



The Commonwealth of Massachusetts

DEPARTMENT OF PUBLIC UTILITIES

D.P.U. 13-182-A

August 4, 2014

Investigation by the Department of Public Utilities upon its own Motion into Electric Vehicles and Electric Vehicle Charging.

ORDER ON DEPARTMENT JURISDICTION OVER ELECTRIC VEHICLES, THE
ROLE OF DISTRIBUTION COMPANIES IN ELECTRIC VEHICLE CHARGING AND
OTHER MATTERS

I. INTRODUCTION

On December 23, 2014, the Department of Public Utilities (“Department”) issued an Order opening an investigation into electric vehicles (“EVs”) and electric vehicle charging. Electric Vehicles, D.P.U. 13-182. In that Order, the Department sought comments relating to: (a) the Department’s jurisdiction over EV charging; (b) electric distribution company involvement in EV charging; (c) EV charging and the electric distribution system; (d) residential metering and rate structures for EVs; and (e) consumer issues. D.P.U. 13-182, at 7-8. The Department received initial comments from the Attorney General of the Commonwealth of Massachusetts (“Attorney General”); ChargePoint, Inc. (“ChargePoint”); the Conservation Law Foundation (“CLF”); the Motorcycle Industry Council; the Natural Resources Defense Council (“NRDC”); Massachusetts Electric Company and Nantucket Electric Company d/b/a National Grid (“National Grid”); NSTAR Electric Company and Western Massachusetts Electric Company (together “Northeast Utilities”); TechNet; Zero Motorcycles, Inc.; joint comments from the Commonwealth of Massachusetts Department of Energy Resources and Department of Environmental Protection (together “DOER/DEP”); and joint comments from Environment Northeast, ChargePoint, CLF, New England Clean Energy Council, and Plug In America (together “Joint Commenters”). The Department received reply comments from ChargePoint, Jerome Edington, National Grid, Northeast Utilities, NRDC, joint reply comments from DOER/DEP, and the Joint Commenters. Comments and reply comments addressed all issues posed in D.P.U. 13-182. In this Order, we address the

Department's jurisdiction over EV charging and electric distribution company¹ involvement in EV charging.

II. DEPARTMENT JURISDICTION OVER ELECTRIC VEHICLE CHARGING

A. Introduction

An EV requires the use of electricity as a fuel.² For electricity to become a reliable source of fuel for EVs, charging infrastructure (electric vehicle supply equipment, hereinafter "EVSE") must become widely available in homes, businesses, and public places. In D.P.U. 13-182, the Department identified different categories of EV charging (e.g., public charging that is open to all EV drivers for a fee; private charging at residences and businesses; semi-private charging for visitors to a store, parking garage, or other facility, whether for a fee or for free; and charging at home for residents of multi-unit buildings, such as apartments and condominiums). D.P.U. 13-182, at 4. The Department sought comments regarding its jurisdiction over these different charging categories. D.P.U. 13-182, at 7. Comments relating to the Department's jurisdiction are summarized below.

B. Summary of Comments

The Attorney General acknowledges that the Department has broad jurisdiction over companies that sell or distribute electricity, but asserts that EV charging stations do not involve

¹ Electric distribution companies subject to the Department's jurisdiction are: Fitchburg Gas and Electric Light Company d/b/a Unitil; Massachusetts Electric Company and Nantucket Electric Company each d/b/a National Grid; NSTAR Electric Company; and Western Massachusetts Electric Company.

² A plug-in hybrid vehicle is a type of EV that can use charging infrastructure to provide its fuel but also can generate electricity on board through the consumption of gasoline or diesel fuel.

either activity (Attorney General Comments at 2). Rather, the Attorney General argues that EV charging stations provide a specialized battery charging service for EVs, comparable to public cellular phone charging services (Attorney General Comments at 3). The Attorney General therefore concludes that the Department has no jurisdiction to regulate EV charging service or the EVSE used to provide it (Attorney General Comments at 2). TechNet and the Joint Commenters agree with the Attorney General's position (TechNet Comments at 2; Joint Commenters Comments at 3-8). DOER/DEP, ChargePoint, and NRDC also support this position, with the caveat that the Department has jurisdiction over any EV charging service provided by a regulated electric distribution company (DOER/DEP Comments at 8; ChargePoint Comments at 6-8; NRDC Comments at 5). The Joint Commenters add that the Department should determine that EVSE ownership or operation alone does not constitute supply of generation services (Joint Commenters Comments at 7-8).

