



NYSERDA

The Grid Modernization Policy “Mod Squad”

NASEO 2016 Policy Conference

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State Energy Plan - 2030 Clean Energy Goals

40%

Reduction

in GHG emissions
from 1990 levels

Reducing greenhouse gas (GHG) emissions from the energy sector—power generation, industry, buildings, and transportation—is critical to protecting the health and welfare of New Yorkers and reaching the longer term goal of decreasing total carbon emissions 80% by 2050.

50%

Generation

of electricity from
renewable energy sources

Renewable resources, including solar, wind, hydropower, and biomass, will play a vital role in reducing electricity price volatility and curbing carbon emissions.

600

 TBTU

Increase

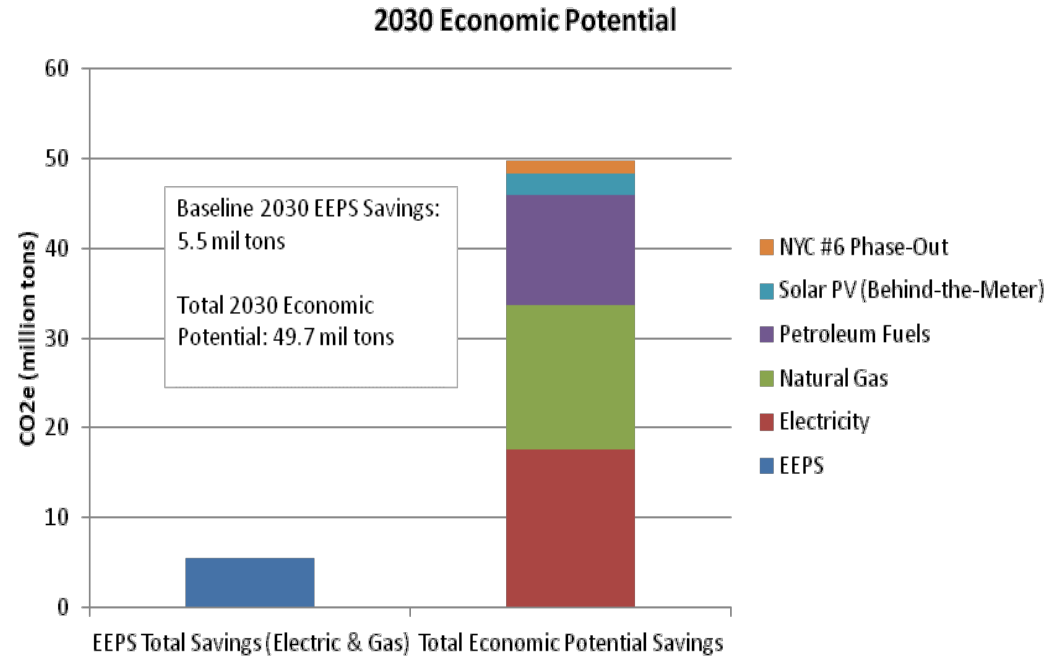
in statewide energy
efficiency

Energy efficiency results in lower energy bills and is the single most cost effective tool in achieving clean energy objectives. 600 trillion British thermal units in energy efficiency gains equates to a 23% reduction from 2012 in energy consumption in buildings.



Impetus for Change

- New York has built a strong foundation
- New York can and must achieve greater scale
- The public sector cannot achieve this transition on its own



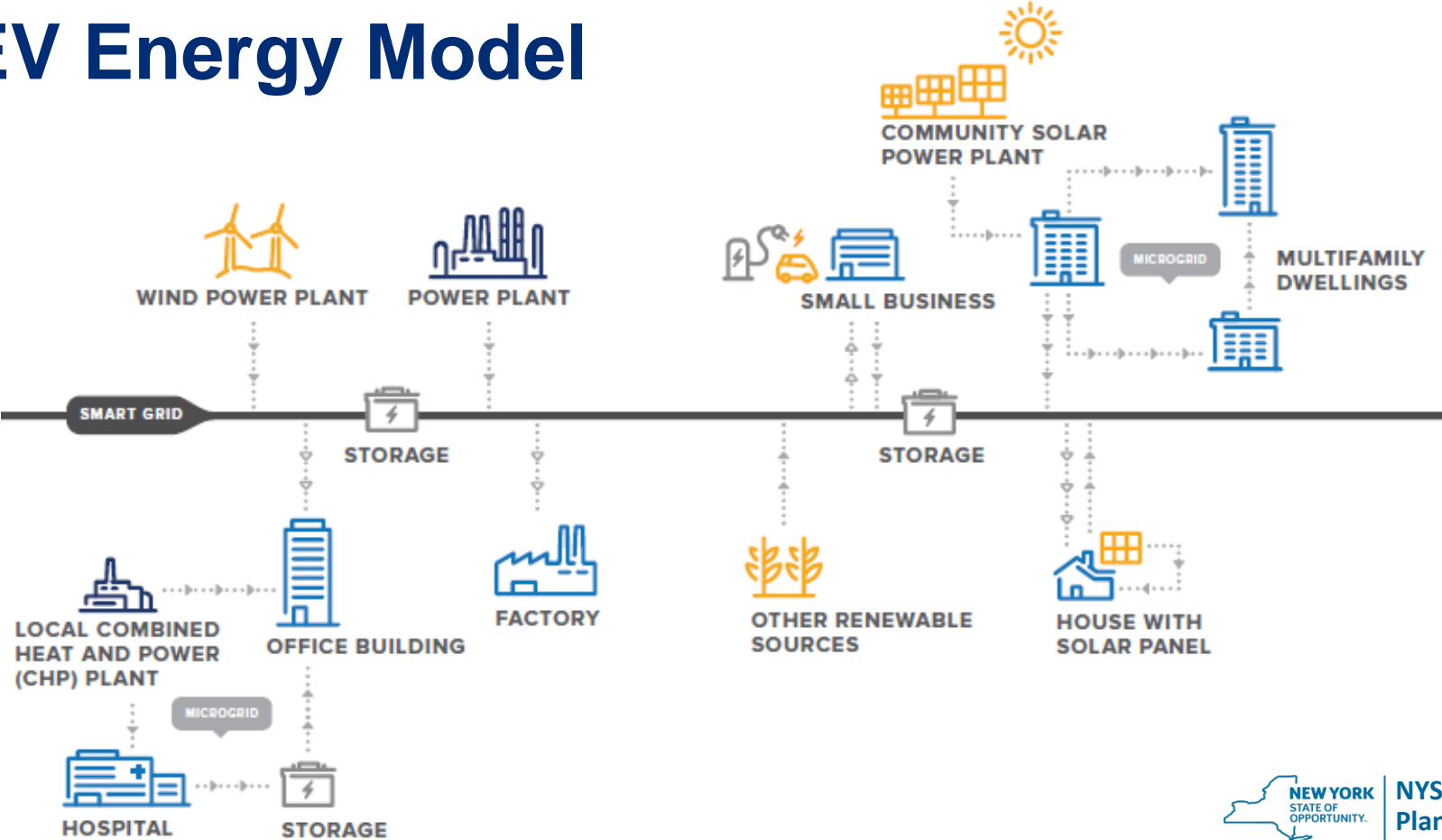
Reforming the Energy Vision (REV)

