



September 10, 2018

via email

Michael Stoddard, Executive Director
Efficiency Maine Trust
168 Capitol Street
Augusta, Maine 04330
anne.stephenson@efficiencymaine.com

Re: Triennial Plan IV (Fiscal Years 2020-2022)
August 10, 2018 Draft for Comment

Dear Mr. Stoddard:

Conservation Law Foundation (CLF)¹ appreciates the opportunity to comment on Efficiency Maine Trust's (the "Trust") August 10, 2018 Draft Triennial Plan IV (Fiscal Years 2020-2022) ("Proposed Tri Plan").

On behalf of its members in Maine, CLF works to increase opportunities for the efficient use of energy, to harness renewable energy resources, and to ensure the region achieves its collective goal of reducing greenhouse gas emissions and avoiding or limiting the significant impacts of climate change. CLF participated in the Maine Public Utilities Commission proceeding to approve the Trust's second triennial plan, was actively involved in the proceeding regarding approval of the Trust's third triennial plan and subsequent related dockets, and litigated the third triennial plan before the Maine Supreme Judicial Court. CLF's advocacy emphasizes and recognizes the foundational role energy efficiency plays in any effective long-term energy strategy.

1. Climate Change and Cost Savings Demand Increased Energy Efficiency

The Trust has been delivering significant energy efficiency savings to Mainers since its creation and inheritance of the administration of efficiency programming in the State. The Trust's recent successes are worth reflecting on, and include, as a result of fiscal year 2017 programming alone: more than \$182 million in avoided energy costs; 7,959 projects through the Home Energy Savings Program; more than 24.8 MW of peak summer demand reductions to the grid; and

¹ Founded in 1966, CLF is a nonprofit, member-supported environmental advocacy organization that works to solve environmental problems threatening the people, natural resources, and communities in Maine and throughout New England. In the face of global climate change, CLF and its members have a significant interest in reducing greenhouse gas emissions while lowering energy costs for Maine consumers and ensuring a reliable and sustainable energy system. To that end, CLF has long advocated for robust and aggressive energy efficiency programming in the state and throughout New England.

avoiding more than 95,000 tons of annual greenhouse gas emissions.² These numbers should be celebrated as representative of how much the Trust has already accomplished. But they are also noteworthy indicators of how much more can be achieved going forward.

CLF supports a triennial plan that raises the bar for ambitious climate and energy savings goals. To address climate change while providing Mainers with affordable and clean energy requires increasing our reliance on cleaner and lower cost energy efficiency resources. The Trust's proposed three-year budget only slightly exceeds that of the stipulated Third Triennial Plan.³ Assuming the proposed budget is a reasonable proxy for the amount of energy efficiency the Trust intends to pursue over the next three years, the near-flat number alone reveals insufficiently amplified efforts. Maintaining a static level of energy efficiency resources robs Mainers of the benefits of the lowest cost resource and forces Mainers to pay higher rates in the future.

The Efficiency Maine Trust Act ("Act") requires the capture of the most energy efficiency reasonably and cost-effectively possible, mandating the procurement of "all electric energy efficiency resources found by the commission to be cost-effective, reliable and achievable,"⁴ and "all cost-effective [natural gas] energy efficiency that is achievable and reliable."⁵ The Act directs the Trust to "help reduce energy costs for electricity consumers in the State by the maximum amount possible,"⁶ and requires that electric energy efficiency "[m]aximize[s] total electricity savings for all ratepayers."⁷ Thus the Trust's overarching responsibility in crafting the triennial plan is to ensure that the "maximum achievable cost-effective" energy efficiency, known as "MACE,"⁸ is secured.

The Trust's statutory mandates are expressly tied to the State's greenhouse gas emissions reduction goals. The Legislature, for instance, directs the Trust to use "cost-effective energy and energy efficiency investments to reduce greenhouse gas emissions."⁹ The Act further requires that the triennial plan "*must set forth the costs and benefits of energy efficiency programs that advance the following goals, and funding necessary to meet those goals: . . . Reducing greenhouse gas emissions from the heating and cooling of buildings in the State by amounts consistent with the State's goals established in Title 38, section 576.*"¹⁰ Maine's statutory greenhouse gas emissions reduction goals provide declining targets, such that the 2010 reduction was equivalent to 1990 levels, 2020 levels are 10% below that, and "[i]n the long term, reduction sufficient to eliminate any dangerous threat to the climate. To accomplish this goal, reduction to 75% to 80% below 2003 levels may be required."¹¹

² Efficiency Maine Trust, FY 2017 Annual Report, at 1.