National Grid and Northeast Utilities similarly agree that EV charging should be exempt from Department regulation, except if provided by an electric distribution company (National Grid Comments at 3; Northeast Utilities Comments at 6). They caution that potential, but unspecified, models for EV charging service could constitute "sale for a resale" of electricity and thus trigger regulatory jurisdiction in line with Department precedent (National Grid Comments at 2-7; Northeast Utilities Comments at 4-6). Other commenters argue that the pricing or billing structure of public EV charging service providers should be irrelevant to the Department's determination of whether to assert jurisdiction over EV charging. NRDC and Environment Northeast argue that EV charging companies should be

allowed to bill volumetrically for electricity to encourage energy efficiency and to promote the comparison of the cost of electricity to alternative transportation fuels (NRDC Comments at 5; Environment Northeast Reply Comments at 4). Environment Northeast adds that a volumetric fee is fair given different charging speeds for different EVs (Environment Northeast Reply Comments at 4). NRDC, ChargePoint, and the Joint Commenters urge the Department to reject the idea that the method of pricing for EV charging service, specifically a volumetric fee for delivered electricity, might trigger a jurisdictional “sale for resale” (NRDC Comments at 5; ChargePoint Comments at 8-10; ChargePoint Reply Comments at 3; Joint Commenters Comments at 6; Joint Commenters Reply Comments at 2).

C. ANALYSIS AND FINDINGS

1. Introduction

Pursuant to G.L. c. 164 (“Chapter 164”), the Department has jurisdiction over “distribution companies”³ and “electric companies.”⁴ As discussed below, a close reading of

³ Chapter 164 defines “distribution company” in pertinent part as: “a company engaging in the distribution of electricity or owning, operating or controlling distribution facilities....” G.L. c. 164, § 1.

⁴ Chapter 164 defines “electric company” in pertinent part as: “a corporation organized under the laws of the commonwealth for the purpose of making by means of water power, steam power or otherwise and for selling, transmitting, distributing, transmitting and selling, or distributing and selling, electricity within the commonwealth, or authorized by special act so to do, even though subsequently authorized to make or sell gas; provided, however, that electric company shall not mean an alternative energy producer; ...and provided further, that electric company shall not mean a corporation only transmitting and selling, or only transmitting, electricity unless such corporation is affiliated with an electric company organized under the laws of the commonwealth for the purpose of distributing and selling, or distributing only, electricity within the commonwealth.” G.L. c. 164, § 1.

the applicable statutory definitions in conjunction with Department precedent shows that owners and operators of EVSE are not subject to the Department's jurisdiction under the current statutory structure either as distribution companies, electric companies, or otherwise.

2. Jurisdiction over Distribution Companies

Chapter 164 defines distribution company, in pertinent part, as:

a company engaging in the distribution of electricity or owning, operating or controlling distribution facilities. . . .

G.L. c. 164, § 1. The term “distribution of electricity” and the definition of “distribution facility”⁵ both rely on the definition of “distribution.” Chapter 164 defines distribution, in pertinent part as:

the delivery of electricity over lines which operate at a voltage level typically equal to or greater than 110 volts and less than 69,000 volts to an end-use customer within the commonwealth. . . .

G.L. c. 164, § 1.

From the beginning of the Department's regulation of electric utilities, the term “lines” has meant the overhead wires owned by a utility to deliver electricity to its retail customers.⁶ With advances in technology, lines also mean the underground cables owned by a utility to deliver electricity to its retail customers.⁷

⁵ Chapter 164 defines “distribution facility” as: “a plant or equipment used for the distribution of electricity and which is not a transmission facility, a cogeneration facility or a small power production facility.” G.L. c. 164, § 1.

⁶ See, e.g., Uniform System of Accounts for Electric Companies, Account E125, “Poles, Fixtures and Overhead Conductors.”

⁷ See, e.g., Uniform System of Accounts for Electric Companies, Account E127, “Underground Conductors.”

The voltage used by EVSE typically falls within the 110-69,000 volt range. Although this is the same voltage range used to define lines in Chapter 164, the term “over lines” within the context of Chapter 164 does not correspond to any of the components of EVSE used to provide electricity to an EV in the charging function. The equipment component of EVSE used to supply the electricity is in the nature of a connector or cord, not a line.⁸ Within the meanings of Chapter 164, EVSE is not a distribution facility, and the EVSE does not distribute electricity. Therefore, the ownership or operation of EVSE does not transform an entity that otherwise is not a distribution company into a distribution company.

