State of New Jersey
DIVISION OF RATE COUNSEL
140 EAST FRONT STREET, 4TH FL
P.O. BOX 003
TRENTON, NEW JERSEY 08625

PHIL MURPHY
Governor

SHEILA OLIVER
Lt. Governor

STEFANIE A. BRAND
Director

May 31, 2018

Via Hand Delivery and Electronic Mail
Honorable Aida Camacho-Welch, Secretary
New Jersey Board of Public Utilities
44 South Clinton Avenue
3rd Floor, Suite 314
P.O. Box 350
Trenton, New Jersey 08625-0350

Re: In the Matter of the Comprehensive Energy Efficiency and Renewable Energy Resource Analysis for FY19-FY22 Clean Energy Program
Docket No. QO18040392; and

In the Matter of the Clean Energy Programs and Budget for the Fiscal Year 2019
Docket No. QO18040393

Dear Secretary Camacho-Welch:

Please accept this original and ten copies of Comments submitted on behalf of the New Jersey Division of Rate Counsel ("Rate Counsel") in connection with the above-captioned matters. Copies of the comments are being provided to all parties on the e-service list by electronic mail and hard copies will be provided upon request to our office.

We are enclosing one additional copy of the comments. **Please stamp and date the extra copy as "filed" and return it in our self-addressed stamped envelope.**

Thank you for your consideration and assistance.

Respectfully submitted,

STEFANIE A. BRAND
Director, Division of Rate Counsel

By: ______________________________
Kurt S. Lewandowski, Esq.
Assistant Deputy Rate Counsel

KSL

c: Via Hand Delivery and Electronic Mail
Kenneth Sheehan, Esq., BPU
Sheri Jones, BPU
B. Scott Hunter, BPU
Anne Marie McShea, BPU
Noreen Giblin, Esq., BPU
Rachel Boylan, Esq., BPU

Via First Class and Electronic Mail
Caroline Vachier, DAG
Michael Ambrosio, AEG

publiccomments@njcleanenergy.com
OCE@bpu.state.nj.us

I/M/O the Comprehensive Energy Efficiency and Renewable Energy Resource Analysis for Fiscal Years 2019 – 2022 Clean Energy Program BPU Docket No. QO18040392;

and

I/M/O the Clean Energy Programs and Budget for the Fiscal Year 2019 BPU Docket No. QO18040393

Comments of the New Jersey Division of Rate Counsel

May 31, 2018

INTRODUCTION

The Division of Rate Counsel ("Rate Counsel") would like to thank the Board of Public Utilities ("BPU" or "Board") for the opportunity to present comments on the Comprehensive Energy Efficiency and Renewable Energy Resource Analysis ("CRA") Straw Proposal and the Draft Strategic Plan for Fiscal Year ("FY") 2019 through FY2022 and the proposed FY2019 Programs and Budgets for the New Jersey Clean Energy Program ("NJCEP" or "CEP").

On May 2, 2018, the Board's Office of Clean Energy ("OCE" or "Staff") released for public comment a Straw Proposal ("Straw Proposal") proposing funding levels for the NJCEP for FY2019 through FY2022. On May 3, 2018, the OCE released a draft of a document entitled "New Jersey's Clean Energy Program FY19-FY22 Strategic Plan" ("Draft Strategic Plan" or "Plan"), which was cited in the Straw Proposal as support for the proposed funding levels. On May 11, 2018, the OCE posted for comment proposed budget allocations for FY2019 ("Proposed FY19 Budget") along with three supporting Compliance Filings. The Draft Compliance Filing prepared by OCE ("OCE FY19 Filing") contains descriptions and budgets for the OCE's proposed individual program offering and for administration, evaluation, and other OCE activities. The Board's Program Administrator, TRC, submitted a Compliance Filing ("TRC FY19 Filing") containing the details of a broad portfolio of programs designed to promote energy efficiency ("EE"), distributed energy and renewable energy ("RE"). The TRC Compliance Filing ("TRC FY19 Filing") includes "Summary of Proposed Program Changes for FY19" ("TRC Summary"), Volume 1 ("TRC Volume 1"), which describes the programs as they are proposed to take effect on July 1, 2018, and Volume 2 ("TRC Volume 2"), which describes changes that are expected to be finalized and to take effect during FY2019. The State's utilities also filed a joint compliance filing ("Utilities FY19 Filing").

In accordance with a Notice dated April 23, 2018, a public hearing on the above proposals and compliance filings was held on May 15, 2018. Rate Counsel participated in that hearing and presented some initial observations on the record in its public hearing comments. Below are Rate Counsel's additional comments on the Straw Proposal, Strategic Plan and FY2019 programs and budgets.

I. <u>STRATEGIC PLAN AND FUNDING LEVELS FOR FY2019 – FY2022</u>

<u>Overview</u>

Rate Counsel believes that Staff's proposals to collect approximately $1.38 billion from ratepayers over the next four fiscal years should be more clearly supported by proper planning and budgeting. Rate Counsel was an active participant in the stakeholder process that followed the selection of a single Program Administrator for the NJCEP. As part of that process, Rate Counsel was encouraged by the many discussions about establishing goals and designing and implementing programs in a way that would assure that funds collected from ratepayers would be well spent.

The Draft Strategic Plan contains useful information defining core objectives and operating principles that should guide the development and implementation of the Board's Clean Energy Program ("CEP") offerings. The Draft Strategic Plan also provides an informative discussion about how industry best practices and findings from the stakeholder engagement process are used to revise and develop new programs. What is lacking is a clear explanation of how the money that the OCE is proposing to collect from ratepayers will translate into achieving the State's Clean Energy goals in an effective and cost-effective manner.

The OCE has not adequately addressed the impacts on ratepayers or its plans to assure that the funds collected are spent effectively and cost-effectively. There is inadequate detail on how funds will be allocated and why. However, there are no program-by-program budgets, energy savings goals or participation targets beyond FY2019. Plans for critical activities such as program evaluation are incomplete. Further, there is little evidence of coordination with other clean energy initiatives within the State. These areas of concern are discussed in more detail below.

Ratepayer Impacts

Rate Counsel is in agreement with the OCE about the importance of minimizing impacts on ratepayers. However, the Straw Proposal does not adequately address ratepayer impacts.

As noted in the Straw Proposal, $344,665,000 is being collected from ratepayers in FY2018. Staff is proposing to continue collections at this level for the upcoming four fiscal years. In FY2019, $158,261,000 of the amount to be collected would be diverted to the State's General fund to be spent on "State Energy Initiatives." This amount would decrease by $10 million each year, so that $128,261,000 would be spent on State Energy Initiatives in FY2022.

Staff's justification for its proposal is that it would "keep the funding level constant to minimize impacts on ratepayers while gradually allocating more of the funds to NJCEP," thereby producing a number of benefits including lower energy bills for the State overall and for participating customers, and lower greenhouse gas emissions. [1]

Initially, Rate Counsel notes that diversions of ratepayer funds to "State Energy Initiatives" are not expected to change much over the next four fiscal years. As proposed by Staff, such diversions would remain at the current level in FY2019 and would decrease by only $10 million in each of next three fiscal years. Rate Counsel recommends that the diversions should be phased out more quickly.

Rate Counsel notes also that the Straw Proposal does not take account of costs borne by ratepayers for other clean energy programs, including such items as the cost of utility-implemented programs, costs of SRECs, and the costs of net metering for non-participating customers. Some of these costs could increase dramatically in the coming years. The State's electric and gas utilities have filed or are planning to file proposals to implement clean energy programs.[2] Rate Counsel recommends that the OCE's budget for clean energy programs be considered in conjunction with the utilities' proposals so that the overall ratepayer impact can be assessed.

Other costs that could increase as a result of recently enacted legislation include Offshore Wind Renewable Energy Certificates ("ORECs"), costs of Solar Renewable Energy Certificates

---

[1] Straw Proposal, p. 7.

[2] See I/M/O South Jersey Gas Company to Continue its Energy Efficiency Programs ("EEP IV") and Energy Efficiency Tracker Pursuant to N.J.S.A. 48:3-98.1, BPU Docket No. GO18030350; and I/M/O New Jersey Natural Gas Company for Approval of the Extension of Energy Efficiency Programs and the Associated Cost Recovery Mechanism Pursuant to N.J.S.A. 48:3-98.1, BPU Docket No..GO18030355.

("SRECs") from Renewable Energy Portfolio Standards ("RPS") increases, expanded net metering, the cost of additional energy efficiency mandates, and nuclear subsidies. The Straw Proposal does not reflect consideration of any of these potential additional costs.

