

The Commonwealth of Massachusetts

DEPARTMENT OF PUBLIC UTILITIES

D.P.U. 12-76

October 2, 2012

Investigation by the Department of Public Utilities on its own Motion into Modernization of the Electric Grid.

VOTE AND ORDER OPENING INVESTIGATION

I. <u>INTRODUCTION</u>

The Department of Public Utilities ("Department") opens this inquiry to investigate policies that will enable Massachusetts electric distribution companies and their customers to take advantage of grid modernization opportunities.¹ Specifically we will examine our policies to ensure that electric distribution companies adopt grid modernization technologies and practices in order to enhance the reliability of electricity service, reduce electricity costs, and empower customers to adopt new electricity technologies and better manage their use of electricity. The purpose of this investigation will be to solicit input from stakeholders that will guide the Department's approach to grid modernization over the short, medium, and long term.

One of the Department's primary responsibilities is to ensure that electric distribution companies provide reliable service to customers. This topic has received increased attention in recent years as a result of customer service outages following several severe storms. In support of our responsibilities, Governor Patrick recently signed into law two bills to enhance the reliability of electricity service in general and to improve utility responses to storm events: St. 2012, c. 209, An Act Relative to Competitively Priced Electricity in the Commonwealth, (August 3, 2012); St. 2012, c. 216, An Act Relative to the Emergency Service Response of Public Utility Companies (August 6, 2012). The Department sees a range of grid modernization technologies and policies as vital for maintaining and improving the reliability of the electricity system.

¹ We refer in this notice to "grid modernization" and a "modern grid." Many of the concepts and technologies that we discuss here are typically referred to as "smart grid." We use the alternate terminology because it is more descriptive of the range of issues we intend to address.

Further, the Department must ensure that electric distribution companies provide service that comports with our responsibilities regarding ratepayer costs. Grid modernization offers the potential to save customers money by shifting demand to off-peak periods, which will decrease ratepayers' bills and avoid investments in new generation, transmission, and distribution resources.

In 2008 and 2012, Governor Patrick signed into law St. 2008, c. 169, An Act Relative to Green Communities ("Green Communities Act" or "GCA"), and St. 2012, c. 209, An Act Relative to Competitively Priced Electricity in the Commonwealth, respectively. Both of these statutes significantly enhance the development of energy efficiency, demand response, distributed generation, and renewable resources and give the Department new responsibilities in supporting this development. Since the GCA was enacted, the Department has undertaken numerous initiatives to further its goals, including, for example: removing electric and gas utility financial disincentives to the utilization of demand resources² through decoupling; updating our energy efficiency guidelines; promulgating net metering regulations; overseeing the electric utility smart grid pilot programs; approving utility-owned solar facilities; working to update distributed generation interconnection standards; and approving long-term contracts for renewable power.³

² Demand resources are installed equipment, measures or programs that reduce end-use demand for electricity or natural gas. Such measures include, but are not limited to, energy efficiency, demand response, and distributed resources. <u>Investigation by the</u> <u>Department of Public Utilities on its own Motion into Rate Structures that will Promote</u> <u>Efficient Deployment of Demand Resources</u>, D. P.U. 07-50, at 1 n.1 (2007).

³ <u>See, e.g., Investigation by the Department of Public Utilities on its own Motion into Rate</u> <u>Structures that will Promote Efficient Deployment of Demand Resources</u>, D. P.U. 07-50 (2007); <u>Investigation by the Department of Public Utilities on its own Motion into</u>

Also in 2008, Governor Patrick signed the Global Warming Solutions Act ("GWSA"), which sets Massachusetts on a path to reduce economy-wide greenhouse gas emissions to 25 percent below 1990 baseline levels in 2020, and 80 percent below 1990 baseline levels by 2050. St. 2008, c. 298, An Act Establishing the Global Warming Solutions Act; G.L. c. 21N, § 3. The electricity sector must play a significant role in meeting these goals.⁴ The Department sees grid modernization as an important component of our on-going efforts to promote clean energy resources and encourage electric distribution companies to develop a more efficient and reliable electricity system.

