



# Reforming the Energy Vision

Clean  
Energy  
Standard

**New York State Department of Public Service  
Audrey Zibelman, CEO**



**Reforming the  
Energy Vision**

# Our Primary Mission

- Affordable, Safe, Secure, Reliable Access
- Electric, Gas, Steam, Telecom, Water
- Protecting the Environment

# Overview of webinar

1. New York's Reforming the Energy Vision
2. Overview of CES process
3. Highlights of the Staff White Paper on CES
4. NYSERDA presentation on the Cost Study
5. Q&A

# ***Reforming the Energy Vision – REV***

REV is Governor Andrew Cuomo's strategy to build a cleaner, more resilient and affordable energy system for all New Yorkers.

***REV places clean, locally-produced power at the core of New York's energy system,*** protecting the environment by reducing greenhouse gas emissions & increasing our use of renewable energy.

# Reforming the Energy Vision Proceeding is...



Empowering customers to better manage energy...



...through animating markets for distributed energy resources...



... in order to drive toward higher efficiency, lower environmental impacts and increased affordability.

# The Clean Energy Standard - CES

- New York's proposed plan as a national leader on climate change and renewable energy
  - Clean energy UP
  - Carbon emissions DOWN
- Proposed as a core component of REV
  - CES to drive clean energy to scale with public & private investment
  - REV to enable more effective integration with the electric system

# *So, what's the proposal?*

1. Converts the renewable energy targets of the State Energy Plan into an enforceable mandate – **50% renewables by 2030**
2. Includes an interim transition plan to support **emissions-free upstate nuclear power**
3. Will ensure the State meets its goal of **40% reduction in greenhouse gas** emissions by 2030, 80% by 2050

# CES will significantly reduce carbon emissions

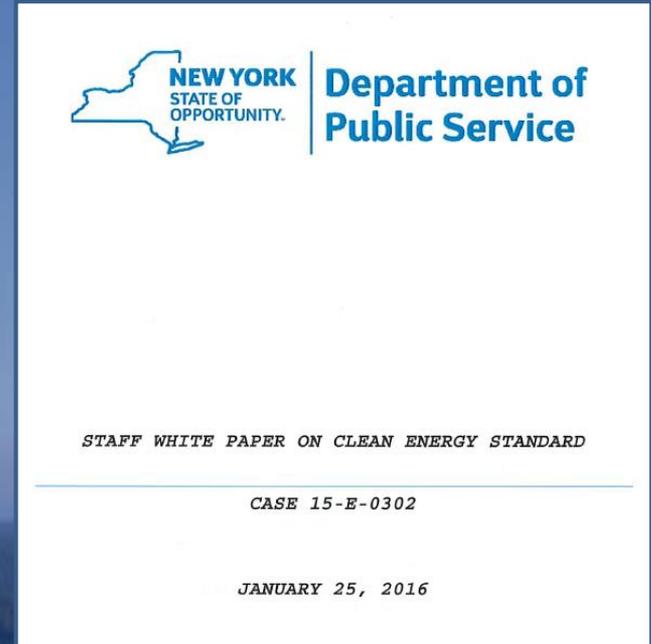
- New renewables reduces 15 million tons in 2030
  - A 30% reduction in total carbon emissions from the electric sector
  - On par with the State's economy-wide 40% GHG reduction target
- Continued operation of upstate nuclear will prevent backsliding on carbon reduction progress
  - Prevent potential increase of 15.5 million tons per year

***So ... how do we get there?***



# Staff White Paper

- Dec 2015 - Governor Cuomo directs Commission to consider CES mandate
- Jan 2016 - Commission directs Staff to issue a White Paper on policy options for a CES
- Jan 25th - White Paper issued
- April 22nd - Comments were submitted
- May 13th - Reply comments due



**White Paper available  
online at:**

<http://tinyurl.com/zn837a8>

# Supporting Documents

## Env Impact Statement

- Released February 23, 2016
- Available online at: <http://tinyurl.com/h3bhl3l>
- Comments were submitted - April 1, 2016

## Cost Supplement

- Released March 8, 2016
- Available online at: <http://tinyurl.com/hmjkmfa>
- Comments due - June 6, 2016

# Stakeholder Workshops / Technical Conferences

- Technical workshops with stakeholders
- Roundtable conversations on CES design
- May 4th - Cost Study tech conference
- TBD - Tech conf / workshop on Storage
- Video recordings available at:  
<http://tinyurl.com/zon83hg>



