



## Department of Public Service

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Secretary

Three Empire State Plaza, Albany, NY 12223-1350  
[www.dps.ny.gov](http://www.dps.ny.gov)

June 15, 2018

Ms. Kathleen Burgess, Secretary  
New York State Public Service Commission  
Three Empire State Plaza  
Albany, NY 12223-1350

Re: Case 18-M-0084 – In the Matter of a Comprehensive Energy Efficiency Initiative.

Dear Secretary Burgess:

On June 18 and June 29, 2018, the Department of Public Service and the New York State Energy Research and Development Authority will jointly convene technical conferences regarding “New Efficiency: New York”, the white paper filed in the above referenced matter on April 26, 2018. The presentation that will be provided during the technical conferences is enclosed.

Sincerely,

/s/

Colleen Gerwitz  
Acting Director  
Office of Markets and Innovation

Enc.



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**Department  
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# **New Efficiency: New York**

A milestone energy efficiency target and comprehensive strategy

**Technical Conference: June 2018**

# Energy efficiency is a cornerstone of New York State's national leadership on clean energy and combatting climate change



## Governor Andrew M. Cuomo has set New York on a path to:

- Accelerate energy efficiency and reduce greenhouse gas (GHG) emissions
- Decrease consumer energy costs
- Create job opportunities

The most aggressive energy efficiency strategy in New York's history, this initiative brings the State closer to achieving its nation-leading clean energy goals.

2025 statewide energy  
efficiency target

**185 TBtu**

end-use savings  
in buildings  
and industrial sector  
below 2025 forecast

equivalent to fueling  
and powering more than  
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**New York**  
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of the greenhouse gas  
emissions reductions  
needed to meet  
**40% reduction**  
**by 2030**



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# Energy savings across all fuels

**2025 target and portfolio of actions is set to deliver energy and GHG savings in buildings and the industrial sector, across all fuel sources**

- Adopt a mix of strategies as suited to specific markets and their needs
- Build on New York's foundation of energy efficiency policies and programs
- Pursue innovation – test promising approaches, then scale

# Principles

## Align with New York's needs and Reforming the Energy Vision (REV)

- Reduce costs of energy efficiency retrofits to enable market adoption
- Unlock value, specifically value to the energy system
- Deploy technology and data
- Pull in additional innovation and investment from the market
- Engage utilities for greatest impact

Dedicate the resources necessary to achieve the State's energy efficiency target while integrating these gains and improvements

# New Efficiency Portfolio Overview



# Toward market-based approaches

**Under REV, ratepayer-supported energy efficiency programs are moving toward more market-based approaches.**

- Enable the growth of private sector energy efficiency businesses that can deliver value to customers and energy savings effectively and efficiently
- Sustain market momentum and develop a market at scale
- Build on successful programs while embracing innovation
- Support solutions for LMI New Yorkers

# Portfolio of actions

## Portfolio of actions

- Accelerating and shifting the portfolio of utility energy efficiency programs, including consideration of a fuel-neutral approach
- Developing, piloting, and rolling out impactful innovation
- Increasing access to useful data and information
- Aligning energy efficiency payments with value to energy system
- Expanding options for energy efficiency financing
- Building a skilled workforce

# Portfolio of actions (continued)

- Designing to advance deep energy savings
- Supporting heat pump adoption to decarbonize heating and cooling
- Improving energy affordability for low- to moderate-income New Yorkers
- Advancing State product and appliance standards
- Accelerating building energy codes
- Engaging State agencies and facilities to lead by example

# Process Forward



## Multiple paths

- Public Service Commission action will follow further stakeholder process
- NYSERDA Clean Energy Fund (CEF)
- Consideration of legislative proposals
- State agency climate and capital planning
- Submit written feedback by July 16, 2018 to [NewEfficiencyNY@nyserda.ny.gov](mailto:NewEfficiencyNY@nyserda.ny.gov)

# Utility-Leveraged and Market Enabling Actions

# Innovation in utility portfolios

**New York's utilities are called on to achieve more in both scale and innovation through their energy efficiency portfolios.**

