## KEMAき

## New Jersey’s Clean Energy Program

## Residential CFL Impact Evaluation and

 Protocol ReviewENERGY STAR® Products Program - Lighting


FINAL

## Table of Contents

1. Executive Summary ..... 1-1
1.1 Protocol Review ..... 1-2
1.2 Ex-Post Impact Evaluation ..... 1-5
1.3 Results. ..... 1-6
2. Introduction ..... 2-1
2.1 Program Overview ..... 2-1
2.2 Report Organization ..... 2-2
3. Review of Protocols ..... 3-1
3.1 Overview of Existing Protocol ..... 3-1
3.2 Review of Industry Practice ..... 3-4
3.3 Recommendations. ..... 3-9
4. Impact Evaluation Methodology ..... 4-1
4.1 Overview. ..... 4-1
4.2 Gross Savings ..... 4-1
4.3 Free ridership ..... 4-6
4.4 Spillover. ..... 4-7
4.5 Net Savings ..... 4-8
5. CFL Survey Methodology ..... 5-1
5.1 CFL Customer Survey ..... 5-1
6. Results ..... 6-1
6.1 Gross Impacts ..... 6-1
6.2 Spillover. ..... 6-1
6.3 Free ridership ..... 6-2
6.4 Net Impacts ..... 6-2
Appendix A: Consumer Survey Guide ..... A-1
Appendix B: Manufacturer Interview Guide ..... B-1
Appendix C: Retailer Interview Guide ..... C-1
Appendix D: Cross Tabs ..... D-1

## Table of Contents

List of Exhibits:
Table 1-1 Original Algorithm Input Values ..... 1-3
Table 1-2 Updated Algorithm Input Values ..... 1-4
Table 1-3 Gross Energy and Peak Demand Savings, 2004-2005 ..... 1-6
Table 1-4 Key Impact Parameters and Sources ..... 1-7
Table 1-5 Freeridership Estimate (Weighted by Number of Program CFLs), 2004 and 2005 ..... 1-8
Table 1-6 Gross and Net Energy and Peak Demand Savings, 2004-2005 ..... 1-8
Table 2-1 ENERGY STAR Products Program Summary from 2001-2006 ..... 2-2
Table 3-1 Original Algorithm Input Variables ..... 3-2
Table 3-2 Hourly Breakdown from RLW Study ..... 3-5
Table 3-3 Hourly Breakdown from California Study ..... 3-6
Table 3-4 California Study CFL Values ..... 3-7
Table 3-5 New England Bulb Placement ..... 3-8
Table 3-6 Delta Watts Data from New Jersey Study ..... 3-8
Table 3-7 Comparison of Values from Various Studies ..... 3-9
Table 3-8 Room Type Installation Rate Comparison ..... 3-10
Table 3-9 Final Recommended Protocol Values ..... 3-11
Table 4-1 Key Impact Parameters and Sources ..... 4-2
Table 4-2 Estimated Number of CFLs Sold by Manufacturers and Program Year ..... 4-3
Table 4-3 Distribution of CFLs Purchased Between 2003 and 2005 by Installation Location (Room Type) ..... 4-4
Table 5-1 Final Sample Counts ..... 5-2
Table 5-2 Disposition of Attempted (Incomplete) Interviews ..... 5-3
Table 6-1 Gross Energy and Peak Demand Savings, 2004-2005 ..... 6-1
Table 6-2 Free Ridership Estimate (Weighted by Number of Program CFLs), 2004 and 20056-2Table 6-3 Gross and Net Energy and Peak Demand Savings, 2004-20056-2
Figure 3-1 Peak Summer Usage CF Values from RLW Study ..... 3-5
Figure 3-2 Peak Summer CF Values from California Study ..... 3-6
Figure 4-1 Formulas for Calculating Annual Gross Energy and Peak Demand Savings ..... 4-1

## 1. Executive Summary

The New Jersey Board of Public Utilities' Office of Clean Energy provides New Jersey’s Clean Energy Program (NJCEP). Administered through NJCEP, the ENERGY STAR ${ }^{\circledR}$ Products Programs ${ }^{1}$ provided incentives for four types of consumer products: compact fluorescent lamps (CFLs; 2003-2005), Room Air Conditioners (2003-2006), Clothes Washers (2005), and a Programmable Thermostat Pilot (2005). To calculate savings for these installations, the Programs use the "New Jersey Clean Energy Program Protocols to Measure Resource Savings" (Protocols) ${ }^{2}$.

KEMA was contracted to conduct a New Jersey residential CFL impact evaluation and a review of the energy savings calculation protocols used for assessing CFL installations. The KEMA evaluation covers program years 2003-2005. The CFL ENERGY STAR Products Program component, which accounts for 6.7 percent of total NJCEP tracked savings and 1.4 percent of committed expenditures ${ }^{3}$, involved a buy down of retailer purchase costs from CFL suppliers (through an RFP issued to manufacturers). Because the program incentives were delivered upstream (that is, to suppliers rather than directly to consumers), program records include information on the total number of program-discounted CFLs purchased by the major retailers participating in the program. There is however, no information on how many bulbs were actually sold by each retailer and no information on to whom the bulbs were sold.

This report has two primary functions:

1. To offer recommendations for revisions to the savings calculation Protocols so that going forward, the calculations using these Protocols provide more accurate statements of savings accomplishments; and
2. To provide a retrospective assessment of program accomplishment as part of a duediligence review of past utility program effectiveness on behalf of ratepayers.
${ }^{1}$ During the evaluation period (2001-2006) this program changed names several times (e.g. ENERGY STAR Products, Residential ENERGY STAR Lighting Program). This evaluation report focuses on NJCEP's upstream CFL initiative.
${ }^{2}$ New Jersey's Clean Energy Program, Protocols to Measure Resource Savings, Revisions to September 2004 Protocols, December 2007.
${ }^{3}$ Percents based on program year 2005 activities reported in the NJCEP annual financial report.

The second function is addressed with an ex-post impact evaluation. The ex-post impact evaluation was designed to support potential Protocol revisions as mandated by the first function. The impact evaluation focuses on the measures that generated the majority of the savings for the programs. The results produced by this impact evaluation provide key revisions to important Protocol equations. In addition to the direct impact evaluation input, KEMA engineers performed a review of Protocol equations and the recommended inputs.

### 1.1 Protocol Review

The ENERGY STAR CFLs measure is a subset of the Residential ENERGY STAR Lighting Program. The Residential CFL Protocol is related to the Protocol for the Residential Low Income Program's Efficient Lighting measure. The two measures use the same algorithm, though the values entered are different. Upon evaluating the Protocols used to calculate savings from installation of screw-in ENERGY STAR CFLs, it was apparent that some of the original assumptions and variable terms used could be improved to reflect more accurate statements of savings accomplishments.

The existing Protocols, equations and input variables, are shown below.
Electricity Impact $(k W h)=\left(\frac{C F L_{\text {watts }}}{1000}\right) * C F L_{\text {hours }} * 365 * / S R$ cFL

Peak Demand Impact (kW) = (CFL watts $)^{*}$ Light CF
Where:
$C F L_{\text {watts }}=$ Average difference in watts between baseline and ENERGY STAR CFL
$C F L_{\text {hours }}=$ Average hours of use per day per CFL
$I S R_{\text {CFL }}=$ In-service rate
Light CF = Coincidence Factor for lighting.

Table 1-1
Original Algorithm Input Values

| Variable | Type | Value |
| :--- | :---: | :---: |
| CFL $_{\text {watts }}$ | Fixed | $48.7^{4}$ |
| CFL $_{\text {hours }}$ | Fixed | $3.4^{5}$ |
| ISR $_{\text {CFL }}$ | Fixed | $84 \%^{6}$ |
| Light CF | Fixed | $5 \%^{7}$ |

Upon conducting a review of other program protocols and CFL studies used by other programs, we recommend changes that will:

- Create consistency between this current evaluation and past studies;
- Simplify comparisons between measures reducing confusion; and
- Update algorithmic inputs to reflect more accurate data and therefore more accurate assumptions about energy usage.

Our recommendations are as follows:

1. Change the terms "Energy Impact" to "kWh Savings," "Peak Demand Impact" to "kW Savings," "Light CF" to "CF," and "CFL watts" to " $\Delta W$ " to remain consistent with the rest of New Jersey Protocols;
2. Correct the error in the algorithm for kW Savings (Peak Demand Impact) by dividing by 1000 to convert Watts to kilo-Watts (kW).
${ }^{4}$ Market Research, "Impact Evaluation of the Massachusetts, Rhode Island and Vermont 2003 Residential Lighting Programs", Final Report, October 1, 2004, p. 43 (Table 4-9)
5 Ibid., p. 104 (Table 9-7). This table adjusts for differences between logged sample and the much larger telephone survey sample and should, therefore, have less bias.
${ }^{6}$ Ibid., p. 42 (Table 4-7). These values reflect both actual installations and the $\%$ of units planned to be installed within a year from the logged sample. The logged \% is used because the adjusted values (i.e. to account for differences between logging and telephone survey samples) were not available for both installs and planned installs. However, this seems appropriate because the \% actual installed in the logged sample from this table is essentially identical to the \% after adjusting for differences between the logged group and the telephone sample (p. 100, Table 9-3).
${ }^{7}$ RLW Analytics, "Development of Common Demand Impacts for Energy Efficiency Measures/Programs for the ISO Forward Capacity Market (FCM)", prepared for the New England State Program Working Group (SPWG), March 25, 2007, p. IV.
3. Compare the variables $\Delta W$ ( $\left.C F L_{\text {watts }}\right)$, $I S R_{C F L}$, and $C F$ to other, more recent studies and updated appropriately, while the variable CFL $L_{\text {hours }}$ should be revised based on metered data from more recent studies.
4. Use the $\Delta \mathrm{W}$ values from the most recent New Jersey study, as they align with industry trends in other states and are derived from New Jersey data.
5. Use CF value based on the 2007 New England Study ${ }^{8}$ and adjusted for the New Jersey peak period.