³ Compare Proposed Tri Plan, Appendix A, with *Efficiency Maine Trust*, Request for Approval of Third Triennial Plan, No. 2015-175, Stipulation (Me. P.U.C. May 25, 2016) at Exhibit A.

⁴ 35-A M.R.S. § 10110(4-A).

⁵ *Id.* § 10111(2).

⁶ *Id.* § 10110(2).

⁷ *Id.* § 10110(4-A)(C).

⁸ See Proposed Tri Plan § 2 at 2.

⁹ 35-A M.R.S. § 10103(1)(B)(7).

¹⁰ *Id.* § 10104(4)(F)(6) (emphasis added).

¹¹ 38 M.R.S. § 576.

Thus, Maine’s statutory framework contemplates energy efficiency expenditures that facilitate declining greenhouse gas emissions and maximize energy savings for Mainers. To these ends, the triennial plan should build on prior successes, advancing technologies and developing markets, and should continue along an ever-more aggressive trajectory toward lower costs and reduced climate impacts for Maine.

Further, if Maine is to maintain its position as a national leader on climate change,¹² flat-lined energy efficiency efforts will not be adequate. Increased investment in energy efficiency is necessary for the Trust to maintain its praiseworthy status. As the Trust acknowledges, at the national level, spending on energy efficiency programs has steadily increased for the last 20 years.¹³ Maine will only stay at the forefront through intensifying investment.

In the face of these moral and legal imperatives, the Trust should set forth more rigorous calculations of MACE and a correlatively aggressive budget to maximize energy efficiency savings and emissions reductions in Maine. Providing a steady increase in energy efficiency investments rather than maintaining the status quo delivers pollution and economic savings to all Mainers.

2. *Examination of Expanded Assessment of Benefits*

A conservative assessment of MACE may be responsible for the Trust’s underwhelming proposed budget. CLF suggests that an investigation of the most appropriate analysis of costs and benefits is in order.

The Trust acknowledges that energy efficiency projects can have “additional benefits and costs beyond the direct energy savings and costs associated,” but that the Proposed Tri Plan incorporates only certain non-energy factors, namely: savings associated with reduced water usage; savings and costs associated with impacted operations and maintenance requirements; and savings associated with reduced bad debt.¹⁴ Maine’s MACE principles require that the maximum level of cost effective energy efficiency measures be secured,¹⁵ and failure to account for all of the associated benefits may well be leading to the undervaluation of certain measures.

The value of increased efficiency measures in the State goes well beyond the savings accounted for and monetized by the Trust in its assessment. The success of energy efficiency has already helped create declining loads in Maine, for instance.¹⁶ Thanks to the Trust’s programming, Mainers are using less electricity and paying lower bills, and those benefits accrue to all customers.¹⁷ This success also paves the way for Mainers to rely in the future on cleaner and lower cost electricity

¹² See Efficiency Maine Trust, FY 2017 Annual Report, at iii-iv. (“During FY2017, the American Council for an Energy-Efficient Economy published its ‘State Energy Efficiency Scorecard,’ which ranked Maine 11th and gave our state the ‘most improved’ designation. Other regional and national studies about the performance of energy efficiency programs continue to indicate that the Trust has the lowest ‘costs of production’ for achieving energy savings in New England and has been operating with the lowest administrative costs of any program in the country.”).

¹³ Proposed Tri Plan § 3 at 6, Fig. 3.4-1.

¹⁴ Proposed Tri Plan § 4 at 6.

¹⁵ See 35-A M.R.S. §§ 10110(4-A), 10111(2).

¹⁶ See, e.g., Efficiency Maine Trust, FY 2017 Annual Report, at 1, 16, 28.

