



NEW YORK REFORMING OUR ENERGY VISION (REV) SUMMARY

ORDER ADOPTING REGULATORY POLICY FRAMEWORK AND IMPLEMENTATION PLAN SUMMARY

- REV aims to reorient both the retail **electric industry (track 1)** and the **ratemaking paradigm (track 2)** toward a **consumer-centered** approach based upon **animating markets** that will harness new-but-proven technologies for **dynamic load management** ([PSC Presentation here](#))
- **Track 2 straw proposal** pending July 1, 2015
- **Utility energy efficiency programs** will continue at 2015 levels for three years, and now be rate-based rather than SBC-based. Utilities must act in concert with NYSERDA.
- **NYSERDA** will focus on **market transformation** and **low income programs** (NYSERDA [CEF 10-year plan](#) pending June 8th- straw proposal [summary here](#))
- **Cost effectiveness** will now be judged at the portfolio level.
- Large commercial and industrial customers can **self-direct** programs.
- Establishes 2 primary working groups, led by Staff, RMI, and NY Smart Grid Consortium

KEY CONCEPTS AND TERMS

- **Distributed Energy Resources (DER)**: end-use energy efficiency; demand response; distributed storage; and distributed generation. DSPs (incumbent DUs) can only own DER in very limited circumstances
- **Distributed System Platform (DSP) Provider**: An intelligent network platform that will provide safe, reliable, and efficient electric services by integrating diverse resources to meet customers' and society's evolving needs. The DSP fosters broad market activity that monetizes system and social values, by enabling active customer and third party engagement that is aligned with the wholesale market and bulk power system. Incumbent utilities, now known as DSPs, will act in concert to serve as the platform for interface among customers, DER aggregators, and the distribution system. In short: **Customers/3rd Party Participants<--> DSP<-->NYISO Wholesale Markets**
Utility role as DSP was main point of contention for most commenters.
- **Distributed System Implementation Plan (DSIP)**: Multi-year plan filed by DSP with Commission containing capital and operating expenditures to build and maintain DSP functions, as well as system information needed by third parties to plan for effective market participation. Staff will issue guidance for DSP development August 3.
- **Energy Efficiency Transition Implementation Plan (ETIP)**: Utility Administered Energy Efficiency Program Plan, Pending Submission by July 15, 2015 (Staff Guidance May 1, 2015). Moves Efficiency programs from SBC dependence into base rates.
- **Dynamic Load Management**: Focus on using behind the meter and system-wide load management to reduce energy usage, balance load with supply, **and reduce expensive peak usage** (flattening 100 greatest hours of peak would save \$1.5 billion annually)



- **Market Design and Platform Technology (MDPT) Stakeholder Effort** (report July 1, 2015): Continues early stakeholder collaboration in several more focused working groups:
 - **Technology Group:** Will address development of communication signaling protocols, interoperability, and conjunction with ISO standards.
 - **Market Group:** Will address near middle and long term market mechanisms; planning and real-time data and information needed by DER providers and by DSPs; scheduling requirements; measurement and verification; settlement protocols; data security; services provided by DERs and DSPs; ISO interface; and standardization.
 - **Market and Tariff Development Group:** Develops DSP offerings.
 - **Contract Group:** Standardized contracts for DSP markets/interconnection.
- **Environmental Justice:** Community solar/storage and community choice aggregation projects are repeatedly mentioned as a method of alleviating environmental justice concerns.

REV POLICY FRAMEWORK

Regulatory Models and Economic Efficiency

- System values of DER will be monetized in a marketplace RFP/Tariffs
- DSPs earnings through enhanced performance and transactional revenues

System Modernization for a Digital Economy

- Information flow in electric distribution networks remains undeveloped
- Resilience can flow from distribution automation devices that can react, isolate, and respond to system conditions in real time

Clean Energy and Environmental Responsibility

- Energy efficiency is amongst the most cost-effective ways to reduce emissions.
- Where subsidy programs with budget-drive participation caps have the effect of displacing market development, the potential for efficiency gains is limited.
- Market transformation will leverage more customer investment to accomplish greater efficiency than is currently contemplated in state program targets

Universal Service

- A goal of REV is to **secure the financial stability of utilities** for the benefit of their customers.



ANIMATING MARKETS FOR DISTRIBUTED ENERGY RESOURCES

- Commission provides guidance, market participants provide initiative in the development of products and practices