The Straw Proposal and Draft Strategic Plan state that the costs of the program will be offset by reduced energy costs and other benefits. The Draft Strategic Plan states that TRC has performed calculations showing that the NJCEP will achieve more than $700 million in net customer bill savings over the next four years.[3] However, the OCE has not made those calculations available for review, nor has it provided the underlying sources and assumptions.

Also lacking is an analysis of how the asserted benefits would be distributed. The Draft Strategic Plan recognizes the importance of equitable access to the OCE's programs, and proposes to address this objective by endeavoring to "provide an opportunity for all customers to participate in a program and to offset any potential rate impact for as many customers as possible over time."[4] However, the OCE has not presented any analysis of the impact of its proposal on non-participating customers. There is no quantification of how many and what types of customers will actually participate, nor is there any analysis of the extent to which different types of customers will see benefits that offset the impacts of paying for the NJCEP programs. The Board should consider impacts on all customers, including non-participants, in evaluating the proposed funding levels.

Finally, potential revenue sources to offset the costs that must be borne by ratepayers are not adequately explored. These include potential revenues from participation in the PJM

---

[3] Draft Strategic Plan, p. 64.

[4] Draft Strategic Plan, p. 23.

capacity market and RGGI auction funding. The Board should direct the OCE and its Program Administrator to take steps to fully explore potential revenue sources that can offset the costs of the NJCEP programs.

In sum, although the Draft Strategic Plan states that rates and bill impacts from the proposed programs depend on a variety of factors, it does not include estimates of rate and bill impacts.[5] Rate Counsel recommends that the OCE provide estimates of rate impacts in cents per kWh or therm -and the year-on-year percentage changes, as well as bill impacts in terms of annual average dollars per month and the year-on-year percentage change for typical residential customers.

Overall Resource Allocation

The Straw Proposal, Strategic Plan and FY2019 program and budget materials also largely fail to address how allocations of funding among programs and activities will be driven by the goals and principles identified in the Plan. Section 4 of the Draft Strategic Plan proposes adoption of six key objectives that are to be achieved through the NJCEP programs. The Plan identifies lowering energy bills as the primary objective, and proposes to meet that objective by maximizing lifetime energy savings per dollar spent.[6] The Plan also identifies five secondary objectives, namely: (1) maximizing peak demand savings, (2) equitable access to programs, (3) development and transformation of energy efficiency and clean energy markets, (4) reducing the

---

[5] Draft Strategic Plan, p. 64.

[6] Draft Strategic Plan, p. 23.

environmental impacts of energy use, and (5) minimizing lost opportunities.[7] The Plan states the following principle that should guide budget decisions for the NJCEP:

> All decisions on allocation of the NJCEP budget between resource types (e.g. efficiency, other distributed energy resources and/or renewable energy), between sectors (e.g. residential vs. commercial/industrial), between fuels (e.g. electric vs. gas vs. other) and between programs should be made based on the trade-offs related to the primary (i.e. maximizing lifetime energy savings/generation per dollar spent) and secondary policy objective summarized above.[8]

The materials posted for comment do not sufficiently document that this key principle will be followed.

The Draft Strategic Plan indicates that the process of prioritizing NJCEP expenditures based on the Plan's stated objectives has begun. Specifically, an assessment of the OCE's current programs has been performed to determine their effectiveness in meeting the primary and secondary goals cited above. This assessment included quantitative and qualitative assessments of each program's expected contribution to the key objectives, and a comparison of programs using a rubric that was developed for this purpose.[9] However, the results of the assessment have not been released for public comment. There is also very little discussion of how the assessment was considered in determining the allocation of funding proposed for FY2019, or how it will be used to develop programs and budgets for FY2020 through FY2022.

As the OCE acknowledges, the proposed funding levels are "top down" budgets, based on historical results. In the near term, it appears that the OCE plans only incremental

---

[7] Draft Strategic Plan, pp. 23-24.

[8] Draft Strategic Plan, p. 25.

[9] Draft Strategic Plan, pp. 47-49.

adjustments to the FY2018 budget allocations, rather than undertaking comprehensive analysis of the most effective uses of ratepayer funds.[10]

There is also inadequate information on the resources that will be devoted to activities that the Plan identifies as important. For example, the "Operating Principles" stated in Section 4 of the Strategic Plan cite market research, improved marketing and outreach, and evaluation as important priorities.[11] However, while the Plan presents information from other jurisdictions on funding levels for these activities, it does not present proposed funding levels or detailed plans for New Jersey.

More detailed information is necessary to allow a meaningful review of the OCE's proposed expenditures of ratepayer funds. The OCE should release the results of its assessment of its existing programs, and provide more detailed information on its plans for using the assessment to improve its portfolio of programs.

Program Evaluation Plans and Budgets

Rate Counsel is particularly concerned about the Plan's lack of specificity for planning and budgeting levels for evaluation. The Straw Proposal recognizes that "program evaluation is an integral component of proper program planning, management and reporting," and that continuing program evaluation is needed to assure that ratepayer funds are being spent

---

[10] See Proposed FY19 Budget; I/M/O the Clean Energy Programs and Budget for Fiscal Year 2018 – 4th Budget Revisions, BPU Dkt. No. QO17050465, Order, p. 4 (May 22, 2018).

[11] Draft Strategic Plan, p. 26.

effectively.[12] The Draft Strategic Plan stated a principle of how evaluation should be conducted as follows:

> As timely evaluation of the NJCEP programs is critical to optimizing performance, every major program shall be the subject of both an impact and a process evaluation during every CRA planning cycle (typically 4 years in duration).[13]

Nonetheless, the materials posted for comment do not propose specific evaluation plans or budgets. The Straw Proposal states that a proposal for specific evaluation projects and schedules is under development.[14] The OCE did not recommend any specific funding level for evaluation. The Draft Strategic Plan only notes that "2% to 5% of total portfolio budget is typical for such purposes in other jurisdictions."[15]

A 2016 process evaluation on NJCEP by Energy and Resource Solutions ("ERS") found that, compared to the broader industry, the NJCEP has historically not been particularly active in program evaluation in terms of budget, frequency of studies, and the amount of data collected.[16] This study compared NJCEP's historical spending on evaluation activities to evaluation budget data with spending in other jurisdictions, as shown in Figure 1 below, and noted that higher-performing programs in the industry are spending closer to 3 percent to 5 percent of their total program budget on program evaluation.[17]

---

[12] Straw Proposal, p. 5.

[13] Draft Strategic Plan, p. 26.

[14] Straw Proposal, p. 5.

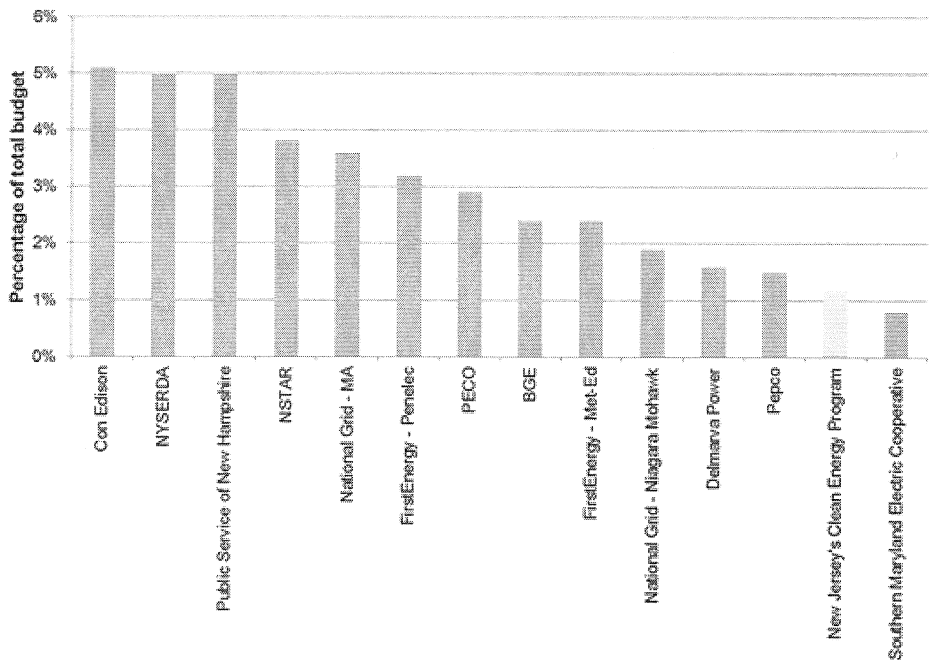
[15] Draft Strategic Plan, p. 26.

