

Subject Focus on Energy Evaluation

FY08 Metrics Performance—Residential Programs

To Oscar Bloch, Public Service Commission of Wisconsin

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Acknowledgement: Ralph Prah, Prah & Associates, contributed critical review and analysis

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Introduction

This memorandum provides the residential evaluation team's contribution to the Fiscal Year 08 (FY08) metrics measurement process. The metrics goals, expressed within individual program metrics matrices, were a key aspect of Wisconsin Energy Conservation Corporation's (WECC) FY08 contract for Residential Program delivery.¹

This memorandum addresses the program metrics that the residential evaluation team agreed to review as part of our FY08 Detailed Evaluation Plan.² We first summarize the information presented in the remainder of this memorandum through a single metrics achievement table. For each program, this summary table lists each metric that we measured and whether or not WECC met the metric. Following this summary, details are provided for each residential program (Residential Lighting Program, Home Performance with ENERGY STAR, and Efficient Heating and Cooling) and for each individual metric we measured within each program.

Metrics Achievement Summary

Table 1 summarizes the results of WECC's efforts to meet their FY08 metrics goals. By program, the table lists each individual metric we measured and whether or not the goal was met. More detailed sections, by residential program area, follow this table.

¹ Amendment 11 to the Cooperative Agreement between the State of Wisconsin, Department of Administration—Division of Energy, and Wisconsin Energy Conservation Corporation (Contract 81310, Amendment 11).

² Focus Evaluation Team, *State of Wisconsin, Public Service Commission of Wisconsin, Focus on Energy Evaluation, Contract Period One Detailed Evaluation Plans*, Revised Final: August 6, 2007.

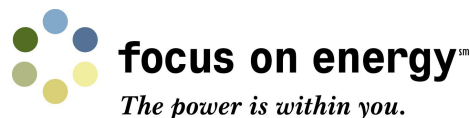


Table 1. FY08 Metrics Achievement Summary—Residential Programs

Metric	Metric met? (Percent achieved)
Residential Lighting Program (RLP)	
The critical goal is an increase in the number of CFLs sold in Wisconsin compared to 2006. The critical metric associated with this goal is a five percent net increase in the number of CFLs sold in Wisconsin in 2007 compared to 2006.	Yes (340%)
Home Performance with ENERGY STAR (HPWES)	
The critical goal is an increase in the number of measures implemented per project completion compared to FY07. The critical metric associated with this goal is that the percentage of multiple installations of major measures per household will increase by five percent by the end of FY08.	No (0%) ¹
Efficient Heating and Cooling (EHC)	
The critical goal is an increase in market share for 90+ furnaces with ECM. The critical metric associated with this goal is a two percentage point increase in market share of ECM 90+ AFUE furnaces compared to FY07 baseline.	No (85%)

¹The actual result was a decrease in the percentage of multiple installations of major measures per household.

Residential Lighting Program (RLP)

We address the RLP metric we measured below. We include a brief description of the metric, an overview of our measurement approach, and results.

Description

The critical goal is an increase in the number of CFLs sold in Wisconsin compared to 2006. The critical metric associated with this goal is a five percent net increase in the number of CFLs sold in Wisconsin in 2007 compared to 2006.

Measurement Approach

The evaluation team measured this metric by applying Wisconsin CFL sales estimated from the 2006 and 2007 CFL Comprehensive Market Effects Studies.

Results

Our analysis indicates that RLP has met the goal for this metric. In 2007, we estimated net CFL sales of 1.11 million, compared to a net estimate of 0.95 million CFLs in 2006 (Table 2). This represents a 17 percent increase, which exceeds the metric goal of a five percent increase.

Table 2. Net CFL Sales - 2006 vs. 2007

Year	CFL Sales (Millions)		
	WI	Baseline	Net
2006	4.65	3.70	0.95
2007	8.26	7.15	1.11

Home Performance with ENERGY STAR® Program (HPWES)

We address the HPWES metric we measured below. We include a brief description, an overview of our measurement approach, and results.

