three critical design features necessary for LRAMs, which often face implementation and ratepayer protection issues: earnings must be below authorized ROE, lost revenues must be based on independent evaluation, and lost revenue collection ceases with the next rate case order.[28,29] It also maintains the option for the more robust CIP mechanism for gas utilities.;
3. It builds a performance basis into the cost recovery mechanism, shifting from the current shareholder incentive which does not have a performance basis.

However, despite these strides, ACEEE remains concerned that the current cost recovery mechanism in the Straw Proposal does not leverage best practices from successful energy efficiency implementation around the country by relying on a partial as opposed to full, or symmetrical revenue decoupling mechanism. Consistent with Staff's principles for the cost recovery mechanism, we see three primary reasons that New Jersey should prefer full revenue decoupling to meet its policy objectives and the principles articulated for EE transition:

*1. Decoupling is a superior policy to "encourage active utility participation in energy efficiency investments".*

Decoupling is a rate adjustment mechanism that "decouples" the ability of the utility to recover its agreed-upon fixed costs (including allowed earnings) from the actual volume of unit sales that occur. There are a number of slight variations in how the computations can be done (e.g., normalizing for weather, adjusting for the number of customers, etc.), but the basic principle is that a "true-up" mechanism is applied once actual sales levels are known.

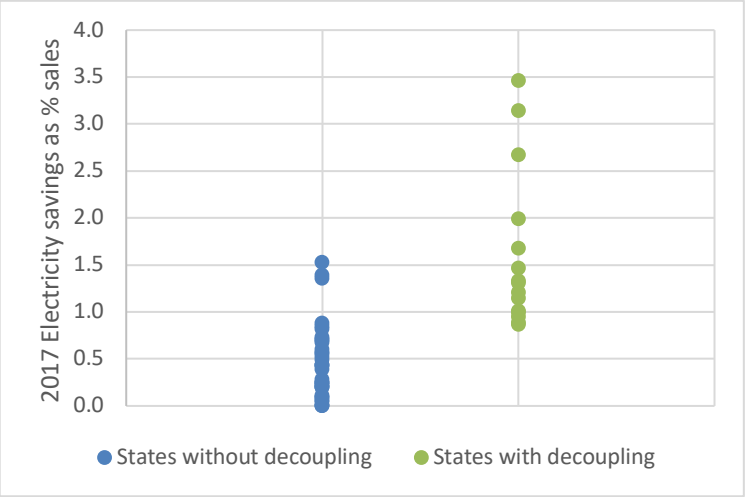
---

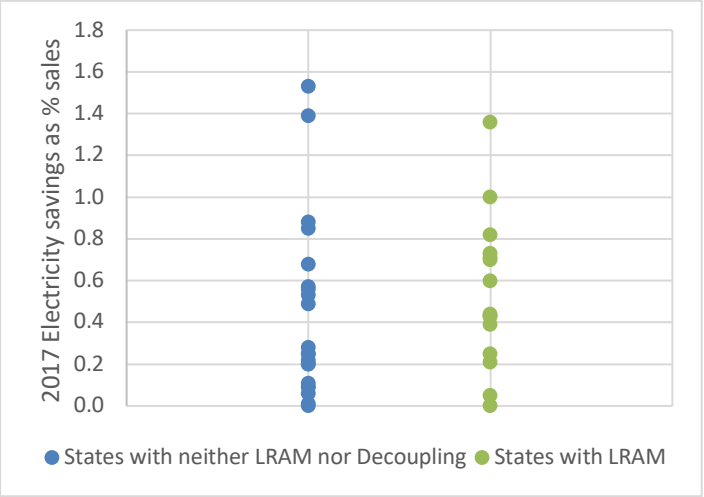
[28] Annie Gilleo, et al., Valuing Efficiency: A Review of Lost Revenues Adjustment Mechanism, June 2015, American Council for an Energy-Efficient Economy, https://aceee.org/sites/default/files/publications/researchreports/u1503.pdf.