[16] ERS 2016. *Process Evaluation Study*. Prepared for the New Jersey Clean Energy Program, p. 5, available at: http://www.njcleanenergy.com/files/file/Library/NJCEP%20Process%20Evaluation%20Final%20Report%20and%20Memo%2002152017.pdf

[17] ERS 2016, p. 58.

Rate Counsel has consistently supported timely and effective program evaluation and continues to support the establishment of a well-designed and adequately funded evaluation plan.

Figure 1. Evaluation budgets – NJCEP 2015 vs. 2010–2018 averages



Source: ERS 2016. Process Evaluation Study, Figure 5-5

The evaluation plans and budget should include an energy efficiency potential study. New Jersey is long overdue for such a study. The most recent evaluation study was conducted in 2012.[18] The Draft Strategic Plan recognizes that "[b]aseline and market potential studies must be conducted regularly so that program planners have sufficient market data to allow optimal program designs that will maximize participation."[19] The OCE is planning to conduct market

---

[18] http://www.njcleanenergy.com/main/public-reports-and-library/market-analysis-protocols/market-analysis-baseline-studies/market-an

[19] Draft Strategic Plan, p. 15.

baseline studies during FY2019.[20] A new energy efficiency potential study should be conducted as soon as these baseline studies are completed.

In addition, Rate Counsel also has more specific concerns regard the design and performance of evaluation studies, as set forth below, by topic.

Rate Counsel supports the Draft Strategic Plan's recommendation that the "Board Staff should consider initiating a process to solicit input regarding the use of the results of cost benefit analysis ("CBA") tests in guiding the future development of energy efficiency programs and budgets."[21] Moreover, the Board should stress the importance of all five recognized CBA tests in evaluations: the Participant Cost Test, the Programs Administrator Test, the Ratepayer Impact Measure Test, Total Resource Cost Test, and the Societal Cost Test. Each test examines effectiveness from a different perspective, thereby providing a more thorough assessment of the effectiveness of CEP programs.

Emerging Technologies and Innovative Approaches

Another area of concern is the OCE's proposal to spend ratepayer funds for programs focusing on "advancing emerging technology or innovative program implementation approaches." The Draft Strategic Plan suggests devoting 2 to 3 percent of the total NJCEP budget to such programs. The OCE has not provided any analysis supporting this proposed allocation of resources. Further, since these technologies are, by definition, unproven, it is important to establish clear criteria to assure that ratepayer funds are effectively spent. The Draft

---

[20] OCE FY19 Filing, p. 10.

[21] Draft Strategic Plan, p. 40.

Strategic Plan contains a discussion of the types of programs it is considering offering.[22] While some of these ideas, such as strategic energy management and industry-specific approaches appear to have the potential to create substantial energy savings, others, such as certain heat pump technology, might not be suited to New Jersey's climate. Further, "innovative" technologies are more appropriately funded by private capital or from sources that focus on research and development. The OCE should avoid expending ratepayer funds on initiatives that are not likely to provide demonstrable benefits to New Jersey ratepayers.

Financing Approaches

Rate Counsel also believes the OCE should further investigate financing approaches as an option that can reduce the need for ratepayer-funded subsidies. The Draft Strategic Plan recognizes the value of investigating this possibility for its Small Business Direct Install program offering.[23] For the residential market, however, the Plan recommended consideration of extending on-bill financing options beyond that which is currently available to customers of New Jersey Natural Gas Company ("NJNG") and South Jersey Gas Company ("SJG"), but concluded that expanding on the two currently available non-utility financing options was not likely to bring any clear benefits.[24] Rate Counsel believes that caution should be exercised in expanding the availability of utility-provided on-bill financing, at least in their current form. The NJNG and SJG programs offer financing, but at a zero-percent rate that is subsidized by these utilities' other customers. The OCE should further investigate restructuring these programs so that the

---

[22] Draft Strategic Plan, pp. 32-33.

[23] Draft Strategic Plan, p. 55.

[24] Draft Strategic Plan, p. 56.

utilities' return on their investment is paid by the program participants. In addition, TRC's investigation of non-utility financing was limited to some discussion with providers.[25] Further investigation and study of non-utility financing is warranted.

Rate Counsel supports further investigation of financing options, and recommends an evaluation study to assess viable financing options for residential customers. This study should include exploration of options that are self-sustaining and do not rely on continuing ratepayer-funded subsidies.

Building Codes and Standards

The Strategic Plan notes that its proposed NJCEP programs do not include an initiative to support adoption of building codes incorporating higher energy efficiency standards and enhanced compliance with existing standards. The Plan states that this is not because such an initiative would lack merit, but because it would be a significant departure from the NJCEP's previous activities, and would require collaboration with the Department of Community Affairs. The Plan recommends initiation of an exploratory process to investigate the feasibility of such an initiative in New Jersey.[26] Rate Counsel supports this recommendation, which could help to reduce reliance on ratepayer-funded subsidies.

Metrics and Performance Standards

Rate Counsel concurs with the statement in the Draft Strategic Plan that "there should be performance metrics for the effective design and delivery of the NJCEP portfolio."[27] One of the

---

[25] Draft Strategic Plan, p. 56.

[26] Draft Strategic Plan, p. 53.

[27] Draft Strategic Plan, p. 25.

proposed metrics is lifetime million British Thermal Units ("MMBtus") of source energy savings, with kilowatt hours (kWh) and therm savings to be tracked and reported. Rate Counsel agrees with the proposal to include kWh and therm savings separately as these units are easily understood. However, using source savings rather than site savings, as proposed in the Plan, can be confusing, especially for electricity savings. In order to convert savings achieved at a particular site to source energy savings, it is necessary to estimate losses in generation and line losses. If only source energy savings are provided, one must guess at the assumptions used to convert site energy to source energy. The OCE should report site savings and source savings. Also, the MMBtu metric should be reported for gas efficiency savings separately from electric efficiency savings to facilitate comparison. In addition, annual site savings as a percentage of sales should be used to track the performance as this is the most widely used metric across the United States to compare and benchmark performance among different entities and states.

Coordination with Other Clean Energy Initiatives

While defining the OCE's objectives is important, the Strategic Plan fails to address the NJCEP's role in the larger context of the State's other clean energy initiatives. The Draft Strategic Plan recognizes that the NJCEP is only one element in the State's overall clean energy efforts.[28] However, the Plan provides little evidence that OCE has considered how to coordinate its efforts with other current and potential future clean energy initiatives, including utility programs.

---

[28] Draft Strategic Plan, pp. 18-19.

Since the enactment of the N.J.S.A. 48:3-98.1, the State's electric and gas utilities have implemented their own energy efficiency and renewable energy programs and, as noted above, additional proposals are under consideration by the Board and may be expected to continue. The Plan recognizes the importance of effective coordination between NJCEP and utility-sponsored programs.[29] However, the Plan does not include any specific discussion of how the OCE's and the utilities' programs should be coordinated.

As an example, the Plan does not discuss utility programs that include incentives that supplement NJCEP incentives for the same measures. Rate Counsel believes that supplemental incentives need to be carefully evaluated to assure that they do not result in excessive subsidies or "free riders" who do not need the supplemental incentives. Utility-sponsored programs that duplicate or supplant the OCE's programs are also a concern. The OCE should provide specific guidance on this subject. There is also little discussion of programs that could be benefit from more coordination between the OCE and the utilities, such as the behavioral programs currently offered by some utilities. More work is needed so that the OCE can facilitate better coordination by tailoring its own programs and by providing clear direction to the utilities on the programs that would be most beneficial for them to offer.

More broadly, there is little discussion of the NJCEP's role in meeting the State's overall clean energy goals. There is no discussion of the NJCEP's role in meeting the goal of 80% greenhouse gas ("GHG") reduction by 2050. The Plan does not identify what portion of that goal is the OCE's responsibility, and does not set a timetable for achieving those results. There

---

[29] Draft Strategic Plan, p. 26.

is also no discussion of how the NJCEP's programs would coordinate with recently enacted legislation. The Draft Strategic Plan should be revised to include discussion of these issues.

Energy Savings Goals

The Draft Strategic Plan states that it is expected to result in lifetime energy savings achieved in FY2022 that are more that 56 percent higher than those achieved in FY2018.[30] For electricity programs, savings are projected to increase by 70 percent from 0.36 percent of sales in FY2018 to 0.62 percent of sales in FY2022.[31] Fossil fuel savings are projected to increase from 0.16 percent of sales in FY2018 to 0.26 percent in the following year, but stay around the 0.2 percent level through FY2022.[32] Rate Counsel is concerned that these targets are lower than those actually achieved by the OCE in the past, and lower than those achieved in other states.