REV is Governor Andrew M. Cuomo's strategy to build a clean, resilient, and affordable energy system for all New Yorkers. Centered on three pillars, REV's initiatives and actions, together will drive the State's shift to a more market-driven clean energy future.

Policy Objectives:

- Enable customers to manage their energy bills & provide more choice
- Animate the market & leverage ratepayer contributions
- Promote system-wide efficiency
- Increase fuel & resource diversity
- Enhance system reliability & resiliency
- Reduce greenhouse gas emissions

REV Energy Model



Role of the Utility

“Distributed System Platform”

- Operate Grid and Provide Reliable Service
- Integrated System Planning
- Enable customer and third-party engagement to create customer value and system value.

Integrated System Planning

- Uniform Benefit/Cost Analysis guides decision-making
- Societal Cost Test will be the primary cost-effectiveness test for utility expenditures

Distributed Energy Resources

Value of Distributed Energy Resources

- Methodology and process for determining the full value of DER to develop DER compensation mechanisms built on “LMP+D”
- Consideration of temporal and locational value on the distribution grid
- Interim approach to valuing DER by Dec 31, 2016

Oversight of DER Providers

- New Uniform Business Practices as applies to DERs
- Customer complaint/resolution process

Ratemaking and Financial Incentives

Ratemaking and the Utility Business Model

- Need to align utility earnings with customer value
- Utility Revenue
 - Share benefits from OPEX or 3rd-party investments to displace CAPEX
 - Performance Incentives (Earning Impact Mechanisms)
 - Revenue from market and platform services
- Potential rate design reforms
 - Standby rates
 - Smart home and TOU rates
 - Analysis of mass-market demand charges

Supporting Analysis

- Facilitation of REV Demonstration Projects and utility-third party partnerships
- *Interconnection of Distributed Generation in New York State: A Utility Readiness Assessment* (Sept 2015, EPRI)
- *The Benefits and Costs of Net Energy Metering in New York* (Dec 2015, Energy and Environmental Economics)
- Ongoing Research on Full Value Tariffs
- Ongoing Research on Platform-Based Markets

REV Implementation

Initial REV Demo Projects Test New Business Models

- Include digital marketplaces; managed distributed solar and storage; fee-based interconnection for large DG.

Dynamic Load Management

Community Distributed Generation

Community Choice Aggregation

Clean Energy Fund

- 10-year, \$5 billion funding commitment to support clean energy market development and innovation
- Address the impediments to deep and wide adoption of clean energy that remain even after regulatory reform. This includes reducing barriers for more established solutions, and supporting the development and field-testing of new ones
- Four portfolios:
 - Market Development
 - Innovation & Research
 - NY Green Bank
 - NY-Sun

More info: <http://www.nyserda.ny.gov/About/Clean-Energy-Fund>

CEF Portfolios

Market Development (\$2,713.4M)

Activities to stimulate consumer markets to seek clean energy alternatives and foster clean energy supply chains to meet that growing customer demand

Innovation & Research (\$716.6M)

Activities to accelerate the pace of innovation, move NY to a cleaner, more efficient, more distributed energy system, and drive clean tech growth

NY Green Bank (\$781.5M)

Activities to leverage the private sector to expand the availability of capital and increase the confidence in the lending industry for clean energy

NY-Sun (\$960.6M)

Activities to increase the scale of the solar electric industry so that costs associated with installing solar electric systems are reduced

2016 RPS Main Tier (\$150.0M)

Issuance of a solicitation to maintain market momentum as New York finalizes its approach to supporting large-scale renewables

Clean Energy Standard

- White Paper: Principal Policy Objectives
 - Meet State Energy Plan Renewable Energy Goal of 50 by 30
 - Support development of new renewable generation in New York State
 - Prevent premature closure of nuclear facilities
 - Promote progress of REV market objectives
- CES Program Design Elements
 - Obligation on all Load Serving Entities, proportional to annual load
 - Tier approach to support new renewables, existing renewables, and zero emission resources
 - Compliance through tradable RECs and ZECs
 - Alternate Compliance Payment Mechanism
 - New project support through continued long-term procurements by NYSERDA
 - Triennial Review Cycle
- Public Comments due March 14; Reply comments March 28

Thank You!

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