[29] *Ibid*, pg 11: "Efficiency measures generate savings over time. Absent intervention, and with everything else equal, lower consumption will cause a utility to not collect its fixed costs of providing service until the next rate case. In a rate case, rates are set based on current or projected future consumption, taking into account already existing energy efficiency. LRAMs make a utility whole in the periods between rate cases. But if rate cases are few and far between, balances in a LRAM account can build up, because each year the utility is capturing the revenue lost not only from measures implemented in that year, but also from energy efficiency measures put in place since the last time rates were set. This so-called pancake effect would impose substantial additional costs on customers if many years pass between program implementation and the next rate case."

Decoupling not only eliminates the disincentive for direct utility energy efficiency programs, it also eliminates the inherent utility disinclination toward other public policy-driven energy efficiency initiatives (e.g., codes and standards) as well as mitigating the inherent utility inclination to pursue indiscriminant load-building in order to increase sales. LRAM applied to the specific portfolio of utility energy efficiency programs will not provide this broader effect on the utility's interest in pursuing higher sales levels.

This effect is seen in our research on the effectiveness of different policies in driving energy efficiency outcomes. An analysis of energy efficiency investments (normalized as a percentage of revenue) and savings (normalized as a % of sales),[30] finds that states with decoupling achieved about triple the average energy savings levels than states without decoupling. In contrast, while LRAM is an important step towards lost revenue recovery, its impacts are less certain; states without LRAMs in place reached similar electricity energy efficiency investment and savings levels than those with LRAMs. The figures below show a graphical illustration of these results.




While this is a simple comparison, and many confounding factors affect performance, most crucially the present of an energy efficiency resource standard such as the CEA, there is clearly a correlation between the presence of decoupling and energy efficiency investments and savings which is not present for states with LRAM.

*2. Decoupling can be designed with stronger ratepayer protections than an LRAM.*

[30] Analysis from Molina and Kushler 2015, Policies Matter: Creating a Foundation for an Energy-Efficient Utility of the Future https://aceee.org/sites/default/files/policies-matter.pdf , updated from 2017 program year data in Berg et al 2018. https://www.aceee.org/research-report/u1808

The true-up mechanism for full revenue decoupling is symmetrical. That is, if sales were lower than forecasted (for whatever reason, including energy efficiency), then a slight upward adjustment in rates is applied to compensate the utility. Conversely, if sales were higher than forecasted, a slight rate decrease is implemented to compensate customers. In contrast, the adjustments for an LRAM are always slight upward adjustments in rates; there is not potential for symmetrical refunds to customers in cases where sales go up relative to forecast. A 2012 review of a decade of decoupling experience found that decoupling mechanism adjustments yield both refunds and surcharges; across all electric and natural gas decoupling adjustments, 62% were surcharges and 38% were refunds.[31] The choice of an LRAM would prevent any such customer refunds.

That 2012 study also found that decoupling rate adjustments are mostly small, within plus or minus two percent of retail rates.[32] Nonetheless, some jurisdictions have applied "caps" or "collars" on the possible adjustment to limit its magnitude and ensure that adjustments remain small (e.g., limit any adjustment to no more than 2% or 3% of the existing rate), a ratepayer protection we would recommend.

We have heard the current COVID-19 crisis cited in stakeholder meetings as a potential reason not to implement decoupling. However, ACEEE sees decoupling as an important ratepayer protection that would support New Jersey residents in these times. While in most parts of the United States, sales are down across all customers classes, in fact residential customer usage is generally increasing while many residents remain in place at home.[33] Under decoupling (assuming decoupling is by customer class, a common best practice), these customers would see refunds. In contrast, commercial customers largely have decreasing load in response to the crisis; while they would face decoupling surcharges, those could be limited in magnitude as described above by collars on the magnitude of surcharges or refunds.