- Measure mixes that are more comprehensive
- Effective structures that reflect grid value, enable market innovation
- Public funds leveraged with private capital
- Shared savings models – launched utilizing both third-party capital and utility avoided cost
- Data made available so as to reduce soft costs

# Pay-for-Performance (P4P) pilot

## NYSERDA and utilities are partnering to pilot P4P in small commercial and residential sectors in New York

- Enables business models that can deliver compelling customer value proposition around no-money-down structures
- Good value for ratepayer – risk of underperformance is borne by service provider
- Flexibility allows service providers to adapt approaches



# Policies to encourage utility innovation

## Regulatory policy can encourage more cost-effective strategies.

- Allow higher levels of utility Earnings Adjustment Mechanisms (EAMs) in constructs that provide net benefit to ratepayers and increase penetration
- Consider a utility energy efficiency funding framework that ties funding availability to improvement in outcome metrics
- Develop guidelines for funding fuel-neutral utility programs



# Public utilities

**Long Island Power Authority (LIPA) and New York Power Authority (NYPA) are called on to be similarly ambitious.**

- LIPA should develop its strategy in 2018, with approaches tied to AMI and value-based efficiency in areas of grid constraint
- NYPA will increase its financing for clean energy projects to \$300 million annually and continue to create efficiency opportunities with its customers, including providing support for State lead-by-example energy efficiency initiatives

# Aligning efficiency with system value



**REV encourages clean energy investments that provide system value.**

- Utilities continue to identify beneficial locations for DER
- NYSERDA and DPS to assess the alignment of energy efficiency payments with system and environmental value
- Utilities should:
  - co-develop deployment strategies that deliver locational value
  - compensate for projects found to have above-average system value
  - continue to pursue energy efficiency for non-wires/pipes alternatives

# Market-enabling data and information

**Access to customer, system, building-level, and project-level data are key components for more efficient and engaged markets.**

- Accelerate deployment of Green Button Connect
- Advanced M&V to build market confidence
- Consider benchmarking legislation for large buildings statewide



# Building a skilled workforce

**A skilled workforce is critical to accelerating energy efficiency investments and realizing the associated economic benefits.**

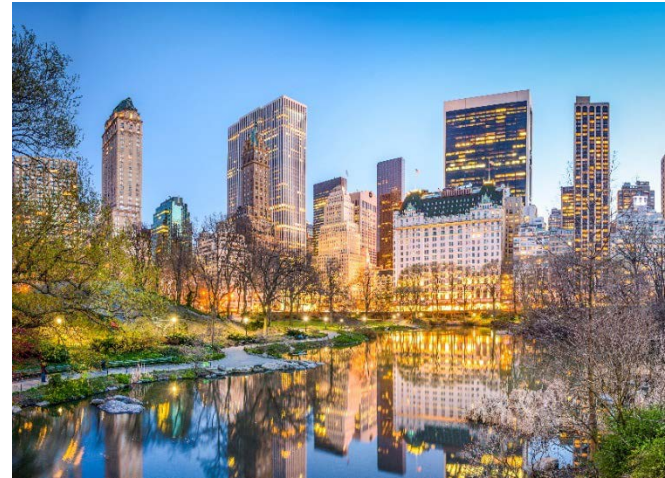
- Support additional energy efficiency training for more than 19,500 workers
- Target disadvantaged workers
- Leverage community-based organizations for regional enrollment



# Expanding energy efficiency financing

**Financing solutions help customers to make clean energy investments.**

- Develop NY Green Bank financing products for tenants and P4P
- Residential and commercial PACE financing
- Expand on-bill recovery financing
- Expand underwriting of projected operational savings for deep retrofits



# Drive Deeper Savings

# Advancing deep energy savings in buildings

**New York's climate goals demand deep and replicable retrofits – and cost compression for Passive House or net zero energy projects.**

- Focus R&D on high-performance building components
- Explore bulk purchase agreements
- Promote non-monetary incentives like zoning bonuses for deep retrofits
- Enable public sector entities to use integrated project delivery (design/build)



# RetrofitNY

Advancing deep energy retrofits in affordable housing



# Integrating efficiency into capital planning

**Deep retrofits can occur via sequential projects over time – if integrated into the building's long-term capital planning.**

