

REV UPDATE: Northeast Power Coordinating Council 2015 General Meeting

December 2, 2015



Reforming the Energy Vision Regulatory Proceeding

TODAY'S AGENDA

- Why we need to rethink energy policy
- What we're driving towards
- Progress to date

WHY: CURRENT INDUSTRY TRENDS

- ❑ Energy Sales Growth Slowing (2015-2025 Forecast 0%)
- ❑ Peak Load Growth Increasing (2015-2025 Forecast 0.48% per Year)
- ❑ Historically Low Natural Gas Prices
- ❑ Storage and Other Technology Commercializing
- ❑ Solar and Other Renewable Energy Costs Declining
- ❑ Customer Engagement to Manage Bills Increasing
- ❑ Investment in Aging Infrastructure and Technology to Support DER Integration Still Required

WHY: CURRENT TRAJECTORY

Over the past ten years, utilities spent \$17 billion to maintain our electric power grid. We predict that number to jump to \$30 billion over the next decade.

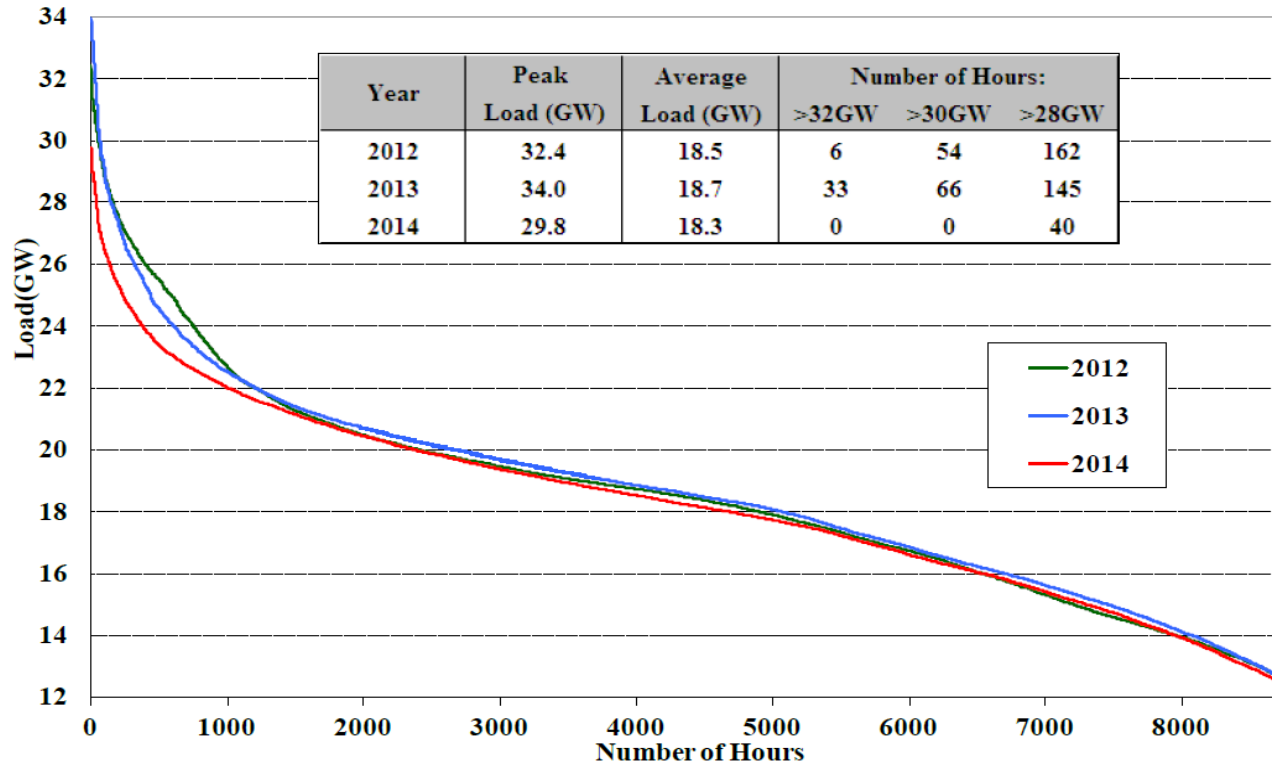


\$17B vs. \$30B

Capacity utilization of New York's electric grid was 59% a decade back, is 54% now, and projected to decline to 51% in the next decade



Load Duration Curves for New York State 2012 - 2014



Source: 2014 State of the Market Report for the NYISO Markets by Potomac Economics

WHY: BAD OUTCOME FOR PUBLIC POLICY

- Higher costs for customers
- Poor quality of service
- Forgone economic growth
- Inadequate progress on emissions reductions

WHAT: REFORMING THE ENERGY VISION

REV is New York's comprehensive plan to enable self-sustaining clean energy markets at scale and build a cleaner, more resilient, and affordable energy system.