Given these recommendations, the algorithms and their inputs are updated as follows:
$k W h$ Savings $=\left(\frac{\Delta W}{1000}\right) *$ CFLhours $^{*} 365$ * ISRCFL
$k W$ Savings $=\left(\frac{\Delta W}{1000}\right) * C F$

Where:
$\Delta \mathrm{W}=$ Average difference in watts between baseline and ENERGY STAR CFL
CFL ${ }_{\text {hours }}=$ Average hours of use per day per CFL
$\mathrm{ISR}_{\mathrm{CFL}}=$ In-service rate
$C F=$ Coincidence Factor.
Table 1-2
Updated Algorithm Input Values

| Variable | Type | Value | Source |
| :--- | :---: | :---: | :--- |
| $\Delta W$ | Fixed | 48.5 | 2009 New Jersey CFL Study |
| CFL $_{\text {nours }}$ | Fixed | 2.8 | 2009 New England Study |
| ISR $_{\text {CFL }}$ | Fixed | $83.4 \%$ | 2009 New Jersey CFL Study |
| CF | Fixed | $9.9 \%$ | 2007 New England Metering Study |

${ }^{8}$ Ibid.

### 1.2 Ex-Post Impact Evaluation

The methodology used to conduct the ex-post impact evaluation involved a number of interdependent tasks including calculating gross energy and peak demand savings (gross impacts); upstream measurements of free ridership; an examination of potential spillover effects; and measurements of net savings. Using the revised algorithm inputs and assumptions described above, these measurements relied upon primary and secondary data including New Jersey consumer telephone surveys, program and non-program sales data elicited from retail and manufacturer through telephone surveys, CFL Program tracking data, reliable and applicable proxy meter data from a previous study ( 2009 New England Study), and Protocol algorithm values consistent with past studies from residential CFL programs in other states.

Among purchasers, the CFL customer survey was tailored to estimate gross and net program impacts as well as understand New Jersey resident CFL awareness, purchasing incidence and behavior, and non-purchaser behavior. Additionally, the survey examined future CFL purchase potential and barriers, tracked CFL purchase locations and installation by room-type, and explored incidences of stockpiling and storage, and CFL installation expansion potential and barriers.

Gross impact calculations involved:
a) Determination of the number of 2003-2005 ENERGY STAR Products Program CFLs;
b) Calculation of displaced wattage;
c) Determination of estimated installed Program CFL usage per day; and
d) Estimation of Program CFL in-service rate.

Free ridership ${ }^{9}$ estimates were based on telephone interviews conducted with retailers and manufacturers regarding their program and non-program sales. A free ridership fraction for each manufacturer was given a weight according to the volume of 2004-2005 program CFLs sold
${ }^{9}$ Program attribution is another term used to describe the influence of the program on a program participant's decision to make energy efficiency improvements. In this report program attribution would be calculated as 1 - Free Ridership.
through the program by each participating retailer and a weighted average free ridership fraction computed.

Spillover was qualitatively assessed to capture potential dynamics associated with the market. Finally, program-level net savings were calculated by averaging chain-level free ridership estimates, weighting these estimates by the volume of program-discounted CFLs sold by each retailer, and combining 2004 and 2005 annual free ridership estimates. A program-level net-togross ratio was determined using the following formula:

$$
1 \text { - Program-Level Free ridership = Net-to-Gross Ratio }
$$

### 1.3 Results

### 1.3.1 Surveys and Interviews

Evaluators conducted interviews with manufacturers and retail chain representatives representing more than 90 percent of total program CFL sales in New Jersey between 2004 and 2005. Evaluators successfully completed a total of 409 consumer surveys, of which at least 100 consumers purchased CFLs between 2003 and 2005. Additionally, we also conducted 112 surveys of consumers who had purchased CFLs that were not subsidized by New Jersey's Change-a-Light program.

### 1.3.2 Gross Impacts

We estimated annual gross energy and demand savings for 2004 and 2005 (Table 1-3). As shown in the table below, we estimated gross energy savings for the two-year program at about 129,000 MWh and gross peak demand savings at 12.5 MW. Data sources for the key impact parameters are shown in Table 1-4.

Table 1-3
Gross Energy and Peak Demand Savings, 2004-2005

| Gross Savings | Program Year |  | Overall |
| :--- | :---: | :---: | :---: |
|  | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ |  |
| Energy (MWh) | 78,175 | 51,230 | $\mathbf{1} 5.5$ |
| Peak Demand (MW) | 7.6 | 5.0 | $\mathbf{1 2 . 5}$ |

Table 1-4
Key Impact Parameters and Sources

| Parameter | Source |
| :--- | :--- |
| 1. Number of CFLs | Program records |
| 2. Displaced Wattage (Watts) | Computer-Assisted Telephone Interviewing <br> (CATI) Surveys with residential customers |
| 3. Hours of Use per Day | 2009 New England Study |
| 4. CFL In-Service Rate (installation rate) | CATI Surveys with residential customers |

### 1.3.3 Spillover

The following are general observations made by manufacturers in the "Change-a-Light" program. They qualitatively reflect program spillover.

- Almost all manufacturers mentioned observing an increasing variety of CFLs widely available in stores and that consumers and retailers have grown more accustomed to the types that were discounted by the program. This is especially true in the Hardware, "Do It Yourself" (DIY) and Big Box retail channels, but greater variety is also seen in nontraditional CFL markets in the last two years, such as convenience stores.
- New Jersey's Change-a-Light program is given credit for helping to expand the market for CFLs to newer market channels. Several manufacturers explained that as sales growth from traditional outlets is slowing, they have begun expanding into nontraditional outlets such as supermarkets, drug stores and ethnic markets. Sales representatives are finding it easier to move into these channels and credit this program with having educated the retail buyers, making them more receptive to increasing the range and exposure of CFLs in their stores.
- Manufacturers that sell to discount stores (such as dollar stores) report that they see zero spillover - dollar stores will only stock CFLs that they can sell for a dollar (which is currently possible only when there is a discount). Similar effects are reported by other manufacturers that sell to the low-end retailers. One respondent said that rather than market transformation or spillover, he perceived only robust price elasticity for CFLs that has remained unchanged among consumers over the last few years. That is, this representative indicated that consumers weren't changing their behavior, rather they were simply responding to price.


### 1.3.4 Free ridership

Free ridership results are shown in Table 1-5. As shown, the overall program-level freeridership estimate is 15.4 percent.

Table 1-5
Freeridership Estimate (Weighted by Number of Program CFLs), 2004 and 2005

| Program Year | Weighted Results |  |
| :--- | :---: | :---: |
|  | Estimated <br> Freeridership | Std Err |
| 2004 | $14.4 \%$ | $\pm 5.3 \%$ |
| 2005 | $16.4 \%$ | $\pm 5.0 \%$ |
| Overall | $\mathbf{1 5 . 4 \%}$ | $\pm 5.5 \%$ |

### 1.3.5 Net Impacts

After applying annual free ridership estimates to the annual gross savings estimates for 2004 and 2005 separately and adding the resultant savings across program years, net energy savings for the two-year program are approximately 110,000 MWh and net peak demand savings are 10.6 MW, as shown in Table 1-6.

Table 1-6
Gross and Net Energy and Peak Demand Savings, 2004-2005
(does not include Spillover)

| Gross Savings | Program Year |  | Overall |
| :--- | :---: | :---: | :---: |
|  | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ |  |
| Energy (MWh) | $\mathbf{7 8 , 1 7 5}$ | 51,230 | $\mathbf{1 2 3}$ |
| Peak Demand (MW) | 7.6 | 5.0 | $\mathbf{1 2 . 5}$ |
| Net Savings |  |  |  |
| Energy (MWh) | 66,918 | 42,829 | $\mathbf{1 0 9 , 7 4 6}$ |
| Peak Demand (MW) | 6.5 | 4.1 | $\mathbf{1 0 . 6}$ |

## 2. Introduction

This report provides an evaluation of New Jersey's Clean Energy Program's ENERGY STAR Products Programs which provide incentives for four types of consumer products. The programs calculate savings for these installations using the "New Jersey Clean Energy Program Protocols to Measure Resource Savings" (Protocols) ${ }^{10}$. The KEMA evaluation covers program years 2003 through 2005.