Description

The critical goal is an increase in the number of measures implemented per project completion compared to FY07. The critical metric associated with this goal is that the percentage of multiple installations of major measures per household will increase by five percent by the end of FY08.

Measurement Approach

The evaluation team measured this metric by analyzing the program database to assess the number of measures installed per project completion in FY07 and FY08.

Results

Our analysis indicates that HPWES has not met the goal for this metric. During FY07, 88 percent of projects in which one or more major measures were installed involved the installation of multiple measures, compared to 85 percent during FY08 (Table 3).³ This represents a three percentage point decrease, which does not meet the metric goal of a five percentage point increase. While the metric goal was not met, HPWES did achieve a seven percentage point increase from FY07 to FY08 in the percent of projects involving four or more measures (29 percent to 36 percent). Air sealing and attic insulation are the most common two measure combination; air sealing, attic insulation, and sidewall insulation are the most common three measure combination; and air sealing, attic insulation, and sidewall insulation in combination with one or more of the other measures are the most common four or more measure combination.

Table 3. Multiple Measure Installations among Participants Installing One or More Major Measures

Number of Major Measures Installed	Percent of Projects Involving the Installation of One or More Major Measures	
	FY07	FY08
One Measure	12%	15%
Two Measures	33%	22%
Three Measures	26%	27%
Four or More Measures	29%	36%

³ Major measures include the following: air sealing, attic insulation, chimney liners, exhaust fans, floor insulation, foundation insulation, sidewall insulation, sillbox insulation, and water heaters.

Efficient Heating and Cooling (EHC)

We address the EHC metric we measured below. We include a brief description of the metric, an overview of our measurement approach, and results.

Description

The critical goal is an increase in market share for 90+ furnaces with ECM. The critical metric associated with this goal is a two percentage point increase in market share of ECM 90+ AFUE furnaces compared to FY07 baseline.

Measurement Approach

The evaluation team measured this metric by analyzing trends in annual ECM furnace market share as reported by information in the Energy Center of Wisconsin's (ECW) Furnace and AC Tracking (FACTS) reports. These reports provide market-based information on current and historic sales trends of residential furnaces sold in Wisconsin by distributors who agree to provide data to ECW.⁴ Because data for the 2nd quarter of 2008 (the last quarter of FY08) is not available yet, we had to choose different pre- and post-periods on which to base the analysis. We decided to move the pre- and post- periods up one quarter and compare the year beginning with the 2nd quarter of 2007 and ending with the 1st quarter of 2008 (post) to the year beginning with the 2nd quarter of 2006 and ending with the 1st quarter of 2007 (pre).

Results

Our analysis indicates that EHC has not met its goal for this metric. During the pre period, ECM market share was 26.4 percent, compared to 28.1 percent during the post period (Table 4). This represents a 1.7 percentage point increase, which does not meet the metric goal of a two percentage point increase.⁵

Table 4. ECM Furnace Market Share

Period	ECM Furnaces	All Furnaces	Market Share
Pre (2006-Q2 thru 2007-Q1)	13,693	51,936	26.4%
Post (2007-Q2 thru 2008-Q1)	14,443	51,430	28.1%

⁴ An inherent disadvantage to FACTS is that not all distributors in Wisconsin provide data, resulting in coverage of only 50–60 percent of the Wisconsin market. For the purposes of measuring this metric, we assume that the market share of ECM furnaces sold by distributors outside of FACTS is the same as that sold by distributors involved with FACTS. We recommend a continuation of the efforts to improve the market coverage of FACTS.

⁵ It is important to note that the metrics measurement process is *not* assessing attribution. It simply involves measuring the total change in ECM furnace market share. Separating the change in ECM furnace market share into its component pieces (i.e., program-induced versus naturally occurring) is addressed through the net-to-gross analysis.