

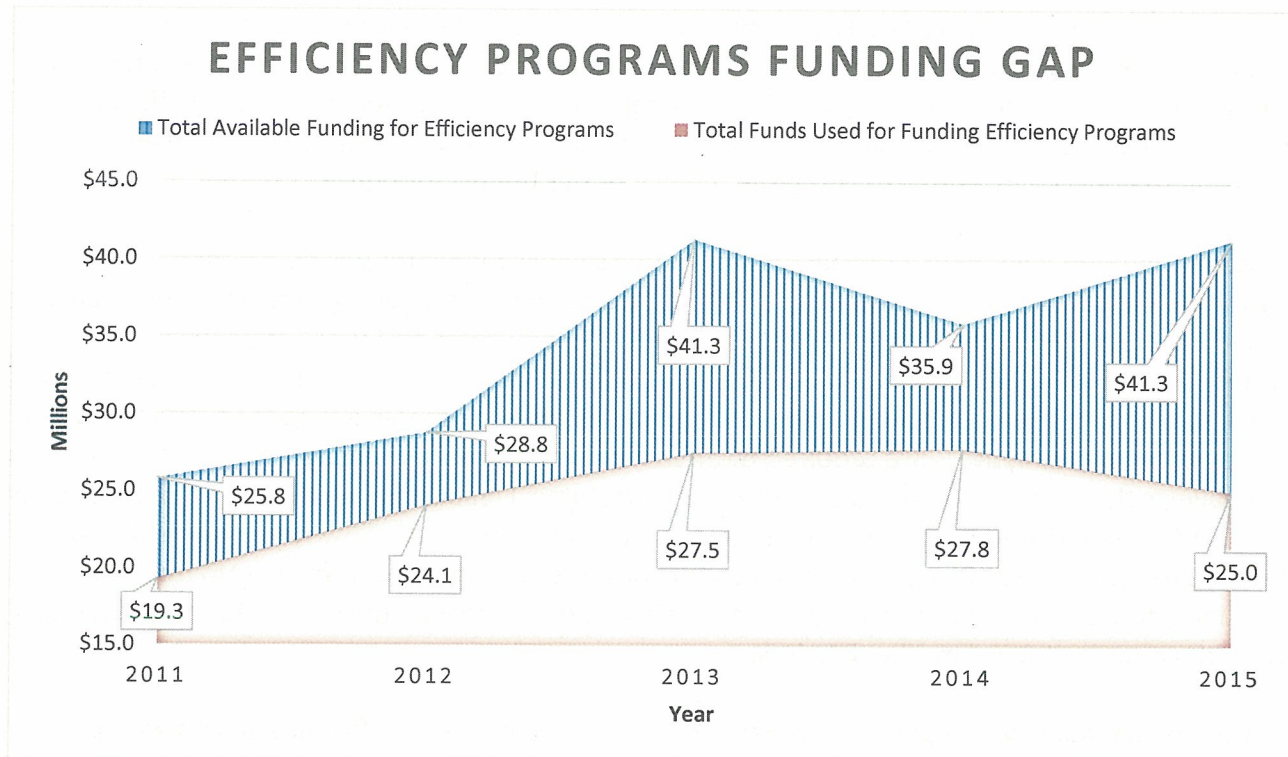
TRC is a nationally recognized leader in designing, managing and evaluating cost-effective energy efficiency and clean energy programs for utilities, state energy offices and public authorities throughout the country. TRC recognizes the importance of energy efficiency and has helped its utility, state energy office and public authority clients establish and meet energy efficiency goals in ways that provide energy, environmental, and economic benefits to energy consumers. TRC has an interest in this proceeding, having administered an energy efficiency program which addressed the energy efficiency needs of the commercial, industrial and municipal sectors throughout New Hampshire. This program, NH Pay for Performance (NH P4P) was managed by TRC from 2011 through 2015, and was funded through the Greenhouse Gas Emissions Reduction Fund (GHGERF). Through the management of the NH P4P, TRC developed a strong working knowledge of the needs, limitations and resource requirements for New Hampshire's businesses to participate and be successful in implementing comprehensive energy efficiency projects. TRC strongly supports establishing an Energy Efficiency Resource Standard (EERS) and would like to express our support through this filing and relay information that will contribute to a successful launch of this important policy.

