

Appendix A: Power Sector Transformation in Other States

New York

Under the direction of the governor and the Public Service Commission, New York in 2014 initiated Reforming the Energy Vision, a formal investigation into power sector transformation. Under New York REV, the Public Service Commission is attempting to align markets and the regulatory landscape with policy objectives of giving customers new opportunities for energy savings, local power generation, and enhanced reliability to provide clean, and affordable electric service.¹ The PSC seeks to “reorient both the electric industry and the ratemaking paradigm toward a consumer-centered approach that harnesses technology and markets.”² The NY PSC established two tracks for the efforts, the first track focused on markets and the second on ratemaking reforms. These will be brought together in future orders.

In January 2015, the New York Department of Public Service determined that “platform” refers to the Distribution System Platform role articulated by the PSC to describe how markets for electricity-related products and services would develop.

The Commission issued a major order on February 26, 2015, adopting a Regulatory Policy Framework and Implementation Plan (“Track 1 Order”). The Public Service Commission determined in its track one order that the distribution utility will provide the Distribution System Platform. However, the PSC made it clear that if competitive distortions arise, they will revisit this determination.

The next phase of the REV process involved stakeholder efforts. The New York Department of Public Service required staff of the department to convene and coordinate stakeholder working groups including representatives of the New York State Smart Grid Consortium (NYSSGC), and other closely related groups addressing market design and platform technology. This group became the Market Design and Platform Technology (MDPT) Committees.

The working groups were tasked with the following:

- Consider the next level of detail around market design and platform technology needed to move towards the DSP vision in the near term;
- Make recommendations on key market design and platform technology elements (e.g., DSP functions and responsibilities, products to be exchanged, required standards, etc.) needed in the near term and provide reports to the commission; and

¹ <http://www3.dps.ny.gov/W/PSCWeb.nsf/All/CC4F2EFA3A23551585257DEA007DCFE2?OpenDocument>

² New York State Department of Public Service. 2014. Case 14-M-0101 - Proceeding on Motion of the Commission in Regard to Reforming the Energy Vision - DPS Staff Straw Proposal on Track One Issues at 3.

- Provide guidance on these issues to inform utility Distributed System Implementation Plans (DSIPs).

The MDPT issued a draft report on July 15, 2015.³

Among the recommendations of the report are the following:

- Enhanced distributed planning: The MDPT proposes that distribution system planners improve analytical capabilities related to DER hosting capacity, identify the locational net value of DER at specific geographic locations on the grid, and identify and prioritize locations where DER should be pursued to provide distribution system capacity and operational relief.
- Market access, platform, and distribution system optimization: Market access here refers to the elements of reform that enable and encourage markets and customer active participation by reducing barriers, increasing access to information, and leveraging the resources of the distribution utility to facilitate these things.

These topics cover fairly comprehensive and more detailed list of the areas covered and a reference point for the market-related actions and proceedings that are occurring in other states listed above. Other topics that are part of the New York process and typically enter into the larger set of issues around policy and regulatory environments necessary to foster effective use of DERs include the following:

- Rate design: This issue often arises in connection with issues around maximizing the value of DER. Dynamic rates and designs that provide incentives for controlled loads offer considerable potential to better match flexible loads with variable energy resources. Rate design and ratemaking issues are part of the track two process in New York.
- Access to the grid: Similarly, access and interconnection are of great importance in light of the considerable interest in connecting rooftop PV and other resources. Concerns for the stability of the grid sometimes weigh against interconnection in areas with high penetration of PV.
- Business models, incentives, cost recovery and performance-based regulation: How utilities recover costs and are incented to recover costs is of considerable interest as regulators look to encourage utility practices to conform to objectives for DER resources. Business models and incentive regulation are part of the track two process in New York.
- Demonstration projects: Examples of these changes working effectively on the ground are needed to advance the framework for optimal use of DERs. In a December 12, 2014 order, the PSC encouraged the investor owned utilities to partner with third party energy entrepreneurs to undertake demonstration projects that would further the REV vision. Developed in cooperation with universities, local government and local groups, utility demonstration projects were proposed for approval on July 1, 2015. Seven of the proposals were approved for further development.

³ https://newyorkrevworkinggroups.com/wp-content/uploads/MDPT_Draft-Report_07.15.2015_final.pdf

California

California launched an effort in 2014 pursuant to legislative direction.⁴ The state's investor-owned utilities are required to file Distribution Resource Plans with the California PUC to better integrate distributed energy resources onto the grid.⁵ These plans were filed July 1, 2015 and will be under review for some time. Unlike some other jurisdictions, this particular California process does not focus on issues such as the business model or cost recovery.⁶ However, there is a list of parallel efforts around the broader set of issues that are implicated by an investigation into power sector transformation. Included in these are incentives and mechanisms to encourage market access from distributed generation and customer-side generation,⁷ rate design proceedings have resulted in direction to utilities on rate submissions in the coming 5 years,⁸ and proceedings related to alternative-fueled vehicles.⁹ California's single state ISO is also working with the PUC on aligning wholesale and retail markets to improve the value of demand response.

What stands out in the California efforts is the use of Distribution Resource Plans. The plans filed with the commission address the infrastructure issues as well as many of the issues covered in the New York REV process, including rate design, data access, among others.¹⁰

Hawaii

Hawaii has the highest electricity rates in the US and good solar resource potential. Rooftop solar in Hawaii has been leading the US in the rate of adoption while also presenting challenges both to the utility intent on maintaining system quality, and customers who would like to participate in programs and capture the value of rooftop PV. In August of 2014, Hawaii opened a major investigation to "investigate the technical, economic, and policy issues associated with distributed energy resources ('DER') as they pertain to the electric operations of" its major electric utilities.¹¹ The investigation followed the public release of a commission white paper that presented the leanings of the Hawaii Public Utility Commission. The white paper that sets up the investigation covers a wide range of potential reforms, including in the areas of rate design, utility business models and incentives, data access, grid modernization, and planning.¹²

⁴ Assembly Bill 327.