This report has two functions:

1. To offer recommendations for revisions of the savings calculation Protocols so that going forward, the calculations using these Protocols provide more accurate statements of savings accomplishments; and
2. To provide a retrospective assessment of program accomplishment as part of a due diligence review of past utility program effectiveness on behalf of ratepayers.

The second function is addressed with an ex-post impact evaluation. The ex-post impact evaluation was designed to support potential Protocol revisions as mandated by the first function. The impact evaluation focuses on the measures that generated the majority of the savings for the programs. The results produced by this impact evaluation provide key revisions to important Protocol equations. In addition to the direct impact evaluation input, KEMA engineers performed a review of Protocol equations and the recommended inputs.

### 2.1 Program Overview

The ENERGY STAR Products ${ }^{11}$ program involved four products: CFLs (2003-2005), Room Air Conditioners (2003-2006), Clothes Washers (2005), and a Programmable Thermostat Pilot (2005). This evaluation focuses on the lighting component of the Products program (called the "Change-a-Light Program"), which involved a buydown of retailer purchase costs from CFL
${ }^{10}$ New Jersey's Clean Energy Program, Protocols to Measure Resource Savings, Revisions to September 2004 Protocols, December 2007.
${ }^{11}$ During the evaluation period (2001-2006) this program changed names several times (e.g. ENERGY STAR Products, Residential ENERGY STAR Lighting Program). This evaluation report focuses on NJCEP's upstream CFL initiative.
suppliers (through an RFP issued to manufacturers). Because the program incentives were delivered upstream (that is, to suppliers rather than directly to consumers), program records include information on the total number of program-discounted CFLs purchased by the major retailers participating in the program. However, there is no information on how many bulbs were actually sold by each retailer and no information regarding to whom the bulbs were sold.

Table 2-1 provides a summary of the ENERGY STAR Products Program's overall budget, program expenditures, and tracked savings over the past six years. The lighting component of the ENERGY STAR Products Program accounts for 6.7 percent of total tracked electric savings, and 1.4 percent of committed expenditures ${ }^{12}$.

Table 2-1 ${ }^{13}$
ENERGY STAR Products Program Summary from 2001-2006

| ENERGY STAR Products |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | :---: |
|  | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| Program Budget (in 000's of \$) | $\$ 1,661$ | $\$ 7,533$ | $\$ 7,305$ | $\$ 10,023$ | $\$ 6,830$ | $\$ 7,714$ |
| Actual Expenditures (in 000's of \$) |  | $\$ 713$ | $\$ 2,803$ | $\$ 6,305$ | $\$ 8,449$ | $\$ 5,973$ |
| Participants |  | $\$ 3,366$ |  |  |  |  |
| Tracked KW Savings | 18,500 | 520 | $1,530,488$ | $2,054,000$ | $1,280,652$ | 29,586 |
| Tracked MWh Savings | 93 | 0 | 5,086 | 6,530 | 4,884 | 567 |
| Tracked Dtherms Savings |  | 2,037 | 0 | 63,062 | 97,324 | 63,509 |
| 544 |  |  |  |  |  |  |

### 2.2 Report Organization

Section 3 of this report is a review of the current 2007 Protocols. This review is developed from an engineering perspective using KEMA expertise and secondary sources. It also includes the recommendations based on the ex-post impact evaluation.

The remainder of the report presents the ex-post impact evaluation. Section 4 provides an overview of the evaluation process and a review of the methods employed for the impact evaluation. Section 5 describes the CFL purchaser telephone survey, and Section 6 provides the results from the ex-post impact estimates reflecting the success of the programs during the years 2003-2005.

[^0]
## 3. Review of Protocols

The ENERGY STAR CFL bulbs measure is a subset of the Residential ENERGY STAR Lighting Program. The Residential CFL Protocol is related to the Protocol for the Residential Low Income Program's Efficient Lighting measure. The two measures use the same algorithm, though the values entered are different.

### 3.1 Overview of Existing Protocol

This section includes an overview and a review of the protocol itself, the algorithms, and the inputs.

### 3.1.1 Overview of Protocol

Savings from installation of screw-in ENERGY STAR CFLs are based on a straightforward algorithm that calculates the difference between existing and new wattage, and the average daily hours of usage for the lighting unit being replaced. An in-service rate (ISR) is used to reflect the fact that not all lighting products purchased are actually installed. Table 3-1 shows the original algorithm input values.

## ENERGY STAR CFL Bulbs

Electricity Impact $(k W h)=\left(\frac{C F L_{\text {watts }}}{1000}\right) * C F L_{\text {hours }} * 365 *$ ISRcFL

Peak Demand Impact $(\mathrm{kW})=\left(C F L_{\text {watts }}\right) *$ Light CF
Where:
$\mathrm{CFL}_{\text {watts }}=$ Average difference in watts between baseline and ENERGY STAR CFL
$C F L_{\text {hours }}=$ Average hours of use per day per CFL
$I S R_{\text {CFL }}=$ In-service rate
Light CF = Coincidence Factor for lighting.

Table 3-1
Original Algorithm Input Variables

| Variable | Type | Value |
| :--- | :---: | :---: |
| CFL $_{\text {watts }}$ | Fixed | $48.7^{14}$ |
| CFL $_{\text {hours }}$ | Fixed | $3.4^{15}$ |
| ISR $_{\text {CFL }}$ | Fixed | $84 \%^{16}$ |
| Light CF | Fixed | $5 \%{ }^{17}$ |

### 3.1.2 Review of Protocol

We recommend some renaming of terms, to match terms used elsewhere in the Protocols. We recommend changing the terms "Energy Impact" to "kWh Savings," "Peak Demand Impact" to "kW Savings," "Light CF" to "CF," and "CFL watts" to " $\Delta \mathrm{W}$." These changes would simplify comparisons between measures and avoid confusion.

The algorithm for kW Savings (Peak Demand Impact) has an error, and should be divided by 1000 to convert watts to kilo-watts (kW).

14 Market Research, "Impact Evaluation of the Massachusetts, Rhode Island and Vermont 2003 Residential Lighting Programs", Final Report, October 1, 2004, p. 43 (Table 4-9)
15 Ibid., p. 104 (Table 9-7). This table adjusts for differences between logged sample and the much larger telephone survey sample and should, therefore, have less bias.
${ }^{16}$ Ibid., p. 42 (Table 4-7). These values reflect both actual installations and the $\%$ of units planned to be installed within a year from the logged sample. The logged \% is used because the adjusted values (i.e. to account for differences between logging and telephone survey samples) were not available for both installs and planned installs. However, this seems appropriate because the \% actual installed in the logged sample from this table is essentially identical to the \% after adjusting for differences between the logged group and the telephone sample (p. 100, Table 9-3).
${ }^{17}$ RLW Analytics, "Development of Common Demand Impacts for Energy Efficiency Measures/Programs for the ISO Forward Capacity Market (FCM)", prepared for the New England State Program Working Group (SPWG), March 25, 2007, p. IV.

Making these changes would result in the following equations:
kWh Savings $=\left(\frac{\Delta W}{1000}\right) *$ CFLhours * 365 * ISRcFL
Equation 3
$k W$ Savings $=\left(\frac{\Delta W}{1000}\right) * C F$
Equation 4

Following is a discussion of the values used in the equations:
$\Delta W\left(C F L_{\text {watts }}\right)$ - This value is based on a market research study done in New England in 2004. The value is reasonable; though it should be compared to other more recent studies (see section 3.2 below).
$C F L_{\text {hours }}$ - This value is based on a market research study done in New England in 2004. This value is used is based on telephone self-reports, which have been consistently proven to be inaccurate compared to metered data (the same report this value was taken from mentions the fact). We recommend revising this value based on metered data and more recent studies (see section 3.2 below).
$I S R_{\text {CFL }}$ - This value is based on a market research study done in New England in 2004. The value includes those bulbs which were not installed at the time of the survey, but which customers indicated would be installed in the next year. This value is reasonable; though it should be compared to other more recent studies (see section 3.2 below).

CF (Light CF) - This value should probably be renamed to just "CF" to match other protocols. This value claims to be based on a coincident factor study done in New England in 2007. However, the value chosen does not appear in the cited report. We recommend revising this value to match data reported in this report (see section 3.2 below).

### 3.2 Review of Industry Practice

This section includes a review of studies done on CFL use by other programs.

### 3.2.1 Impact Evaluation of the Massachusetts, Rhode Island, and Vermont 2003 Residential Lighting Programs - by Nexus Market Research and RLW Analytics, 2004

This study is cited in the current New Jersey Protocol for several values. This evaluation included telephone surveys and on-site metering data. The values used by the program from this survey are appropriate except for the hours of use (CFL ${ }_{\text {hours }}$ ) value. The program used the value from telephone surveys ( 3.4 hours/day), which have been proven to be inaccurate. The metered data suggests an hours of use value of 2.6 hours/day, which is in line with what other programs report.