We expect that grid modernization policies will provide electric distribution companies with the ability and guidance to take advantage of new technological developments and provide new customer service offerings. More specifically, we expect that grid modernization offers the opportunity to:

Updating its Energy Efficiency Guidelines Consistent with An Act Relative to Green Communities, D.P.U. 08-50-B (2009); Investigation by the Department of Public Utilities on its own Motion into Updating its Energy Efficiency Guidelines, D.P.U. 11-120 (2011); 220 C.M.R. § 18.00 et. seq.; Massachusetts Electric Company and Nantucket Electric Company, each d/b/a National Grid, D.P.U. 11-129 (August 3 2012); Fitchburg Gas and Electric Light Company, D.P.U. 09-31 (2010); NSTAR Electric Company, D.P.U. 09-33 (2010); Western Massachusetts Electric Company, D.P.U. 09-34 (2010); Smart Grid Pilot Evaluation Working Group, D.P.U. 10-82 (2011), Western Massachusetts Electric Company, each d/b/a National Grid, D.P.U. 09-38 (2009); Investigation into the Interconnection of Distributed Generation, D.P.U. 11-75 (2011); Massachusetts Electric Company and Nantucket Electric Company, each d/b/a National Grid, D.P.U. 10-54 (2010); NSTAR Electric Company, D.P.U. 11-05/06/07 (2011); Western Massachusetts Electric Company, D.P.U. 11-12 (2011); Fitchburg Gas and Electric Light Company, D.P.U. 11-30 (2011).

⁴ <u>See</u> Executive Office of Energy and Environmental Affairs, Massachusetts Clean Energy and Climate Plan for 2020 (December 29, 2010).

(1) reduce the frequency and duration of customer outages through automated, remote-controlled grid devices and real-time communication to the distribution companies of outages and infrastructure failures;

(2) provide customers with the information, price structures, technologies, incentives, and tools to empower them to use electricity more efficiently and reduce their individual energy bills;

(3) improve the operational efficiency of the grid, particularly during peak times when the grid is most stressed and electricity is most expensive;

(4) reduce transmission and distribution system operation, maintenance, and construction costs by reducing electricity demand at times of system peaks;

(5) reduce New England wholesale and retail electricity prices, by reducing electricity demand at times of system peaks;

(6) facilitate the integration of distributed generation resources and new technologies, such as renewable energy technologies, combined heat and power, energy storage, and electric vehicles;

(7) enhance the success of the Massachusetts energy efficiency initiatives, through the use of marketing campaigns and the advancement of technologies that both reduce peak demand and save energy; and

(8) reduce greenhouse gas emissions from the electric sector by: increasing the operational efficiency of the grid, thus reducing emissions associated with line losses; reducing the need for higher emissions generating plants, which run primarily during times of peak electricity demand; empowering customers to use energy more efficiently; and facilitating the integration of demand resources into the grid.

The Department recognizes that some of these potential benefits may be achievable in the short or medium term, while others may only be achievable over the long term. That said, the Department intends at the end of the Working Group process discussed below to move forward as expeditiously as is reasonable in advancing grid modernization in the Commonwealth.

Through this investigation we expect to consider several important factors that may affect the opportunities available for grid modernization in Massachusetts, including the following:

(1) Consumer protection. We expect that the Department will need to consider policies that will ensure that all electricity customers, and especially low-income customers, renters, and small business customers, are able to benefit from grid modernization developments to the greatest extent possible.

(2) Cost-effectiveness. We expect that the Department will need to consider policies that will facilitate the implementation of cost-effective grid modernization practices.

(3) Customer engagement. We expect that achieving the opportunities outlined above will require customer engagement, and that the Department, the electric distribution companies, and other stakeholders will need to take steps to effectively promote customer engagement.