# CES Public Statement Hearings

- Information sessions
  - Brief presentation and overview of CES
- Public statement hearings
  - Everyone wishing to speak will have an opportunity
- More details
  - <http://tinyurl.com/zhn5jet>



# CES Public Statement Hearings

WHERE	WHEN	VENUE
Binghamton	May 10th	Binghamton City Hall
Buffalo	May 11th	Harlem Road Community Center
Rochester	May 12th	Chili Town Hall
Albany	May 17th	Colonie Town Hall Albany Law School
Plattsburgh	May 18th	Plattsburgh Town Hall
Oswego	May 24th	Oswego Town Hall
Syracuse	May 25th	Liverpool Public Library
Kingston	May 26th	Kingston City Hall
Manhattan	May 31st	PSC Boardroom

## AFTERNOON

- **2:00 P.M.**  
Info Session
- **3:00 P.M.**  
Public Hearing

## EVENING

- **6:00 P.M.**  
Info Session
- **7:00 P.M.**  
Public Hearing



# CES Public Statement Hearings – Long Island

WHERE	WHEN	VENUE	Time
Suffolk County	May 17th	Suffolk County Legislative Building	12:30 P.M. & 6:00 P.M.
Queens County	May 18th	Knights of Columbus, Rockaway Beach	12:00 P.M.
Nassau County	May 18th	Nassau County Legislative Building	6:00 P.M.

- Each session will begin with an 1 hour information session prior to the public statement hearing

# CES White Paper - Four Policy Objectives

1. Achieve the goal of '50 by 30'
2. Support new renewable generation in NYS
3. Maintain operation of emission-free nuclear energy
4. Promote progress of REV market objectives



NEW YORK  
STATE OF  
OPPORTUNITY.

Reforming the  
Energy Vision

# Notable Staff Recommendations

1. All utilities and other electricity suppliers, including ESCOs, will be obligated to achieve the CES mandate
2. Obligation schedule through 2020, targets through 2030
3. Tiers to support new and existing renewable generation, and zero emission resources

# Clean Energy Standard Tiers

Tier	Purpose
Tier 1	Deploy new renewables
Tier 2A	Maintain competitive legacy renewables
Tier 2B	Maintain non-competitive legacy renewables
Tier 3	Maintain existing nuclear installations

## Objectives of Tiers

- Targeted approach
- Preserve value of existing clean energy generation
- Competition
- Foundation for co-incentive program



# Regular Review by Commission

- Commission review on a rolling 3-year basis offers the opportunity to set the CES trajectory to 2030 based on market experience
- Subsequent triennial goals and schedule will be set well in advance to minimize market uncertainty

Year	Statewide energy need (GWh) after Energy Efficiency	Renewable Energy	% of Load that is Renewable (Tiers 1&2)
2014	n/a	41,300	26.0%
2017	159,894	42,832	26.8%
2020	158,597	46,761	29.5%
2030	150,017	75,008	50.0%

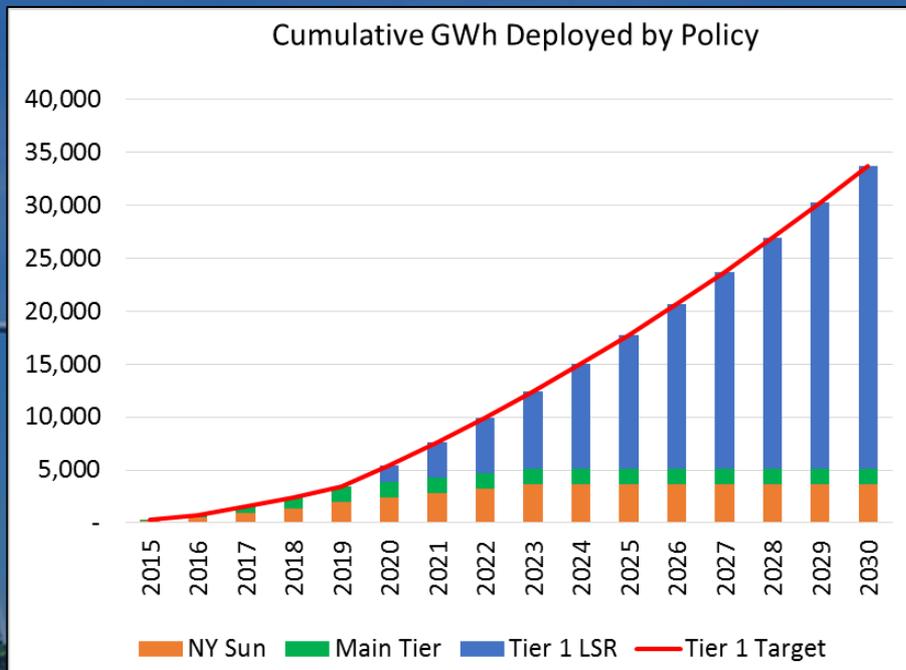


# CES Tier 1 – *New Renewables*

## Eligibility

- ✓ Located in NYS, or in adjacent areas with proof of delivery
- ✓ After Jan 1, 2015
- ✓ Builds on RPS Main Tier eligibility

