An Energy Efficiency Proposal for New York

Investing in a Low-Cost Resource

March 26, 2018

Acadia Center
Advancing the Clean Energy Future

Introduction

Acadia Center submits this proposal in response to New York Governor Andrew Cuomo's recent announcement as part of his State of the State address to develop a comprehensive and far reaching energy efficiency strategy by April 22, 2018, including a new 2025 energy efficiency savings target.

Acadia Center is a non-profit, research and advocacy organization committed to advancing the clean energy future. Acadia Center is at the forefront of efforts to build clean, low carbon and consumer friendly economies. Acadia Center's approach is characterized by reliable information, comprehensive advocacy and problem solving through innovation and collaboration.

In his State of the State speech, Governor Cuomo highlighted the importance of energy efficiency in lowering energy bills for New Yorkers and in meeting the state's clean energy and environmental goals, and acknowledged that energy efficiency has not been on the same growth trajectory in New York as solar and wind. The Governor called on the Department of Public Service and the New York State Energy Research and Development Authority to do three things: engage stakeholders and propose a comprehensive energy efficiency initiative by Earth Day, April 22, 2018; propose a new 2025 energy efficiency target to be achieved by cost effective and innovative strategies from public utilities and the Clean Energy Fund; and identify opportunities by which state facilities can lead by example. The creation of such a target is an important first step in making New York a leader in energy efficiency. Below, Acadia Center offers its suggestions in creating a robust energy efficiency initiative that includes a strong 2025 energy savings target that positions New York as a national leader in investing in energy efficiency.

Acadia Center's proposal is composed of several parts. First, it provides a background on the all cost-effective (ACE) energy efficiency approach, which Acadia Center refers to as Efficiency Procurement. Second, it recommends that interim Efficiency Procurement targets be established that are achievable and comparable to neighboring states and that a market-based analysis be performed to determine whether these interim targets should be increased. Third, it recommends engaging a broad range of stakeholders to provide input and accountability to constituents. Fourth, it recommends identifying a long-term funding source for efficiency investment. Finally, it suggests ways to better align utility incentives with efficiency goals.

Efficiency Procurement to Meet Utility Load

In the most basic terms, energy efficiency is about investing money in ways to help consumers save on electricity by purchasing efficiency that is less expensive than traditional energy supply. On a large scale, efficiency investments avoid the need for expensive new generation and infrastructure. Investing in local efficiency rather than spending energy dollars on imported fossil fuels stimulates economic growth and creates jobs.

A fundamental component of making the electric system work with less infrastructure is to find a reliable way to identify and capture ACE efficiency resources. States that have adopted the principle of ensuring that utilities purchase the lower cost energy resource first – energy efficiency – are proving that doing so brings macroeconomic

and market penetration benefits, as well as consumer and environmental savings. Because this almost always means investing in efficiency first, we refer to the policy as Efficiency Procurement, a proven strategy based on economics that is flexible to changing market conditions and maximizes consumer benefits.

Efficiency Procurement Leads to Quantified Major Savings

Efficiency Procurement is paying off for the states that have adopted this approach. The efficiency plans and investments ushered in by this strategy reap large savings and reduce capital investments in traditional grid infrastructure and spending on fossil fuels. Figure 1 shows how efficiency procurement is far less expensive than purchasing new supply. Figure 2 shows how acting as an energy resource, energy efficiency can reduce forecasted power demand in New York.