(4) Timing. We expect that the Department will need to consider questions regarding the appropriate time to implement particular grid modernization technologies and practices, especially given the rapid pace at which technologies evolve.

II. <u>GOALS OF THE INQUIRY</u>

In this investigation we seek to develop a roadmap that will guide our approach to grid modernization over the short, medium, and long term. This will include policies that will provide electric distribution companies with guidance and flexibility to implement grid modernization technologies and practices to enhance reliability, reduce electricity costs, empower customers to better manage usage, and support a cleaner, more efficient electricity system.

One of the key goals of this inquiry is to obtain input from stakeholders to assist the Department and the distribution companies in modernizing the electric grid. As described further in Section IV, as part of this investigation we are creating a stakeholder Working Group to assist the Department in that endeavor. We expect the Working Group to address the grid modernization issues outlined in this Notice of Investigation ("NOI"), and likely other issues, and to propose recommendations that the Department may implement to achieve its grid modernization objectives. One of the key outcomes of the Working Group will be a report to be filed at the Department no later than June 19, 2013. The Working Group should strive to reach as much consensus as possible, presenting alternatives where consensus is not reached.

III. AREAS OF INQUIRY

A. <u>Current Status of Electric Grid Infrastructure as it Relates to Grid Modernization</u>

In order to provide a foundation for this inquiry, we require an understanding of the current grid infrastructure and its capabilities, as well as the status of the grid modernization activities performed to date by Massachusetts distribution companies, including those that are currently in process or being planned.

During the course of this investigation we expect the Working Group to address many interrelated questions regarding grid modernization. For this area of inquiry, we see the following questions as most relevant:

- What grid modernization technologies and practices has each electric distribution company already implemented, and what plans does each company have for introducing additional technologies and practices?
- To what extent does each distribution company's recent investments in grid modernization, including advanced meters (e.g., Automated Meter Reading ("AMR"), Advanced Metering Infrastructure ("AMI")), affect decisions about future investment in grid modernization?
- What role do existing Department regulations, policies and practices play in encouraging or discouraging future investments in grid modernization infrastructure?

B. <u>Grid-Facing Technologies</u>

Grid-facing technologies are those that automate grid operations and allow distribution companies to monitor and control grid conditions in near real time. These include advanced distribution technologies that will automatically notify electric distribution companies of outages, allow them to reroute power where possible, and enable more efficient dispatch of repair crews. Grid-facing technologies also allow operators to automate system diagnostics and remotely monitor the system for disturbances, thereby enabling the system to "self-heal," reducing the frequency and duration of customer outages. In addition, the modern grid will facilitate the use of technologies to maximize its efficient operation and should be capable of fully integrating new distributed technologies, <u>e.g.</u>, combined heat and power systems, renewable resources, electricity storage technologies, and plug-in electric vehicles.

We expect the Working Group to discuss the capabilities we should reasonably expect of a modern distribution network, the status of technologies required to enable these capabilities, the regulatory changes that may be necessary to facilitate the development of a modern distribution network, and the steps that distribution companies should take to integrate the relevant technologies in a strategic and cost-effective manner. For this area of inquiry, we see the following questions as most relevant:

- What are the key grid-facing technologies and practices that the distribution companies should be implementing to maximize the reliability and the efficiency of the grid?
- How do grid-facing technologies and practices overlap with customer-facing technologies (<u>e.g.</u>, advanced meters and communications systems) and practices, and to what extent do they need to be coordinated?

C. <u>Customer-Facing Technologies</u>

Customer-facing technologies include, for example, advanced meters, two-way

communication systems, web-based information portals, in-home energy information devices,

programmable communicating thermostats, and smart appliances/electronics.⁵ As described in

Section III.D, below, customer-facing technologies can help customers save money when used in

combination with time-varying rate designs,⁶ enabling customers to respond to price signals that

indicate how the cost of electricity fluctuates throughout the day, the week, and the year.

