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May 16, 2019

**By Hand Delivery and Electronic Mail**

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

Re: Energy Efficiency Potential in New Jersey  
Optimal Energy Draft Report, May 9, 2019

Dear Secretary Camacho-Welch:

Please accept these comments of the New Jersey Division of Rate Counsel ("Rate Counsel") on the *Draft Report on Energy Efficiency Potential in New Jersey* ("Draft Report" or "Optimal study") prepared by Optimal Energy ("Optimal") for the New Jersey Board of Public Utilities ("BPU" or "Board").

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.

### Comments

Rate Counsel appreciates the opportunity to provide comments on the Draft Report. However, we note that the Draft Report was not received until after business hours on the evening of May 9, and an extraordinarily short deadline of May 16, 2019 was set for comments. In addition, none of the technical appendices for the report have been made available for review. Thus, these comments must be seen as preliminary. Given the importance of the issues raised in the Draft Report, and the significant investment and ratepayer contributions that are likely to be involved in achieving the goals of the Clean Energy Act (“CEA”) (P.L. 2018, c.17), Rate Counsel assumes that this report is merely a first step in the public process that will set the targets, incentives and regulatory requirements of the State’s energy efficiency (“EE”) programs going forward. Rate Counsel looks forward to working with Board Staff, the Office of Clean Energy, New Jersey’s gas (“GDC”) and electric (“EDC”) utilities, and other stakeholders in developing the Board’s rulemaking in this area once all the necessary information has been provided and adequate time for review and comment is allowed.

While Rate Counsel has not had time or sufficient information to fully review the Draft Report, we offer the following preliminary comments:

1. With regard to the maximum achievable electric and gas savings, it is impossible to fully understand or evaluate the study’s conclusions without the underlying technical appendices and workpapers. However, Rate Counsel notes that while the annual potential savings shown in Tables 4 and 5 are disaggregated into residential and C&I savings, and maximum achievable savings for 2029 shown in Tables 6 and 7 are disaggregated by

sector, the annual utility-specific targets for gas energy and demand reductions (Tables 40 through 47) and gas energy use reductions (Tables 48, 50, 42 and 54) are all based on identical percentage reductions. There are differences among New Jersey's utilities, including residential vs. C&I usage, housing and building stock, and C&I sector breakdown, that would suggest different potentials and ramp-rates for each utility. In addition, New Jersey's various electric and gas utilities have had different histories of energy efficiency program administration since the passage of N.J.S.A. 48:3-98.1 in 2007. For some utilities, much of the "low-hanging fruit" of energy efficiency may have already been harvested, while for others there may be ample cost-effective opportunities that have not yet been exploited. Furthermore, where there are overlapping EDC and GDC service territories, GDC EE measures may affect electric usage and vice versa. To suggest that the exact same gas and electric savings and peak reduction targets are appropriate for all of New Jersey's utilities, on a percentage basis, does not comport with these realities. Moreover, Optimal sets QPIs and utility targets for a five-year period, without recognition of the CEA provision which requires the Board to review each QPI every three years. N.J.S.A. 48:3-87.9(c). As the Board can adjust targets and establish revised QPIs as a result of that triennial review, a five-year timetable for assessing utility compliance with potentially moving targets does not seem feasible.<sup>1</sup>

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<sup>1</sup> In a Notice received via email yesterday, the Office of Clean Energy indicated that "The Board will consider for adoption preliminary quantitative performance indicators (QPIs) related to electric and natural gas usage reduction targets, which will apply to the public electric and gas utilities." The draft Optimal report does not provide the Board with sufficient information to establish these QPIs, and the establishment of the QPIs should take into account some of the significant errors in the Draft Report that are discussed in these comments and those that will be submitted by other stakeholders. If the Board were to set the QPIs at the May 28 Agenda meeting, there will be little or no opportunity for stakeholder input other than this current set of comments, which, as noted, were prepared without