Figure 1: Efficiency procurement is less expensive than purchasing new supply

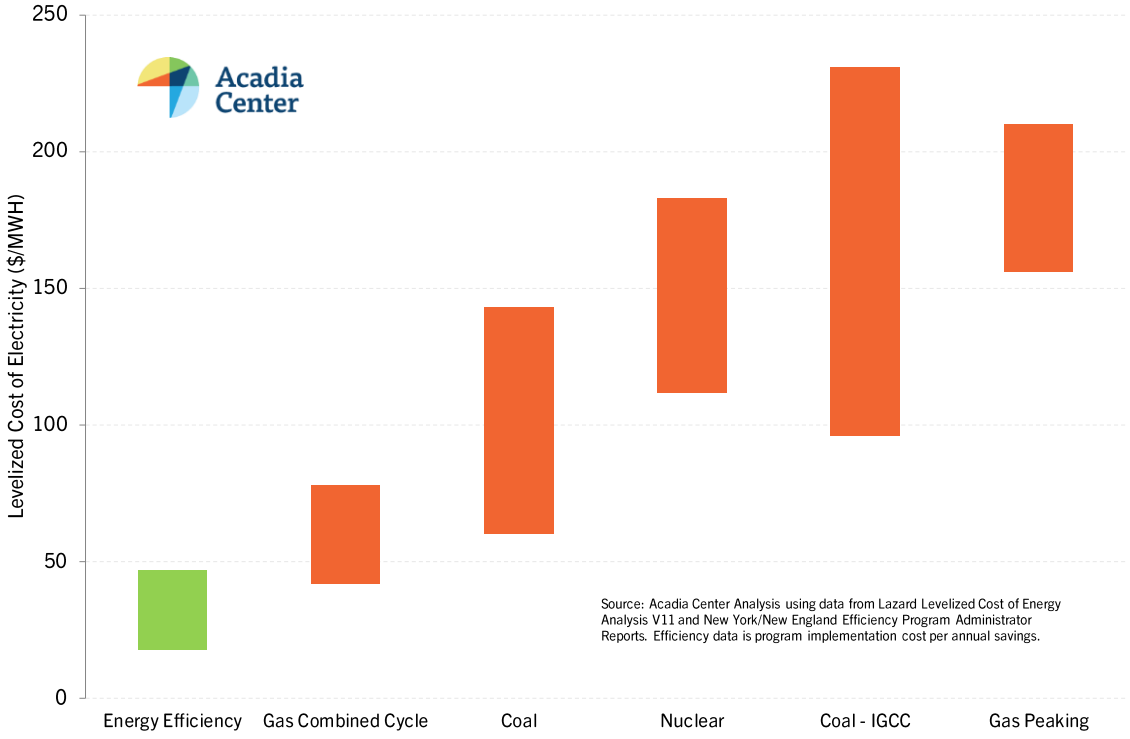
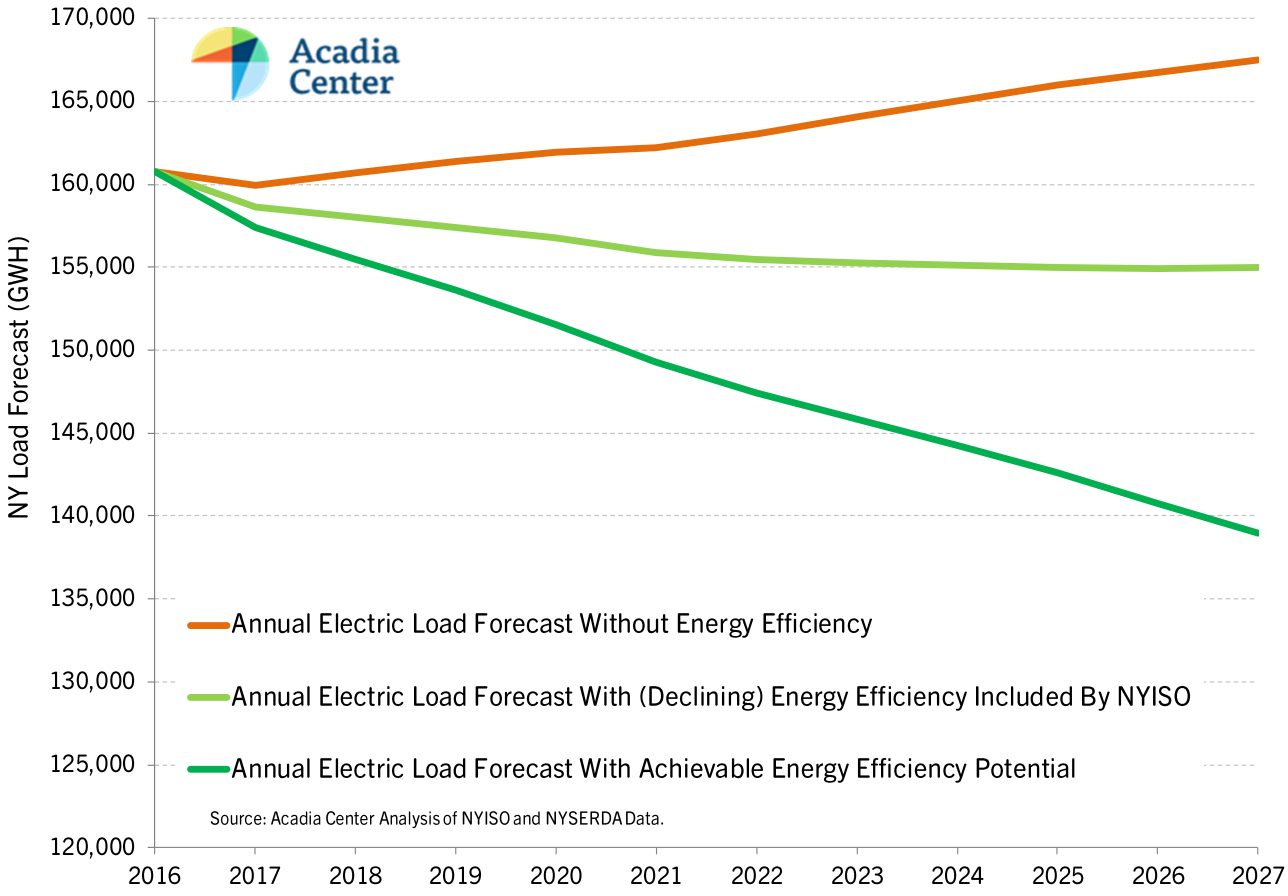