3. Jurisdiction over Electric Companies

Chapter 164 defines electric company, in pertinent part, as:

a corporation organized under the laws of the commonwealth for the purpose of making by means of water power, steam power or otherwise and for selling, transmitting, distributing, transmitting and selling, or distributing and selling, electricity within the commonwealth. . . .

G.L. c. 164, § 1.

As explained above, owners and operators of EVSE are not distributing electricity, nor are they transmitting electricity.⁹ Thus, to determine whether EVSE owners or operators who charge a fee (either volumetric or otherwise) are “electric companies,”

⁸ It is also instructive that a distribution company delivers electricity over its lines at alternating current, while EVSE typically converts the alternating current from the utility to direct current for delivery to an EV.

⁹ Chapter 164 defines “transmission” as: “the delivery of power over lines that operate at a voltage level typically equal to or greater than 69,000 volts from generating facilities across interconnected high voltage lines to where it enters a distribution system.” G.L. c. 164, § 1.

we must determine whether they are “selling electricity” within the meaning of Chapter 164.

4. EVSE and the Sale of Electricity

We find that an EVSE owner or operator is not selling electricity within the meaning of Chapter 164. Rather, the EVSE owner or operator is selling EV charging services, i.e., the use of specialized equipment -- EVSE -- for the purpose of charging an EV battery.¹⁰ EVSE allows the customer do to only one thing, charge an EV battery. This result is true regardless of the business model the EVSE owner/operator uses to charge customers for charging services, even if the charge is by a per-kilowatt hour basis or other volumetric energy basis.

While the Department has held that entities engaged in the resale of electricity to retail customers -- a practice known as submetering -- are electric companies subject to the jurisdiction of the Department,¹¹ our submetering cases apply to the re-sale of

¹⁰ The New York Public Service Commission reached this conclusion. “Charging Stations do not fall within the definition of “electric plant” because Charging Stations are not used for or in connection with or to facilitate the generation, transmission, distribution, sale or furnishing of electricity for light heat or power. Instead, and as urged by several commenters, Charging Stations are used to provide a service, specifically, charging services.” See In the Matter of Electric Vehicle Policies, N.Y.P.S.C. 13-E-1099, at 4 (November 14, 2013).

¹¹ See A.W. Perry, Inc., D.P.U. 7697 (1947); Boston Edison Company, D.P.U. 8862 (1953) (involving a residential landlord buying electricity from Boston Edison Company and re-selling that electricity to its tenants, and in A.W. Perry’s case, selling electricity to adjacent residents as well). The Supreme Judicial Court has upheld the Department’s interpretation that the unregulated “sale for resale” is not permitted. See Boston Real Estate Board v. Department of Public Utilities, 334 Mass. 477, 490-492 (1956).

electricity, not the sale of a service. Thus, they are not applicable to the EV charging service transaction.¹²

Because we find that an owner or operator of EVSE is providing EV charging services and not “selling electricity,” EVSE owners and operators are not electric companies within the meaning of Chapter 164.

5. Other Issues Related to Jurisdiction

In determining that owners and operators of EVSE are not subject to the Department’s jurisdiction as a distribution company or an electric company, there are no other provisions of Chapter 164 under which the Department could assert authority over owners and operators of EVSE or EV charging service. The Department does regulate suppliers (competitive suppliers of electricity and electricity brokers) as that term is used in G.L. c. 164, § 1. See 220 C.M.R. §§ 11.05, 11.06, 11.07 (the Department licenses competitive suppliers and electricity brokers and regulates certain of their business relationships with customers and the public). However, for the same reason that an owner or an operator of EVSE is not an electric company (i.e., it is selling a service, not electricity), an owner or operator of EVSE is not a competitive supplier

¹² Even if these cases were relevant, many factors distinguish EVSE from prior Department orders involving the resale of electricity. Unlike the submetering circumstance, where a tenant is the captive customer of an unregulated landlord, an EV driver has many potential options for charging her/his vehicle, including residential charging, workplace charging, free public charging, and various private, fee-based charging options. In addition, charging an EV battery requires more than just electricity; it requires, at a minimum, specialized charging equipment and parking for the vehicle while it is charging.

or an electricity broker. Thus, under Chapter 164, there is no basis for the Department to assert jurisdiction over owners and operators of EVSE or EV charging service.

There are reasons that some government entity should regulate owners and operators of EVSE and EV charging service for purposes of public safety and consumer protection. However, there appear to be existing avenues to assert authority in these areas, such as by building codes, zoning, and permitting, and through the Attorney General's consumer protection authority. We suggest that the ongoing collaboration between the Massachusetts Electric Vehicle Initiative task force and the Commonwealth of Massachusetts Division of Standards address public safety and consumer protection issues, as appropriate.