In addition to collars that limit the magnitude of rate adjustments, decoupling can be subject to similar protections to the ones included for LRAM in the Straw Proposal. Decoupling could similarly be subject to an earnings test to require that ROE not exceed allowed ROE from the last base rate case by a set amount. In addition, decoupling could link recovery to achievement of energy efficiency targets; as in Avista's earlier mechanism in Washington state.[34]

*3. Decoupling is a better tool for managing the "rate impacts related to the growth of energy efficiency investments" – as well as the likely rate impacts related to the growth of electrification efforts.*

---

[31] https://www.aceee.org/files/pdf/collaborative-reports/decade-of-decoupling.pdf

[32] https://www.aceee.org/files/pdf/collaborative-reports/decade-of-decoupling.pdf

[33] Daily Energy Insider. March 25, 2020. "PJM Interconnection adapts to new normal during COVID-19 crisis." https://dailyenergyinsider.com/news/24797-pjm-interconnection-adapts-to-new-normal-during-covid-19-crisis/

[34] Avista Utilities. (2009). Washington Utilities and Transportation Commission Docket UE- 090134.

The EMP cites beneficial electrification of transportation and buildings as necessary strategies for meeting the state's ambitious climate goals, and SB 2252 begins the process of significant investment in transportation electrification. While such electrification will be necessary to meet the climate mitigation challenge, electrification investments also have impacts on rates. Load growth from electrification will create a broader base of sales, which if captured in regular and effective rate cases could lower rates for ratepayers. However, such value is not guaranteed to flow back to ratepayers instead of utility shareholders. By instituting decoupling soon, New Jersey can create an automatic mechanism to transfer the value of its pending electrification growth back to ratepayers. Without such a mechanism, it is possible and perhaps likely that a lesser portion of the value of load growth and lowered rates will end up in the hands of customers.

Staff makes an important point that revenue decoupling affects a broader swath of utility ratemaking issues than those contained within energy efficiency and demand response program delivery. To that end, ACEEE would support a proposal that implements LRAM for electric utilities in the short term, with a requirement that utilities file decoupling as a part of their next rate cases. The text currently assumes that "Staff expects that the utilities will include modified proposals" and suggests that the mechanism be reviewed three years after approval of transition programs;[35] ACEEE recommends creating a clearer pathway and expectation for decoupling given its superiority as a tool for meeting the objectives of the cost recovery mechanism. This would be consistent with the principle that the mechanism incorporates a review to ensure the cost recovery mechanism is meeting the CEA goals. Given that some utilities have already proposed such mechanisms, we suggest the Staff and Board clearly articulate the bill and rate impact analysis and shareholder impact analysis required of the utilities in order to successfully design and implement decoupling.

Further, if Staff chooses to retain the LRAM for electric utilities in its proposal to the Board, we encourage the addition of one further ratepayer protection. Specifically, the Board should add a requirement that utilities demonstrate that sales were below forecast. Without such a protection, a utility could have the incentive to boost sales above the level originally forecast to allow recovery of authorized revenues beyond the revenue requirement outside of their energy efficiency portfolio.[36] By adding such a 'sales relative to forecast' test to the existing three ratepayer protections (the earnings test, strong EM&V, and requirement for regular rate cases to reset lost revenues), an LRAM could serve as a strong interim measure to get New Jersey started with lost revenue recovery.

**Reduce Costs, including Administrative Costs, Through Reliable Program Delivery with Flexibility**

We commend staff for noting in the Straw Proposal the importance of providing program flexibility to allow for innovation in program design and technology. Such flexibility is important to allow all program administrators to find least-cost solutions to effective program delivery.

[35] Staff Proposal, pg 40-41

[36] https://www.aceee.org/research-report/u1503

**10. Strengthen program flexibility by eliminating prescriptive cost requirements and by allowing some shifting of funds when needed**

First, we recommend that staff eliminate the requirement that utility filings adhere to a prescriptive cost scenario or projection ranges (p. 28, referencing Appendix E). Instead, we recommend that staff offer those cost ranges as rough guidance. The purpose of cost-effectiveness tests and evaluation is to ensure that program benefits outweigh costs. It would be overly burdensome and duplicative with the objective of cost-effectiveness requirements to request input on proposed cost ranges or requiring justification supporting nonconformance with these ranges. Additional restrictions such as implicit cost caps arbitrarily limit potential efficiency programs that would otherwise be cost-effective. ACEEE research has found that states with cost caps have found themselves restrained because less efficiency opportunities are below the cost ceiling and as a result have had to lower their energy savings targets.[37]