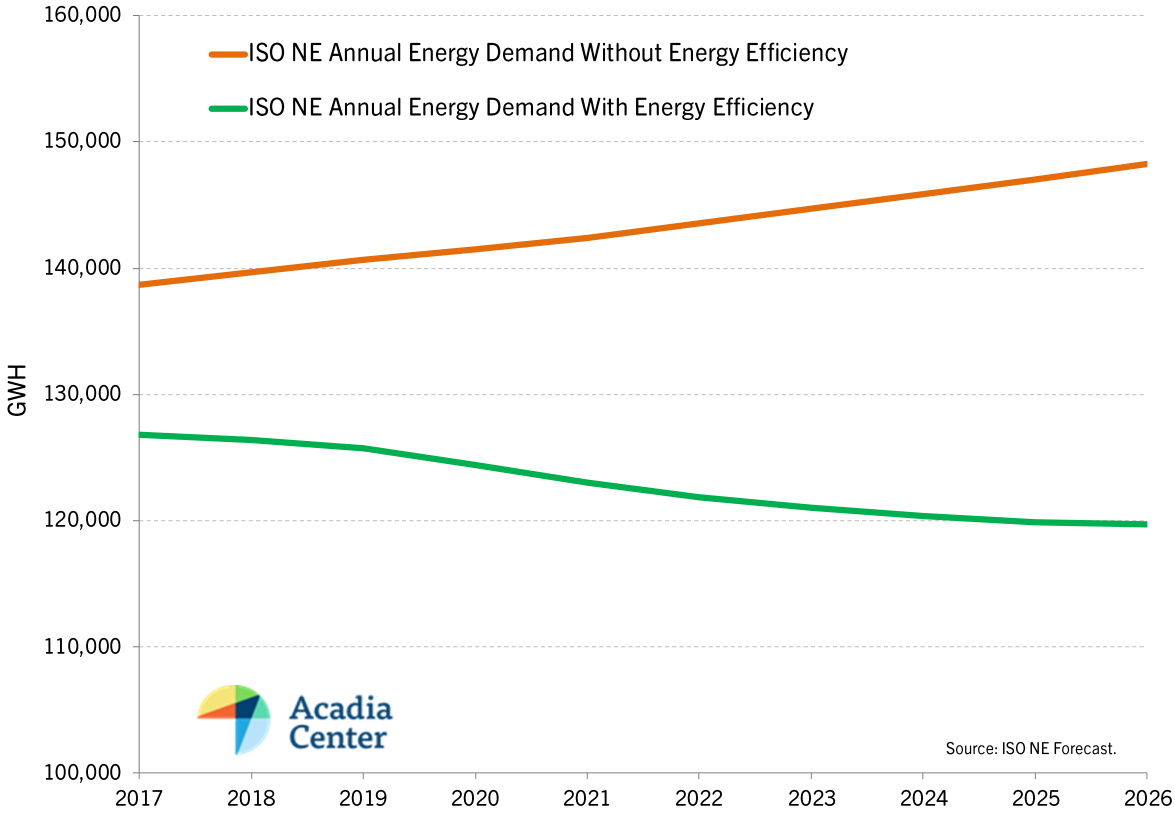
Figure 2: Energy efficiency can reduce forecasted electricity demand in NY



