



THE COMMONWEALTH OF MASSACHUSETTS  
**DEPARTMENT OF PUBLIC UTILITIES**  
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**PAUL HIBBARD**  
 CHAIRMAN

**W. ROBERT KEATING**  
 COMMISSIONER

**TIM WOOLF**  
 COMMISSIONER

July 2, 2008

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

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

Re: Annual Report Concerning Self-Generation

Dear Clerks Welch and James:

Pursuant to Section 193 (1G)(g) of the Electric Restructuring Act ("Act"), Chapter 164 of the Acts of 1997, 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 2007. This report evaluates the effects of self-generation on sales of electricity and recovery of transition costs during the year 2007.

Sincerely,

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Paul J Hibbard, Chairman

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W. Robert Keating , Commissioner

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Tim Woolf, Commissioner

## ANNUAL REPORT CONCERNING SELF-GENERATION

### 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 (1G)(g). Accordingly, the Act requires that the Department monitor and report on the cost effects attributable to self-generation.

The Act states:

The department 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.

To a large extent, the common costs of an electric company, and in particular transition costs, operate as a closed system. That is, transition costs not recovered from one group of customers must be recovered from the remaining customers of the same electric company. Transition costs are collected as an attachment to every kilowatt-hour sold. Therefore, reductions in electric company sales result in reductions to transition cost recovery. If self-generating customers take fewer kilowatt-hours from the electric company, transition costs are shifted from self-generating customers to non-self-generating customers. Under the Act, if self-generation decreases an electric company's gross revenues by ten percent, the Act permits the Department to assess that company's self-generating customers with an "exit charge." This exit charge would be designed to recover transition costs that the self-generating customers would have paid, so that these transition costs would not shift to an electric company's non-self-generating customers.

In preparing this report, the Department relied on self-generation data from the following electric companies: NSTAR (Boston Edison Company, Commonwealth Electric Company and Cambridge Electric Light Company), Unitil d.b.a.Fitchburg Gas and Electric Light Company, National Grid (Massachusetts Electric Company and Nantucket Electric Company), and Western Massachusetts Electric Company.

## II. AGGREGATE REDUCTION OF ELECTRICITY SALES

Electric companies reported a total of 283 self-generation installations during 2007.<sup>1</sup> Of this total, 274 installations were equal or less than 60 kilowatts, which made them eligible for the Department's net metering provisions.<sup>2</sup> The majority of the installations (242), were small photovoltaic systems ranging in size from 0.230 to 325 kilowatts.

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Electric companies reported an estimated reductions in sales due to 2007 self-generation installations equal to 14,675 megawatthours ("MWH"), approximately 0.035 percent of total electric company sales for the year 2007.<sup>3</sup> The percent reduction in electricity sales ranged from a low of 0.003 percent for Fitchburg Gas and Electric Light Company, to a high of 0.18 percent for Western Massachusetts Electric Company. For the period March 1, 1998 to December 31, 2006, electric companies have reported estimated reductions in electricity sales due to self-generation equal to approximately 147,350 MWH, approximately 0.045 percent of total electric company sales for that period.<sup>4</sup>

## III. IMPACT ON TRANSITION CHARGES

Electric companies reported an estimated reduction of approximately \$105,700 in transition cost recovery due to 2007 self-generation installations, equal to approximately 0.03 percent of total transition cost recovered during 2007. The percent reduction in transition charge revenue ranged from a low of 0.004 percent for Fitchburg Gas and Electric Light Company, to a high of 0.34 percent for Western Massachusetts Electric Company. V. \_

## IV. CONCLUSION

Based upon the self-generation information reported by the electric companies, the Department concludes that for the period January 1, 2007 through December 31, 2007, self-generation did not have a significant effect on the level of electricity sales or on the transition cost recovery of the electric companies operating in Massachusetts.

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<sup>1</sup> This represents a small reduction from the 295 self-generation installations reported during 2006.

<sup>2</sup> Under the Department's net metering provisions, a customer with a self-generation facility of 60 kilowatts or less has the option to run its electric meter backward, and receive a credit from its electric distribution company equal to the average market price of generation in any month during which there is a positive difference between kilowatt-hours generated by the facility and kilowatt-hours consumed by the customer. 220 C.M.R. § 11.04(7).

<sup>3</sup> Aggregate 2007 electric sales were equal to approximately 42,100,000 MWH.

<sup>4</sup> Transition cost recovery during 2007 was equal to approximately \$367,250,000.