The establishment of a NH EERS with aggressive energy savings mandates will be a dominant policy driver for increased investments in energy efficiency. Customer-funded energy efficiency programs have been successfully implemented in over 25 states for many years and these state level commitments can be considered one of the key drivers in the dramatic increase in energy efficiency program spending in the last decade. A NH EERS should establish aggressive long-term savings targets so that program implementers are required to drive increased consumer engagement that will lead to energy savings that are on par with other New England states. Establishing an evolving mix of funding mechanisms, demand-side management and distributed generation will allow New Hampshire to achieve aggressive targets. Programs that leverage consumer engagement efforts from multiple sources including the utilities and third party administrators will be well-positioned to meet regional needs and overcome typical market barriers.

Regulatory policy will have a significant impact on investment in energy efficiency in New Hampshire. Developing an EERS will set a foundation for achieving all cost-effective energy efficiency, however the issue of funding mechanisms needs to be fully vetted in order to achieve long-term success. New Hampshire is currently well suited to fund a robust EERS. The existing system of funding mechanisms that are used to fund energy efficiency programs, including; the System Benefits Charge (SBC), the Regional Greenhouse Gas Initiative (RGGI) auction proceeds, Local Distribution Adjustment Clauses, proceeds from ISO-NE's Forward Capacity Market and federal grants serve as a solid foundation for structuring an EERS market.

Throughout the series of technical sessions related to the EERS docket held over the past six months, it has been made clear that increases to the SBC and LDAC are not viable choices given the sensitivity to increased electricity rates. TRC understands that competitive electricity rates are important to the state's economic growth but does not believe that keeping energy efficiency program funding at current levels is an effective strategy for initiating an EERS. TRC strongly believes that proper use of RGGI proceeds currently being collecting by New Hampshire offer the ideal solution to expanding energy efficiency program activity to the level necessitated by an EERS.

RGGI funds currently contribute approximately 6% of the total CORE efficiency budget but there is potential to dramatically increase this level of funding. New Hampshire received a total of \$18.9 million from RGGI in 2015 but only \$2.6 million was slated for efficiency programs through the CORE utility programs. This amounts to only 13% of RGGI funding being collected by the state, which per the intentions of RGGI were to be entirely invested in furthering energy efficiency in New Hampshire. The graph below illustrates the gap in RGGI funding being collected versus what is currently being used to fund energy efficiency programs. In 2015, \$16.3 million was collected via RGGI and refunded back to customers. If New Hampshire is serious about an EERS, the first step is to end this absurd collect and repayment system and use RGGI funding for what it was originally intended.



As New Hampshire and neighboring states work to understand the region's energy needs while controlling costs, policy makers and stakeholders should prioritize all cost-effective energy saving investments. It has been proven that investing in increasing energy efficiency on a large scale reduces overall market prices so a diverse collection of programs should be offered to achieve the most cost-effective savings.

Market transformation is the definitive goal for an EERS and New Hampshire has the ability to catch up to other New England states that have been racing ahead with successful, cost-effective programs. TRC recognizes the successes of the CORE programs but sees an opportunity for additional programs that focus on a variety of project types, sizes and customer sectors. An ideal EERS would broaden the customer base that is reached and provide the opportunity for all contributors to the program funding

to receive program benefits. There are several customer sectors that are traditionally underserved and a well-funded EERS will fill the gaps that currently exist.

As noted in the PUC Order of Notice several studies of energy efficiency potential in New Hampshire were conducted and all suggested that additional opportunities for cost-effective energy efficiency exist beyond those attained through the CORE programs. Hybrid programs, which effectively address electricity and fuel savings, are a necessary addition to the existing efficiency programs because they will expand the sphere of influence and introduce building owners to deeper energy savings projects. Encouraging deeper energy savings moves businesses and homeowners to the next level of energy efficiency and reduces the cost, in \$/MMBTU, of achieving savings.

Several other states have been successfully implementing publically funded energy efficiency programs for many years and have quickly adapted to rigorous schedules and aggressive goals. New Hampshire has the opportunity to learn from these states and draw from best practices to launch an EERS effectively and efficiently. We have provided a brief background of the efforts and status of three states with robust and mature energy efficiency markets. California, New York and New Jersey have a wide variety of electric and gas programs that provide incentives and technical assistance to homeowners and businesses. These states have moved beyond offering traditional rebate programs and are keenly focused on market transformation, providing good examples of best practices.