- Support the consideration of deep energy efficiency in capital planning
- Maintain a roster of experts to provide technical assistance and modeling of the lifecycle value proposition

# Supporting heat pump adoption

**Heat pumps could deliver significant energy savings and GHG emissions reductions as part of new energy efficiency programs, with net ratepayer savings.**

- Encourage utilities to consider heat pumps
  - In energy efficiency programs on an all-fuels basis
  - As eligible solutions in value-sharing models
- Develop a multi-year market strategy toward State climate goals



# Energy Affordability: Low- to Moderate- Income (LMI)

# Creating opportunity for LMI customers

**Energy efficiency and weatherization programs targeted at the LMI market segment have reached only 12% of eligible households in New York State – additional strategies are necessary.**

- Advance initiatives focused on increasing the impact of ratepayer funds and increasing affordability and access to clean energy solutions across the LMI market segment
- Improved coordination of energy, housing, and social service programs at the state and local levels
- Focus on opportunities for stakeholder engagement

# Opportunity for LMI customers (continued)

## Additional strategies are necessary.

- Net zero energy retrofit prototypes for affordable multifamily buildings
- Zero Energy Modular (ZEM) homes
- Healthy homes – adoption of energy efficiency upgrades under Medicaid
- Exploring inclusive finance models to increase access to energy efficiency
- Dedicate at least 20% of any additional public investment in energy efficiency to the LMI sector

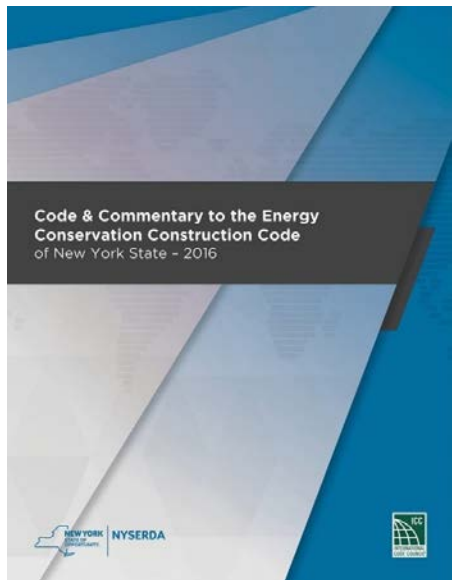


# Healthy Homes

**Addressing energy,  
housing, and health  
improvements**

# Building Codes and Appliance Standards

# Building energy codes



**Energy code allows New York to harness new construction activity and the cycle of building upgrades to drive long-term energy performance.**

- Develop carbon-focused metrics to support deeper carbon savings, working with other states
- Advance mandatory stretch codes to deliver increased energy savings in 2022 code cycle
- NYSERDA support for energy code training and enforcement



# State product and appliance standards

**Advancement of state-level efficiency standards for products and appliances is needed as the federal government scales back its role.**

- NYS analysis identified more than two dozen cost-effective standards – each with an average simple payback of 8 months
- Consider statutory changes to provide the Department of State or NYSERDA with the authority to set and enforce energy efficiency standards for products and appliances sold in New York State

# Lead by Example: State and Public Facilities

# Leading by example

**Accelerating energy efficiency in State facilities and construction will save energy, prove value, and catalyze market adoption of the best solutions.**

- Undertake and act upon energy master planning for new construction and retrofits
- Path to net-zero energy (NZE) new construction for State buildings: SUNY's leadership commitment (2020) and a viable schedule across State entities for low-rise office (2020), housing (2025), and other (2030) building typologies
- Intelligent building solutions
- Expand State options to use performance contracting and design/build models
- Annual benchmarking and disclosure for State buildings > 25,000 square feet

# SUNY's commitment

State University of New York will  
lead the way in clean energy



# Lead-by-example goals

## Meet Lead-by-example goals under Executive Order (EO) 88 and EO 166.

- Guidance to support agency EO166 goals
- NY Energy Manager platform for reporting on EO88 and EO166 goals
- Consider a new energy efficiency goal for State facilities – 11 TBtu of site savings by FY 2025/26 (base year FY 2014/2015)



# Leveraging State action to drive energy efficiency in private/municipal construction

## Clean energy projects drive economic benefits.

- Expand NYPA financing for clean energy projects to \$300 million annually
- Include energy performance standards in RFPs for State-supported construction and private development projects
- Support energy efficiency in municipal water resource recovery facilities and via economic development grants



# 2025 Target



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# Accelerating progress toward 2030 goals

Meeting the new site-based 2025 energy efficiency target positions  
New York State to exceed its source-based 2030 energy efficiency goal.