⁵ [California Utility Cost 769](#)

⁶ RMI Outlet, New York and California are Building the Grid of the Future, February 18, 2015, available at http://blog.rmi.org/blog_2015_02_18_new_york_california_building_the_grid_of_the_future

⁷ <http://www.cpuc.ca.gov/PUC/energy/DistGen/>

⁸ <http://www.cpuc.ca.gov/PUC/energy/Electric+Rates/>

⁹ <http://www.cpuc.ca.gov/PUC/energy/altvehicles/>

¹⁰ California Public Utilities Commission, Distribution Resource Plans, viewed on August 21, 2015 and available at <http://www.cpuc.ca.gov/PUC/energy/drp/>

¹¹ Public Utility Commission of Hawaii, Order Instituting a Proceeding to Investigate Distributed Energy Resource Policies, Order No., 32269, Docket No., 2014-0194, August 21, 2014, available at http://dms.puc.hawaii.gov/dms/DocketDetails?docket_id=84+3+ICM4+LSDB9+PC_Docket59+26+A1001001A14H14A84843E4191418+A14H14A84843E419141+14+1873&docket_page=4

¹² Public Utility Commission of Hawaii, Regarding Integrated Resource Planning, Docket No. 2012-0036, "Decision and Order No. 32052," filed on April 28, 2014, Exhibit A, "Commission's Inclinations on the Future of Hawaii's

Massachusetts

Massachusetts has launched two proceedings related to power sector transformation. The first of these proceedings centers on planning and investment objectives for grid modernization. The second focuses on rate design.¹³ The commission issued orders in these proceedings in 2014 and is in an implementation phase.

Michigan

The Michigan process involves a wide group of business leaders and energy advocates involved in a dialogue on the future of the state's energy policy.¹⁴ The effort to date has been divided into three phases, with the implementation phase (Phase III) scheduled to begin in late 2015. It is still too early in this process to identify the areas on which Michigan intends to focus, but in general state regulators recognize that DER presents both opportunities and challenges that will have to be addressed.¹⁵ A recently issued background report covers five topics: (i) codes of conduct for utilities, (ii) performance regulation, (iii) rate design, (iv) decoupling, and (v) infrastructure planning.¹⁶

Minnesota

Minnesota has engaged around the issues of DER through a stakeholder process led by the Great Plains Institute (GPI) called the e21 Initiative (short for 21st Century Energy System). The first product of this effort was a report that centers on issues of aligning the business model of the utility and the sector with the desired outcomes for DER. The effort focuses on two sets of issues: the limited options available to customers and the misalignment of utility regulatory incentives through traditional regulation that ties profits to sales.¹⁷

Among the recommendations of the Minnesota plan is the creation of an integrated resource analysis framework to replace integrated resource plans (IRPs). The concept here is to create an accessible

Electric Utilities; Aligning the Utility Business Model with Customer Interests and Public Policy Goals." Available at <http://puc.hawaii.gov/wp-content/uploads/2014/04/Commissions-Inclinations.pdf>

¹³ Massachusetts Department of Public Utilities, Grid Modernization Home Page, viewed 8/19/15 available at <http://www.mass.gov/eea/energy-utilities-clean-tech/electric-power/grid-mod/grid-modernization.html>

¹⁴ Roadmap to Implementing Michigan's New Energy Policy, Project Overview, available at http://www.michiganbusiness.org/cm/Files/Energy_Office/Project-Overview.pdf

¹⁵ Public Sector Consultants, Roadmap to Implementing Michigan's New Energy Policy - Baseline Report, May 2015 available at <https://www.nextenergy.org/wp-content/uploads/2015/08/MEO-DOE-Baseline-Research-Report.pdf>

¹⁶ RAP, Roadmap to Implementing Michigan's New Energy Policy, Paths to the Future Report, August 2015 available at www.raponline.org

¹⁷ Great Plains Institute, e21 Initiative: Phase I Initiative, December 2014 available at http://www.betterenergy.org/sites/www.betterenergy.org/files/e21_Initiative_Phase_I_Report_2014.pdf

planning process that provides timely and useful information to multiple parties that could use or participate in a more dynamic framework for meeting sector objectives at least cost.¹⁸

The Minnesota commission has opened a process on grid modernization and has not yet acted on other e21 recommendations.

Rhode Island

System Integration Rhode Island (SIRI) is a small collaborative designed to find ways to improve existing processes in order to capture the value of distributed resources. Like the Minnesota process, the SIRI initiative is an ad hoc stakeholder process whose recommendations will require the attention by regulators to become effective.

District of Columbia

The Public Service Commission of the District of Columbia issued and order opened an investigation into modernization of the energy delivery system for increased sustainability. The Commission states that “opens this proceeding to identify technologies and policies that can modernize our energy delivery system for increased sustainability and will make our system more reliable, efficient, cost-effective and interactive.”¹⁹ The Commission process is still in the early stages with initial comments due in August 2015, and the first workshop in September of 2015 that is intended to discuss future plans for the investigation.

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¹⁸ GPI, at

¹⁹ Public Service Commission of the District of Columbia, June 12, 2015, Order Opening Investigation, Formal Case No. 1130, In the Matter of the Investigation into Modernization of the Energy Delivery System for Increased Sustainability, available at https://www.energymarketers.com/Documents/orderno_17912_FC1130.pdf

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