2. The Optimal study purports to present the economic potential and costs and benefits based on the Societal Cost Test (“SCT”), claiming that “the use of [the SCT] is implied by the Clean Energy Act of 2018.” Rate Counsel does not agree that the CEA “implies” the use of the SCT or any other specific test in determining potential savings or for any other purpose. The CEA states merely that “the board shall conduct and complete a study to determine the energy savings targets for full economic, cost-effective potential for electricity usage reduction and natural gas usage reduction as well as the potential for peak demand reduction by the customers of each electric public utility and gas public utility and the timeframe for achieving the reductions.” N.J.S.A. 48:3-87.9(b). The same section notes that these targets are to be reviewed every three years, and that “The board, in conducting the [EE potential] study, shall accept comments and suggestions from interested parties.” Historically, the Board has required the full suite of standard cost-benefit tests be conducted for in support of utility energy efficiency program filings. These are the Total Resource Cost Test (“TRC”) and Societal Cost Test (“SCT”), the Participant Cost Test (“PCT”), the Program Administrator Test (“PA”, sometimes called the Utility Cost Test or “UCT”), and the Ratepayer Impact Measure Test (“RIM”) as generally defined in the California Standard Practice Manual. These five tests provide different perspectives on cost-effectiveness and all are important for full consideration of the costs and benefits of proposed programs.

3. The Optimal study notes on page 90 that “total net benefits used for an SCT calculation can be both difficult to track and measure, and potentially subjective.” Rate Counsel agrees with this statement. Yet, Optimal has applied the SCT to determine energy efficiency potentials without even disclosing the underlying assumptions or the specific costs and benefits included in its SCT. Rate Counsel recommends the application of multiple tests of cost-effectiveness, and makes the following specific recommendations regarding the use of cost-effectiveness tests for establishing cost-effective energy savings potential:
  - a. Provide results based on, at a minimum, the TRC test and the PA test. These are the most common standard tests for cost-effectiveness and are less reliant on subjective and arbitrary judgments and assumptions. Results should also be provided based on other cost-effectiveness tests.
  - b. Provide all underlying assumptions so that stakeholders can fully evaluate the results provided for cost-effective energy efficiency and demand reduction potential.
4. Rate Counsel recognizes that the CEA mandates that “[t]he energy efficiency programs and peak demand reduction programs shall have a benefit-to-cost ratio greater than or equal to 1.0 at the portfolio level, considering both economic and environmental factors.” N.J.S.A. 48:3-87.9(d)(2). Taken in context, this requirement applies specifically to utility-proposed energy efficiency and demand reduction programs, and does not define the basis for the establishment of cost-effective savings and peak reduction potential.

Further, the reference to “economic and environmental factors” should not be interpreted as mandating the use of the SCT, or applying a societal discount rate, even in the context of utility EE filings. Rather, as further noted in N.J.S.A. 48:3-87.9(d)(2), “[t]he methodology, assumptions, and data used to perform the benefit-to-cost analysis shall be based upon publicly available sources and shall be subject to stakeholder review and comment.” To the extent possible, the Board should establish the assumptions and methods for applying cost-effectiveness tests for energy efficiency programs in New Jersey to minimize ambiguity and avoid litigation over these matters in the future.

5. Regarding the discount rate to be used for establishing cost-effectiveness, Rate Counsel does not object to the use of a real discount rate based on the 7% discount rate used by Rutgers in 2019, reduced by the long-term inflation rate as recommended on page 51 of the Optimal study. However, more information is needed to evaluate Optimal’s calculations:

- a. A more specific reference to the Rutgers study, including an internet address, is needed. Rate Counsel was unable to locate the referenced Rutgers study based on the information provided by Optimal. If the information is not yet available for stakeholder review, Optimal should provide alternate support for its assumption.
- b. It would be more appropriate to identify a basis for estimating the long-term inflation rate rather than prescribing a specific number (2.16% in the Optimal study, provided without support).