Customer-facing technologies can also enable customers to manage their electricity more

efficiently, and adopt demand resources.

For this area of inquiry, we see the following questions as most relevant:

• How can customer-facing technologies, practices, and strategies be used in conjunction with time-varying rate design to (1) enable customers to manage their electric usage most efficiently and enable maximum customer cost savings; and (2) integrate resources such as distributed generation, electricity storage devices, and electric vehicles?

⁵ Smart appliances/electronics are devices that are controllable and programmable, <u>e.g.</u>, dishwashers that can be programmed to run at night when electricity prices are low.

⁶ We use the term "time-varying rate designs" instead of the term "dynamic pricing" because it more accurately describes the fact that generation costs vary over the course of the day, the week, and the year.

- What are the appropriate roles for the Department, distribution companies, and stakeholders in identifying customer-facing technologies to achieve these goals?
- How should the Department and other stakeholders ensure an open and robust market for third-party customer-facing technology providers and ensure adequate consumer protection?

D. <u>Time-Varying Rate Design</u>

Basic service electricity customers have electric generation prices that are fixed, despite the fact that electricity costs can vary significantly over time.⁷ Consequently, most electricity customers in Massachusetts do not have the information or the incentive to change their electricity consumption in response to the frequent variation in electricity system costs. If customers are provided electricity prices that reflect the variation in electricity costs over time (e.g., time-of-use rates, critical peak pricing, peak-time rebates, real-time pricing; <u>see</u> Table 1, below), they will have an incentive to shift the timing of their electricity consumption or reduce their consumption in order to lower their bills. Reducing electricity use at times of peak demand also will lower the cost to all electricity customers, by reducing wholesale electricity prices and avoiding investment in new generation, transmission, and distribution resources that may be utilized during only a few peak hours of the year. For example, in 2006, the 60 hours with the

⁷ Residential and small commercial customers are offered basic service rates that change every six months, with customers having a choice of one price over that time period or prices that vary month to month. Large commercial and industrial customers' basic service rates change every quarter; these customers can opt for one price over that time or for prices that vary month to month. See Pricing and Procurement of Default Service, D.T.E. 99-60-B at 4-6 (2000); Provision of Default Service, D.T.E. 02-40-C at 20-22 (2003).

highest electricity demand in New England required an additional nine percent of electric

capacity.⁸

Time-Varying Rate Structure	Definition
Time-of-use rates	Charges a higher price during all weekday peak hours and a
	discounted price during off-peak and weekend hours
Critical Peak Pricing	Charges a higher price during the few hours each year of highest
	total demand and a discounted price during the remaining hours
Peak-time Rebates	Customers can earn a rebate on their bill by reducing usage
	during the few hours each year of highest total demand
Real-time Pricing	A rate with hourly price variation that follows real-time energy
	markets

 Table 1. Examples of Time-Varying Rate designs.

Customer-facing grid modernization technologies can significantly enhance the opportunities associated with time-varying rate design. First, advanced meters enable customers to make use of time-varying electricity rates by providing them with the information and incentive necessary to shift the timing of their energy consumption from periods of high prices to those of lower prices, thereby enabling them to save money. Second, customer-facing technologies such as programmable communicating thermostats and smart appliances/electronics allow customers to actively manage their electric consumption patterns, significantly increasing the likelihood that customers will respond to time-varying rate designs.

The Department recognizes that there are challenges as well as opportunities associated with time-varying rates. Some customers may have limited ability to respond to time-varying pricing or limited ability to install and operate customer-facing technologies. It is possible that

⁸ ISO-New England, <u>ISO-NE 2006 Annual Markets Report</u>, at 20-21 (June 11, 2007), available at <u>http://www.iso-</u> ne.com/markets/mkt_anlys_rpts/annl_mkt_rpts/2006/2006_annual_markets_report.pdf

some customers may experience increases in their electricity bills, depending upon the design of the time-varying prices and the particular customer's load profile and ability to respond to the new rates. One of the top priorities of the Department in this investigation will be to ensure that any time-varying rate design implemented in Massachusetts minimizes undue bill increases for all customers, with particular concern for low-income customers, renters, and small business customers who may be least able to modify their electricity consumption patterns.