The REV Market Framework

- Incumbent utilities will now function in two overlapping but independent roles: (1) Distribution Utility; and (2) DSP (market maker and system coordinator)
- DSP has authority over:
 - **Integrated System Planning.** Utilities' typical capital planning must now integrate DER alternatives to capital investments, as well as a number of policy objectives (pg 32). The main implementation tool is a Distributed System Implementation Plan (DSIP), which is the correlate to current energy efficiency program plans.
 - **Grid Operations.** DSP facilitates market actors seeking to provide value to the system (NYISO and customers). DSP uses performance data and DSP market commitments to balance supply and dynamically controllable demand-side resources. Functions also include:
 - **Real time load monitoring**
 - **Real time network monitoring**
 - **Automated feeder and line switching**
 - **Automated voltage and VAR control**
 - Voltage conservation and avoiding reactive power/imbalance
 - **Market Operations, Structure, and Products.** Market operations will evolve over time, beginning with procurements via RFP issuances and Load Modifying Tariffs, later evolving toward an auction approach. [Full list of DSP Procured/Sold products available here.](#) DSP-Procured products include grid services such as:
 - Peak Load Modification (flattening temporal/locational peak)
 - Non-Bulk ancillary services (frequency regulation, etc.)
 - Base Load Management (matching demand to supply)
- **Guidelines for Market Design:**
 - **Transparency.** Timely and consistent access to relevant information by market actors; public visibility into market design and performance.
 - **Uniformity.** Market rules and technology standards will be uniform statewide to encourage liquidity and participation.
 - **Customer Protection.** Balance market innovation and participation with customer protections.
 - **Customer Benefit.** Reduce volatility and system costs while promoting bill management and choice.
 - **Minimize Market Power.** Develop DSP procurement tariffs to minimize the potential for market power.
 - **Reliable Service.** Maintain and improve service quality, including reduced frequency and duration of outages.



- **Resilient System.** Enhance system ability to withstand unforeseen shock—physical, climate, or market-induced—without detriment
- **Fair and Open Competition.** Design “level playing field” incentives and access policies to promote fair and open competition.
- **Minimum Barriers to Entry.** Reduced data, physical, financial, and regulatory barriers to DER market participation.
- **Flexibility, diversity of choice, and innovation.** Promote diverse product and program options in a competitive market including financing mechanisms to increase the value of those options.
- **Fair Valuation of Benefits and Costs.** Include Portfolio level assessments of societal analysis with credible monitoring and verification
- **Coordination with Wholesale Markets.** Align DSP market operations and products with wholesale market operations to reflect full value of services
- **Economic and System Efficiency.** Promote investments and market activity that provide the greatest value to society, considering externalities
- **Avoidance or Mitigation of Emissions.** Incorporate emission regulations and PSC policy determinations regarding local impacts of DG
- **Consistency with Regulatory Objectives or Requirements.** Function within Public Service Law jurisdiction to maximum extent possible to avoid overlapping regulatory regimes and provide products consistent with any applicable regulatory requirements.

Utilities as DSPs

- Most commented issue due to market power concerns, fragmentation, etc.
- **Commission decides utilities as DSPs because:**
 - Best interest of consumers—especially for reasons of system reliability—to align utility incentives with proliferation of DER
 - DSP would overlap greatly with current utility functions, including system planning and operation
 - Establishing an independent distribution system operator would require additional funding from ratepayers
- **To minimize market power of incumbent utilities as DSPs:**
 - Utilities will not participate as owners of DER where a market participant can provide similar services
 - Track II ratemaking reforms will focus utility incentives on the success of REV markets rather than on building a larger rate-base.
 - Commission will closely monitor market power through DSIP process, rate-cases, etc.
 - Dispute resolution mechanism developed to investigate DER deterring activities.
 - Ring-fencing/Chinese wall may be required- Market Design Group will examine exactly which functions should be separated out.



- If utility DSPs “materially fail” to meet objectives of REV, another entity may serve as DSP.

DSP Issues

- **Uniform Digital Marketplace**
 - Web-based marketplace where customers can access retail choice suppliers and DER vendors, and where DER vendors can reach customers
- **Availability of Customer and System Data**
 - Staff proposed monthly customer data available on an independent data exchange through an opt-out mechanism, but party comments led commission to deny.
 - System data will be made available through DSIPs. Details on what types of system data/timeline for availability will be developed by MDPT Working Groups.
 - Data will be available at no charge, but DSPs can charge fees for value added analysis
- **Billing** (Staff Progress Report September 1, 2015)
 - Staff will develop a proposal to increase the informational value of energy bills with the goal of enhancing customer engagement in energy purchase and usage decisions
 - Staff will lead a collaborative on consolidated energy billing, which will include both unbundled retail supply and DER in a customer’s bill

DSP Ownership of DER

- **Recovery limited to actual costs only**
- **DSP owns DER only in these scenarios**
 - Solicitation to procure DER from third parties failed/was more costly
 - Project is Energy storage integrated into the distribution grid
 - Project is targeted at low-to-moderate income customers where markets have failed to provide DER
 - Project is sponsored for demonstration purposes
- **Affiliate ownership of DER**
 - Utility must hire independent third party who reports to staff to oversee bid processes
 - If tariff is main solicitation tool, then code of conduct applies (Due from staff April 1, 2015)
 - If auction is main solicitation tool, then code of conduct and market share cap applies