- c. The applicable discount rate cited by Optimal needs to be verified for accuracy, since 7% reduced by 2.16% yields a real discount rate of 4.84%, not 4.74%. It is unclear which value was actually used in the Optimal study.
6. It appears that the incentive and penalty structures proposed in the Optimal study are based on an erroneous assumption that New Jersey utilities do not earn a rate of return on their energy efficiency investments. In fact, despite the fact that “earning the full utility ROE on efficiency might be excessive, given the lower risk that efficiency programs present,” (Draft Report, p. 82), pursuant to N.J.S.A. 48:3-98.1, New Jersey gas and electric utilities have routinely requested and generally received their full utility return on equity (“ROE”) for their energy efficiency investments, which they have amortized over time.<sup>2</sup> Further, there is no basis to assume utilities will abandon the return on investment and amortization provisions of N.J.S.A. 48:3-98.1 in the future under N.J.S.A. 48:3-87.9(e)(1), which provides (emphasis added in bold):

Each electric public utility and gas public utility shall file annually with the board a petition to recover on a full and current basis through a surcharge all reasonable and prudent costs incurred as a result of energy efficiency programs and peak demand reduction programs required pursuant to this section, **including but not limited to recovery of and on capital investment**, and the revenue impact of sales losses resulting from implementation of the energy efficiency and peak demand reduction schedules, which shall be determined by the board pursuant to section 13 of P.L.2007, c.340 (C.48:3-98.1).

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<sup>2</sup> Indeed, it appears the report overall would benefit from a closer look at and greater use of New Jersey specific data and information on how New Jersey’s current EE programs operate.

7. Any incentives and penalties established by the Board pursuant to the CEA should take into account that the utilities are likely to request an ROE at least close to their “full utility ROE,” despite the fact that these investments carry much lower risk than other utility investments. Optimal noted the reduced risk of such investments (Draft Report, p. 81). Depending on whether the utilities are compensated for alleged lost sales, the risk may even be far lower still. The Board should ensure that the total compensation claimed by the utilities for their energy efficiency programs is just and reasonable, commensurate with the inherent risk, and does not lead to double recovery or unjust enrichment for the utilities at ratepayers’ expense.
  
8. In particular, Rate Counsel does not believe it is appropriate to award an incentive of 5% of program budgets to utilities that merely meet the Board-established energy savings and peak reduction targets that they are obligated to meet under the CEA (Draft Report, pp 85-86 ). Such an award would result in excessive incentive amounts for public utilities that are merely following the law. If incentives and rewards are to be awarded in proportion to filed and approved program costs as the Optimal study recommends, Rate Counsel recommends a much smaller incentive of, say, 0.05% for meeting the target savings requirement consistent with the CEA mandate that “an electric public utility or gas public utility [that] achieves the performance targets established in the quantitative performance indicators...shall receive an incentive.” N.J.S.A. 48:3-87.9(e)(2). Rate Counsel does not object to scaling this incentive linearly to a greater percentage of approved program costs for utilities that meet or exceed 125% of the targets, in



recognition that it is reasonable to share the savings benefits to the extent that they exceed the targets set for each utility without imposing additional costs on ratepayers.

9. Rate Counsel does not believe that the penalties proposed in the Optimal study would be sufficient to deter or penalize poor performance by utility EE programs. Optimal has proposed a penalty that would only amount to approximately 0.5% of approved costs for a utility that achieves only 80% of its target, and a penalty of only 2.5% for a utility that achieves nothing at all. As noted above, this is likely to be after the utility earns a rate of return on its program investments, so that it would amount to a small effective diminution in ROE even in the face of dramatically poor performance. Rate Counsel believes that it would be more appropriate to have a symmetrical structure for the penalties and incentives, so that if a utility achieves only 75% of its target, it would incur a penalty commensurate with the incentive for reaching 125% or the target..
  