One comparison is the electricity savings actually achieved in FY2014 compared to those targeted in the Plan. According to NJCEP's own reporting, NJCEP saved about 520 gigawatt hours (GWh) of electricity in FY2014.[33] The Draft Strategic Plan, meanwhile, aims to save only 455 GWh in FY2022, after the transition to the new program delivery model is complete.[34] The Draft Strategic Plan reflects only modest increases in savings of fossil fuels, primarily natural gas, as mentioned above.[35]

---

[30] Draft Strategic Plan, p. 8, 13.

[31] Draft Strategic Plan, p. 10. Fig. 3.

[32] Draft Strategic Plan, p. 11. Fig. 4

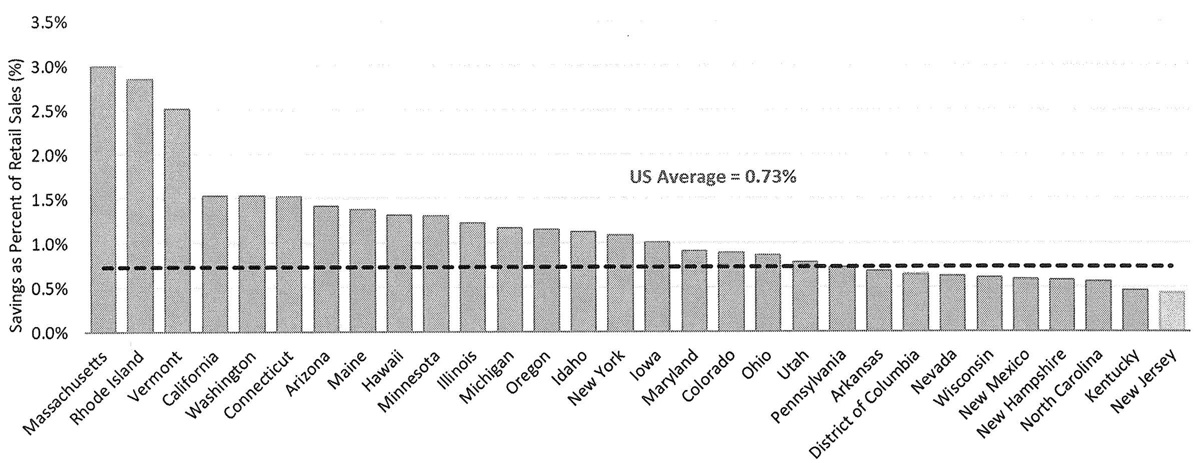
[33] NJCEP. 2015. "Results 2001-through fiscal year 2015." Available at http://www.njcleanenergy.com/main/public-reports-and-library/financial-reports/clean-energy-program-financial-reports

[34] Draft Strategic Plan, p. 10, Fig. 3.

[35] Draft Strategic Plan, p. 11, Fig. 4.

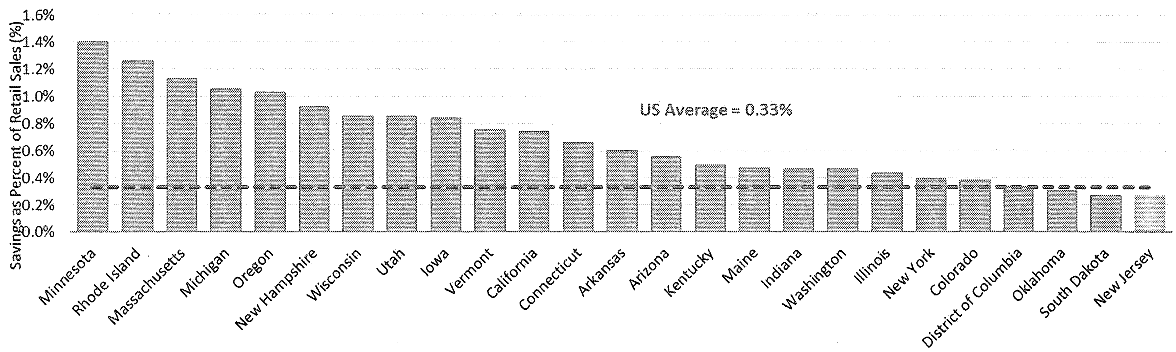
The proposed electric savings level of 0.62 percent of sales is also lower than the national average annual savings, according to ACEEE's State Energy Efficiency Scorecard. Figure 2 below presents 2016 electric savings across 30 states, including New Jersey, along with the national average of 0.73 percent. As shown in this figure, OCE's target electric savings for FY2022 is significantly lower than savings being achieved today by leading states—roughly 1.5 to 3 percent of sales per year. Natural gas savings programs in the state are also far behind the leading states. As shown in Figure 3, leading states saved natural gas at 1 to 1.5 percent of sales, while New Jersey saved about 0.3 percent in 2016 according to ACEEE's State Energy Efficiency Scorecard. The Draft Strategic Plan should include discussion of how OCE can facilitate more energy savings for electricity and natural gas, both through its own programs and in coordination with other initiatives.

Figure 2. 2016 electric savings by top 20 states and Pennsylvania (% of sales)



Source: ACEEE 2017 State Energy Efficiency Scorecard.

Figure 3. 2016 natural gas savings by top 24 states and New Jersey (% of sales)



Source: ACEEE 2017 State Energy Efficiency Scorecard.

Rate Counsel is also concerned about the residential programs savings assumed for FY2021 as shown in Figure 3 in the Draft Strategic Plan. This figure shows that annual incremental savings are reduced by more than half for FY2021 and FY2022, compared to FY2019 and FY2020. This reduction is likely the result of changes in federal lighting standards that are scheduled to take effect in 2020, but the assumed impact appears excessive when compared to some other states' projections about the impact of the standard. For example, Massachusetts recently released its three-year energy efficiency plan. Massachusetts' plan presented very little reduction in residential energy savings between 2019 to 2021.[36] Another state, Rhode Island, assumes a significant reduction in energy savings from lighting measures over time, but expects that the overall residential savings reduction is about 33 percent of the current savings level.[37] The Draft Strategic Plan should explain the cause of the steep reduction

---

[36] Massachusetts Joint Statewide Electric and Gas. 2018. Three-Year Energy Efficiency Plan – 2019-2021, p. 93. Available at http://ma-eeac.org/wordpress/wp-content/uploads/2019-2021-Three-Year-Energy-Efficiency-Plan-April-2018.pdf

[37] Goldberg et al. 2017. "Energy Efficiency Programs Plan for Post LED Success." Available at http://www.synapse-energy.com/about-us/blog/energy-efficiency-programs-plan-post-led-success

in projected residential energy savings in FY2021. In addition, the OCE should be directed to investigate how other states are planning to maintain more consistent levels of residential energy savings.

II. FY2019 PROGRAMS AND BUDGETS

A. ENERGY EFFICIENCY PROGRAMS

1. Overall Comments

TRC, OCE, and the utilities submitted FY19 Compliance Filings, which cover EE programs for the period July 1, 2018 through June 30, 2019. The Compliance Filings present plans, budgets and anticipated savings for FY19 EE programs. The TRC's FY19 Filing focuses on program designs for all of NJCEP programs. [38] The Utilities FY19 Filing focuses on the Comfort Partners program. The OCE FY19 Filing covers a number of state energy programs along with NJCEP's administrative activities and the associated budget.

Among the compliance filings, the TRC FY19 Filing proposed major changes to NJCEP's programs, with the majority of changes slated for implementation throughout the year. For the beginning of the fiscal year, the TRC FY19 Filing proposes only slight modifications to several current programs. TRC summarizes these changes in a separate PDF file titled "Summary of Proposed Program Changes for FY19."[39] The programs that are proposed to take

[38] TRC does not administer the State's low-income "Comfort Partners" program, which is administered by the utilities and found in the utilities' FY19 compliance filing.

[39] Available at: http://www.njcleanenergy.com/files/file/public_comments/FY18/FY19%20Summary%20of%20Proposed%20Program%20Changes.pdf.

effect at the start of FY 2019 are presented in Volume I of the TRC FY19 Filing. TRC also proposes to make more substantial changes to streamline and redesign the portfolio over the course of the year which are presented in Volume 2 of the TRC FY19 Filing.

Below, Rate Counsel summarizes its findings and recommendations on program savings, cost-effectiveness, restructuring, evaluation budget, and marketing budget.

