



**Department of  
Public Service**

**Public Service Commission**

**John B. Rhodes**  
Chair and  
Chief Executive Officer

**Gregg C. Sayre**  
**Diane X. Burman**  
**James S. Alesi**  
Commissioners

**Thomas Congdon**  
Deputy Chair and  
Executive Deputy

**Paul Agresta**  
General Counsel

**Kathleen H. Burgess**  
Secretary

Three Empire State Plaza, Albany, NY 12223-1350  
www.dps.ny.gov

February 28, 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 February 23, 2018, the Department of Public Service and the New York State Energy Research and Development Authority jointly convened a stakeholder forum regarding innovative utility strategies and emerging energy efficiency models. Please find the presentation provided during the forum enclosed.

Sincerely,

/s/

Colleen Gerwitz  
Director  
Office of Markets and Innovation

Enc.



**NYSERDA**

**Department  
of Public Service**

# **New York's Energy Efficiency Framework**

**February 23, 2018**

# Policy and Market Context

# 2015 New York State Energy Plan



**40% reduction**

in greenhouse gas emissions from 1990 levels by 2030



**50% electricity**

consumed must come from renewable energy resources by 2030



**600 trillion Btu increase**

in statewide energy efficiency compared to  
forecasted primary energy use in 2030

**Energy Efficiency (EE) is a Cornerstone of New York State's Energy Policy**



**NYSERDA**

**Department  
of Public Service**

# Build Smart and Government Buildings

**NYPA Investment** – NYPA financing EE at \$200MM/year, planned to increase to approx. \$300MM/year for EE and solar

**Build Smart NY** (*Exec. Order 88*) – Progressing toward 20% improvement in energy efficiency (EUI) in State buildings by 2020

**Five Cities Energy Program** – Energy master plans developed in Albany, Buffalo, Rochester, Syracuse, and Yonkers

**New York Energy Manager** – Energy analytics for NYS buildings

**State Entity Climate Plans** (*Exec. Order 166*) – Demonstrate NYS agency contributions to the State's GHG reduction goals

**Smart Street Lighting NY** – 500,000 Street Lights to LEDs



# NYSERDA Investment in Energy Efficiency

**EE is central to NYSERDA's Clean Energy Fund (CEF) Investment** –  
More than \$2B over 10 years for EE, across all fuels.

- Strategies to reduce EE soft costs and nonmonetary market barriers
- Sustain EE market momentum through bridge incentives
- Support for low-income customers (e.g., Empower & RetrofitNY)
- Accelerate innovative solutions: technologies and business models
- NY Green Bank capital

**On track to deliver 10.6 million MWh in electric savings and to more than double the minimum fuel savings goal of 13.4 million MMBtu over 10 years.**



# Utility Investment in Energy Efficiency

## Energy Efficiency Transition Implementation Plans (ETIPs)

- **Investment** – Approx. \$247MM for electric and \$63MM for gas in 2019 across investor-owned utilities, with rate cases incorporating increases
- Continuity of EE with greater alignment with NYSERDA, market actors
- On track to achieve approx. 900,000 MWh of electric and 2.3 million MMBtu of gas savings in 2019

**Energy Efficiency as System Resource** – fund in rates and integrate into Distributed System Implementation Plans; EAMs to support

**Innovate and Deploy Technology** – LED conversions, AMI

**LIPA EE Investment** – exceeds \$50MM annually



# Clean Energy Industry Job Growth

- Energy Efficiency is the largest segment of New York's clean energy economy employing **110,000 workers** (75% of total in clean energy)
- Energy efficiency businesses projected to **grow by 6%** this year
- Clean energy businesses report **difficulty hiring qualified applicants** – a pain point the CEF will respond to via targeted workforce development and training





# 2017 State Energy Plan Biennial Report:

## Building on a Strong Foundation for Energy Efficiency

Reaffirmed centrality of EE – as engine of energy and climate policy and also as engine of clean energy economy

### Set out key points:

- **Spur** private investment
- **Improve** programs – utility and NYSERDA (CEF) – constantly
- **Lead** by example in State buildings and investments
- **Advance** building codes and appliance standards

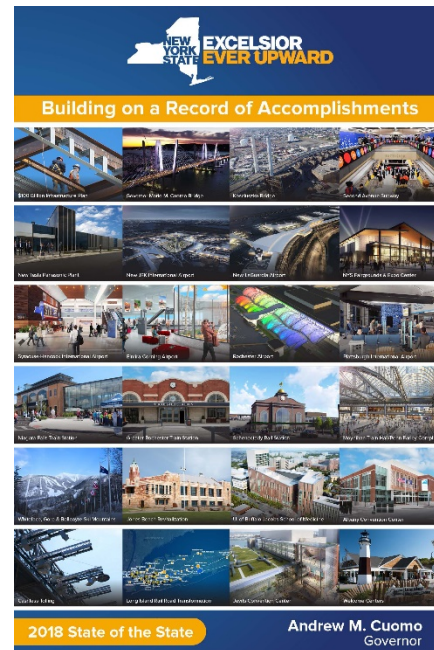


# Path Forward

# Energy Efficiency Target and Plan

## 2018 State of the State: New York's Clean Energy Jobs and Climate Agenda

- **Engage** stakeholders and propose a “comprehensive and far-reaching” EE initiative by Earth Day
- **Propose** a new 2025 EE target achieved through cost effective implementation strategies and innovative approaches from both utilities and the CEF
- **Identify** opportunities by which State facilities can lead by example