10. Optimal's proposed incentive mechanism calls for the establishment of the amount of base earnings opportunity and ramp rates for incentives and penalties based on *planned annual budgets* rather than actual spending. (Draft Report p. 85). Optimal argues that this avoids any incentive for the utility to simply spend more in order to make more. While Rate Counsel agrees that penalties and incentives should be based on actual performance, not the level of spending, we do not agree that planned budgets are a "good proxy" for actual effort. Under Optimal's proposal, a woefully under-funded program would automatically incur only a small penalty. This is not consistent with the Act's requirements. The incentive and penalty structures should be carefully designed such that

if a utility falls short of its targets (*i.e.* sales are not sufficiently reduced through energy efficiency measures) the net impact of increased sales and the penalty assessed still results in a meaningful disincentive for underperformance.

11. If the proposal presented in the Draft Report is adopted, the Board should ensure that there are adequate sanctions available for utilities that underperform by failing to propose programs that can realistically be expected to meet their targets.
12. Rate Counsel agrees with the recommendation to establish penalties and incentives based on multiple metrics, including considerations beyond total annual energy savings and peak reduction. (Draft Report, pp. 88-89). In particular, Rate Counsel supports the use of the Utility Cost Test (another name for the PA test) as a measure that ensures cost-effectiveness for all ratepayers, and mitigates the risk of providing excessive incentives for participants to inflate total savings.
13. Beyond setting forth general principles and recommending components and weighting for New Jersey's QPIs, the Optimal study does not provide any guidance on how the metrics shown in Table 39 (Draft Report pp. 88-89) are to be applied – such as sub-targets or scoring details for the individual components. For example, Optimal recommends a 35% weighting for the Utility Cost Test, but provides no guidance on how a utility's "score" under this test is to be incorporated into the overall utility targets. Much more detail is needed in this area, along with specific numerical examples.
14. Generally, Rate Counsel notes that as part of establishing any utility targets, compensation, rewards, penalties, and revenue recovery mechanisms, the Board must

establish well-defined and consistent analytical approaches to be used by all of New Jersey's utilities. This includes establishing which cost-benefit tests are to be used for what purposes, what components are to be included in these tests, and how to establish the discount rate and other key assumptions. The quantification of performance relative to Board-established targets cannot be subject to the ambiguity and subjective implementation that have characterized cost-benefit analysis in support of past utility program filings. Well-defined and consistent analytical approaches must also be established for Evaluation, Measurement and Verification ("EM&V") of program performance, including annual and lifetime savings, if these are to be included under the QPIs. As the Draft Report states (pp. 83-84):

It is critical that any [performance incentive] metric be measurable and objective, as well as based on actual performance. This will ensure that all parties understand and can agree on the level of performance achieved, and enables utilities to manage their progress effectively. It is important to clearly define metrics, and establish any assumptions necessary to calculate performance in advance. For example, if a metric is tied to achievement of net benefits, but allows the avoided costs by which they were set to vary, depending on future estimates, or does not clearly identify all the costs and benefits that can be included, it can result in protracted disagreements. Such a situation also makes it difficult for utilities to monitor their programs' progress.

Rate Counsel emphatically agrees with this statement and asks that it be incorporated into the development of EE programs going forward.

15. As a general observation, Optimal makes several legal conclusions interpreting the language of the Clean Energy Act. Not only is it inappropriate for a consultant to determine the appropriate interpretations of statutory language, many of Optimal's conclusions are simply wrong. It is distinctly the province of the Board to interpret the statute, in conjunction with advice received from the Attorney General, and that function should not be delegated to outside, non-legal entities.
  