- What Do We Want and Need?
 - ✓ Affordability
 - ✓ Resilience and reliability
 - ✓ Customer choice, control and value
 - ✓ Clean energy, emissions reductions
 - ✓ Economic development, jobs

PSC's Reforming the Energy Vision Proceeding is about:



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.

REV's regulatory process is a component of Gov. Andrew M. Cuomo's overall strategic energy plan; part of a broader transformational program in NY



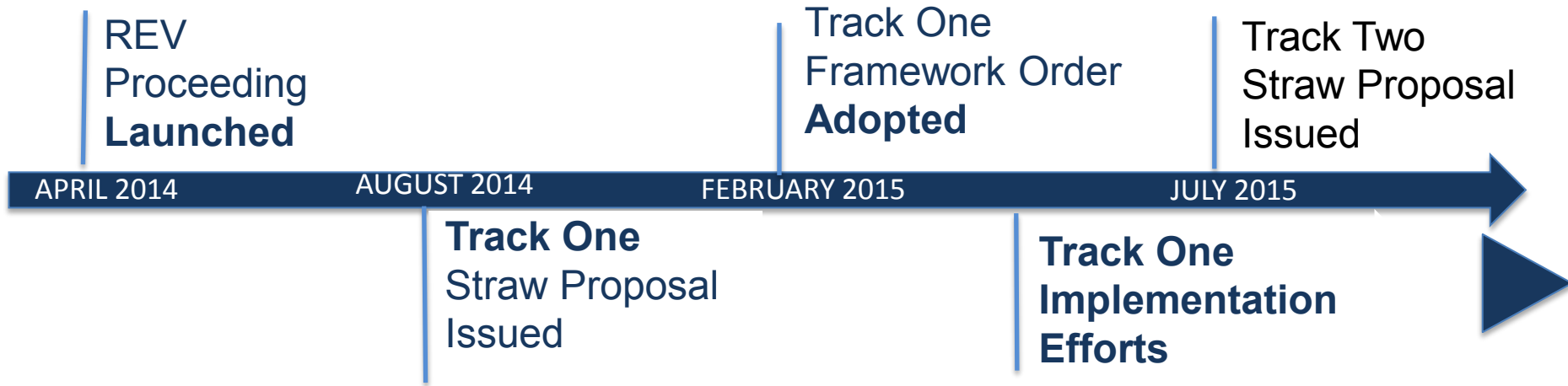
The NY-Sun Initiative
Solar Powering New York

BuildSmartNY

Regional Greenhouse Gas Initiative
an initiative of the Northeast and Mid-Atlantic States of the U.S.



REV's first major order was adopted on February 26, 2015, deciding policy, launching important implementation activities and setting the stage for rate issues.



Unprecedented interest, engagement, and strong stakeholder support has helped shape REV



- **295** stakeholder parties

- **2** technical conferences

- **7** working groups

- **2,053** comments

- **750** town hall meeting participants in 8 cities



REV's Framework Order: Overview

Business-as-usual is no longer an acceptable option for New Yorkers

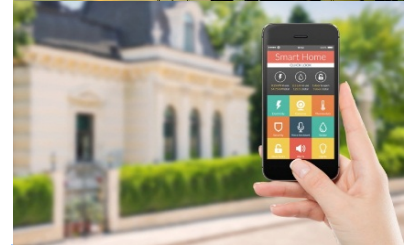
CHALLENGES:

- Aging infrastructure
- Poor system efficiency
- Flat load growth
- Climate change

OPPORTUNITIES:

- Rapidly falling technology costs
- Rise of the digital economy and new capabilities from IT
- Proliferation of new business models to create customer value

Historical regulatory approach and utility business models are not well adapted to address challenges and capture opportunities



“Utilities, and this Commission, could respond to [the challenges facing the industry] by clinging to the traditional business model for as long as possible, relying on protective tariffs, regulatory delay, and other defenses against innovation.