Cost-Effective Energy Efficiency Investments Lower Overall System Costs

In 2012, the Independent System Operator for New England (ISO-NE) began conducting an annual forecast of New England states' existing and planned energy efficiency investments to determine how they can decrease the need for additional transmission and other reliability requirements. The results showed benefits almost immediately. The inclusion of expected energy efficiency investments through Efficiency Procurement policies in MA and VT in load forecasts allowed regulators to defer indefinitely more than 10 planned transmission upgrades, saving the region an estimated $416 million in transmission costs. The forecast has led ISO-NE to project a decline in annual energy usage across the region, as set forth in Figure 3.

Figure 3: ISO-NE forecasted annual energy demand through 2026

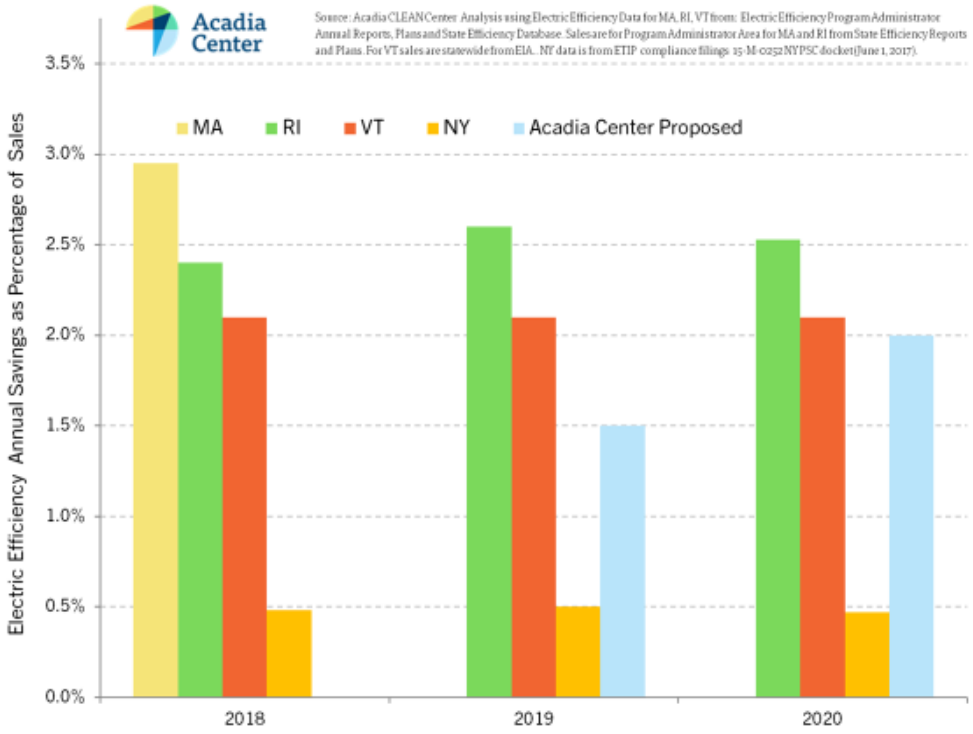


In addition to enabling nation-leading levels of energy savings, these states' investments in ACE energy efficiency are creating jobs and boosting economic activity because they are keeping money in the region instead of spending it on imported fossil fuels for electric generation. Energy efficiency reduces the cost of doing business and lowers residents' energy bills, leaving them with more disposable income to spend on other goods and services. These two effects lead to job creation and economic growth. In New England, every $1 million invested in energy efficiency leads to the creation of 46 job-years of employment, and every $1 invested boosts Gross State Product by $5.90.