UTILITY ENERGY EFFICIENCY PROGRAMS

- 2015 budgets and targets will be maintained as floor
- New programs will align with REV through market based approaches and support the market transformation focus of NYSERDA
- But there will be overlap. Utility direct resource acquisition and rebate programs must be coordinated with NYSERDA programs and periodically reviewed so that each utility program is properly situated on the market transformation curve.
- Utilities, staff, and NYSERDA, will develop metrics applicable to market transformation strategies (no deadline)
- Utility outcomes will be measured according to: (1) directly attributable MWh savings; and (2) overall success of strategy in transforming markets
- Goal is to use market mechanisms that combine resource acquisition (rebates and subsidies) with third party activities to increase market penetration of efficiency measures.
- Notes that rebate programs create a surrogate market, displacing traditional markets, denying efficiency program funds to new technologies, and inhibiting market transformation. ****Questionable Assertion****
- Staff will compile a **REV Energy Efficiency Best Practices Guide** (February 1, 2016)
- Utilities encouraged to explore new approaches that include rebates and:
 - Enhanced value through targeting specific system needs
 - Coordination with a larger market transformation plan
 - Deployment of technology tools, and information that facilitate customer load management
 - Greater focus on demand reduction
- **Utility EE programs will be funded through rate-base, rather than SBC**
- **Cost effectiveness will be considered on a portfolio-wide basis**
- Utilities will in concert maintain their own planning, evaluation, TRM, and benefit-cost analysis tools, which are preferably uniform throughout the state with unique inputs for each distribution utility. TRM Management Plan submission, pending June 1, 2015.
- Potentially incorporate **111(d)**
- Program approval on three year rolling cycle approved every year to avoid “cliff” years, but staff and commission will transition toward a monitoring and guidance role, and away from a program approval role.
- NYSERDA remains default provider of low-income programs, but utilities are encouraged to act in concert and develop similar programs
- **Self-direct/Opt-out for “large” commercial and industrial consumers**



Large-Scale Renewable Resources

- Now have own track, with a Staff/NYSERDA Options Paper June 1, 2015

Low and Moderate Income Customers

- Primarily the responsibility of NYSERDA, but there are a number of other efforts underway

Interconnection

- **PHASE I- Online interconnection portal** developed December 15, 2015
 - Automatically manages and screens applications, including any needed impact studies such as load flow and fault potential based on DER penetration levels
- **Phase II- DER Grid Planning Integration-** Automated application and management process for DER is integrated with grid planning
- DSPs can earn revenue through timely processing and value added analysis

Platform, Communication, and Metering Technology

- Advanced metering functionality may substitute for advanced metering infrastructure (e.g. meter communication via broadband)
 - Would spread investment across third parties rather than ratepayers

Security

- Comply with NIST guidelines, but investigation ongoing

Customer Protections

- Uniform Business Practices Guidance Revision issued July 1, 2015
- DER Vendor oversight will be similar to ESCO oversight, rather than utility-type
- DER vendors fall within PUC Jurisdiction if they “furnish” electricity:
 - Use DSP data; and
 - Sell DER services into DSP markets

Microgrids

- Standby Tariffs will be issued through Track II
- Establishes Micro-Grid Policy framework, with deadline for comments May 1, 2015

Demonstration Projects

- Utilities will submit DER Demonstration projects by July 1, 2015
- Must abide by [resolution on demonstration projects](#)
- Utilities provided rate recovery for demonstration projects with a cap of \$10 million or .5% of delivery service budget
- Utilities may propose performance incentive linked to amount of private capital leveraged for demonstration projects



BENEFITS AND COSTS

- Benefit Cost Analysis Whitepaper Pending June 1, 2015
- Metrics for evaluating REV adoption will be closely related to metrics used for performance-based ratemaking of utilities, developed in Track II.
- Metrics for evaluating REV implementation:
 - **Investment to build DSP capabilities** judged on a case-by-case basis through DSIP process or rate proceedings.
 - **Specific Utility Procurements** to meet system needs are determined under traditional benefit cost analysis, but also judged through market lens.
 - **Tariff Development** will be judged by Commission as just and reasonable.
 - **Energy Efficiency Programs** will be subject to portfolio-wide Total Resource Cost (TRC) test. This may change, but will continue to internalize externalities into the cost-benefit equation.

IMPLEMENTATION

- Moving with all deliberate speed to catch up with technologies and needs of society.
- Much of REV is based upon concepts already rolled out via previous orders, just now under a single umbrella.
- **Distributed System Implementation Plans will include:**
 - Actual and forecast system loads and capital spending projects at a level of specificity sufficient to inform market planning and participation by 3rd parties;
 - Actual and forecast levels of DER including detailed analysis of system needs amenable to being met by DER;
 - Plans for encouraging market development of DER;
 - Plans for increasing DER deployment in underserved markets;
 - Specific plans including cost estimates for building DSP capabilities;
 - A description of internal organization of DSP and traditional utility functions.
- Staff issues DSIP guidance August 3, 2015, initial DSIPs due January 15, 2015
- Pilot non-wire alternative projects suggested by utilities by May 1, 2015