California

In California, energy efficiency is considered to be the top preferred resource as established in the State's Energy Action Plan for the loading order of energy resources to meet the energy demand. The loading order is:

1. Energy efficiency and demand response
2. Renewable generation
3. Distributed generation
4. Cleanest available fossil resources

PUC Sec 454.5 requires that Investor Owned Utilities (IOUs) "meet unmet resource needs with all available EE and demand reduction that is cost-effective, reliable, and feasible." The CPUC establishes targets for the IOUs to achieve all cost-effective electric and gas efficiency.

In order to support this, California collects funding for energy efficiency programs through a public goods charge on utility ratepayer bills. The California Public Utilities Commission regulates the PGC expenditures made by the State's four IOUs.

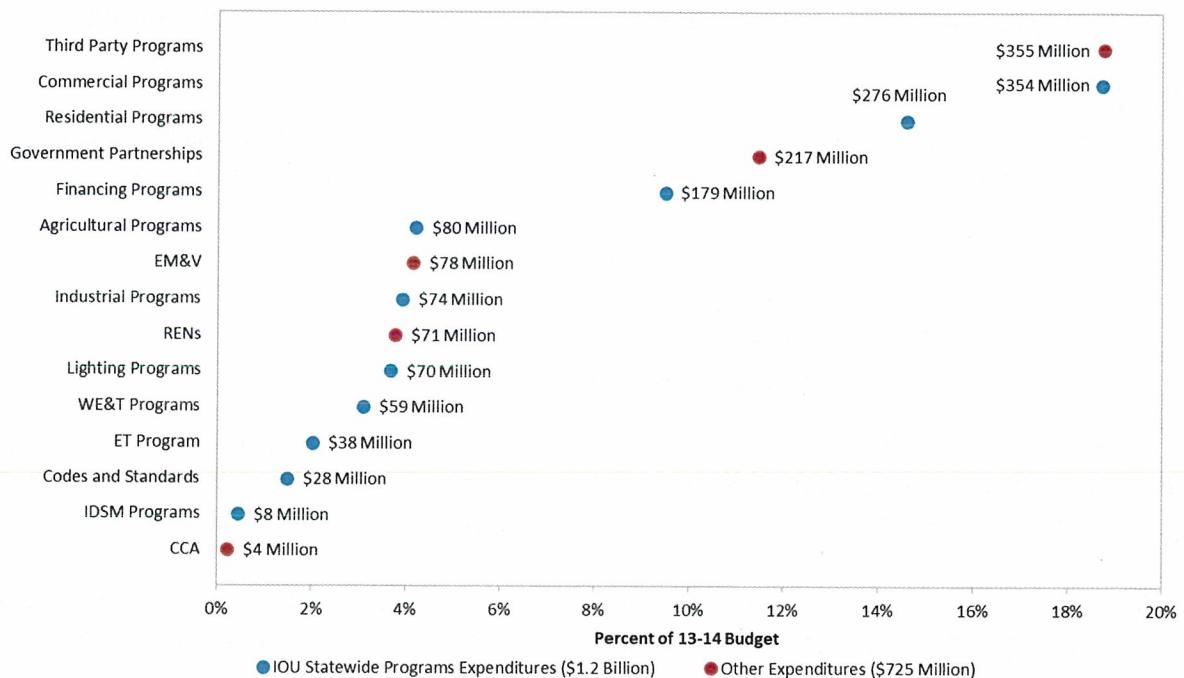
Historically, the IOUs served as EE Program Administrators overseeing a portfolio of both Core Programs implemented by the utility and Third Party programs that are competitively bid and implemented by public, private, and non-profit energy companies. In addition to Core and Third Party programs, the IOU portfolios include Government/Partnership Programs specifically offered for local governments, universities and other State agencies. The IOUs can use third parties to support the implementation of their Core and Government/Partnership Programs. Energy efficiency programs

were funded in 3-year program cycles with extensions or bridge-funding years as needed to align with the CPUC schedule.