### 3.2.2 Coincidence Factor Study - Residential and Commercial \& Industrial Lighting Measures for the New England State Program Working Group - by RLW Analytics, 2007

This study is cited in the current New Jersey Protocol for the value of lighting coincidence factor (CF). However, the value that the program uses is not found in this study. In addition, the peak demand period used in this study ( $1-5$ pm weekdays, June-August) is different from that used in New Jersey (12-8pm weekdays, June-August). This greatly skews the value of CF, as residential lighting is used more heavily in the evening, as shown in Figure 3-1 below.

Figure 3-1
Peak Summer Usage CF Values from RLW Study


The values shown below in Table 3-2 are gathered from Figure 3-1 above. It shows the difference in CF when measured over the 12-8pm period (as in New Jersey) and the 1-5pm period (as in New England). Based on this table, a CF value of 9.9 percent (0.099) would be more appropriate than the current value of 5 percent.

Table 3-2
Hourly Breakdown from RLW Study

| Hour | 12 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CF | 0.080 | 0.080 | 0.080 | 0.080 | 0.085 | 0.095 | 0.115 | 0.130 | 0.175 |

### 3.2.3 CFL Metering Study Final Report - by KEMA, 2005

This study presents a thorough analysis of CFL usage during peak periods. It is primarily based on metered data, and so is more accurate than self-reported data, especially for hours of use. A larger, more comprehensive study is currently underway, and the findings should be reviewed for consideration in future Protocol reviews.

Figure 3-2 below shows the CF values from this study in graphical format.
Figure 3-2
Peak Summer CF Values from California Study


Table 3-3 below shows the numeric values from Figure 3-2 between 12-8pm. The average over New Jersey's peak demand period results in a CF value of 8.4 percent (0.084), which is higher than the 5 percent currently used by New Jersey but lower than the value reported by the aforementioned RLW study.

Table 3-3
Hourly Breakdown from California Study

| Hour | 12 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CF | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.11 | 0.15 |

The values given in the California study are shown below in Table 3-4. The California study did not include a baseline study, and so did not make any determinations about the difference in wattage ( $\Delta \mathrm{W}$ ). The CFL $\mathrm{L}_{\text {hours }}$ value is less than currently used by New Jersey ( 3.4 hour/day), but closer to that that found by the 2004 and 2009 New England studies ( 2.6 hours/day from the 2004 study, and 2.8 hours/day from the 2009 study, see below). The ISR $_{\text {CFL }}$ value is very close to that used by New Jersey.

Table 3-4
California Study CFL Values

| Variable | Type | Value |
| :--- | :---: | :---: |
| CFL $_{\text {hours }}$ | Fixed | 2.28 |
| ISR $_{\text {CFL }}$ | Fixed | $80 \%$ |
| Light CF | Fixed | $8.4 \%$ |

### 3.2.4 Wisconsin ENERGY STAR® Products Program Compact Fluorescent Lighting Installation Rate Study - by Glacier Consulting, 2005

This study focused primarily on installation rate. It found an installation rate of 75 percent for CFLs sold with instant rebates, and of 85 percent for CFLs sold with mail-in rebates. These rates are comparable to data from other programs.

### 3.2.5 New England Residential Lighting Markdown Impact Evaluation - by Nexus Market Research, RLW Analytics, and GDS Associates, January 20, 2009

This impact evaluation included a survey on bulb placement and delta watts and a logger study which monitored hours of use by both room type and month. The delta watts value was determined to be 45.7 watts. The weighted average (weighted based on delta watts) hours of use was determined to be 2.8 hours/day. The study did not attempt to accurately determine inservice rate, but anecdotally found an in-service rate of 90 percent. Table 3-5 below shows the results of the bulb placement survey.

Table 3-5
New England Bulb Placement

| Room Type | \# of <br> Bulbs | \% of <br> Bulbs |
| :--- | :---: | :---: |
| Family/Living Room/Den | 273 | $24 \%$ |
| Kitchen/Dining Room | 240 | $21 \%$ |
| Bedroom | 187 | $16 \%$ |
| Bathroom | 167 | $14 \%$ |
| Basement | 111 | $10 \%$ |
| Hallway/Foyer /Stairs | 107 | $9 \%$ |
| Other | 69 | $6 \%$ |
| Overall | $\mathbf{1 , 1 5 4}$ | $\mathbf{1 0 0 \%}$ |

### 3.2.6 New Jersey Residential CFL Usage Survey - by KEMA, 2009

The survey completed as part of this evaluation looks at the difference in wattage between baseline and CFL bulbs $(\Delta W)$, the installation rate, and the hours of operation. Table 3-6 shows the $\Delta \mathrm{W}$ values for bulbs installed during (2003-2005) and after (2006-2008) NJCEP's Change-aLight initiative. The weighted average in-service rate ( $\mathrm{ISR}_{\mathrm{cf}}$ ) is 83.4 percent.

Table 3-6
Delta Watts Data from New Jersey Study

| Data | Baseline |  |  |  | CFL |  |  | Difference |  |
| :---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  | Mean | Min | Max | Std Dev | Mean | Min | Max |  |  |
| $2003-2005$ | 66.3 |  | 8 | 150 | 24.8 | 17.9 | 5 | 39 | 7.0 |
| $2006-2008$ | 66.9 | 3 | 160 | 23.9 | 18.4 | 3 | 39.4 |  |  |

As part of this survey, KEMA collected data on numbers of lamps installed in the various room types. Using this data, KEMA applied the hours of use numbers from the 2005 California Metering Study to the room types obtained through this survey. The weighted average hours of operation ( CFL $_{\text {hours }}$ ) resulting from this analysis is 2.4 hours/day. The data from the 2005 California Metering Study was used because the more recent results from the 2009 New England Study were not available at the time this hour of use analysis was being conducted. Furthermore the delta watts data from the 2009 New England Study could not be used in this analysis because it was not collected by room type.

### 3.3 Recommendations

We recommend changing the terms "Energy Impact" to "kWh Savings," "Peak Demand Impact"
 rest of the New Jersey Protocols.

We also recommend correcting the error in the kW savings algorithm, dividing by 1000 to convert watts to kilo-watts (kW).

The algorithms would then be as follows:

## ENERGY STAR CFL Bulbs

$k W h$ Savings $=\left(\frac{\Delta W}{1000}\right) *$ CFLhours * 365 * ISRcFL
$k W$ Savings $=\left(\frac{\Delta W}{1000}\right) * C F$

Where:
$\Delta \mathrm{W}=$ Average difference in watts between baseline and ENERGY STAR CFL
$C F L_{\text {hours }}=$ Average hours of use per day per CFL
$I S R_{\text {CFL }}=$ In-service rate
CF = Coincidence Factor.
Table 3-7 below shows values for $\Delta \mathrm{W}$, $C F L_{\text {hours }}$, and $\mathrm{ISR}_{\text {cf }}$ compared between the various studies discussed above.

Table 3-7
Comparison of Values from Various Studies

| Study | Delta W | ISR $_{\text {CFL }}$ | CFL $_{\text {hours }}$ |
| :--- | :---: | :---: | :---: |
| New England 2004 | 48.7 | $84.0 \%$ | 2.6 |
| California 2005 | N/A | $80.0 \%$ | 2.3 |
| Wisconsin 2005 | N/A | $75 \% / 85 \%$ | N/A |
| New Jersey 2009 | 48.5 | $83.4 \%$ | 2.4 |
| New England 2009 | 45.7 | $90 \%$ | 2.8 |

## KEMAそ

We recommend the program use the 2009 New Jersey Study's $\Delta \mathrm{W}$ value of 48.5 (bulbs installed between 2006 and 2008), as it is recent, New Jersey-specific, and is very close to the 2004 New England study.

We recommend the $C F L_{\text {hours }}$ value from the 2009 New England study, as it is recent, from a similar geographic area, and based on room type installation results which were similar to those determined by the New Jersey study. The 2005 California Metering Study data was determined to be not sufficiently applicable to New Jersey when compared to the 2009 New England study results.

To determine the applicability of the 2009 New England study CFL $_{\text {hours }}$ results to New Jersey, we compared room type installation rates from the two studies together. Table 3-8 below shows a comparison of the room type installation rates from New Jersey and New England, and CFL ${ }_{\text {nours }}$ from the New England study (reported by Room Use Category rather than room type). It should be noted that outdoor lamps are excluded from this table.

Table 3-8
Room Type Installation Rate Comparison


Here we see that the installation rates for "Busy" spaces and "Not Busy" spaces are very close between the two studies. This suggests that the result from the New England study (2.8
hours/day) is applicable to New Jersey. Therefore we recommend that the program use the weighted average ${ }^{18} \mathrm{CFL}_{\text {hours }}$ value of 2.8 hours/day determined by the New England study.

We recommend the $\mathrm{ISR}_{\text {cff }}$ value from the 2009 New Jersey study, as it is recent, New-Jersey specific, and fits well with data determined by other studies

We recommend that the program use the CF value from the 2007 coincidence factor study in New England, as it is recent and from a similar geographic area. The recommended value of 9.9 percent is based on data obtained from this study, but is not the same as the value determined directly by the study due to the different peak period used in New England. This is discussed above in section 3.2.2.

