



THE COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF PUBLIC UTILITIES

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June 19, 2018

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: 2017 Annual Report Concerning Self-Generation

Dear Honorable Clerks Welch and James:

Pursuant to Section 193 of the Electric Restructuring Act ("Act")¹, 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 2017 ("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 2017.

¹ "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 Unitol; 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 11,568 self-generation installations during 2017. Of this total, 11,204 installations (96.9 percent) were equal to or less than 60 kilowatts in size, and all were photovoltaic systems. Furthermore, 11,534 of the installations (99.7 percent) were eligible for net metering.

Electric distribution companies reported estimated reductions (combined reductions) in 2017 sales due to self-generation installations equal to 2,563,646 megawatt-hours (“MWh”), an approximate 5.85 percent reduction of total electric distribution company sales for the year 2017. The percent reduction in electricity sales ranged from a low of 4.074 percent for National Grid to a high of 8.0 percent for Western Massachusetts Electric Company. For the

period March 1, 1998 to December 31, 2017, electric distribution companies have reported estimated reductions in electricity sales due to self-generation of approximately 16,371,831 MWh, approximately 1.78 percent of total electric distribution companies' sales for that period (approximately 920,741,249 MWh). The reduction in electricity sales of approximately 2,563,646 MWh in 2017 represents 15.7 percent of the total reductions in sales (approximately 16,371,831) from self-generation installation since 1998.

III. IMPACT ON TRANSITION CHARGES

Despite the increased number of self-generation installations in recent years, the transition charge rates for all the electric distribution companies are currently less than \$0.013 per kWh. The table below provides the electric distribution companies' estimated aggregate impact on the transition charge related to self-generation since 1998:

Aggregate Transition Reduction (1998 to 2017)	National Grid	Fitchburg	WMECo	NSTAR
Transition charges reduction amount (\$)	\$3,377,759	\$2,362,022	\$538,394	\$19,268,984
Percent reduction on transition charge revenue	0.169%	1.52%	0.60%	0.60%

Please note that, through 2017, the electric distribution companies have collected most of the costs that the Department has allowed for recovery through the transition charges.

IV. CONCLUSION

Based upon the self-generation information that the electric distribution companies reported, the Department concludes that for the period January 1, 2017 through December 31, 2017, 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 2017 reductions in and of themselves are relatively small, but suggest the potential for a more material impact over time, due to cumulative distributed resource installations.

Sincerely,



Angela M. O'Connor, Chairman



Robert E. Hayden, Commissioner



Cecile M. Fraser, Commissioner

cc: Sen. Karen E. Spilka, Chair, Senate Committee on Ways and Means
Sen. Michael J. Barrett, Chair, Joint Committee on Telecommunications, Utilities and Energy
Rep. Jeffrey Sanchez, Chair, House Committee on Ways and Means
Rep. Thomas A. Golden, Jr., Chair, Joint Committee Telecommunications, Utilities and Energy