For this area of inquiry, we see the following questions as most relevant:

- Which time-varying rate designs (<u>i.e.</u>, time-of-use rates, peak-time rebates, critical peak pricing, real-time pricing) are most appropriate for Massachusetts customers, and should this vary by customer class and/or service territory?
- What factors should the Department consider in applying time-varying rate designs to basic service customers, and what impact might the application of these rate designs have on the competitive retail market?
- Should time-varying rate designs be mandatory, opt in, or opt out, and should designs vary by customer class?

E. Costs and Benefits of Grid Modernization

A key component of this investigation will be to develop an understanding of the range of costs and benefits associated with grid modernization technologies and practices. As discussed, grid modernization offers the potential to bring many benefits to customers, including enhanced reliability, and increased customer opportunities to manage usage, adopt new electricity technologies, and reduce costs. However, achieving many of these benefits will require investments by the distribution companies, which will eventually be passed on to ratepayers. One of the key objectives of this inquiry will be to enable distribution companies and other stakeholders to identify those grid modernization opportunities that are cost-effective and offer the greatest benefits to customers.

The Department intends to develop a framework that will allow the distribution companies and stakeholders to assess the cost-effectiveness of grid modernization opportunities as they develop over time. This cost-effectiveness framework will allow the distribution companies and other stakeholders to identify those grid modernization opportunities that are worth implementing, and will allow the Department to ensure that the distribution companies implement those options whenever their benefits exceed their costs. We expect that the Working Group will conduct illustrative cost/benefit analyses using this framework in order to provide insight on the cost-effectiveness of specific grid modernization technologies.

We recognize that this important issue has been explored in other jurisdictions, and we expect to benefit from experience gained elsewhere. For example, the United States Department of Energy (DOE) has conducted significant analysis of smart grid costs and benefits. Although we do not wish in any way to predetermine the product of our inquiry, we suggest the use of DOE's information as a starting point. ⁹ Other states' experience may also be helpful; in that regard, we understand that states including California, Maryland, Illinois, and New York have articulated frameworks for evaluating the costs and benefits associated with grid modernization.^{10, 11, 12, 13}

⁹ The DOE's dedicated website for Smart Grid issues is available at <u>http://energy.gov/oe/technology-development/smart-grid; see also, http://www.smartgrid.gov/recovery_act/program_impacts</u>

¹⁰ California Public Utilities Commission, Agenda ID #11186, Rulemaking 08-12-009, Proposed Decision of Commissioner Peevey, Adopting Metrics to Measure the Smart Grid Deployments of Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas and Electric Company (March 20, 2012), available at http://docs.cpuc.ca.gov/EFILE/PD/162118.pdf

We ask that stakeholders be prepared to share any relevant experience and information they have regarding grid modernization cost-effectiveness assessment. For this area of inquiry, we see the following questions as most relevant:

- What is the appropriate framework to evaluate the cost-effectiveness of grid modernization technologies and practices, including grid-facing technologies, customer-facing technologies, advanced meters, and time-varying rate designs?
- How should the Department value hard-to-quantify impacts such as improved reliability, increased customer choice, and reduced environmental impacts?
- F. <u>Grid Modernization Policies</u>

As noted above, a primary goal of this investigation is to inform and guide the

Department's approach to grid modernization over the short, medium, and long term. Central to this undertaking is the consideration of specific Department policies to ensure that electric distribution companies implement grid modernization technologies and practices in a way that best promotes reliability and other benefits to customers at the lowest reasonable cost.

