



THE COMMONWEALTH OF MASSACHUSETTS  
DEPARTMENT OF PUBLIC UTILITIES

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July 1, 2016

William F. Welch  
Clerk of the Senate  
State House, Room 335  
Boston, MA 02133

Steven T. James  
Clerk of the House of Representatives  
State House, Room 145  
Boston, MA 02133

**RE: 2015 Annual Report Concerning Self-Generation**

Dear Honorable Clerks Welch and James:

Pursuant to Section 193 of the Electric Restructuring Act ("Act")<sup>1</sup>, the Massachusetts Department of Public Utilities ("Department") hereby submits its report concerning installations of cogeneration, renewable energy, fuel cell, and on-site generation facilities (collectively, "self-generation") for the year 2015 ("Annual Report"). This Annual Report evaluates the effects of self-generation on sales of electricity and recovery of transition costs by electric distribution companies during the year 2015.

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<sup>1</sup> "An Act Relative To Restructuring The Electric Utility Industry In The Commonwealth, Regulating The Provision Of Electricity And Other Services, And Promoting Enhanced Consumer Protections Therein." Chapter 164 of the Acts of 1997. Section 193 of the Act added G. L. c. 164, § 1G(g).

## I. INTRODUCTION

The Act recognizes that self-generation, if implemented at a significant level, may lead to the shifting of costs to non-generating customers. St. 1997, c. 164, § 193. Accordingly, the Act requires that the Department monitor and report on the cost effects attributable to self-generation.

Mass. Gen. Laws, c. 164, § 1G(g) states:

The [D]epartment shall issue a report on July 1, 1999 and every year thereafter, for the period of transition cost recovery, relative to degree of impact on the aggregate reduction of the electricity and impact on transition charges due to implementation or use of cogeneration systems, fuel cell and renewable energy technologies.

Pursuant to G.L. c. 164, §§ 1G(a)(1) and 1G(e), electric distribution companies collect their transition costs from customers through a non-bypassable charge, billed based on the amount of kilowatt-hours (“kWh”) of electricity used. To the extent that a customer uses less electricity from the electric distribution company, that customer will pay a lower transition charge, and other customers will pay a larger share of the electric distribution company’s transition costs. An extreme example of lowered electricity usage is self-generation, with little or no connection to the electric distribution company.

In preparing this Annual Report, the Department relied on self-generation data from the following electric distribution companies: NSTAR Electric Company d/b/a Eversource Energy (Boston Edison Company, Commonwealth Electric Company and Cambridge Electric Light Company); Western Massachusetts Electric Company d/b/a Eversource Energy (together with NSTAR Electric Company “Eversource Electric Companies”); Fitchburg Gas and Electric Light Company d/b/a Until; and Massachusetts Electric Company and Nantucket Electric Company, each d/b/a National Grid (“National Grid”).

## II. AGGREGATE REDUCTION OF ELECTRICITY SALES

Electric distribution companies reported a total of 18,830 self-generation installations during 2015. Of this total, 18,641 installations (99 percent) were equal to or less than 60 kilowatts in size, and the majority of the installations (18,640) were photovoltaic systems. Furthermore, 18,816 of the installations (99.9 percent) were eligible for net metering.

Electric distribution companies reported estimated reductions (combined reductions) in 2015 sales due to self-generation installations equal to 607,540 megawatt-hours (“MWh”), an approximate 1.32 percent reduction of total electric distribution company sales for the year 2015. The percent reduction in electricity sales ranged from a low of 0.53 percent for Western Massachusetts Electric Company to a high of 5.15 percent for Fitchburg Gas and Electric Light Company. For the period March 1, 1998 to December 31, 2015, electric distribution companies have reported estimated reductions in electricity sales due to self-generation of approximately 3,692,190 MWh, approximately 0.44 percent of total electric distribution companies’ sales for

that period (approximately 832,168,955 MWh). The reduction in electricity sales of approximately 564,340 MWh in 2015 represents 15 percent of the total reductions in sales (approximately 3,692,190 MWh) from self-generation installation since 1998.

### III. IMPACT ON TRANSITION CHARGES

Despite the increased number of self-generation installations in the recent years, the transition charge rates for all the distribution companies are currently less than \$0.01 per kWh. The table below provides the electric distribution companies' estimated aggregate impact on transition charge, related to self-generation since 1998:

<b>Aggregate Transition Reduction (1998 to 2015)</b>	<b>National Grid</b>	<b>Fitchburg</b>	<b>WMECo</b>	<b>NSTAR</b>
Transition charges reduction amount (\$)	\$3,399,883.93	\$2,387,069.60	\$538,394.00	\$18,930,685.00
Percent reduction on transition charge revenue	0.17%	1.55%	0.60%	0.60%

Please note that, through 2015, the electric distribution companies have collected most of the costs that the Department has allowed for recovery through the transition charges. In fact, for the year 2015, the electric distribution companies reported net estimated displaced transition revenue as a credit or zero.

### IV. CONCLUSION

Based upon the self-generation information that the electric distribution companies reported, the Department concludes that for the period January 1, 2015 through December 31, 2015, self-generation did not have a significant effect on the transition cost recovery of the electric distribution companies operating in Massachusetts. Regarding the impact of self-generation installations on electricity sales, the 2015 reductions in and of themselves are relatively small, but suggest a potential for a more material impact over time.

Sincerely,

/s/

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Angela M. O'Connor, Chairman

/s/

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Jolette A. Westbrook, Commissioner

/s/

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Robert E. Hayden, Commissioner

cc: Sen. Karen E. Spilka, Chair, Senate Committee on Ways and Means  
Sen. Benjamin B. Downing, Chair, Joint Committee on Telecommunications, Utilities  
and Energy  
Rep. Brian S. Dempsey, Chair, House Committee on Ways and Means  
Rep. Thomas A. Golden, Jr., Chair, Joint Committee Telecommunications, Utilities and  
Energy