New York can capture these benefits by investing in energy efficiency at levels comparable to neighboring states. Figure 4 compares 2018-2020 efficiency savings targets in three leading states — MA,[1] RI and VT — with NY and also shows Acadia Center's proposed interim annual savings targets for NY, which are discussed in more detail below.

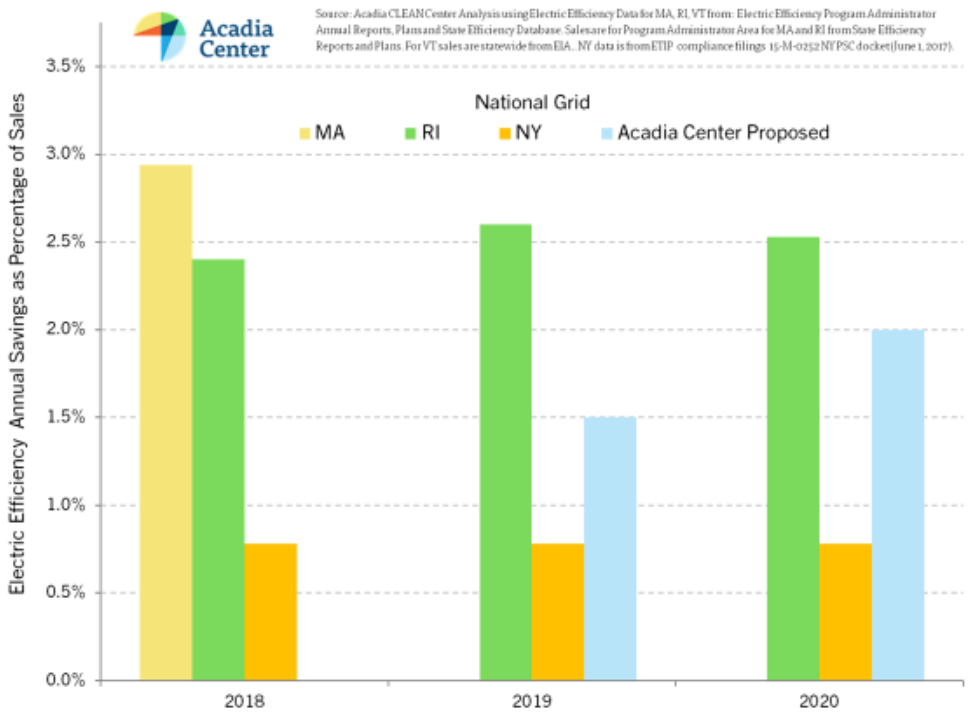
[1] Efficiency savings targets are not yet available for MA for 2019 and 2020.

Figure 4: Comparative three-year efficiency savings targets for MA, RI, VT and NY



The higher savings goals achieved outside of New York are being successfully captured by public utilities in these states. A good example is National Grid. Figure 5 shows that National Grid is achieving annual savings levels of over 2.5% in its service territories in MA and RI, far above what it expects to obtain in its New York service territory in 2018-2020. This chart also includes Acadia Center's proposed interim savings targets for comparison.

Figure 5. National Grid's Efficiency Savings Targets in MA,[2] RI and NY 2018-2020



Establish Viable Efficiency Targets Comparable to Neighboring States

Acadia Center recommends that the best way for New York to identify the appropriate levels of Efficiency Procurement is for the state to set interim annual energy efficiency targets at levels currently being achieved in neighboring states and service territories. Acadia Center suggests that after a three-year transition period from 2019-2021, interim targets of a minimum of 2.50% per year be established from 2022-2025, and that New York utilities be required to obtain these least cost resources when contracting to meet their load requirements. These interim targets, while higher than New York's current targets, are significantly less than leading states such as Massachusetts, which achieved annual savings of 3.24% in 2016.

Proposed 2019-2025 Interim Efficiency Savings Targets for New York Utilities

2019	1.50% (ramp up)
2020	2.00% (ramp up)
2021	2.50% (ramp up)
2022	2.50% (minimum levels to be informed by market assessment)
2023	2.50%
2024	2.50%
2025	2.50%

[2] Efficiency savings targets are not yet available for MA for 2019 and 2020.