¹¹ Maryland Public Service Commission, Case Nos. 9208 and 9207, <u>Advanced Meter</u> <u>Performance Metrics Reporting Plan</u> (May 18, 2011), available at <u>http://webapp.psc.state.md.us/Intranet/home.cfm</u>

¹² Illinois Statewide Smart Grid Collaborative, <u>Illinois Statewide Smart Grid Collaborative:</u> <u>Collaborative Report</u> (September 30, 2010), available at <u>http://www.ilgridplan.org/default.aspx</u>

¹³ New York Public Service Commission, Case 09-M-0074, <u>In the Matter of Advanced</u> <u>Metering Infrastructure, Notice Seeking Comment</u> (April 14, 2009), available at <u>http://documents.dps.ny.gov/public/MatterManagement/CaseMaster.aspx?MatterCaseNo</u> <u>=09-M-0074&submit=Search+by+Case+Number</u>

These potential Department policies might include, for example:

- planning procedures to allow stakeholders to review and comment on proposed grid modernization initiatives, subject to Department approval;
- requirements for electric distribution companies to achieve specific grid modernization goals;
- performance standards for electric distribution company grid modernization practices; and
- cost recovery treatment of grid modernization investments.

We also intend to identify through this investigation policies that are necessary to ensure that consumers are protected from any undue risks or costs associated with grid modernization initiatives. This will be important for all customers, and especially for those who may be less able to take advantage of customer-facing technologies and practices, including low-income customers, renters, and small business customers.

For this area of inquiry, we see the following questions as most relevant:

- What role do existing Department regulations and policies play in encouraging or discouraging future grid modernization initiatives?
- What mechanism(s) should be considered for cost recovery of grid modernization investments?
- G. <u>The Pace of Grid Modernization Implementation</u>

The Department recognizes that grid modernization will be an evolving process over the long term. While we believe that it is important for us to develop a grid modernization roadmap at this time, the optimal pace for the implementation of new technologies and practices is less clear. To some extent, the pace of grid modernization will depend on the distribution companies' investments in grid modernization technologies to date, the lifespan of assets already deployed, and on current capital spending plans. Furthermore, the pace of grid modernization will depend upon the answers to many of the questions raised above, including questions regarding the cost-effectiveness of specific grid modernization technologies and practices.

The Department recognizes that Massachusetts electric distribution companies are in various stages of implementing smart grid pilots in compliance with Section 85 of the Green Communities Act. St. 2008, c. 169, § 85; <u>Massachusetts Electric Company and Nantucket</u> <u>Electric Company, each d/b/a National Grid</u>, D.P.U. 11-129 (August 3, 2012); <u>Fitchburg Gas and</u> <u>Electric Light Company</u>, D.P.U. 09-31 (2010); <u>NSTAR Electric Company</u>, D.P.U. 09-33 (2010); <u>Western Massachusetts Electric Company</u>, D.P.U. 09-34 (2010). However, it is our view that electric ratepayers would not be well served if we were to defer this inquiry until after we obtain the results of those pilots, given that grid modernization may offer opportunities to improve reliability and reduce costs in the meantime. We therefore will proceed with this inquiry before obtaining the results of all of the smart grid pilots. As the results of those pilots become available, they will undoubtedly further inform our grid modernization efforts.

The Department is seeking input on the sequence and pace of grid modernization infrastructure investments, including both grid-facing and customer-facing technologies. For this area of inquiry, we see the following questions as most relevant:

- How should electric distribution companies and the Department determine the appropriate sequencing and timing for implementing various grid modernization technologies and practices?
- To what extent, if at all, can and should distribution companies implement time-varying rate designs in advance of full-scale deployment of enabling technologies?

H. <u>Health, Interoperability, Cybersecurity, and Privacy</u>

The Department recognizes that there are additional potential concerns related to grid

modernization, such as the health effects of customer-facing technologies, the interoperability of

devices, cybersecurity, and privacy. The Department recognizes that some of these are

significant issues, and that many of them are being addressed in other jurisdictions and through

federal activities. We encourage stakeholders to provide their views on how the Department

should address these issues.