¹⁷ See, e.g., *id.* at 6.

for transportation and heating, without increasing burdens on the electrical system, as Maine moves toward strategic electrification. Further, other non-energy benefits of efficient technologies should also be increasingly valued. Heat pumps, to take one example, can include such benefits as increased comfort, health and safety, debt reduction and reduced emissions of greenhouse gasses and air pollution.

CLF believes there is an opportunity to reform the state's cost benefit test, or otherwise to improve the state's application of the Total Resource Cost test to value more benefits of energy efficiency measures, potentially including health and safety benefits, increased grid control, and greenhouse gas emissions reductions. Undervaluing energy efficiency measures by limiting valuation to energy benefits leads to underselling MACE potential and a smaller efficiency budget that locks Mainers into paying higher bills far into the future.

3. *Expanding service to low income and small business customers*

As the Trust acknowledges, the Efficiency Maine Trust Act requires that the Trust target at least 10% of funds for electricity conservation or \$2.6 million, whichever is greater, to programs for low-income residential consumers; and target at least 10% of funds for electricity conservation or \$2.6 million, whichever is greater, to programs for small business consumers.¹⁸ CLF urges the Trust to give full weight to these statutory requirements and to use *at least* the minimum required level of electric conservation funds for low-income and small business customers. This requirement should not be an afterthought but should inform budgeting and program design decisions in a substantive way.

The Proposed Tri Plan would maintain the small business eligibility criterion set forth in the Third Triennial Plan, that is businesses having a peak demand of 25 kW or less, rather than the more expansive cap of 100 kW used in the second triennial plan.¹⁹ CLF is concerned that restricting those eligible for small business consumer programs will result in less energy efficiency. Cutting consumers off from programs for which they were once eligible – particularly programs designed to facilitate easy uptake of energy efficiency measures – appears to be inconsistent with the Trust's statutory obligation to ensure the capture of all cost-effective, reliable and achievable energy efficiency savings.²⁰ Further, the Trust apparently restricts eligibility of the small business initiative to only “selected geographical areas,”²¹ and engages in targeted marketing and outreach in those locales.²² But to the extent that enhanced efforts would reap greater rewards for all Mainers, the Trust should expand the small business initiative, both by raising the threshold for eligibility and pursuing greater geographic reach.²³

¹⁸ 35-A M.R.S. § 10110(2)(B); Proposed Tri Plan § 2 at 2.

¹⁹ See Proposed Tri Plan § 5.3 at 1.

²⁰ See 35-A M.R.S. §§ 10110(4-A), 10104.

²¹ Proposed Tri Plan § 5.3 at 1.

²² See *id.* at 4.

²³ CLF recognizes and appreciates the Trust's intent to expand the program to more densely populated areas, see Proposed Tri Plan § 5.3 at 1, but urges more rigorous growth of the program.

4. *Use of a discount rate consistent with the Trust's revised rules*

In its selection of a discount rate used to calculate the present value of each energy efficiency measure over its expected life, the Trust relies on the rule amendments it proposed earlier this year.²⁴ Public process on those rulemakings overlapped with the Trust's development of the Proposed Tri Plan (public hearings on the rulemakings were held on July 31, 2018 and written comments were due on August 10, 2018; the Trust released the Proposed Tri Plan on August 10, 2018). Final amendments to the rules have not yet been released. However, discussion at the Trust board meeting concluding the rulemakings indicated that the new regulatory rate would be the current yield of long U.S. Treasury securities, plus 2%, adjusted for inflation – not the higher rates initially proposed by the Trust.

The Proposed Tri Plan, as written, deviates substantially from the anticipated new rules and as a result, undervalues energy efficiency. CLF recognizes that the Proposed Tri Plan's reliance on the 8.5% discount rate for electric utility procurement-funded measures, and the combined average of Maine gas utilities' most recently established weighted costs of capital for the natural gas procurement, is likely a result of the overlapping regulatory processes, and expects that the Trust intends to adjust the discount rate accordingly. Nevertheless, CLF takes this opportunity to discuss the importance of an appropriate discount rate for evaluating energy efficiency measures.