Table 3-9 shows our final recommended input values for the residential ENERGY STAR CFL protocol.

Table 3-9
Final Recommended Protocol Values

| Variable | Type | Value | Source |
| :--- | :---: | :---: | :--- |
| $\Delta \mathrm{W}$ | Fixed | 48.5 | New Jersey 2009 |
| CFL $_{\text {hours }}$ | Fixed | 2.8 | New England 2009 |
| ISR $_{\text {CFL }}$ | Fixed | $83.4 \%$ | New Jersey 2009 |
| CF | Fixed | $9.9 \%$ | New England 2007 |

${ }^{18}$ We attempted to use room type-specific hours from the 2009 New England study, but determined that this was not appropriate as the 2009 New England study did not report delta watts by room type, which prevented us from weighting the hours of use properly (a simple average would give skewed results, as shown in Table 3-8).

## 4. Impact Evaluation Methodology

### 4.1 Overview

The methodology used to conduct the ex-post impact evaluation involved a number of interdependent tasks including calculating gross energy and peak demand savings (gross impacts); upstream measurements of free ridership; an examination of potential spillover effects; and measurements of net savings. Using the revised algorithm inputs and assumptions described above, these measurements relied upon primary and secondary data including New Jersey consumer telephone surveys, program and non-program sales data elicited from retail and manufacturer through telephone surveys, CFL Program tracking data, reliable and applicable proxy meter data from a previous study (2009 New England Study), and Protocol algorithm values consistent with past studies from residential CFL programs in other states.

### 4.2 Gross Savings

We estimated gross energy ( kWh ) and demand ( kW ) savings using the formulas shown in Figure 4-1 below. To estimate peak demand savings, we applied the revised coincidence factor ( 9.9 percent) suggested by our review of the New Jersey Protocols (as described in Section 3 above).

Figure 4-1

> Formulas for Calculating Annual Gross Energy and Peak Demand Savings ENERGY STAR Products Program - Lighting Component, 2003-2005

Four key parameters were necessary for calculating gross energy impacts:

1. Number of CFLs distributed through the lighting component of the 2003-2005 ENERGY STAR Products Program;
2. Displaced wattage (Watts);
3. Hours of use per day for the installed Program CFLs; and
4. Installation rate (In-service Rate) for the Program CFLs.

Table 4-1 lists the data sources for each of the key parameters.
Table 4-1
Key Impact Parameters and Sources

| Parameter | Source |
| :--- | :--- |
| 1. Number of CFLs | Program records |
| 2. Displaced Wattage (Watts) | CATI Surveys with residential customers |
| 3. Hours of Use per Day | 2009 New England Study |
| 4. CFL In-Service Rate (installation rate) | CATI Surveys with residential customers |

Below we describe these parameters in more detail and provide a brief overview of how each is utilized in the impact assessment.

### 4.2.1 Number of CFLs

The impact evaluation utilizes the number of CFLs distributed through the lighting component of the ENERGY STAR Products Program as the basis for extrapolating per-unit energy and demand savings estimates to the program level. We obtained detailed information on the number of CFLs distributed by each of the manufacturers that participated in the promotion during 2004 and 2005 from program tracking data. As shown in Table 4-2, the promotion resulted in sales of nearly 3.2 million CFLs.

Table 4-2
Estimated Number of CFLs Sold by Manufacturers and Program Year ENERGY STAR Products Program - Lighting Component, 2004-2005

| Manufacturer | Year |  | Overall (2004-2005) |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2004 | 2005 | Number of CFLs | \% of CFLs |
| Feit | 519,338 | 425,198 | 944,536 | 30\% |
| TCP | 385,683 | 294,500 | 680,183 | 21\% |
| MaxLite | 313,005 | 128,975 | 441,980 | 14\% |
| GreenLite | 276,200 | 161,375 | 437,575 | 14\% |
| Lights of America | 70,130 | 68,500 | 138,630 | 4\% |
| Bulbrite | 53,352 | 76,500 | 129,852 | 4\% |
| GE | 82,842 | 29,673 | 112,515 | 4\% |
| Sylvania | 96,082 | 28,800 | 124,882 | 4\% |
| Sunrise Lighting | 52,708 | 6,000 | 58,708 | 2\% |
| Westinghouse | 41,578 | 0 | 41,578 | 1\% |
| Philips | 958 | 20,000 | 20,958 | 1\% |
| Lightwave | 19,802 | 0 | 19,802 | 1\% |
| Lakewood Lighting | 0 | 15,125 | 15,125 | < 1\% |
| Sunpark | 7,540 | 5,700 | 13,240 | < 1\% |
| OK Electric | 4,000 | 0 | 4,000 | < 1\% |
| Overall | 1,923,219 | 1,260,346 | 3,183,565 | 100\% |

* Program data was only available for the years 2004-2005. This table summarizes all of that data.


### 4.2.2 Displaced Wattage

The telephone survey of New Jersey consumers collected several key data points used in calculating the change in lamp wattage ( $\Delta$ Watts) for the impact analysis, including the wattage of the lamp replaced by each CFL as well as the installation location (room type) for each CFL. These components (along with the number of CFLs sold through the promotion) were utilized in calculating the Program-level displaced wattage, which is a key component of both the gross energy and demand savings calculations.

Calculating displaced wattage involves several steps as described below.

1. Estimate total number of ENERGY STAR Products Program CFLs by room type. The telephone surveys asked respondents to indicate the room locations in which they installed up to three CFLs purchased during the 2003-2005 timeframe. We totaled the number of CFLs per room type and calculated the proportion of total ENERGY STAR Products Program CFLs installed in each room. We then applied this proportion to the total number of CFLs sold through the Program to yield estimates of the total number of

ENERGY STAR Products Program CFLs assumed to be installed in each room type. Table 4-3 provides the distribution of CFLs per room type.

Table 4-3
Distribution of CFLs Purchased Between 2003 and 2005
by Installation Location (Room Type)

| Location (room type) | Percent of <br> 2003-2005 <br> CFLs |
| :--- | :---: |
| Bedroom | $22 \%$ |
| Bathroom | $9 \%$ |
| Closet | $1 \%$ |
| Dining room | $6 \%$ |
| Family room | $4 \%$ |
| Garage | $2 \%$ |
| Hallway / Entryway | $5 \%$ |
| Kitchen | $15 \%$ |
| Laundry room | $2 \%$ |
| Living room | $18 \%$ |
| Other room | $8 \%$ |
| Outdoor areas | $8 \%$ |
| Overall | $\mathbf{1 0 0 \%}$ |
| Number of CFLs | 638 |

2. Estimate average "replaced lamp" wattage by room type. The consumer telephone surveys asked respondents to indicate the wattages of lamps replaced by up to three CFLs purchased during the 2003-2005 period. Within each room type, we totaled the "replaced lamp" wattage and then divided by the total number of lamps replaced to yield the average "replaced lamp" wattage by room type.
3. Estimate average "replacement CFL" wattage by room type. The phone surveys also asked consumers to indicate the wattages of the CFLs they used to replace the previously-installed lamps (described in step 2 above) for up to three CFLs purchased during the 2003-2005 period. Within each room type, we totaled the "replacement CFL" wattage and then divided by the total number of lamps replaced to yield the average "replacement CFL" wattage by room type.
4. Estimate average displaced wattage by room type. Within each room type, we then subtracted the average "replacement CFL" wattage from the average "replaced lamp" wattage in each room type to yield an estimate of average displaced wattage by room type.
5. Estimate total displaced wattage by room type. We multiplied the average displaced wattage by room type by the total number of Program CFLs assumed to be installed in each room type to yield total displaced wattage by room type.
6. Estimate total displaced wattage. We summed up room-level estimates of displaced wattage to yield total displaced wattage for the Program.

Completing the above steps yields an estimate of displaced wattage for ENERGY STAR Products Program CFLs.

### 4.2.3 Hours of Use per Day

Average daily hours of use for CFLs is a key component of both the gross energy and demand savings calculations. As discussed above in Section 3, estimates were obtained from a two metering studies: the 2005 California study and the 2009 New England study. The impact evaluation relied on estimates derived from the 2009 New England study, as its climate and market are more similar to New Jersey than California.

### 4.2.4 CFL Installation Rate

The New Jersey consumer telephone surveys included a question that allowed us to estimate CFL installation (in-service) rates at the Program level. The question asked, "Of the [ $N$ ] CFLs you purchased during 2003, 2004, or 2005, how many are currently installed in your home or in an outdoor fixture at your home?" ${ }^{19}$ To calculate the installation rate for ENERGY STAR Products Program CFLs, we divided the number reportedly installed by survey respondents by the total number of CFLs they reportedly purchased during the 2003-2005 period. The in-service rate is a key parameter in both the gross energy savings and gross demand savings calculations.