# Conceptual Framework for the EE Target and Plan

- EE 2025 target will be a milestone that puts us on a path to achieve **40% GHG reduction by 2030**
- May include a primary energy goal as well as end-use goals
- Achieving the target will look to – and measure – specific policy/program actions as well as broader market effects
- Will look to a portfolio of actions

# REV and Energy Efficiency

*REV aims to achieve energy goals (clean, cost-effective, reliable) as efficiently as possible, importantly by harnessing market innovation and investment*

For EE, this leads mainly to three approaches:

- Reduce costs, especially soft costs
- Commit to a market at scale
- Internalize externalities to make more value available to projects – explore both carbon value and system value

# Partnerships Under Way to Innovate for EE

**Real Time Energy Management (RTEM)** – Cost-shared incentives to support building owners/managers and RTEM solution providers to deploy sensors and data analytics to improve building performance

**New York Energy Manager** – Energy analytics for NYS buildings

**RetrofitNY** - Design-build competition to develop simplified, scalable solutions for deep energy retrofits in tenanted multifamily units

**Pay4Performance** – Set \$/kWh based on aggregator bids to procure and pay for installed EE savings over a 5-year term; Pass to utilities after pilot

**Energy Master Planning** – Integrate EE into capital asset management



# Portfolio of Actions Under Consideration

## Structural changes for broad-based impact

- Appliance standards
- Accelerated building codes

## Market-enabling actions

- Make effective finance readily available
- Make useful data easily available
- Develop, pilot, and roll out impactful innovations
- Integrate DR and Heat Pumps as key resources

# Portfolio of Actions Under Consideration

*(continued)*

**Accelerated and increased utility impact**

**State agencies and facilities to lead by example**

**Funding appropriate to target and strategies**

***All while:***

- Seeking savings across all fuels
- Going deeper
- Ensuring broad access to benefits of EE



# Next Steps

- Stakeholder forums
- Draft white paper by DPS/NYSERDA by April for comment, with more opportunities for stakeholder engagement
- Multiple paths to effectuate recommendations (Commission consideration, legislative, capital budgeting, etc.)
- State Energy Plan

# Series of Topical Stakeholder Forums

- Innovative Utility Strategies and Emerging EE Business Models (2/23)
- Pay-for-Performance (2/23)
- Advanced Building Codes (3/5)
- Strategies for Deep EE (3/5)
- Target Metric Considerations (3/5)

# Expectation For Stakeholder Forums

- Identify issues **and** associated possible solutions
- Focus as much on **how** to pursue an action as on **whether**
- Work towards shared understanding, even when consensus is elusive
- Bring your insights to the conversation, as well as an open mind

# Innovative Utility Strategies and Emerging Energy Efficiency Business Models

## Roundtable Participants:

David Hepenstall, AEA

Pat McDonnel, Avangrid

Jeff Perlman, Bright Power

Darren Springer, Burlington Electric

Matt Ketschke, Con Edison

Brian Geller, Durst

Julie Michals, E for the Future

Lloyd Kass, Lime Energy

Don Gilligan, NAESCO

John Isberg, National Grid

Miles Farmer, NRDC

Sam Swanson, PACE

Jim Bittker, Renew it Now

Barry Coflan, Schneider Electric

Kenji Takahashi, Synapse Energy

Cecil Corbin-Mark, WEAct

Laurie Kerr

Chris Wentlent

**Moderator:** Scott Johnstone



NYSERDA

Department  
of Public Service

# Discussion Questions: Innovative Utility Strategies and Emerging Energy Efficiency Business Models

- What new EE strategies and/or models offer the most promise to achieve REV objectives and deliver customer value?
  - What is the utility EE business model with regard to the new strategy and what is the EE provider business model?
  - How does the new model drive down the costs of delivering EE?
- What do we need to consider as we introduce new models while we strive to maintain progress with the existing programs/strategies?
  - Are there existing and new strategies that cannot successfully simultaneously operate in the same market space? Why or why not?

# Discussion Questions: Innovative Utility Strategies and Emerging Energy Efficiency Business Models *(continued)*

- How can we leverage new EE solutions and emerging business models to increase energy efficiency opportunities and energy affordability for low- to moderate-income customers?
  - Are there best practices from other jurisdictions to inform the scaling of EE in the LMI market segment?
- What are the necessary preconditions for new models to succeed, e.g., AMI data, system information, regulatory rule changes, etc.?
  - What type of data would need to be made available to help facilitate innovative approaches to energy efficiency?

# Discussion Questions: Innovative Utility Strategies and Emerging Energy Efficiency Business Models *(continued)*

- Over what time period do we measure success – that is what is necessary market adoption time needed to assess success?
- How do we ensure integration of efforts that creates a clear picture of related actions/programs being delivered in particular market sectors?
  - How do we facilitate regular market feedback?