Program Savings

The TRC FY19 Filing, Volume 1, included program savings projections, in terms of annual and lifetime electricity and gas savings, as well as peak electricity savings in Appendix F. However, the TRC FY19 Filing, Volume 1, did not include savings for the Comfort Partners low-income program. Program savings for this program can be found in the Utilities FY19 Filing, although projected peak demand savings were not included. The TRC FY19 Filing should include the savings for the Comfort Partners program consistent with the Draft FY19 Budget, which includes a budget estimate for this program. Further, as discussed below, the TRC FY19 Filing should also include savings estimates for OCE-administered State Facilities Initiative program in Appendix F, along with the rest of the programs.

Cost-effectiveness

The TRC FY19 Filing (Volume 1) provided cost-effectiveness results for the proposed programs as of the start of FY19 in Appendix G. Absent from this analysis are results for the Comfort Partners. The Utilities FY19 Filing for the Comfort Partners did not provide cost-effectiveness results for this program either. Since TRC provides benefit-cost analyses for NJCEP programs, Rate Counsel recommends that the TRC FY19 Filing include a benefit-cost result for Comfort Partners based on the budget estimate provided in the Draft FY19 Budget and the savings estimate provided in the Utilities FY19 Filing.

The Program Administrator Cost Test ("PACT") ratio for the balance of the portfolio is 2.2, meaning that for every ratepayer dollar invested in energy efficiency, the system (and indirectly, ratepayers) realizes $2.20 in savings. Except for Home Performance with Energy Star (HPwES), all of the programs have a PACT ratio of greater than one, or, are cost-effective.

The Total Resource Cost test does not consider non-energy benefits for program participants in New Jersey and, therefore, does not present a complete picture. The Total Resource Cost ratio of the NJCEP portfolio of programs indicates it is cost-effective (with a score of 1.2), and most programs have a Total Resource Cost ratio greater than one. Notable exceptions are the Large Energy Users ("LEU") program with a Total Resource Cost ratio of 0.8, the HPwES with a Total Resource Cost ratio of 0.2, and the proposed Multi-family program with a 0.9 Total Resource Cost ratio. Adjustments to the Total Resource Cost test to include participant non-energy benefits would likely make the LEU and Multi-Family programs cost-effective, but HPwES would likely still not be cost-effective.

Rate Counsel recommends that TRC investigate in detail how the OCE could improve its cost-effectiveness on the HPwES program. Rate Counsel further recommends that the OCE conduct a detailed process evaluation and benchmarking study with a focus on HPwES to identify areas for further improvements beyond what were found in the 2016 ERS process evaluation study and a 2015 benchmarking study for the NJCEP.[40]

---

[40] See ERS 2015, "Review and Benchmarking of the New Jersey Clean Energy Program."

Program Restructuring

The TRC FY19 Filing provides very little detail on the program changes that will be implemented during the year. TRC has stated that "finalization of the changes reflected in Volume 2 would entail, among other things, further opportunities for public and stakeholder input and comment as details are developed and further review and approval by the [BPU]."[41] At the outset, TRC should provide a schedule for the major programmatic changes proposed to take effect over the course of the FY 2019 period.

When the detailed proposals are filed, TRC should provide additional information. This should include incentive designs, eligibility requirements, benefit-cost results before and after the consolidation, projected participation, lifetime and annual incremental electricity and gas savings, and capacity (MW) savings.

The proposed consolidation of subprograms on both the residential (HVAC and HPwES programs) and C&I programs (Pay for Performance, C&I Prescriptive/Custom Rebates, Large Energy Users, and Customer Tailored Efficiency Pilot programs) is likely to provide benefits, such as streamlining operations and reducing customer confusion. Further, the effort to improve the program application process and provide a "one-stop-shop" will likely increase program participation levels. While TRC is proposing some reductions in incentive levels, the increases in participation may require increases in budgeted funds for program administration (in particular, evaluation) and incentives.

---

[41] TRC FY19 Filing, Volume 1, p. 5.

However, the proposed consolidation could also result in reduced transparency. Therefore, future reporting should be granular, e.g. by sub-program or "path," and should include key information on projected and actual participation, spending, commitments, electricity and gas savings, and capacity savings.

Program Evaluation Budget

Regarding the OCE FY19 Filing, Rate Counsel has two main concerns about the proposed program evaluation plan. First, the proposed evaluation budget appears too small to conduct a sufficient number of robust program evaluation studies. As discussed, the Draft Strategic Plan emphasized the importance of conducting timely and periodic evaluation studies.[42] However, the OCE proposed only $3.5 million for program evaluation.[43] That amounts to approximately 1 percent of the overall NJCEP budget. As discussed above, Rate Counsel recommends that the OCE allocate between 2 and 5 percent of the budget for program evaluation which is reflective of typical evaluation budgets.

Second, the OCE FY19 Filing does not provide evaluation study budget estimates by program. This information is necessary to assess whether specific proposed evaluation studies have appropriate budgets allocated, as well as whether the combined overall evaluation budget is at a sufficient level. Thus, Rate Counsel recommends that the OCE provide approximate budget amounts for program evaluation, by subprogram, for the FY19 period.

---

[42] Draft Strategic Plan, p. 26.

[43] OCE FY19 Filing, Attachment A, p. 15.

Marketing Budget

The Draft Strategic Plan noted a lack of marketing activities in certain areas and emphasized the importance of marketing.[44] For example, the Draft Strategic Plan stated "[m]arketing is a critical tool for achieving desired outcomes in many of the programs that the NJCEP will offer and should be an integral part of NJCEP program planning."[45] The Draft Strategic Plan further noted:

> Programs of similar scope and size around the country typically dedicate four to seven percent of their overall program budget to marketing. Increasing the level of marketing investment by the NJCEP can increase program participation levels and lower overall costs, especially in residential programs like Home Performance with ENERGY STAR and Appliance Recycling.[46]

The 2016 ERS process evaluation study also reported as follows:

> Programs are consistently undersubscribed as compared to available budgets and potential study findings. Marketing budgets have been dramatically cut in past years to less than 1% of total budget, which is well below the industry average of 3%–5%.[47]

Despite these findings and recommendations in the 2016 ERS study and the Draft Strategic Plan, the OCE proposed a budget of just $4 million, or 1 percent of the total NJCEP budget, for marketing.[48] Interestingly, TRC noted in the Draft Strategic Plan that "[i]n the absence of historic[al] NJCEP program data for Marketing and Outreach, budgets are proposed at the low

---

[44] Draft Strategic Plan, p. 29.

[45] Draft Strategic Plan, p. 26.

[46] Draft Strategic Plan, p. 57.

[47] ERS 2016, p. 5.

[48] OCE FY19 Filing, Attachment A, p. 15.

end of those seen in industry leading portfolios."[49] This assumption contradicts the findings from the ERS 2016 study regarding NJCEP's historical marketing spending and the industry spending range of 3 to 5 percent. Rate Counsel recommends that the OCE allocate funds for marketing sufficient to reach roughly 3 percent of the total NJCEP budget. While this would be at the low end of the marketing budget spending range found in the ERS 2016 study, it would represent an improvement over the OCE's proposed FY19 marketing budget.

2. Comments on Specific Program Issues in the FY19 EE Compliance Filings

This section provides Rate Counsel's comments on specific programs and consists of the following sub-sections:

- Residential program
- Multi-Family program
- Commercial and industrial program
- Low-income program
- State Facilities Initiative

<u>Residential - New Construction</u>

TRC proposed to simplify incentive structures for the Residential New Construction program by providing a base incentive for each type of residence plus the same level of additional incentive based on \$/MMBtu saved (i.e., \$30/MMbtu saved).[50] TRC's proposal for incentive simplification is a positive step to promote further program participation because the current incentive structure is very complex. In contrast, the current structure features four separate tables for incentive levels, each of which show various incentive levels based on HERS index or percentage savings level. However, the proposed, simplified structure does not clarify

---

[49] Draft Strategic Plan, p. 60, footnote 40.

[50] TRC FY19 Filing, Volume 1, p. 92.

the range of typical incentive amounts per building using a $30 per MMBtu incentive. Thus, Rate Counsel recommends that TRC provide an illustrative savings range for each construction type for EnergyStar new home, Zero Energy Ready Home ("ZERH"), and ZERH + Photo-Voltaic ("PV"). Rate Counsel also recommends that TRC clarify whether the standard MWh to MMBtu conversion ratio of 3.12 is used to convert electricity savings to MMBtu.