16. Optimal reaches a conclusion based on its reading of the statute that "Utilities are allowed to count savings of all efficiency initiatives and other activities that result in savings within their individual territories, regardless of whether the initiative was administered by the utility or by some other party such as the State." (Draft Report, p. 75) While savings from all programs available to a utility's customers may be considered in determining whether the overall targets have been met, N.J.S.A. 48:3-87.9(c), the issue of utility responsibility for ensuring that all QPIs are achieved, including total energy savings that may derive in part from non-utility programs, building codes and appliance standards, etc. remains unresolved. The Optimal study acknowledges that it "[did] not make specific assumptions about what strategies are used, what entities deliver them, or what portion of the potential might come from different implementation approaches." (Draft Report p. 75). Utilities should not be rewarded or penalized for the performance of programs and measures over which they have no control. One solution is to establish utility targets that are designed to reflect only the target level of savings attributable to utility EE and DR programs, *i.e.*, that reflect the overall target "net of" the projected savings from other, non-utility (or overlapping utility) measures that affect their service territories. However,

care should be taken to avoid inefficiencies that might result from competing measures and programs, and complementary measures should be encouraged.

17. Moreover, while the CEA allows consideration of all available programs in reviewing the overall achievement of targets in a service territory, the Legislature clearly did not intend to allow the utilities to count savings that resulted from other factors for all purposes. The CEA requires the Board, in establishing the QPIs, to “use a methodology that incorporates weather, economic factors, customer growth, outage-adjusted efficiency factors, and any other appropriate factors to ensure that the public utility’s incentives or penalties ... are based upon performance and take into account the growth in the use of electric vehicles, microgrids and distributed energy resources.” (N.J.S.A. 48:3-87.9(c), cited at Draft Report p. 76). If the Legislature’s intent was to simply allow a utility to count factors other than its own performance for all purposes, it is unclear why this limiting language would be used to describe how to establish the QPIs and resultant utility targets.
  
18. There is much ambiguity regarding how Optimal expects utility performance to be measured. Optimal appears to base utility performance based on what it calls a traditional EM&V approach. (Draft Report, p. 77). Estimates of savings attributable to other than utility programs could also be tracked using traditional EM&V protocols according to Optimal. Overall, Optimal recommends tracking programs activity and presumed savings attributable to each measure, instead of actual customer load data. More information is needed from Optimal to show how EM&V factors would operate to set utility incentives and penalties based on performance, including numerical examples.

19. Even if savings from all sources were to be considered to determine whether the overall savings goal was reached in a particular utility's service territory, certainly those additional savings cannot be counted if the Board were to entertain any recovery of "lost revenues" by the utilities. Savings that result from OCE programs, for example, have already been paid for by ratepayers through the SBC charge. If utilities were permitted to count those savings when attempting to prove that they have lost revenues, ratepayers would end up paying for those programs twice. Moreover, to the extent those or other non-utility energy use reductions are taken into account in load forecasts, there would not be any "lost sales" associated with them and thus they should not be taken into account in reviewing claims of "lost sales." This would clearly be inequitable and will result in unjust enrichment for the utilities.

To the extent that the Board entertains a request for lost revenues associated with energy efficiency programs, the Board must be careful not to allow any such recovery to interfere with the incentives for performance by the utility or the benefits to be gained by ratepayers. The calculation should be done in the course of ordinary ratemaking by projecting energy sales that reflect each utility's achievement of its savings targets. The incentive and penalty structures should be carefully designed such that if a utility falls short of its targets (*i.e.*, sales are not sufficiently reduced through energy efficiency measures) the net impact of increased sales and the penalty assessed still results in a meaningful disincentive for underperformance.

Thank you for your consideration of these comments. As noted, Rate Counsel urges the Board not to adopt any QPIs or finalize its targets or rules until the issues raised in these comments and those of other stakeholders are adequately considered. Rate Counsel has supplied these comments with the limited information provided and in the extraordinarily short timeframe permitted, but believes that much more work needs to be done to ensure that New Jersey's energy efficiency programs are well-designed, fair, and will achieve the desired results. While we recognize that further discussion and comment will be involved as the Board moves forward with the rulemaking necessary to implement the EE provisions of the CEA, more work needs to be done at this stage to allow that process to proceed smoothly.

Respectfully submitted,

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