The IOU EE portfolios must meet several legislative requirements including:

- CPUC review and approval
- Must meet CPUC-established savings goals
- Must be cost-effective as a portfolio (e.g. pilots or market transformation programs may not be cost-effective but on balance the portfolio must be cost-effective)
- Programs must meet the requirements of CPUC guidance decisions and pursue the Strategic Plan objectives
- A minimum of 20% of the EE budget must be competitively bid by third party implementers

The IOUs are entitled to an Efficiency Savings and Performance Incentive (ESPI) as a financial incentive to meet or exceed their EE goals. In the 2013-14 IOU portfolio budgets, approximately 26% of the expenditures was budgeted to be delivered by third party implementers through Third Party Programs and other program support services¹.



The IOUs develop their EE portfolios with a mix of program types. There are 10 Statewide Programs on which all the IOUs collaborate for delivery. These include the following program areas. Many of these Statewide Programs are delivered using competitively-bid third party resources.

1. Residential (HVAC, whole home upgrades, new construction, advisor, multifamily)
2. Commercial (HVAC, custom- calculated, new construction, deemed incentives, direct install)
3. Industrial (calculated and deemed incentives, continuous improvement)

¹ 2013 IOU Compliance Filings

4. Agricultural (calculated and deemed incentives, advisor)
5. Lighting (primary lighting, innovation, and market transformation)
6. Codes & Standards (building – Title 24 and appliance – Title 20 standards, compliance, Reach Codes)
7. Emerging Technologies (technology assessments, introduction, development)
8. Workforce Education and Training (stakeholder engagement)
9. Integrated Demand-Side Management
10. Financing

Each IOU also has unique Third Party Programs that are designed, competitively-bid, and implemented by third party companies and organizations. These programs are often sector-based with programs focusing on sectors such as:

- Healthcare/hospitals
- Lodging
- Grocery stores
- Casinos
- Commercial office
- Multifamily

California is currently undergoing a shift from the historical 3-year efficiency program funding cycle to a rolling portfolio of energy efficiency programs with guaranteed funding levels for 10 years. The process being implemented will allow for IOUs to have greater flexibility in managing their portfolios to extend and expand successful programs and close non-performing programs. Launching in 2016, California's rolling portfolio approach provides for more on-ramps and off-ramps for programs and recognizes the rapid pace of change with new technologies in today's efficiency program options. California's Standard Practice Manual (SPM) outlines the process for evaluating program and portfolio cost-effectiveness and impacts. Per the SPM, California uses a dual Program Administrator (PAC) and Total Resource Cost (TRC) test for EE portfolio evaluation and approval. The California model for EE delivery has yielded an estimated net benefit of \$1.8 billion for the IOU ratepayers.

\$ Millions	TRC			PAC		
	Net	Benefits	Costs	Net	Benefits	Costs
2006-2008 Evaluated	352	2,886	2,534	1,076	2,886	1,810
2009 Evaluated	486	1,523	1,037	821	1,523	702
2010-2012 Forecast	469	3,598	3,129	1,150	3,598	2,448
2013-2014 Forecast	478	2,388	1,910	1,216	2,388	1,172
Total	1,785	10,395	8,610	4,263	10,395	6,132

Figure 1: Estimated Cost-benefits of California's EE Portfolio since 2006²

² Table 2, pg viii, 2006-2008 Evaluation report: <http://ftp.cpuc.ca.gov/gopher-data/energy%20efficiency/2006-2008%20Energy%20Efficiency%20Evaluation%20Report%20-%20ES.pdf>

Table 2, pg 4, 2009 Evaluation Report: <http://www.cpuc.ca.gov/NR/rdonlyres/D66CCF63-5786-49C7-B250-00675D91953C/0/EEEvaluationReportforthe2009BFPeriod.pdf>

proxy est from D.09-09-047, pg 4, pg 71 (Table 4); proxy est from D.12-11-015, pg 100 & 103, ex ante 13-14 compliance tool

New York

New York State has made significant progress over the last 15 years toward a more cost-effective, energy efficient, and clean energy system by providing financial incentives and technical assistance under a variety of roughly 90 energy efficiency programs administered by NYSERDA, LIPA, NYPA and New York's six investor-owned utilities. Programs are delivered to New York's businesses, residents, municipalities and not-for-profit organizations by implementation, outreach, and energy service contractors to support the research, development, demonstration, and deployment of energy efficient measures and clean energy generation across New York State.