For this area of inquiry, we see the following question as most relevant:

- What steps should the Department take to address the health concerns associated with grid modernization that have been raised in a few other areas of the country?
- What steps should the Department take to promote open, interoperable grid modernization technologies?
- What steps should the Department take to address cybersecurity and privacy concerns associated with grid modernization?

IV. WORKING GROUP PROCESS

As noted above, the Department intends to form a Grid Modernization Stakeholder

Working Group to discuss both grid-facing and customer-facing issues, including the questions

posed in this NOI, and to develop recommendations to the Department. The Working Group

will include the electric distribution companies and other interested stakeholder representatives.

The Department will actively lead the Working Group process, and we have retained a facilitation and consulting team to assist us in this effort.

The Working Group will commence with a kick-off workshop on November 14, 2012. This workshop will cover the goals of this investigation, the Department's grid modernization vision, a discussion of electric distribution companies' current and planned grid modernization efforts, and a review of the proposed Working Group process.

The Working Group will begin with the kick-off workshop, meet through mid-June 2013, and file a final report with the Department by June 19, 2013. Although the final details of the Working Group (including its schedule and membership) will be reviewed at the November 14th kick-off meeting, we anticipate that the Working Group process will include full plenary sessions and at least two subcommittees (one focusing on grid-facing issues, and the other on customer-facing issues). We encourage the Working Group to reach as much agreement as possible on as many of the key grid modernization issues as possible, and to identify any such areas of agreement. Where agreement cannot be reached, we encourage the Working Group to report the different views and options for those issues, identifying which members of the Working Group support each view/option. Following the submission of the report, the Department will evaluate the Working Group recommendations and determine our next steps, with the clear intention of moving forward as expeditiously as is reasonable in advancing grid modernization in the Commonwealth.

V. <u>PARTICIPATION IN THIS INVESTIGATION</u>

The Department anticipates that numerous stakeholder groups will be interested in this investigation. All electric distribution companies shall participate in this investigation. Other

stakeholder groups that are interested in participating should indicate such interest by informing both the Department's Secretary, Mark D. Marini, and Susan Rivo at Raab Associates, Ltd., via email (<u>mark.marini@state.ma.us</u>; <u>susan@raabassociates.org</u>) or by postal mail (Mark D. Marini, Secretary, Department of Public Utilities, One South Station, Boston, Massachusetts 02110; and Susan Rivo, Raab Associates, Ltd., 118 South Street, #3A, Boston, Massachusetts 02111), no later than October 17, 2012. To be included on the service list for this investigation, the request to the Secretary must include the following information:

- Name and organization represented, if any
- Address
- Telephone Number
- Email address
- The request should state whether you wish to: (1) attend the kick-off workshop;
 (2) attend the kick-off workshop and request that your organization be considered to serve on the Working Group; or (3) be placed on the service list for information only.¹⁴

Once the Department determines the exact structure and make-up of the Working Group, we will issue logistical information regarding the kick-off workshop and a procedural notice describing the Working Group process. In the meantime, please hold November 14, 2012, for the Working Group kick-off workshop.

¹⁴ Information only status is for those who wish to follow the proceeding and receive electronic documents associated with it, but who will not be actively participating.

D.P.U. 12-76

VI. <u>ORDER</u>

Accordingly, the Department

<u>VOTES</u>: To open an investigation into modernization of the electric grid; and it is

ORDERED: That the Secretary of the Department shall publish notice of this investigation in The Boston Globe and the Boston Herald, statewide papers of daily circulation within the Commonwealth.

By Order of the Department,

/s/ Ann G. Berwick, Chair

/s/ Jolette A. Westbrook, Commissioner

/s/ David W. Cash, Commissioner