In addition, Rate Counsel has two minor comments on the description of the Residential New Construction program. First, TRC mentioned on page 11 of its FY19 compliance filing "Incentives will be paid based upon the HERS Index before the addition of renewables" for the Zero Energy Home +RE (ZERH+) option. As proposed in the TRC compliance filing, the incentives are paid based on the MMbtu savings level. Thus, this sentence needs to be revised. Second, TRC appears to have used the term "ZERH+PV" for the Zero Energy Home +RE option in Table 11 on page 92 in error. However, this option includes PV and other types of renewables. In turn, this section of the TRC FY19 Filing also needs to be revised.

Residential - Energy Efficient Products

TRC proposed to launch an Online Energy Efficiency Store during FY2019.[51] An online energy efficiency product store has been used in many other states. For example, Massachusetts—one of the leading states in energy efficiency programs—has been using an online store for many years.[52] Further, an online store will make energy efficiency products more accessible to consumers and can play a vital role in increasing the sales of energy

---

[51] TRC FY19 Filing, Volume 2, p. 13.
[52] See Mass Save's online store site at http://www.energyfederation.org/masssave/.

efficiency products. Rate Counsel supports TRC's proposal to establish the Online Energy Efficiency Store.

Residential - Gas & Electric HVAC Program

TRC proposed to offer a new incentive for "mini-split" cold climate Air Source Heat Pumps ("ccASHP") and require that qualifying ccASHPs be listed in Northeast Energy Efficiency Partnership's ("NEEP") ccASHP specification. Mini-split ccASHPs are very energy efficient and cost-effective HVAC systems, especially when compared to electric resistance and oil or propane heating systems. The proposed incentive level ($500 per unit) is similar to the level of incentives offered in most of the northeastern states.[53] Rate Counsel supports this proposal.

In addition, the program description in the TRC FY19 Filing is not clear on whether fuel switching is allowed. Rate Counsel does not support ratepayer-funded fuel switching programs.

Residential - Existing Homes Program

TRC proposes to continue to the operation of pilot programs (a) which provide a basic entry-level opportunity for insulation contractors to perform air sealing and insulation measures with prescriptive incentives and (b) consist of a residential Direct Install component to obtain additional energy savings from LEDs and water conservation measures. These components appear to be useful to participants who are not ready to undertake a comprehensive retrofit

---

[53] See Vermont Energy Investment Corporation. 2018, "Driving the Heat Pump Market: Lessons Learned from the Northeast." Available at https://www.nrdc.org/experts/merrian-borgeson/driving-market-heat-pumps-northeast.

because they provide more flexibility for program participants. Rate Counsel has two minor comments on these pilot components.

First, one of the proposed requirements for the residential Direct Install component appears excessive. TRC requires the measures to consist of at least nine items selected by the contractor and/or consumer from a published list of eligible measures. Rate Counsel recommends that TRC explain the rationale for this requirement. Second, Rate Counsel believes that it is vital to conduct an evaluation study to identify whether these components result in additional participants, savings, and net benefits. Thus, Rate Counsel recommends that TRC conduct a formal evaluation study and, at the outset, provide an explanation of its FY19 evaluation plan and schedules for the pilot components.

TRC also proposes to combine the WARM/COOLAdvantage and HPwES programs into a new Existing Homes program. Rate Counsel agrees with TRC's explanation that this restructuring will make it easier for customers to participate in the program. The proposed consolidation will simplify the process for program participants to undertake energy efficient retrofit projects and offer flexibility to the participants to allow for various levels of energy upgrades. This also can potentially reduce administrative costs. Rate Counsel supports this program restructuring.

Rate Counsel has a concern about the cost-effectiveness of the HPwES component. The benefit-cost ratio for this program is only 0.2 under the Total Resource Cost test, and 0.5 under the PACT. TRC should develop measures to improve the cost-effectiveness of this program. Further, as mentioned above under the "Cost-effectiveness" section, Rate Counsel recommends the OCE conduct a detailed process evaluation and benchmarking study on the HPwES component of this program to identify areas for further improvements.

Multi-Family Program

TRC proposes a new Multi-Family program to be implemented during FY 2019. This program will target multi-family buildings, defined as having three or more independent residential housing units and a single owner or management entity.[54] Further, this program would serve as single point of entry for this market segment and would align offerings to reduce customer confusion. The incentive structure will include both fixed rebates per unit of equipment through the prescriptive path, as well as higher performance-based incentives to reward participants that are seeking more comprehensive measures. However, at this time, TRC has yet to provide specific incentive dollar values, nor has it determined whether and how to modify incentives for affordable multi-family housing. The final proposed incentive levels and structures should be subject to stakeholder feedback before this proposed new program is implemented.

In general, the multi-family sector is an underserved market in New Jersey and nationwide. However, TRC's compliance filing includes no discussion of how its proposed statewide program would operate alongside any utility program.

The projected cost of saved energy for the new Multi-Family program appears to be relatively high. Assuming a cost allocation of 60 percent electric and 40 percent gas, the cost of saved electricity for the program is $0.09 per lifetime kWh saved, and the cost of saved gas is

---

[54] TRC FY19 Filing, Volume 2, p. 25.

$0.42 per lifetime therm saved.[55] For comparison, Lawrence Berkeley National Laboratory's ("LBNL") 2014 report on cost of saved energy throughout the United States found a median levelized cost of saved electricity of $0.04 per lifetime kWh saved for multi-family programs, which is less than half the cost of the proposed program.[56] Although the LBNL study did not break out the cost of saved gas for multi-family programs, the low-income sector's average cost of saved gas is likely a good comparison point for multi-family programs. The LBNL study found a national average lifetime cost of saved gas of $0.36 per therm for the low-income sector.[57] Notably, shifting the cost allocation split between electric and gas does not change our finding that the cost of saved energy for TRC's proposed multi-family program is relatively high relative to the LBNL results.

Consistent with the high projected cost of saved energy, the cost-effectiveness of the proposed Multi-Family program is low. Appendix G of the TRC FY19 Filing indicates that the proposed program is expected to have a 0.9 Total Resource Cost test ratio and a 1.4 PACT ratio.[58] As noted previously, TRC has yet to determine incentives for affordable multi-family housing. Rate Counsel recommends that additional technical and financial assistance (loans, higher incentives, or both) may be required to address the multiple, significant barriers facing the low-income multi-family segment. This may further reduce the cost-effectiveness of the proposed program. TRC should investigate whether there are best practices from other

---

[55] This calculation is based on savings provided in TRC FY19 Filing, Volume 1 Appendix F, and the budget provided in "Proposed FY19 Budget."

[56] See LBNL 2014, "The Program Administrator Cost of Saved Energy for Utility Customer-Funded Energy Efficiency Programs," p. E-3.

[57] Id., p. 29.

[58] TRC FY19 Filing, Volume 1, Appendix G.

jurisdictions that can be adopted to improve cost-effectiveness of the proposed Multi-Family program.

Finally, Rate Counsel notes that TRC's proposed program evaluation should be formulated at the same time as the EE program's design elements are developed. However, given concerns about cost-effectiveness and the fact that this is a new program for the NJCEP, timely feedback mechanisms are critical. Rate Counsel recommends that TRC develop plans for process evaluation now, so that the proposed program can be adapted to improve cost-effectiveness early on.

Commercial and Industrial ("C&I")

TRC proposes to modify several programs at the beginning of FY 2019 and to make more substantial changes to streamline and redesign the portfolio during the year. The changes proposed include several adjustments to C&I Prescriptive/Custom Rebates (also called the C&I New Construction and Retrofit), clarifications on the Local Government Energy Audit ("LGEA") program, changes to the design of the Direct Install program, a modification of the savings calculation of Pay for Performance New Construction, and elimination of the Pay for Performance Investor Confidence Project.

The TRC FY19 Filing also includes a proposal to make major shifts in the C&I offerings during the fiscal year. The existing C&I Prescriptive/Custom Rebates (also called the C&I New Construction and Retrofit program), Pay for Performance Existing Buildings, Pay for Performance New Construction, Large Energy Users, and Customer Tailored Energy Efficiency Pilot programs would be merged into the new "C&I Buildings" program. TRC also proposed to create a new program, "Building and Systems Evaluation (BASE)", that would be placed under the C&I Building program. In addition, TRC proposes to maintain the LGEA program and the Direct Install program.

C&I - Existing Programs Being Merged Into a New Program

C&I Prescriptive/Custom Rebates

TRC recommends making a few minor changes to the C&I Prescriptive/Custom Rebates programs. These include various modifications to lighting incentives, such as reducing the incentives for LED EnergyStar screw in lamps from $3 to $1 per lamp, and adding eligible measures (i.e. LED linear ambient luminaries and tubes). Also, TRC proposes to discontinue coverage of dual enthalpy economizers (which sense outdoor air temperatures and redistribute when optimal).