Under the direction and authorization of the New York State Public Service Commission, New York's energy efficiency programs have been designed and delivered to help New York solve some of its most pressing energy and environmental issues in ways that promote economic opportunities for all New Yorkers, and NYSERDA is responsible for administering over half of New York's energy efficiency and clean energy programs.

In 2014 alone, the annual impact of past and ongoing energy efficiency and renewables programs developed in New York with support from the System Benefits Charge (SBC), Renewable Portfolio Standard (RPS), Energy Efficiency Portfolio Standard (EEPS), Regional Greenhouse Gas Initiative (RGGI) and other initiatives resulted in electric energy savings of 1,338,551 MWh and gas savings of 37.79 MM Therms in gas savings. It is also estimated that the overall impact of the State's aforementioned programs has resulted in a reduction of 7.7 million tons of carbon dioxide (CO₂) per year, equivalent to taking 1.5 million cars off the road each year, and has help retain and create thousands of jobs across the State.

With New York's EEPS and RPS programs ending in December 2015, the SBC program ending in December 2017, and New York's electric grid facing the challenges of an aging infrastructure, minimal overall load growth, and fast-growing peak demand, on April 25, 2014 the New York State Public Service Commission proposed its Reforming New York's Energy Vision (REV) initiative to reform New York's energy industry and regulatory practices by initiating the REV proceeding. The objectives of REV include enhanced customer knowledge and tools for effective management; market animation and leverage of ratepayer contributions; system wide efficiency; fuel and resource diversity; system reliability and resiliency; reduction of carbon emissions; and lower energy costs.

The proceeding is currently ongoing and it is expected that it will lead to regulatory changes that promote more efficient use of energy, deeper penetration and delivery of renewable energy technologies, and the deployment of a broad range of Distributed Energy Resources (DER) such as microgrids, on-site power supplies, and storage. The Commission is also examining changes in current regulatory, tariff, and market designs and incentive structures to better align utility interests with achieving the Commission's REV objectives.

For New York to continue to meet its energy efficiency targets and clean energy generation goals, it is expected that under the direction of the New York State Public Service Commission, the State's energy efficiency programs will continue to be administered by NYSERDA, NYPA, LIPA and the utilities. From implementing the State's new Clean Energy Fund Program to focusing on increased financing

opportunities under NYSEDA's Green Bank, the New York State Public Service Commission believes that the best EERS program administration model is one that has program administrators NYSEDA, NYPA, LIPA, New York's utilities, and implementation and service contractors working together to manage and deliver the State's highly successful and robust portfolio of statewide energy efficiency and clean energy programs.

As New York transitions to REV during 2016, it is expected the State will spend roughly \$178M with targeted savings of approximately 460,000 MWH in 2016 under their electric efficiency programs and \$30M with expected savings of 900,000 Dth under their gas efficiency programs, and \$86M on market transformation, innovation and research efforts. The State has also capitalized the New York Green Bank at \$1B and has allocated \$50M to NYSEDA to administer NY-SUN photovoltaic program.

New York's portfolio of energy efficiency electric and gas programs includes audit, direct install, C&I prescriptive and custom, performance based new construction, multifamily market rate and low income rebate and whole buildings, and various residential rebate programs. The portfolio also includes NYSEDA's Clean Energy Fund (CEF) Program which will be funded at an annual level of \$86M and will support various market transformation efforts designed to accelerate and expand investment in clean energy technologies in New York.

As a result of the REV effort, NYSEDA and utilities are improving their existing programs for 2016 and beyond. Specific examples of a few program enhancements include the aforementioned Clean Energy Fund managed by NYSEDA, a strategic energy management plan program to go deeper into a customer's operations and reach the technical and achievable savings potential that comes from master planning, and a customer engagement through load shape management and investment package program to explore methods to educate customers on their electric load shape to help identify opportunities for energy and peak reduction a scoping study to making the business case for energy efficiency investment in their facilities.

The load shape analysis and measure approach may be customized for specific market segment such as manufacturing, healthcare, college and universities, and retail buildings.