The discount rate, a measure of the value of money over time, is a critical component of evaluating avoided energy costs, which are a key consideration that substantially impacts the assessment of the cost-effectiveness of energy efficiency measures and programs.²⁵ Because costs of energy efficiency measures are typically incurred up front while benefits may accrue over many years, an appropriate discount rate is necessary to properly weigh costs against benefits. An overly high discount rate will skew cost-effectiveness tests, balancing under-valued long-term benefits against short-term costs, and a discount rate that is too low will have the opposite effect.²⁶ Thus, the discount rate directly impacts which efficiency measures will be deemed cost-effective, which will be funded and pursued, and thus the breadth, comprehensiveness and rigor of the overall programs.

²⁴ Proposed Tri Plan § 4 at 7-8 (“According to Chapter 3 of the Trust’s proposed rules, the discount rate used for electric utility procurement-funded measures is 8.5%, adjusted for inflation. According to Chapter 4 of the Trust’s proposed rules, the discount rate used for utility procurement-funded natural gas measures is the combined average of all Maine gas utilities’ most recently established weighted costs of capital.”)

²⁵ See, e.g., U.S. Environmental Protection Agency, *Understanding Cost-Effectiveness of Energy Efficiency Programs: Best Practices, Technical Methods, and Emerging Issues for Policy-Makers* (Nov. 2008) at ES-2, available at <https://www.epa.gov/sites/production/files/2015-08/documents/cost-effectiveness.pdf> (“A significant driver of overall cost-effectiveness of energy efficiency is the discount rate assumption used to calculate the net present value (NPV) of the annual costs and benefits.”).

²⁶ See, e.g., National Efficiency Screening Project, *National Standard Practice Manual for Assessing Cost-Effectiveness of Energy Efficiency Resources* (May 2017) at 72, available at https://nationalefficiencyscreening.org/wp-content/uploads/2017/05/NSPM_May-2017_final.pdf.

The Trust’s use of the numbers in the proposed rules is inconsistent with 35-A M.R.S. § 10110. The statute provides that:

When determining the amount of cost-effective electric energy efficiency resources to be procured under this subsection, the commission shall . . . Ensure that calculations of avoided energy costs and the budget identified by the trust in its triennial plan as needed to capture all cost-effective electric energy efficiency resources are *reasonable*, based on *sound evidence* and make use of *best practices across the region*.²⁷

The 8.5% discount rate is unreasonably high for evaluating low-risk energy efficiency measures. Under the cost-effectiveness test utilized by the Trust, costs considered include “costs to program participants as well as costs to the [electric] distribution company.”²⁸ According to the Trust, energy efficiency is a “low-risk investment[] from the perspectives of both the distribution company and the ratepayers.”²⁹ Distribution companies recover their costs through charges to their customers, while customers reap the long-term benefits of low-cost energy efficiency measures.³⁰ Further, unlike with traditional utility spending, there are no costs to the utility of capital investments; the weighted average cost of capital is therefore an inappropriate measure of the time value of the benefits for the purposes of energy efficiency investments.³¹

A low discount rate is both reasonable and best practice because “the goal of cost-effectiveness screening is to identify those resources that are in the best interest of customers . . . over the full time period with which regulators are concerned—often about 20 years.”³² Using a high discount rate “would significantly undervalue the future benefits of energy efficiency, and result in customers paying higher electricity costs over the long-term.”³³

The reasonableness of a low discount rate is corroborated by the regional studies that are periodically developed by collaboration of a large group of diverse New England stakeholders. These “AESC”³⁴ studies, whose sponsors include transmission and distribution utilities, state

²⁷ 35-A M.R.S. § 10110(4-A)(B) (emphasis added).

²⁸ *Efficiency Maine Trust*, Request for Approval of Third Triennial Plan, No. 2015-0175 (“Third Triennial Plan PUC Docket”), ODR-001-029 (Me. P.U.C. Jan. 25, 2015) (citing *Investigation by the Department of Public Utilities on its own Motion into Updating its Energy Efficiency Guidelines Consistent with An Act Relative to Green Communities*, D.P.U. 08-50-A, at 21 (Mar. 16, 2009)).