Alternatively, we can identify and build regulatory, utility, and market models that create new value for consumers and support market entrants and this new form of intermodal competition—in other words, embrace the changes that are shaking the traditional system and turn them to New York’s economic and environmental advantage.

We decisively take the latter approach.”

—REV Framework Order

In the face of these trends, NYS has set out several policy objectives for the future of NY's electricity system



- Enhanced customer knowledge and tools to support bill management
- Market animation and leverage of customer contributions
- System wide efficiency
- Fuel and resource diversity
- System reliability and resiliency
- Reduction of carbon emissions

REV sets out the State's vision of a transformed electricity system that will meet these policy objectives



- Reorient the electric industry and the ratemaking paradigm toward a customer-centered approach that harnesses technology and markets.
- Use distributed energy resources as a primary tool in the planning and operation of electric distribution systems, to achieve optimal system efficiencies, secure universal, affordable service, and enable the development of a resilient, climate-friendly energy system.

The Framework Order addresses 4 foundational building blocks:

1. Establishing the Distributed System Platform (DSP)
2. Engaging customers
3. Animating the market
4. Meeting environmental objectives



REV's Framework Order: Details

1. Establishing the DSP:

DSP

- Intelligent network platform
- Obligation and incentive to support DER
- DER providers as customers and partners
- Fair, open, and transparent transactive markets

DSP Responsibilities

- Integrated system planning
- Grid operations
- Market operations, structure & products

DSP Provider

- Utilities will be the DSP providers
- Represents an expansion of existing obligation
- Will be supported through Track Two business model changes

2. Engaging Customers:

- Create a vibrant digital marketplace (e.g. Amazon for power products and services) to inform and encourage transactions
- Support low- and moderate-income customers
- Ease interconnection
- Increase the informational value of customer bills
- Implement key customer protections

3. Animating the Market:

Goal: create market confidence and build the DER asset base in the near-term

System Data

- DSIPs will provide system planning information
- DSP will provide system data at granularity and timeliness appropriate for market
- Utilities can charge fees for value-added data analysis

Market Power

- Utilities cannot own DERs except in very limited cases
- Consider functional separation
- PSC monitoring & recourse
- Create market oversight committee

Early Actions

- Demand response tariffs
- Demonstration projects

4. Meeting Environmental Objectives:

- **Energy efficiency**
 - 2015 targets are a minimum for 2016
 - Increased flexibility and responsibility for utilities
 - Focus on market transformation curve
- **Large-scale renewable energy**
 - New REV track (LSR track) created – options paper filed June 1
- **Clean Energy Standard (current topic)**



REV Roadmap

The Track One Order represents one step on a transition path to REV:

Initial implementation steps



Demonstrate progress, build market confidence, answer *Underway* questions needed to move forward

Utility DSIP plans



Identify needed investments, strategies, and action plans *Due Jun 2016* to build the DSP market and underlying infrastructure

Track Two



Translate the REV vision into specific business model, incentive rate-making and rate design strategies with public involvement

Rates straw proposal in July 2015

Initial implementation steps are underway:

- Demand response tariff offerings
- Demonstration projects
- Market Design and Platform Technology working groups
- Benefit cost assessment framework development



REV's Track Two: Ratemaking Reforms and Key Issues

Track Two REV Objective

Recognize that the expanding deployment of DER calls for new business and revenue models to provide growth opportunities through enabling and responding to the forces of technology and market innovation

REV Track Two Goals

- ❑ Align utility earnings opportunities with customer value
- ❑ Evolve the utility business model suited to the modern economy
- ❑ Provide customers with accurate and timely value signals
- ❑ Achieve public policy objectives:
 - Reliable service
 - Maintain a financially sound utility industry
 - Affordability
 - Environmental goals
 - Gradualism

REV Implementation Schedule (Partial)

Dec. 2015 Questions for organizing the Commission's inquiry into valuing DER

1st qtr 2016: BCA Order

Track Two Order

DSIP Guidance

Community Choice Aggregation

Later in 2016: Each utility files an initial Distributed System Implementation Plan

Reliability Studies

- State Resource Plan Analysis
- NYISO PV Study
- NYISO 2010 Wind Generation Study



THANK YOU