The overall program-level in-service (installation) rate is 83.4 percent. The in-service rate for CFLs sold in New Jersey during the 2003-2005 period is slightly higher than those sold through mature programs in other jurisdictions (e.g., California, the Pacific Northwest) during a similar timeframe, but these results are expected because installation rates tend to decline slightly as programs operate for longer periods, and New Jersey's program has not been active for as long as these other programs. ${ }^{20}$
${ }^{19}$ In the survey question, " $[\mathrm{N}]$ " represents the total number of CFLs reportedly purchased by phone survey respondents between 2003 and 2005.
${ }^{20}$ In California, a recent evaluation of the 2004-2005 statewide CFL program showed that 76 percent of Program-discounted CFLs were installed approximately two years after the promotion ended (late 2007). Similarly, a 2007 survey conducted in support of an evaluation of the Northwest Energy Efficiency

### 4.3 Free ridership

Free ridership ${ }^{21}$ for this study is measured upstream, as described above, for several reasons. First, the discount was provided to upstream market actors at the manufacturer and retail partner level. Second, the program was designed to be transparent to the individual consumer; while customers may be aware that a promotion existed, they are not likely to know the details of it, or to recall them four years later. Third, experience demonstrates that upstream players have a less biased view of the program's impact on aggregate sales than end-users do; each end-user generalizes from a small, nonrandom sample of purchase decisions (made by themselves and people they know), while manufacturers see data over time from many regions, stores, and promotion designs. Fourth, this program does not keep records of which customers received point-of-sale incentives and which did not. It did, however, keep records of: proposals; counts of program CFLs per retailer, manufacturer, and market segment; and details of the proposal contents.

Upstream measurements could be made at the retailer level, the manufacturer level, or a combination of the two. This evaluation attempted to interview both retailers and manufacturers about program and non-program sales. Retailers were mostly unwilling or unable to provide sales information for the following four logistical reasons:

1. Some retail chains do not centralize stock orders or program participation; store owners decide for themselves. Representatives of those chains can talk about trends and promotions, but do not know specific sales numbers, much less know how those figures differed over time and between program and non-program periods. We made several attempts to contact individual stores from these chains, but found no one who was aware of incentive programs in general, or the impacts of old programs.

Alliance's 2006 CFL promotion found that 68 percent of CFLs ever acquired by Northwest residents were installed. (Sources: [1] Itron and Kema, Inc., 2007. 2004/2005 Statewide Residential Retrofit SingleFamily Energy Efficiency Rebate Program Evaluation [CPUC-ID\#:1115-04]. Prepared for California's Investor-Owned Utilities and The California Public Utilities Commission [San Francisco, CA]. October 2, 2007. [2] KEMA, Inc., 2007. ENERGY STAR Consumer Products Progress Evaluation Report 3: Final Report. Prepared for the Northwest Energy Efficiency Alliance [Portland, OR]. July 24, 2007.) ${ }^{21}$ Program attribution is another term used to describe the influence of the program on a program participant's decision to make energy efficiency improvements. In this report program attribution would be calculated as 1 - Free Ridership.
2. Other retailers either referred our interviewers to the manufacturer, or asked the manufacturer to contact us with the information. These retailers report that they knew nothing about promotion details.
3. Some retailers refuse to share sales data, because it is proprietary. They refused to make even very general statements about traffic during program/non-program periods.
4. Finally, many retailers report that they do not keep sales data from 2004 or 2005, even in an archive. Sales staff has changed, so their personal recollections were also not available.

Additionally, manufacturers were generally more knowledgeable about (and more interested in discussing) the history of New Jersey's Change-a-Light programs and how to compare its impacts to similar programs in other markets than retail representatives. The evaluators asked three basic questions of each participating manufacturer's representative, for each program year:

- How many CFLs were sold in New Jersey through the program;
- How many were sold in New Jersey that entire year; and
- How many CFLs the respondent believes would have been sold had there not been a Change-a-Light program.

Some manufacturers were unwilling to share sensitive sales numbers but would disclose the ratio of program sales to comparable periods of non-program sales or program sales as a fraction of total sales. The free ridership fraction for each manufacturer was then weighted by the number of program CFLs allocated in the two-year period 2004-2005, and the weighted average free ridership fraction was then computed.

### 4.4 Spillover

Spillover can be conceptualized in many ways. This evaluation did not prescribe any one operationalization of the concept into an easily quantified measure. In the interviews, manufacturers provided a more qualitative picture of the auxiliary benefits of the Change-a-Light program four years later.

### 4.5 Net Savings

As described above, evaluators used an upstream approach to calculating the program-level net-to-gross (NTG) ratio. During the in-depth interviews with CFL manufacturers' representatives that participated in the 2003-2005 promotion, interviewers asked the representatives to estimate how much their 2004 and 2005 CFL sales would have changed if the Change-a-Light Program had not provided the incentives - in other words, interviewers obtained estimates of free ridership at the manufacturer level. Distinct free ridership rates were sought from representatives of the manufacturing firms that sold CFLs through the program. To obtain the interviews, KEMA interviewers promised to keep individual manufacturers' responses confidential, only disclosing aggregated figures such as averages and ranges. Ultimately, evaluators interviewed representatives of CFL manufacturing firms which together represent more than 90 percent of the CFLs sold through the program in 2004 and 2005.

To develop a program-level estimate of free ridership for each program year, the evaluators averaged the retail chain-level free ridership estimates provided by the participating manufacturers. The average was weighted by the volume of each retailer's sales of programdiscounted CFLs through the 2004 and 2005 promotions separately. The annual free ridership estimates for 2004 and 2005 were combined (again, weighted by volume of sales through the program) to produce an estimate of total program-level free ridership. The formula for calculating the program-level NTG ratio is as follows:

$$
1 \text { - Program-Level Free ridership = Net-to-Gross Ratio }
$$

The resultant NTG ratio was applied to the gross savings estimates to yield estimates of program-level net savings.

## 5. CFL Survey Methodology

### 5.1 CFL Customer Survey

### 5.1.1 Overview

The primary objective of the CFL Customer Survey was to estimate gross and net program impacts. Additional goals of the survey were to understand the New Jersey residents' level of CFL awareness, purchasing incidence and behavior, and non-purchaser behavior.

In addition, the survey explored the potential for and barriers to future CFL purchases (among purchasers, non-purchasers and unaware) and whether/how lack of current information on CFLs impacts that potential.

Among purchasers, the survey also:

- Tracked CFL purchase location (store type), time-frame (year of purchase), and price;
- Tracked installation of CFLs by room-type, fixture-type, and previous bulb-type (including wattage);
- Investigated incidence of stockpiling and storage of bulbs (due to promotion and in general); and
- Examined the potential for and barriers to expanding CFL installations within CFL purchaser homes.


### 5.1.2 Survey Sample Design

When a measure was implemented far upstream and up to five years earlier, it is challenging to locate the ultimate consumers. Our sample was constructed with this in mind. The frame was simply all residences in New Jersey with working telephone numbers (excluding cell phones, fax machine lines and government or business lines).

From that frame, respondents who consented were screened into one of three groups:

- 400 People who purchased CFLs (completed 409)
o At least 100 who purchased during program years 2003-5 (completed 105)
o The balance can have purchased CFLs at any time (completed 295)
- 100 Non-Purchasers (completed 112 interviews)

Respondents who consented to interviews were asked if they had heard of CFLs, and those who did not say yes were then prompted with:
"Compact fluorescent light bulbs, or CFLs, are small fluorescent bulbs that fit in regular light bulb sockets. They are also called "energy saving bulbs" and look different than standard bulbs. They are often made out of thin tubes of glass bent into loops or a spiral shape. Have you ever heard of them?"

If they still did not say yes, we proceeded directly to the demographic questions, skipping all of the questions about CFL purchase, use, and satisfaction. In this, they constitute a fourth group of 102 respondents. These are detailed in Table 5-1.

Table 5-1
Final Sample Counts

| Respondent Category | Completed <br> Interviews |  |
| :--- | :---: | :---: |
| Purchased CFLs During Program Period (2003-2005) | 105 | $17 \%$ |
| Purchased CFLs Before or After Program Period | 295 | $48 \%$ |
| Aware but Never Purchased CFLs | 112 | $18 \%$ |
| Unaware of CFLs / Refused or DK | 102 | $17 \%$ |
| Total | $\mathbf{6 1 4}$ | $\mathbf{1 0 0 \%}$ |

### 5.1.3 Fielding the Survey

KEMA's research partner, Braun Research, conducted the consumer survey from October 20, 2008 through November 6, 2008. A total of 5,180 residential listings were contacted by Random Digit Dialing (RDD) methods in the course of completing these interviews. Disposition of those phone numbers is shown in Table 5-2. There were no difficulties or special circumstances during the course of these interviews.

