



The Commonwealth of Massachusetts

DEPARTMENT OF PUBLIC UTILITIES

MEMORANDUM

TO: Distribution List, Electric Vehicles and Electric Vehicle Charging,
D.P.U. 13-182

FROM: Mike Wallerstein, Hearing Officer

RE: Request for Comments on Electric Vehicle Distribution System Impacts,
Pilot Programs and Rates

DATE: November 19, 2014

CC: Mark D. Marini, Secretary

I. INTRODUCTION

On October 16, 2014, the Department of Public Utilities (“Department”) held a technical conference related to the distribution system impacts of electric vehicles and grid interactive pilots related to electric vehicles. On November 6, 2014, the Department held a second technical conference related to electric vehicle specific rates. The Department now seeks written comments on those issues. Comments should focus on the following questions. Although commenters need not respond to each question, the heading for each response should state the question(s) it addresses and identify the question(s) using the numbers below.

II. REQUEST FOR COMMENTS

A. Electric Vehicle Charging and the Electric Distribution System Impacts

1. What role, if any, should the Department play to facilitate electric distribution companies maximizing positive distribution system impacts and minimizing negative distribution system impacts from electric vehicle (“EV”) deployment?
2. What information does an electric distribution company need regarding EV charging to plan and provide for reliable service? What is the best way to obtain this information?

What role, if any, should the Department have in facilitating distribution company access to that information while protecting customer privacy?

3. Are the electric distribution companies' cost allocation methods for assigning to customers the costs of system upgrades a barrier to EV charging? Should current methods evolve as EV adoption increases, and, if so, how (e.g., within prescribed geographic locations versus broadly across an entire utility distribution system)?
4. Should NSTAR Electric's EV pilot program, or a modified version thereof, be made available to all of NSTAR's customers? What would be the main considerations associated with deciding whether to do so? What would be the associated costs of doing so? What would be the appropriate modifications, if any, of doing so?

B. EV Rates Policy

5. What are the benefits and drawbacks (both to the distribution company and to its customers) of an EV-specific rate (i.e., an end-use rate tied to a second meter) versus a generally applicable, or whole-house, rate designed to incentivize all forms of off-peak electricity consumption? Please also address cross-subsidization issues between rate classes and/or within a rate class and costs that distribution companies incur to implement these rate designs.
6. Please discuss the benefits and challenges associated with utilizing on-board metering or EV charging equipment-integrated metering instead of a second meter.
7. Could an incentive for utility customer adoption of EVs be created through the rate design? How might this rate design differ between residential and commercial and industrial ("C&I") customers and between household and workplace charging?
8. Please discuss any concerns that may restrict the removal of the minimum monthly load eligibility requirement from National Grid's optional residential time-of-use ("TOU") rate offering (i.e., R-4). What would be required to make Rate R-4 available to all residential consumers?
9. Are there challenges associated with adding a TOU basic service component to the distribution utilities' current optional residential TOU rate? Describe such a rate.
10. What incentives or disincentives currently exist for distribution companies to promote customer adoption of EVs? Do distribution companies currently have any incentives or disincentives to transition an EV owner to a TOU rate? How does revenue decoupling (for those distribution companies that are decoupled) factor into these incentives and disincentives?

11. What actions, if any, should the Department take to design rates that promote the deployment of EV?

C. Demand Charges

12. Please explain any barriers caused by current distribution demand charges to the use of the various formats of public and workplace charging (e.g., employee EV charging, time-sensitive public transportation charging, roadside charging).

13. Please explain how the current distribution rates should be changed to remove any barriers to the use of the various formats of public and workplace charging and to collect the distribution company's allowed revenue requirement. What costs would distribution companies incur to implement such rate designs?

14. What opportunities exist to tailor demand charges for interruptible versus non-interruptible C&I customers?

15. Are there alternative mechanisms (e.g., financial support, competitive market, or technology options) that might help to address the barriers listed in your response to question 12 above?

16. In reply comments in this docket, DOER/DEP urged the Department to "consider suspending demand charges for Level 3 charging stations for an initial period of time, so as to encourage Fast Chargers at this critical time for infrastructure build out." What short-term and long-term subsidization and system effects might follow from such an action? Is it reasonable to assume that suspension of demand charges for demand-intensive charging infrastructure would encourage a faster build-out?

17. Would a rate design that includes a demand charge for any subset of residential customers be appropriate now or in the future?

18. What actions, if any, should the Department take regarding demand charges?

D. Lessons from Other Jurisdictions

19. Please discuss any important insights from current distribution company efforts or efforts in other jurisdictions that are relevant for Massachusetts regarding:

- a. distribution system impacts and cost allocation;
- b. EV and TOU rates and the price differential needed to encourage off-peak EV charging;

- c. demand charges and the barrier they may pose to workplace, fleet, and public charging; and
- d. equitable access to charging infrastructure.

E. Other Issues

- 20. Are there other issues within the Department's jurisdiction and not discussed at either technical session or in these questions that present barriers to or opportunities for meeting the Commonwealth's goal on EV deployment?
- 21. Do the distribution companies have a further role, beyond current efforts (e.g., load connection and pilots), to support the deployment of EVs (e.g., underserved markets)?

Any person interested in commenting may submit written initial comments no later than the close of business (5:00 p.m.) on **Friday, December 5, 2014**. Any person interested in commenting may submit written reply comments no later than the close of business (5:00 p.m.) on **Monday, December 15, 2014**. One original and one copy of all written documents must be filed with Mark D. Marini, Secretary, Department of Public Utilities, One South Station, 5th Floor, Boston, Massachusetts 02110. All documents must also be submitted to the Department in electronic format by e-mail attachment to dpu.efiling@state.ma.us and the hearing officer, Mike Wallerstein at mike.wallerstein@state.ma.us. The text of the e-mail must specify: (1) the docket number of the proceeding (D.P.U. 13-182); (2) the name of the person or company submitting the filing; and (3) a brief descriptive title of the document. As a courtesy to others, please also email a copy of comments to each person on the attached electronic distribution list. All documents submitted in electronic format will be posted on the Department's website: <http://www.mass.gov/dpu>. If you have any questions please contact Mike Wallerstein at (617) 305-3500.