Year	Cumulative new GWh	% of Load
2017	1,536	0.9%
2018	2,446	1.5%
2019	3,465	2.1%
2020	5,465	3.4%
2030	33,700	22.5%



# CES Tier 2a & 2b - *Existing Renewables*

## Tier 2a Eligibility

- ✓ Existing and operational
- ✓ Not currently receiving state support
- ✓ Eligible for growth tiers RPS obligations in adjacent control areas

## Tier 2b Eligibility

- ✓ Existing and operational
- ✓ Maintain renewables baselines
- ✓ Not eligible for growth Tier RPS obligations in adjacent control areas

# CES Tier 3 – *Upstate Nuclear Facilities*

- 30% of generation in 2014
- 46,000 GWh of emission-free power over the past 5 years
- Objective – Avoid backsliding on emissions reductions as renewables ramp up
- Separate from renewables mandate

Year	GWh Target	% of Load
2017	7,500	4.6%
2018	10,000	6.2%
2019	15,000	9.4%
2020	25,000	15.7%

## Notable Staff Recommendations, cont.



4. Renewable energy credits, zero emission credits
  - Tradable and tracked certificates
  - Spot market and long-term arrangements
5. Alternative compliance mechanisms
  - Levels established by Commission
  - Revenues from alternative compliance payments

# Notable Staff Recommendations, cont.



## 6. Long-term procurements

- Types of procurement (RECs; RECs + energy)
- Administrator and counterparty options

## 7. Utility-ownership and self-initiated markets

- UOG only in exceptional circumstances
- Creative market arrangements (e.g., corporate purchasing)

# Notable Staff Recommendations, cont.



## 8. Cost Management

- Triennial review, adjustment of targets
- Banking and borrowing of RECs

## 9. Implementation plans

- Would begin 30 days after Order
- Address specifics (e.g., targets, procurement levels, alternative compliance, administration, program review/evaluation)