In conclusion, an owner/operator of EVSE that provides EV charging service is not a distribution company or an electric company within the meaning of G.L. c. 164, § 1; an EVSE owner/operator is selling a service and not electricity within the meaning of G.L. c. 164; and the provision of EV charging service is not within the Department's jurisdiction under G.L. c. 164.

III. ELECTRIC DISTRIBUTION COMPANY INVOLVEMENT IN ELECTRIC VEHICLE CHARGING

A. Introduction

In D.P.U. 13-182, the Department asked if electric distribution companies may or should own and operate charging infrastructure and, if so, how this activity should be treated in their business operations. D.P.U. 13-182, at 5. The Department sought comments related to these questions. D.P.U. 13-182, at 7-8. Comments related to distribution company involvement with charging infrastructure are summarized below.

B. Summary of Comments

A number of commenters oppose electric distribution company ownership of EVSE arguing that electric distribution companies have a competitive advantage due to, among other factors, name recognition and a better understating of their systems, and that the Commonwealth should rely on the competitive market to provide EV charging service to consumers (ENE Comments at 5; Attorney General Comments at 4-5; DOER/DEP Reply Comments at 9). Further, the Attorney General argues that EV charging is not a distribution service and therefore should not be a distribution company activity (Attorney General Comments at 4). However, she and others support EVSE ownership and operation by unregulated affiliates of the distribution companies (Attorney General Comments at 4; ENE Comments at 5; DOER/DEP Reply Comments at 10). ENE and DOER/DEP support ownership and operation by distribution companies themselves, with cost recovery in specific situations, namely: service for underserved areas, company vehicle fleets, company employee charging, operations and maintenance costs for existing company owned EVSE, and for pilots of advanced technologies (ENE Comments at 5; DOER/DEP Reply Comments at 10).

Alternatively, other commenters argue that the Department should consider distribution company proposals for EVSE ownership, subject to provisions that protect competition and lead to the deployment of advanced technologies (ChargePoint Comments at 10; NRDC Comments at 9; CLF Comments at 6). These provisions would include, for example, a demonstration that distribution company ownership passes a net benefit test for ratepayers, is essential infrastructure that will not be provided by a third party or distribution company

affiliate, will not interfere with the competitive market, will not preclude consumer choice, will evaluate advanced technologies, and will allow third parties access to provide services on distribution company owned EVSE (ChargePoint Comments at 10; NRDC Comments at 9; CLF Comments at 6).

Similarly, both Northeast Utilities and National Grid suggest that distribution companies should not be restricted from EVSE ownership in the appropriate situation and that the Department should allow cost recovery on EVSE investment (Northeast Utilities Reply Comments at 4; National Grid Comments at 9). Northeast Utilities contends that precluding ownership is inappropriate at this time due to the emerging nature of the EV market and unknown future customer interest, suggesting instead that the Department consider specific proposals by a distribution company for company-owned EV charging service (Northeast Utilities Comments at 6). National Grid highlights its leadership in the EV market with ownership of 36 EV charging stations in the Commonwealth, and suggests that distribution companies can maximize the benefits of grid modernization and other policies, accelerating the development of the EV and EVSE markets, while focusing on grid management issues and providing EV charging service to underserved areas to avoid conflicts with third-party providers (National Grid Comments at 7-10). National Grid further contends that distribution companies can provide benefits of innovation through research, development, and deployment efforts (“RD&D”), especially related to the complex interplay of EVSE with the grid as the installation of distributed generation and grid modernization takes place (National Grid Comments at 7; National Grid Reply Comments at 5). Both Northeast Utilities and National

Grid argue that there should be appropriate cost recovery for any distribution company operations that are consistent with Department direction and that support EV deployment (Northeast Utilities Comments at 7; National Grid Reply Comments at 5).

Regardless of distribution company ownership of EVSE, commenters encourage distribution company efforts to support ratepayers and third parties who install EVSE, and to mitigate system impacts resulting from the deployment of charging infrastructure. The Attorney General argues that distribution companies must meet their franchise obligations, allowing non-discriminatory interconnection at just and reasonable rates (Attorney General Comments at 5). Further, commenters contend that distribution companies should attempt to minimize system impacts of EVSE deployment by identifying areas of concern through sharing data on EVSE installations and should use load management strategies and planning to avoid system issues (Attorney General Comments at 7; DOER/DEP Comments at 8; ENE Comments at 7, CLF Comments at 10). Commenters also suggest that distribution companies should help third parties identify locations where no system constraints exist and where EVSE deployment would minimize system impacts (Attorney General Comments at 7; CLF Comments at 14; DOER/DEP Reply Comments at 10). Last, DOER/DEP and Northeast Utilities maintain that distribution companies should provide information and education to ratepayers to support the development of EVs in the state (DOER/DEP Reply Comments at 10; Northeast Utilities Comments at 6).