The proposed C&I Prescriptive/Custom Rebates programs would require that energy efficiency projects exceed ASHRAE 90.1-2013 by 2 percent, where specific guidelines exist, to qualify for incentives.[59] Otherwise, where no ASHRAE standards are applicable, the existing building's condition is the baseline. New Jersey adopted ASHRAE 90.1-2013 in 2015. However, there is a newer ASHRAE standard: ASHRAE 90.1-2016. The U.S. Department of Energy ("US DOE") used modeling to compare the 2013 and 2016 ASHRAE standards. The US DOE analysis estimated that commercial buildings implementing the requirements of Standard 90.1-2016 would reduce site energy consumption by approximately 6.7 percent and energy costs by 8.2 percent, as compared to Standard 90.1-2013.[60] This suggests that ample cost-effective opportunities exist for raising the threshold higher than the proposed 2 percent requirement.

---

[59] TRC FY19 Filing, Volume 1, p. 37.

[60] http://www.hpac.com/heating/report-doe-moves-approve-ashrae-s-901-2016-energy-efficiency-building-standards.

Rate Counsel recommends that TRC investigate whether it is appropriate to adopt a higher savings level as the savings threshold.

Furthermore, the Participant Cost Test ratio for the new construction component of this program is very high, 14.4.[61] Rate Counsel recommends that TRC investigate whether incentives can be lowered and share the results of this investigation with the Energy Efficiency Committee. If TRC's ultimate recommendation is that the incentives should not be lowered, the other factors that lead to that determination should be documented.

Large Energy Users

TRC does not propose to modify the LEU program at the beginning of the year. During the year, the LEU program would be folded into the new C&I Buildings program. Merging the LEU program into a larger framework may allow the administrator to increase participation and improve cost-effectiveness. Currently, the LEU program is not cost-effective according to its Total Resource Cost test ratio of 0.8.[62] While the Total Resource Cost test does not consider participant's non-energy benefits in New Jersey and therefore it is only a partial picture, there appear to be benefits from improving cost-effectiveness.

Pay for Performance Existing Buildings

TRC does not propose to modify the Pay for Performance Existing Buildings, but plans to include it with the C&I Buildings program during the year, as discussed above.[63]

Pay for Performance New Construction

---

[61] TRC FY19 Filing, Volume 1, Appendix G, p. 135.

[62] The Large Energy Users program is cost-effective according to the PACT (1.5). See TRC FY19 Filing, Volume 1, Appendix G, p. 135.

[63] Summary of Proposed Program Changes for FY19, p. 5.

TRC proposes to make an immediate adjustment to the calculation of energy savings for major renovation projects, to mitigate the effect of a change to ASHRAE in 2013 that put gut renovations at a disadvantage relative to new construction.[64] During the year, TRC proposes to merge this program into the new C&I Buildings Program, as discussed above.[65]

Customer Tailored Energy Efficient Pilot

The Customer Tailored Energy Efficiency Pilot Program ("CTEEPP") was launched in FY18 in response to customer concerns about complex application processes. TRC's proposed pilot seeks to increase participation by mid-to-large customers. Under CTEEPP, customers can bundle multiple prescriptive and custom measures into a single application, receive incentives for qualified advanced or emerging energy efficiency technologies, and obtain technical assistance. Performance verification is part of the pilot design to ensure that savings persist. TRC proposes that this program be merged into the new C&I Buildings Program. Rate Counsel agrees with this stream-lined process.

C&I - Existing Programs Proposed to be Terminated

Pay for Performance Investor Confidence Project

This program would be eliminated because of "insufficient participation levels."[66] The Draft Strategic Plan notes that potential participants may have the perception that this option would require additional hurdles, and that lenders are more concerned with the financial health

---

[64] Summary of Proposed Program Changes for FY19, p. 4.

[65] Summary of Proposed Program Changes for FY19, p. 5.

[66] Summary of Proposed Program Changes for FY19, p. 4.

of the applicant than the performance of the project itself.[67] Rate Counsel recommends that additional research and discussion of the reasons for low uptake would be helpful before terminating the program. The Investor Confidence Project offers the potential to reduce the cost of capital to fund EE projects and such opportunities should be encouraged.

C&I - Existing Programs Proposed to be Continued

Direct Install

TRC proposes to change the customer eligibility requirement, from having a maximum peak demand of 200 kW to a maximum average demand of 200 kW.[68] This will open eligibility up considerably, and may increase participation in this program. Rate Counsel also notes that eligibility requirements for Pay for Performance were changed in 2016 to a peak demand basis to better align with the current eligibility structure for Direct Install. This proposed change raises the question of whether eligibility requirements for the Pay for Performance program, or the successor paths, should be revisited as well.

TRC also proposed to increase the required project cost-effectiveness ratio to a 1.25 Total Resource Cost ratio.[69] This proposed change is coupled with a proposal to allow participants to increase their contribution in order to raise the Total Resource Cost ratio to the required level. While increasing customer contributions has merits, the reasoning underlying TRC's proposal is unclear. The Total Resource Cost test considers both program administrator and participant costs and benefits. Under this test, the incentive is a transfer payment and therefore isn't

---

[67] Draft Strategic Plan, p. 56.

[68] Summary of Proposed Program Changes for FY19, p. 4.

[69] Summary of Proposed Program Changes for FY19, p. 4.

included in the calculation. Thus, it is not clear how increasing the customer's contribution could raise the TRC ratio for this program. TRC should clarify this issue.

Local Government Energy Audit

As with the Direct Install program, TRC proposed to change the customer eligibility requirement from having a maximum peak demand of 200 kW to having a maximum average monthly demand of 200 kW. Similarly, this could impact participation significantly. Unlike Direct Install, TRC is not proposing to change cost-effectiveness requirements. An alternative cost-effectiveness threshold is recommended, as the LGEA program is not cost-effective based on the Total Resource Cost test.[70]

<u>C&I - New Programs</u>

Building and Systems Evaluation

TRC proposed to create a new program—the Building and Systems Evaluation (BASE) program—which would offer building-specific technical assistance. Under the proposed program design, customers seeking to reduce their energy consumption but lacking internal technical knowledge and experience to do so would work with pre-approved Program Energy Consultants ("PECs") to identify, scope, and analyze opportunities for achieving currently untapped savings. Specific PEC services could include audits, retro-commissioning studies and designs, peak load management strategies, data center and process efficiency analysis, complex feasibility studies (e.g. for CHP), and new construction planning and design review.[71] Proposed incentives include a 50/50 percent cost share, with a cap of $100,000 in most cases. Although

[70] TRC FY19 Filing, Volume 1, Appendix G, p. 135.

[71] TRC FY19 Filing, Volume 2, p. 21.

not clearly stated, the 50 percent incentive would apparently apply to the cost of eligible services. TRC would issue a request for proposals to pre-qualify PECs and PEC rates. TRC would then match each customer with a PEC with relevant experience and expertise for that customer's facility type.

TRC did not provide cost-effectiveness information for the proposed BASE program. However, Rate Counsel notes that some of the BASE services might not directly result in savings opportunities. Thus, TRC should clarify whether the cost-effectiveness of this program would be assessed separately or within the C&I Buildings Program.

C&I Building Program

During FY 2019, TRC proposes to merge a number of programs - including the C&I Prescriptive/Custom Rebates programs, Pay for Performance and Pay for Performance New Construction, Large Energy Users, and the new Customer Tailored Energy Efficient Pilot - into a new program.[72] This program will feature four paths, including (a) a prescriptive single- and multi-measure rebate path, (b) a custom measure incentive path for measures that fall outside of the prescriptive measure list, (c) whole building performance incentives to assess all energy savings measures at a site, and (d) an optional savings verification add-on to paths B or C. Generally, incentives increase from path (a) to path (c), to encourage customers to undertake more comprehensive measures. Also within this program is a Large Energy Users option, under which eligible customers would receive higher incentives subject to a cap of the lesser of 3

---

[72] Summary of Proposed Program Changes for FY19, p. 5.

percent of total annual energy cost or project cost. TRC also appears to consider the new BASE program as a component of the C&I Buildings program.

While there are likely significant benefits associated with streamlining operations and offerings, the breadth of the proposed C&I Buildings program is massive. Under this framework, where all sizes of customers and types of industries are funneled into a single program, it will be more difficult to assess whether customers are well served. Rate Counsel recommends that TRC track a number of data types, such as customer size, industry, project type, and incentive path, to assist with assessing participation in the program. Further, Rate Counsel recommends that TRC report program progress and results by distinct project types (e.g., new construction vs. retrofit) initially, and explore other meaningful dimensions with the Energy Efficiency committee as the program progresses.