# Complementary programs to the CES

**NY GREEN  
BANK**

A DIVISION OF NYSERDA



**BuildSmart**NY

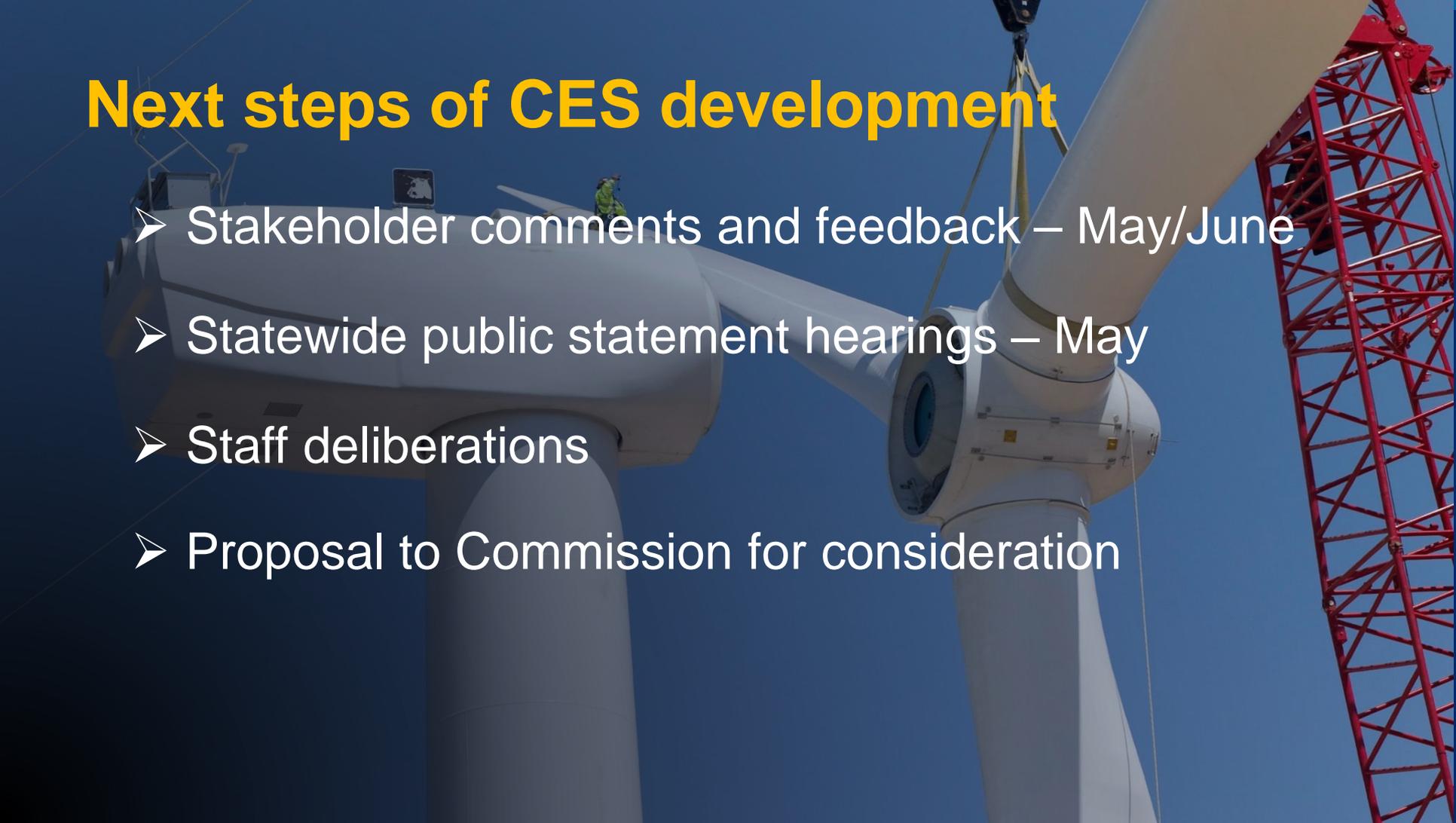


**ChargeNY**.COM

Taking charge of our destination!

**The NY-Sun Initiative**  
Solar Powering New York

# Next steps of CES development



- Stakeholder comments and feedback – May/June
- Statewide public statement hearings – May
- Staff deliberations
- Proposal to Commission for consideration

# Clean Energy Standard - Cost Study

New York State Energy Research and Development Authority

# Introduction

- The Clean Energy Standard Cost Study complements and advances the Clean Energy Standard Staff White Paper
- This Study is issued by the New York State Department of Public Service
- Led by the NYSERDA working in collaboration with DPS
- NYSERDA and DPS acknowledge the contributions of Sustainable Energy Advantage and their subcontracting consultants AWS Truepower, Antares Group, and Daymark Energy Advisors
- **Examines the impact that key cost drivers can have on overall consumer bills assist the PSC to design and implement a cost-effective Standard**

# Summary of Results

- Even in this period of lower electricity prices due to historically low natural gas prices, New York can meet its clean energy targets with **less than a 1% impact on electricity bills**
  - Less than \$1 per month for the typical residential customer
- In the near-term, under base case assumptions
  - \$1.3 billion public investment
  - Generation of emission-free electricity, which produces \$3.1 billion in carbon benefits
  - Hence, the **net program impact is a benefit of \$1.8 billion**

# Key Findings

- The conclusions based on analysis covering the period to 2023
  - Coincides with the timing of periodic reviews of the CES by the PSC
  - Recognizes projection extending to 2030 subject to significant uncertainty
- Costs depend on a number of key drivers, some directly influenced by New York State policy
  - Procurement structures: RECs + energy vs. REC only
  - Energy price and interest rate
  - Technology cost
  - Energy use
  - Federal tax credit

# Key Findings, cont.

- Balances cost impact and results in **significant net benefits** for all New Yorkers
- **Procurement structures** and the **total energy used** significantly impact cost and are factors that New York State can influence
- Future **energy prices** are **highly uncertain**, and are an important driver
- Interest rates and technology cost variability have a relatively small near-term impact

# Key Findings, cont.

- Technology-neutral approach to structuring the CES Tiers is an appropriate design choice
- Current federal tax credits significantly reduce the cost
- **Combination of low energy prices, low interest rates and available tax credits presents a favorable environment for near-term investment into renewables**

# Thank you for your attention!

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