As these interim targets are being met, the state should commission a market-based assessment that is informed by annual energy efficiency levels achieved in leading states like MA, VT and RI. Among other things, the study should look at all fuels and consider economic potential that is possible when delivered via integrated fuel-blind programs. Once this assessment is completed, the interim savings targets can be revised upward as necessary to capture ACE energy efficiency in a reasonable timeframe. Acadia Center suggests that once these annual savings targets are set, utilities should be required to prepare detailed three-year plans on how they plan to capture these savings levels.

Identify and Engage a Broad Set of Stakeholders

A stakeholder advisory council comprised of consumer, environmental, low-income, business, environmental justice and other groups can provide meaningful input and provide accountability to constituents by making sure that utility energy efficiency programs are serving them well. A coordinated process can bring all stakeholders into the discussion before policies and plan details progress to the point where there is little flexibility to address concerns and instead seek solutions that better satisfy multiple objectives, rather than expend effort on contentious litigated proceedings between utilities, intervenors and public agencies. In addition, building a foundation of common knowledge will lead to greater public acceptance. Actively engaging consumer, business, and environmental interests will ensure more balanced and stable outcomes.

Energy efficiency stakeholder councils in MA, RI, and CT have a statutory mandate and financial resources necessary to oversee programs, assess the size and character of the cost-effective efficiency potential, guide planning and budgeting, and conduct evaluation, measurement, and verification. The states with such stakeholder engagement are seeing among the highest market penetration of efficiency goods and services, the largest savings rates in the country, and the largest per capita economic benefits.

Structured stakeholder participation can benefit Efficiency Procurement efforts in several ways:

- Address the imbalance in resources and information that can lead to utilities' disproportionate ability to influence regulatory decisions and result in the public perception of unfairness.
- Greater buy-in by all affected parties, which can reduce the total time of making and implementing decisions. This reduces the regulatory burden and the potential for litigation or appeals of regulatory decisions.
- Bringing together diverse interests to identify, discuss, and address complex issues and provide recommendations. This helps overcome information gaps and assist regulators' evaluation of plans and policies.
- Provide recommendations for setting interim efficiency savings targets and feedback on ACE potential study.
- Ongoing oversight and continuous improvement of energy efficiency programs once final savings levels are established.

Establish A Durable, Long-term Funding Source for Efficiency Investments

Once utilities, stakeholders, and regulators have determined the annual level of ACE energy efficiency to be procured, there are several potential sources for funding efficiency investments. Acadia Center recommends that clear rules be established for determining the proper amount of funding through rates by all electric and natural

gas customers. Every customer contributes toward the needed amount of funding and in return the energy efficiency programs, energy audits, technical assistance, rebates, and incentives are offered to every customer. Additional funding sources include: (1) allow revenue from bidding the capacity value of the states' energy efficiency programs into the NYISO Forward Capacity Market; and, (2) re-investing revenue from New York's Regional Greenhouse Gas Initiative (RGGI) auctions in energy efficiency.

Align Utility Incentives with Efficiency Goals

Key reforms that align utilities with Efficiency Procurement and focus on economic resource acquisition include:

- **Align utility's financial incentives with consumer interests**: Utility revenue reform, or "decoupling," breaks the link between the utility's profits and sales volume, removing the disincentive for the utility to be a full partner in energy efficiency. Performance-based incentives that reward the utility for achieving energy savings goals, like Earnings Adjustment Mechanisms (EAMs) which are part of the utility incentive alignment going on in the state's Reforming the Energy Vision (REV) process, can provide meaningful program delivery. However, EAMs need to be carefully calibrated to achieve meaningful outcomes far above business as usual.

- **Defined cost-benefit framework for investing in all cost-effective efficiency**: To ensure that the benefits of energy efficiency programs are greater than the costs, each state has established a cost-benefit test to measure cost-effectiveness. Rhode Island and Massachusetts' regulators have adopted the Total Resource Cost (TRC) test to facilitate investments in energy efficiency based on economics. By comparing the net present value of a stream of benefits over the net present value of a corresponding stream of costs, the TRC test indicates that an efficiency program is cost-effective if the benefits to the state outweigh the costs to the state.

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