Table 5-2
Disposition of Attempted (Incomplete) Interviews

| Disposition of <br> Phone Number | Reason | Count | Percent |
| :--- | :--- | :---: | :---: |
| Usable/Eligibility <br> Unknown | (Refused, Language Barrier, Answering Machine, <br> Call Back-Retired, Privacy Mgr, Strong Refusal) | 1,928 | $37 \%$ |
| Unusable | (Disconnected, Fax, Gov't/Business, Cell Phone) | 1,555 | $30 \%$ |
| Usability Unknown | (No Answer, Busy) | 1,033 | $20 \%$ |
| Usable/Eligible | (Complete, Break-Off, 100 Failed Screeners) | 628 | $12 \%$ |
| Usable/Ineligible | (Over Quota) | $\mathbf{3 6}$ | $1 \%$ |
| Total | $\mathbf{5 , 1 8 0}$ | $\mathbf{1 0 0 \%}$ |  |

Approximately half of the contacted numbers were not reachable; some were nonresidential numbers, others disconnected, still others did not answer the phone when called multiple times at different times of day. These are marked "Unusable" or "Usability Unknown" in the table.

It was not possible to determine the eligibility of 1,928 numbers ( $37 \%$ of the numbers called, or nearly three-quarters of the "Usable" phone numbers). This happens when a person refuses to be interviewed, does not speak English, or where an answering machine confirms it is a residence, but no human is ever reached.

Almost 13 percent of the numbers dialed, or one quarter of the usable numbers were prima facie eligible for interviews. About 1 percent was contacted after that quota group had been filled, and 14 interviews were too incomplete to be analyzed.

## 6. Results

### 6.1 Gross Impacts

We estimated annual gross energy and demand savings from the promotion for 2004 and 2005 (Table 6-1). As shown in the table, we estimated gross energy savings for the two-year program at about 129,000 MWh and gross peak demand savings at 12.5 MW .

Table 6-1
Gross Energy and Peak Demand Savings, 2004-2005

| Gross Savings | Program Year |  | Overall |
| :--- | :---: | :---: | :---: |
|  | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ |  |
| Energy (MWh) | 78,175 | 51,230 | $\mathbf{1 2}$ |
| Peak Demand (MW) | 7.6 | 5.0 | $\mathbf{1 2 . 5}$ |

### 6.2 Spillover

The following are the general observations made by manufacturers in the "Change-a-Light" program. They qualitatively reflect program spillover.

- Almost all manufacturers mentioned observing an increasing variety of CFLs now more widely available in stores and that consumers and retailers have grown more accustomed to the types that were discounted by the program. This is especially true in the Hardware, DIY and "Big Box" retail stores, but greater variety has also been evident in nontraditional CFL markets in the last two years, such as convenience stores.
- New Jersey's Change-a-Light program is given credit for helping to expand the market for CFLs to newer market channels. Several manufacturers explained that as sales growth from traditional outlets is slowing, they have begun expanding into nontraditional outlets such as supermarkets, drug stores, and ethnic markets. Sales representatives are finding it easier to move into these channels and credit this program with having educated the retail buyers, making them more receptive to increasing the range and exposure of CFLs in their stores.
- Manufacturers that sell to discount stores (such as dollar stores) report that they see zero spillover - dollar stores will only stock CFLs that they can sell for a dollar (which is currently possible only when there is a discount). Similar effects are reported by other manufacturers that sell to the low-end retailers. One respondent said that rather than
market transformation or spillover, he perceived only "robust price elasticity" for CFLs that has remained unchanged among consumers over the last few years. That is, this representative indicated that consumers weren't changing their behavior, rather they were simply responding to price.


### 6.3 Free ridership

Free ridership results are shown in Table 6-2. As shown, the overall program-level free ridership estimate is 15.4 percent.

Table 6-2
Free Ridership Estimate (Weighted by Number of Program CFLs), 2004 and 2005

| Program Year | Weighted Results |  |
| :--- | :---: | :---: |
|  | Estimated Free <br> Ridership | Std Err |
| 2004 | $14.4 \%$ | $\pm 5.3 \%$ |
| 2005 | $16.4 \%$ | $\pm 5.0 \%$ |
| Overall | $\mathbf{1 5 . 4 \%}$ | $\pm 5.5 \%$ |

### 6.4 Net Impacts

We estimated annual net energy and demand savings from the promotion for 2004 and 2005 by applying annual free ridership estimates (as shown in Table 6-2) to the annual gross savings estimates (shown in Table 6-1 above) for 2004 and 2005 separately. As shown in Table 6-3 below, net energy savings for the two-year program are approximately 110,000 MWh and net peak demand savings are 10.6 MW.

Table 6-3
Gross and Net Energy and Peak Demand Savings, 2004-2005
(does not include Spillover)

| Gross Savings | Program Year |  |  |
| :--- | :---: | :---: | :---: |
|  | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ |  |
| Energy (MWh) | $\mathbf{7 8 , 1 7 5}$ | 51,230 | $\mathbf{1 2 9 , 4 0 5}$ |
| Peak Demand (MW) | 7.6 | 5.0 | $\mathbf{1 2 . 5}$ |
| Net Savings |  |  |  |
| Energy (MWh) | 66,918 | 42,829 | $\mathbf{1 0 9 , 7 4 6}$ |
| Peak Demand (MW) | 6.5 | 4.1 | $\mathbf{1 0 . 6}$ |

## Appendices

## Appendix A: Consumer Survey Guide



## Appendices

## Awareness

A1. Have you ever heard of compact fluorescent light bulbs or CFLs?

| 0 | No | A2 |
| :--- | :--- | :--- |
| 1 | Yes | A3 |
| -88 | Refused | A2 |
| -99 | Don't know | A2 |

A2. Compact fluorescent light bulbs, or CFLs, are small fluorescent bulbs that fit in regular light bulb sockets. They are also called "energy saving bulbs" and look different than standard bulbs. They are often made out of thin tubes of glass bent into loops or a spiral shape. Have you ever heard of them?

| 0 | No | D1 |
| :--- | :--- | :--- |
| 1 | Yes | A3 |
| -88 | Refused | D1 |
| -99 | Don't know | D1 |

A3. In what year did you first become aware of compact fluorescent light bulbs or CFLs?

| 1 | In 2006, 2007, or 2008 | A4 |
| :--- | :--- | :--- |
| 2 | In 2003, 2004, or 2005 | A4 |
| 3 | Between the years 1998-2002 | A4 |
| 4 | Before 1998 | A4 |
| -88 | Refused | A4 |
| -99 | Don't know | A4 |

## Appendices

A4. Can you recall how you first became aware of them? [DO NOT READ LIST. ACCEPT MULTIPLE RESPONSES.]

| 1 | Noticed them in store or saw in-store display/sale/point of purchase <br> materials | P1 |
| :--- | :--- | :--- |
| 2 | Television | P1 |
| 3 | Internet | P1 |
| 4 | Received free CFL at an event or giveaway | P1 |
| 5 | Newspaper | P1 |
| 6 | Magazines | P1 |
| 7 | Radio | P1 |
| 8 | Word of mouth (friends, family, neighbor, colleague) | P1 |
| 9 | Sales person | P1 |
| 10 | Consumer Reports | P1 |
| 11 | EnERGY STAR ${ }^{\circledR}$ Program website | P1 |
| 12 | Utility (bill insert or mailing) | P1 |
| 13 | Announcement by governor or other government official | P1 |
| 14 | Received CFL for free in the mail | P1 |
| 15 | Received CFL coupon in the mail | P1 |
| -77 | Other (specify) | P1 |
| -88 | Refused | P1 |
| -99 | Don't Know | P1 |

## 2003-2005 CFL Purchases

P1. Has anyone in your household - including yourself - ever purchased CFLs?

| 0 | No | N1 |
| :--- | :--- | :--- |
| 1 | Yes | P2 |
| -88 | Refused | N1 |
| -99 | Don't know | N1 |

P2. When was the first time you ever purchased CFLs? Would you say it was...?

| 1 | In 2006, 2007, or 2008 | M1 |
| :--- | :--- | :--- |
| 2 | In 2003, 2004, or 2005 | P4 |
| 3 | Between the years 1998-2002 | P3 |
| 4 | Before 1998 | P3 |
| -88 | Refused | P3 |
| -99 | Don't know | P3 |

## Appendices

P3. This may be difficult to remember, but did you purchase any CFLs specifically in 2003, 2004, or 2005?

| 0 | No | M1 |
| :--- | :--- | :--- |
| 1 | Yes | P4 |
| -88 | Refused | M1 |
| -99 | Don't know | M1 |

P4. Approximately how many CFLs did you purchase during 2003, 2004, or 2005?
RECORD NUMBER: $\qquad$
-88 = Refused; -99 = Don't know?

P5. Of the [P4] CFLs you purchased during 2003, 2004, or 2005, how many are currently installed in your home or in an outdoor fixture at your home?