Site (End-Use)



Source (Primary)



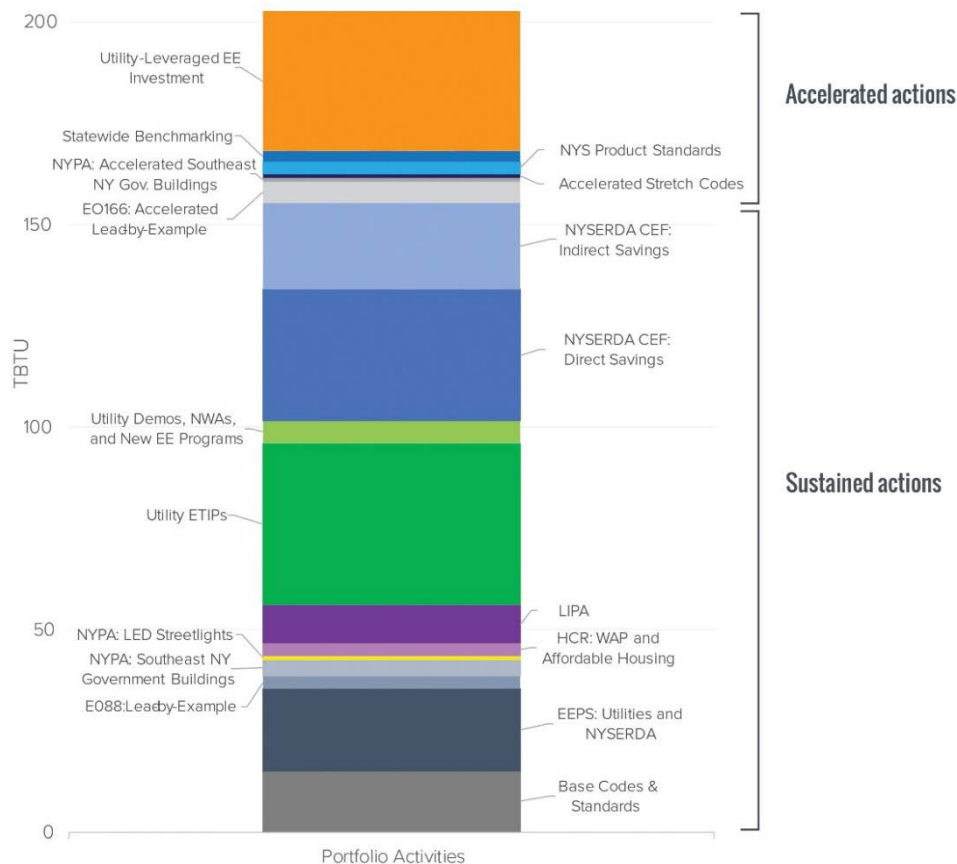
## Accelerated actions over 2019-2025

The 2025 target requires sustained commitment and new actions.

Over 2019–2025, accelerated actions are expected increase site energy savings by 40% above the State's current energy efficiency commitments.

Figure 4. New York State Energy Efficiency Activities – Total TBtu Savings by 2025  
(Cumulative Annual, 2015-2025)

*Note: Energy savings in the figure sum to more than the 185 TBtu target because the figure does not incorporate certain discount factors that were applied to adjust for overlap across complementary activities. See Tables 3 and 4 for a description of overlap adjustments.*



# Market effects and measurement

**Evaluation and measurement practices need to evolve to assess statewide energy efficiency achievement across program investments, policies, and market-initiated efficiency.**

- Improve approaches to assess aggregate impact – triangulating across program reporting and top-down energy consumption trends
- Expect “lumpiness” in NYSERDA’s reported energy savings due to periodic measurement of indirect savings (market effects)
- Integrate progress reporting into the State Energy Plan

# Wrap-Up