In addition, we recommend that utilities are granted some flexibility to shift funds between programs, perhaps at least for non-core programs (p. 26-27). BPU staff may want to look to recent changes in New York, where regulators enhanced flexibility by allowing utilities to shift funds between years and between programs within a portfolio.[38]

11. **Ensure that allocation of savings approaches do not unintentionally prohibit savings from fuel oil and propane customers or from beneficial electrification measures**

We recommend that cost sharing and allocation of savings for comprehensive programs on p. 28 promote savings for all customers regardless of fuel type (not only customers that save electricity and gas but also those that use unregulated fuels such as fuel oil or propane). This is an important equity consideration. Staff should clearly state that utility programs and NJCEP programs should fund energy efficiency improvements to the building envelope for customers regardless of primary heating fuel (for electric utilities, this would require that the program leads to at least some reduction in electric load such as air conditioning).

Also, as stated in our October 2019 presentation, ACEEE research has found that high-efficiency heat pumps are cost-effective now relative to propane and oil equipment.[39] Such beneficial electrification measures should be allowed in the energy efficiency portfolio when they save total energy in BTUs, reduce emissions, and reduce costs. The cost sharing and allocation of savings discussion should clearly note that beneficial electrification measures are allowed from non-regulated fuels when they meet those criteria.

---

[37] https://www.aceee.org/research-report/u1908

[38] NY PSC. January 2020. CASE 18-M-0084 - In the Matter of a Comprehensive Energy Efficiency Initiative. "Order Authorizing Utility Energy Efficiency and Building Electrification Portfolios Through 2025". January 16, 2020.

[39] *Nadel 2018, Savings from Replacing Oil and Propane Heating with Heat Pumps, ACEEE*

**Increase Access and Decrease Energy Burdens for All Ratepayers with Specific Focus on LMI and EJ Communities**

The Straw Proposal has a number of important elements that help to increase access and decrease energy burdens for low and moderate income customer and environmental justice communities:

- Inclusion of a QPI for low-income lifetime savings to "promote equitable distribution of resources"[40]
- Commitment to improving transparency and collaboration with LMI communities through a continued stakeholder process to address equity throughout the spring and summer of 2020[41]
- Creation of an Equity Working Group, responsible for developing recommendations for integrating equity metrics and approaches in energy efficiency and peak demand response programs

However, these efforts are likely to be insufficient to meet the scale of the challenge facing low and moderate income communities in New Jersey. While there are many program design questions that are likely to be addressed by local practitioners in their comments, we offer one policy level recommendation to ensure a minimum level of energy efficiency services to low income customers:

**12. For the period before the low-income QPI goes into effect, establish a minimum spending and/or savings target requirement for low-income energy efficiency programs**

We support Staff's focus on serving low income communities in its principles for the EE Transition, as low-income households have historically been underserved due to a variety of factors despite often living in older less efficient housing. Low income programs also typically have a higher cost of acquisition than market rate programs, as noted in Appendix E of the Straw Proposal.

To ensure an appropriate focus on low income customers from all program administrators, we recommend a minimum spending requirement for low-income customers. Such spending requirements are common; 18 states require a minimum threshold or percentage of spending on low income energy efficiency programs.[42] Some break down underserved markets further; 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.[43] Such a requirement would reinforce the importance of serving low income customers, bolstering the QPI for low income with a floor on utility and NJCEP achievement in the sector.

---

[40] Straw Proposal, pg 35

[41] Straw Proposal, pg 29

[42] Berg and 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. ACEEE Summer Study in Buildings Proceedings.

[43] 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.

We look forward to continued engagement with the Commission on these issues. ACEEE welcomes this opportunity to provide comments.

Sincerely,


Rachel Gold
Director, Utilities Program
ACEEE
rgold@acee.org
202-507-4005

Marty Kushler
Senior Fellow, Utilities Program
ACEEE
mkushler@aceee.org
248-956-7290

Maggie Molina
Senior Director, Policy
ACEEE
mmolina@aceee.org
202-507-4004