C. Analysis and Findings

The Department agrees with commenters that distribution companies may have a competitive advantage in owning and operating EVSE that may adversely affect the development of a competitive market for EV charging. Further, the primary responsibility of distribution companies is to provide safe and reliable distribution service; EVSE ownership and operation is not required to serve this obligation. As a result, in general, the Department will not allow recovery of costs for distribution company ownership or operation of EVSE for new investments going forward, with the following exceptions.

First, we will permit distribution companies to recover the cost of EVSE ownership and operation for their own vehicle fleet charging and employee vehicle charging. Further, the Department will allow -- and, in fact, encourages -- investment in and cost recovery for RD&D related to EVs, EVSE, and EV charging as part of a distribution company's RD&D proposal in its grid modernization plan, or as a separate, approved pilot. See Modernization of the Electric Grid, D.P.U. 12-76-B at 27-30 (June 12, 2014). Finally, the Department may grant cost recovery for distribution company EVSE ownership and operation in response to a company proposal. For Department approval and allowance of cost recovery, any proposal must: be in the public interest; meet a need regarding the advancement of EVs in the Commonwealth that is not likely to be met by the competitive EV charging market; and not hinder the development of the competitive EV charging market.

The Department finds that affiliates may own and operate EVSE, but subject to Department regulations on standards of conduct. See Standards of Conduct for Distribution Companies and their Affiliates, 220 C.M.R. § 12.00 et seq.

IV. ADDITIONAL ISSUES

As noted above, the Department also sought comments relating to: (1) residential rate structures and metering for EVs; (2) EV charging and the electric distribution system; and (3) consumer issues. D.P.U. 13-182, at 7-8. Upon review and consideration of the comments, the Department has determined that distribution companies should offer rate structures designed to allow EV charging to take advantage of lower wholesale market electricity prices during off-peak periods. Such rates would provide an appropriate and meaningful economic incentive in support of the Department's objective to promote the development of an EV market in Massachusetts, and would support the Commonwealth's broader clean energy policies as described in the Notice of Investigation. D.P.U. 13-182, at 1-2. At this time, however, the Department concludes that it is appropriate to engage stakeholders further to develop sufficient information regarding the design and implementation of appropriate rate structures to encourage off-peak EV charging and associated metering. Therefore, the Department will convene a technical conference (or possibly more than one) to address these and other issues, including the impact of EV charging on the distribution system and consumer protection.

V. ORDER

Accordingly, after notice, opportunity for comment, and due consideration it is

ORDERED: That owners and operators of electric vehicle supply equipment that provide electric vehicle charging service are not distribution companies within the meaning of G.L. c. 164, § 1; owners and operators of electric vehicle supply equipment that provide electric vehicle charging service are not electric companies within the meaning of G.L. c. 164, § 1; electric vehicle charging is a service and not the sale of electricity within the meaning of G.L. c. 164; and the provision of electric vehicle charging service is not within the Department's jurisdiction under G.L. c. 164; and it is further

ORDERED: That distribution companies subject to the Department's jurisdiction may recover costs associated with ownership and operation of electric vehicle supply equipment only as provided herein; and it is further

ORDERED: That distribution companies subject to the Department's jurisdiction shall comply with all directives contained herein.

By Order of the Department,

/s/
Ann G. Berwick, Chair

/s/
Jolette A. Westbrook, Commissioner

/s/
Kate McKeever, Commissioner

An appeal as to matters of law from any final decision, order or ruling of the Commission may be taken to the Supreme Judicial Court by an aggrieved party in interest by the filing of a written petition praying that the Order of the Commission be modified or set aside in whole or in part. Such petition for appeal shall be filed with the Secretary of the Commission within twenty days after the date of service of the decision, order or ruling of the Commission, or within such further time as the Commission may allow upon request filed prior to the expiration of the twenty days after the date of service of said decision, order or ruling. Within ten days after such petition has been filed, the appealing party shall enter the appeal in the Supreme Judicial Court sitting in Suffolk County by filing a copy thereof with the Clerk of said Court. G.L. c. 25, § 5.