²⁹ *Id.*

³⁰ *See id.*

³¹ Third Triennial Plan PUC Docket, Rebuttal Testimony of Tim Woolf on Behalf of Natural Resources Council of Maine and Conservation Law Foundation (Me. P.U.C. Mar. 16, 2016), 4:19–20; *id.*, Direct Testimony of Tim Woolf on Behalf of Natural Resources Council of Maine and Conservation Law Foundation (Me. P.U.C. Feb. 17, 2016), 14:12–19.

³² *Id.*, Rebuttal Testimony of Tim Woolf on Behalf of Natural Resources Council of Maine and Conservation Law Foundation (Me. P.U.C. Mar. 16, 2016), 4:15–18.

³³ *Id.*, Direct Testimony of Tim Woolf on Behalf of Natural Resources Council of Maine and Conservation Law Foundation (Me. P.U.C. Feb. 17, 2016), 14:17–19.

³⁴ Previously the Avoided Energy Supply Costs in New England, *see, e.g.*, Rick Hornby, et al., *Avoided Energy Supply Costs in New England: 2015 Report* (Rev. Mar. 31, 2015); most recently, Synapse

energy efficiency agencies including the Trust, as well as some states and state utility regulators,³⁵ utilize a discount rate far lower than that used in the Proposed Tri Plan. In the three most recent iterations of the report, the real discount rates used were 2.43% (AESC 2015), 1.43% (AESC 2015 Update), and 1.34% (AESC 2018) (the nominal discount rate used in the 2018 AESC Report was 3.37%).³⁶ These rates are informed by treasury bill rates.³⁷ In previous draft triennial plans, the Trust has endorsed the discount rates used in the AESC studies, proposing to adopt them to assess avoided costs in Maine.³⁸ The discount rate now proposed to be used in the Proposed Tri Plan is discordant with the heavily vetted input assumptions used by the AESC studies to model avoided costs and the Trust's own prior positions on proper rate setting,³⁹ suggesting that the number is unreasonable, out of line with regional best practice, and contrary to sound evidence.

5. Conclusion

CLF appreciates the opportunity to submit these comments, and respectfully urges the Trust to address the matters raised herein.

Sincerely,



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Energy Economics, et al., *Avoided Energy Supply Components in New England: 2018 Report* (Amend. June 1, 2018).

³⁵ Study sponsors for the 2018 AESC Study include: Berkshire Gas Company, Cape Light Compact, Liberty Utilities, National Grid USA, Eversource (Connecticut Light and Power, NSTAR Electric and Gas Company, Western Massachusetts Electric Company, Public Service Company of New Hampshire, and Yankee Gas), New Hampshire Electric Co-op, Columbia Gas of Massachusetts, Unitil (Fitchburg Gas and Electric Light Company, Unitil Energy Systems, Inc. and Northern Utilities), United Illuminating, Southern Connecticut Gas and Connecticut Natural Gas, Efficiency Maine, and the State of Vermont.

³⁶ AESC 2018 Study at 17, n. 3, and 346.

³⁷ *Id.* at 346.

³⁸ *See, e.g.*, Third Triennial Plan PUC Docket, ODR-001-029 (Me. P.U.C. Jan. 25, 2015) (“The Trust uses the long-term real discount rate developed by the 2015 AESC Study. The long-term real rate in AESC 2015 is 2.43% . . . The Trust uses these values because it is consistent with the Trust’s [sic] rules, it is consistent with the approach used in other jurisdictions in the region, and it appropriately reflects the source, intended uses, and risks associated with the funds.”); *see also* Third Triennial Plan PUC Docket, Triennial Plan for Fiscal Years 2017-2019 (Me. P.U.C. Dec. 16, 2015), 23.

³⁹ *See, e.g.*, Third Triennial Plan PUC Docket, Rebuttal Testimony of Efficiency Maine Trust (Me. P.U.C. Mar. 16, 2016), 10:2-3, 9-11 (“Drawing on regional best practices, the Trust also applied the long-term real discount rate developed by the 2015 AESC Study;” “The Trust uses these values because it is consistent with 96-648 Code of Maine Rules Chapter 380, it is consistent with the practice in Massachusetts, Rhode Island and Vermont, and it appropriately reflects the source, intended uses, and risks associated with the funds.”).