As noted above for other proposed programs, Rate Counsel recommends that program evaluation design should be developed at the same time as EE program design. TRC's ccompliance filing not clear on this issue. Since this is a new program for the NJCEP, it is critical to develop a timely feedback mechanism. Rate Counsel recommends that TRC develop plans for process evaluation to allow for early adjustments to the program, as necessary.

Low Income Program

The utilities' compliance filing includes the proposal to continue the Comfort Partners program, serving households with income levels at or below 225 percent of the federal poverty guidelines. The Utilities FY19 Filing does not clearly articulate any proposed changes to the program. The proposal appears to continue efforts to encourage more Universal Service Fund

("USF") customers to receive a Comfort Partners audit. Rate Counsel supports this recommendation.

The Comfort Partners program suffers from a high cost of saved energy - $0.62 per lifetime kWh saved and $2.42 per lifetime therm saved, assuming that 60 percent of Comfort Partners funding covers electricity measures and 40 percent covers gas.[73] By comparison, the median cost of saved electricity for low-income programs nationally according to LBNL is roughly $0.08, inflated to 2017 dollars.[74] The cost of saved electricity for the Comfort Partners program is upwards of seven times the LBNL estimate.[75] The cost of saved gas for low-income programs is $0.39 per therm (2017$), equivalent to about 16 percent of the Comfort Partners cost of saved gas. While the Comfort Partners program offers benefits beyond energy savings, the OCE should examine ways to increase the cost-effectiveness of the Comfort Partners program.

One of the benefits of the Comfort Partners program is reducing the need for USF funding. Rate Counsel maintains that the utilities should collect data and document the extent to which such benefits are realized.

Rate Counsel does not recommend cutting funding to this program. Comfort Partners provides ancillary repairs - repairs that are needed in order to safely and effectively implement energy efficiency measures - which drive up the cost of the program. Nevertheless, the

---

[73] Calculated using the budget for Comfort Partners provided in the OCE's Proposed FY19 Budget document, and the energy savings provided in Utilities FY19 Filing.

[74] See LBNL 2014, "The Program Administrator Cost of Saved Energy for Utility Customer-Funded Energy Efficiency Programs," p. E-1, inflated to 2017 dollars using the U.S. Bureau of Economic Analysis Implicit Price Deflators for Gross Domestic Product, Table 1.1.9, available at https://bea.gov/iTable/iTable.cfm?reqid=19&step=3&isuri=1&1921=survey&1903=13#reqid=19&step=3&isuri=1&1921=survey&1903=13

[75] Based on the Comfort Partners cost of saved electricity of $0.62, divided by the LBNL cost of saved electricity of $0.48.

administrators should look for opportunities to improve cost-effectiveness of the program. The previous Comfort Partners evaluation, from 2014, is outdated at this point. Rate Counsel suggests that a new process evaluation should be initiated now.

State Facilities Initiative

While the OCE proposed to allocate the bulk of available funding for the "State Energy Initiatives" to various state agencies, the NJCEP also has the State Facilities Initiative. The OCE proposed to allocate about $16 million, or 5 percent of the total NJCEP budget to this initiative.[76] According to the OCE FY19 Filing, the State Facilities Initiative implements "energy efficiency projects in State-owned facilities or State-sponsored projects with the objective of producing energy and cost savings."[77] The OCE FY19 Filing provides a high-level summary of projects funded under this initiative. However, it does not provide any other key data such as energy savings or cost-effectiveness. The TRC FY19 Filing also does not provide any savings or cost-effectiveness estimates for the State Facilities Initiative.[78] Rate Counsel recommends that the OCE provide savings and cost-effectiveness estimates for this initiative consistent with NJCEP's other programs so that ratepayers can assess whether their money is spent cost-effectively to promote clean energy.

---

[76] OCE FY19 Filing, Attachment A, p. 14.

[77] OCE FY19 Filing, Attachment A, p.3.

[78] See TRC FY19 Filing, Volume 1, Appendix F and G.

B. DISTRIBUTED ENERGY RESOURCE PROGRAMS

Combined Heat and Power

NJCEP offers incentives for Combined Heat and Power ("CHP") and fuel cell with heat recovery projects. To qualify for incentives, program applicants must meet a number of eligibility criteria. The proposed FY2019 budget for CHP and Fuel Cell projects is $31.2 million.[79] Rate Counsel understands that the CHP and fuel cell program contributes to enhancing system resiliency and reliability, but has also previously expressed concerns about ratepayer-funded subsidies for fossil-fueled CHP and fuel cell projects. These are mature technologies with established markets. As part of the ongoing strategic planning process, OCE should carefully evaluate the need for ratepayer-funded subsidies.

Renewable Electric Storage

The FY2019-FY2022 Strategic plan describes a proposed restart of the Renewable Electric Storage ("RES") program.[80] During the last Renewable Energy committee meeting on April 18, 2018, the OCE explained that even though commitments have been issued through this program, only one project has been built and the remaining projects with funding commitments have been terminated or canceled. The OCE also stated that, going forward, the intent for the RES program would be to convene a stakeholder group to solicit thoughts and ideas regarding barriers to entry and problems with project completion. This intent is echoed by the TRC

---

79 Proposed FY19 Budget.

80 Draft Strategic Plan. pp. 80-81.

FY2019 Compliance Filing and the Summary of Proposed Program Changes for FY2019.[81] As a result, no funds have been allocated to this program in the Proposed FY19 Budget.[82]

Rate Counsel agrees that before committing additional funds to this program, OCE move forward with a stakeholder group to identify the challenges associated with project completion, any other barriers entry that may exist, as well as the potential costs and benefits of future programs.

<u>Microgrids</u>

The Microgrid program is a response to the 2015 Energy Master Plan Update's recommendation to increase the use of microgrid technologies to improve grid resiliency and reliability. Phase 1 of the Microgrid program was to implement a feasibility incentive program and conduct feasibility studies. According to the OCE FY19 Filing, these studies will be complete in FY2019. After evaluating these studies, projects will be selected by the BPU to advance to Phase 2 for detailed design and engineering. The FY2019 budget amount of $4 million is assigned to fund this second phase.[83] Rate Counsel supports this proposal for design and engineering, once feasibility studies have been thoroughly reviewed and analyzed.

---

[81] TRC Summary, p. 6; TRC Volume 1, pp. 79-80.

[82] Proposed FY19 Budget.

[83] OCE FY19 Filing, pp. 4-6, 14; Proposed FY19 Budget.

C. RENEWABLE ENERGY PROGRAMS

Solar Renewable Energy Certificate Registration Program

There are no program changes planned for the Solar Renewable Energy Certificate Registration ("SREC") Program in FY2019.[84] The proposed SREC Registration Program budget is \$2.4 million.[85] This is the same as the reported actual program need of \$2.4 million for FY2017.[86] Rate Counsel supports the recommended RE budget.

Offshore Wind

The FY19 budget for offshore wind ("OSW") of \$1.15 million will support the evaluation of OSW Renewable Energy Certificate ("OREC") applications as well as modeling work performed by Rutgers Department of Marine and Coastal Sciences.[87] Rate Counsel supports the recommended Offshore Wind budget.

---

84 TRC FY19 Filing, Volume 1, p. 81.

85 Proposed FY19 Budget.

86 Straw Proposal, p. 6.

87 Proposed FY19 Budget; OCE FY19 Filing, pp. 6-7.

III. GENERAL COMMENTS ON FY2019 BUDGET

The OCE presented a Draft FY19 Budget which totaled $502 million, comprised of $343 million for NJCEP activities and $153 million for State Energy Initiatives. The major components of the OCE's Draft FY19 Budget are shown below ($ million):[88]

EE Programs total		288.6	
Residential EE	75.7		
Residential Low-Income	36.0		
C&I	155.8		
Multi-Family	6.0		
State Facilities Initiative		15.6	
Distributed Energy Resources		35.2	
RE Programs		3.6	
EDA Programs		0.1	
Planning and Administration		16.4	
Total NJCEP Programs			343.8
State Energy Initiatives			158.3
Total NJCEP and State Energy Initiatives			$502.3

Overall, the proposed NJCEP FY19 budget appears reasonable. However, as set forth above in the comments on specific programs and activities, the OCE should increase funding for certain activities (i.e. EE Marketing, EE Evaluation), while subjecting other areas to further

[88] Proposed FY19 Budget.

scrutiny to ensure that the proposed programs are cost-effective and necessary. Subject to the conditions set forth in the above comments, Rate Counsel supports the proposed overall FY 2019 budget for NJCEP program activities.