Under the REV initiative, NYSEDA and the utilities will perform EM&V activities that will include traditional program-specific portfolio level process and impact evaluations for their energy efficiency program in their respective program portfolios.

NYSEDA and the utilities will also focus on conducting more strategic and targeted reviews so they can proactively and expeditiously modify programs and be responsive to specific implementation requests.

New Jersey

New Jersey's Clean Energy Program is administered by the NJ Board of Public Utilities (BPU) and delivers energy efficiency programs to residential, commercial, government and nonprofit customers that pay into the State's Societal Benefits Charge (SBC). The program was established in 2001 following passage electric utility restructuring legislation.

The SBC is collected as a non-bypassable charge imposed on all customers of the State's Investor Owned Utilities. The NJ Clean Energy Program is one of six programs supported by the SBC funds. The NJ BPU has contracts in place with third party firms that serve as Market Managers for the residential, renewable and commercial/industrial programs. The Market Manager is responsible for recommending new programs or revisions to existing programs as well as the delivery of the programs (technical assistance, outreach, application processing and payment as well as management of the program budgets and data collection). The BPU must approve all program additions/changes and sets the annual program budgets.

Since its inception, over \$2.5 billion in SBC funds have been expended to support New Jersey's Clean Energy Programs (NJCEP) resulting in a reduction in energy demand as well as economic benefits and emissions reductions for the State. The suite of program offerings has evolved to keep pace with the latest energy efficient technologies as well as the needs of the sectors served by the programs. The NJCEP currently delivers a wide portfolio of programs for Commercial/Industrial Customers including: Direct Install, Pay for Performance, Smart Start (prescriptive and custom retrofit and new construction), CHP/Fuel Cell and Large Energy users Program as well as a Local Government Energy Audit and Benchmarking Program. For the State's residential customers the program offerings include: Home Performance with Energy Star, equipment rebates, residential new construction incentives, as well as warm and cool advantage programs offering incentives for efficient heating and cooling equipment. In addition, the NJCEP administers the Comfort Partners Program which provides free energy saving and energy education program for qualified low-income customers. Comfort Partners has helped over 90,000 families since it was launched in 2001.

Utility run energy efficiency programs vary greatly among NJ's gas and electric utilities, with some offering no unique programs to their customers while others offer their own programs and/or on bill repayment to support the implementation of energy efficiency and the use of the NJCEP offerings. Despite the variety of offerings from the utilities almost all customers in the State can utilize the NJCEP. There are a small number of non-investor owned utilities in NJ. Their customers do not pay into the SBC.

In 2011 the State released its Energy Master Plan (EMP), and recently released the draft update of the EMP for public comment. In the plan and update, the importance of energy efficiency and development of distributed generation continue to be priorities. The State is looking to reduce dependence on the SBC by looking for alternative financing opportunities in the coming program years.

The NJCEP continues to strive for increase energy savings each year. The programs are working toward the Fiscal Year 2016 energy savings goals of 541,171 MWh and 985,909 DTh.

From 2001 through the end of FY 2014 the NJCEP had documented 4,189,558 MWh and 8,657,443 Dth savings. During this same period there were 1,287,157 residents and 45,283 C&I customers participated in the program.

Conclusion

As stated earlier in this document, the answer to the critical issue of how to fund the early years of an EERS lie in the appropriate use of RGGI funding. While we understand that it is not within the Commission's purview to allocate RGGI funding, the Commission would be justified in communicating to the Governor and legislature that if New Hampshire is serious about an Energy Efficiency Resource Standard, the first step is to end the current practice of collecting funding and repaying it back to customers and use RGGI funding for what it was originally intended. This is ideal for the following reasons:

1. Does not require any additional fees or mechanisms for collecting funds.
2. Uses an existing funding stream for what it was intended.
3. Follows in the best practices of other Northeast states that are seeing positive results from the appropriate use of RGGI funding.
4. Allows for the comprehensive, fuel neutral use of a substantial funding stream, without the inherent limitations associated with SBC and LDAC funding.

TRC appreciates the opportunity to provide these comments to Commission and staff in response to the New Hampshire Public Utility Commission's Gas and Electric Utilities Energy Efficiency Resource Standard proceeding. Further, we appreciate the efforts of the PUC staff in convening multiple technical sessions to allow all parties to weigh in on the many issues associated with this docket.