RECORD NUMBER: $\qquad$
-88 = Refused; -99 = Don't know

## Appendices

P5a. This may be difficult to remember, but can you tell me where - that is, in what rooms or outdoor locations - you are CURRENTLY using the CFLs you purchased in 2003, 2004, or 2005?

|  | [ROOM_TYPE] |  |  |
| :--- | :--- | :--- | :--- |
| 1 | Kitchen | RECORD \# INSTALLED | P6 |
| 2 | Dining room | RECORD \# INSTALLED | P6 |
| 3 | Living room | RECORD \# INSTALLED | P6 |
| 4 | Family room/den | RECORD \# INSTALLED | P6 |
| 5 | Bedroom | RECORD \# INSTALLED | P6 |
| 6 | Bathroom | RECORD \# INSTALLED | P6 |
| 7 | Laundry or utility room | RECORD \# INSTALLED | P6 |
| 8 | Closet | RECORD \# INSTALLED | P6 |
| 9 | Garage | RECORD \# INSTALLED | P6 |
| 10 | Hallway or entryway | RECORD \# INSTALLED | P6 |
| -77 | Other room (specify) | RECORD \# INSTALLED | P6 |
| 12 | Outdoor - porch or patio | RECORD \# INSTALLED | P6 |
| 13 | Outdoor - entryway | RECORD \# INSTALLED | P6 |
| 14 | Outdoor - walkway | RECORD \# INSTALLED | P6 |
| 15 | Outdoor - landscape lighting | RECORD \# INSTALLED | P6 |
| -76 | Other outdoor location <br> (specify) | RECORD \# INSTALLED | P6 |
| -88 | Refused |  | S |
| -99 | Don't know |  | S 1 |

P5b. What is the wattage of the [1st, 2nd, 3rd] CFL you purchased in 2003, 2004, or 2005 and are currently using in your [Room_Type]?

P5c. What type of bulb did the [1st, 2nd, 3rd] CFL that you installed in your [Room_Type] replace?
P5d. What was the wattage of the bulb you replaced with the [1st, 2nd, 3rd] CFL that you installed in your [Room_Type]?
P5e. Was the bulb that was replaced with the [1st, 2nd, 3rd] CFL in your [Room_Type] working or not working when you installed the CFL?
[IF P5 = P4 SKIP TO M1]

## Appendices

P6. Of the CFLs you purchased during 2003, 2004 or 2005, how many are currently being stored in your home for future use?

RECORD NUMBER: $\qquad$
-88 = Refused; -99 = Don't know
[IF P6+P5 = P4 SKIP TO M1]
[IF P6+P5 < P4 ASK P7]
P7. You mentioned that you purchased [P4] CFLs during 2003, 2004 or 2005, and of those, [P5] are currently installed and [P6] are currently stored. May I ask what happened to the remaining [P4-(P6+P5)]? [RECORD QUANTITY OF CFLS FOR EACH MENTION. ENSURE TOTAL MENTIONED EQUALS P4-(P5+P6)]

| 1 | Burned out | M1 |
| :--- | :--- | :--- |
| 2 | Broke | M1 |
| 3 | Storing at another residence for future use | M1 |
| 4 | Storing at business location for future use | M1 |
| 5 | Installed in another residence | M1 |
| 6 | Installed in a business location | M1 |
| 7 | Gave them away | M1 |
| 8 | Misplaced them | M1 |
| -- | Storing at my home for future use [GO BACK AND RECODE P6] | M1 |
| -77 | Other reason (specify) | M1 |
| -88 | Refused | M1 |
| -99 | Don't know | M1 |

[IF P7+P6+P5 > P4 ASK P8]
P8. You mentioned that you purchased [P4] CFLs during 2003, 2004 or 2005, and of those, [P5] are currently installed and [P6] are currently stored. Please help me correct those responses. [GO BACK AND RECODE P4, P5 and P6 BASED ON RESPONSES]

## Appendices

## Most Recent CFL Purchases

For the next set of questions, l'd like to focus on the most recent CFL purchase you made.

M1. In what year was your most recent CFL purchase?

| 1 | 2008 | M2 |
| :--- | :--- | :--- |
| 2 | 2007 | M2 |
| 3 | 2006 | M2 |
| 4 | $2003-2005$ | M2 |
| 5 | Before 2003 | M2 |
| -88 | Refused | M2 |
| -99 | Don't know $\quad$ [Try to get respondent to remember] | M2 |

M2. How many CFLs did you buy in this most recent purchase?
RECORD NUMBER: $\qquad$ -88 = Refused; -99 = Don't know

M3. Question discarded

M4. Was there a special promotion or sale on CFLs at the store where you made your purchase?

| 0 | No | M7 |
| :--- | :--- | :--- |
| 1 | Yes | M5 |
| -88 | Refused | M7 |
| -99 | Don't know | M7 |

M5. On a scale of 1 to 10 , with 1 being not at all likely and 10 being very likely, how likely were you to have purchased [this bulb/these bulbs] if you didn't get the price discount?

M6. Who provided the discount?

| 1 | New Jersey Utility | M7 |
| :--- | :--- | :--- |
| 2 | The store/retailer | M7 |
| 3 | The CFL manufacturer | M7 |
| -77 | Other (specify) | M7 |
| -88 | Refused | M7 |
| -99 | Don't know | M7 |

## Appendices

M7. Do you recall seeing any CFL displays, information, or signs when you purchased your most recent CFLs?

| 0 | No | M9 |
| :--- | :--- | :--- |
| 1 | Yes | M8 |
| -88 | Refused | M9 |
| -99 | Don't know | M9 |

M8. On a scale of 1 to 10 , with 1 being "not at all likely" and 10 being "very likely," how likely were you to have purchased [this bulb/these bulbs] if you hadn't seen the CFL displays, information, or signs?

M9. How much did you pay PER BULB for the CFLs you purchased most recently?
Please tell me the promotion or sale price that you paid PER BULB for the CFLs you purchased most recently. If you got a special discount or used a coupon, please tell me the price of the bulb after the discount or coupon.

RECORD NUMBER: $\qquad$
-88 = Refused; -99 = Don't know
M10. How many CFLs did you buy at this price?
RECORD NUMBER: $\qquad$
-88 = Refused; -99 = Don't know

M11. How many CFLs would you have purchased if they cost $\$ 1.00$ more per bulb?
RECORD NUMBER: $\qquad$
-88 = Refused; -99 = Don't know

M12. What if they cost $\$ 2.00$ more per bulb? [How many would you have purchased?] [Probe for best estimate.]

RECORD NUMBER: $\qquad$
-88 = Refused; -99 = Don't know

M13. What if they cost $\$ 1.00$ less per bulb? [How many would you have purchased?] [Probe for best estimate.]

RECORD NUMBER: $\qquad$
-88 = Refused; -99 = Don't know

M14. At what price do CFLs become too expensive for your household to consider? That is, what price does a CFL need to be before you no longer consider it as a likely product for your home [Probe for best estimate.]

RECORD NUMBER: $\qquad$
-88 = Refused; -99 = Don't know

## Appendices

M15. Where did you make your most recent CFL purchase?
[DO NOT READ LIST.]

| 1 | Home improvement store (such as Home Depot or Lowes) | M16 |
| :--- | :--- | :--- |
| 2 | Hardware store (such as Ace or True Value) | M16 |
| 3 | Big box retailer (such as Target, K-Mart, Wal-Mart, Sears) | M16 |
| 4 | Costco | M16 |
| 5 | Supermarket or grocery store | M16 |
| 6 | Drug store | M16 |
| 7 | Discount store (such as Dollar Tree) | M16 |
| 8 | Lighting supply store, lighting showroom | M16 |
| 9 | Mail-order catalog | M16 |
| 10 | Over the Internet | M16 |
| -77 | Other (specify) | M16 |
| -88 | Refused | I1 |
| -99 | Don't know | I1 |

M16. Where else have you bought CFLs? (RECORD MULTIPLE RESPONSES)

| 1 | Home improvement store (such as Home Depot or Lowes) | M17 |
| :--- | :--- | :--- |
| 2 | Hardware store (such as Ace or True Value) | M17 |
| 3 | Big box retailer (such as Target, K-Mart, Wal-Mart, Sears) | M17 |
| 4 | Costco | M17 |
| 5 | Supermarket or grocery store | M17 |
| 6 | Drug store | M17 |
| 7 | Discount store (such as Dollar Tree) | M17 |
| 8 | Lighting supply store, lighting showroom | M17 |
| 9 | Mail-order catalog | M17 |
| 10 | Over the Internet | M17 |
| -77 | Other (specify) | M17 |
| -88 | Refused | M17 |
| -99 | Don't know | M17 |

## Appendices

M17. Which company did you buy CFLs from using a mail-order catalog? (RECORD MULTIPLE RESPONSES)

| 1 | Home improvement store (such as Home Depot or Lowes) | M18 |
| :--- | :--- | :--- |
| 2 | Hardware store (such as Ace or True Value) | M18 |
| 3 | Big box retailer (such as Target, K-Mart, Wal-Mart, Sears) | M18 |
| 4 | Costco | M18 |
| 5 | Supermarket or grocery store | M18 |
| 6 | Drug store | M18 |
| 7 | Discount store (such as Dollar Tree) | M18 |
| 8 | Lighting supply store, lighting showroom | M18 |
| -77 | Other (specify) | M18 |
| -88 | Refused | M18 |
| -99 | Don't know | M18 |

## [IF INTERNET MENTIONED IN M15 OR M16, ASK M18]

M18. Which company did you buy CFLs from over the Internet? (RECORD MULTIPLE RESPONSES)

| 1 | Home improvement store (such as Home Depot or Lowes) | I |
| :--- | :--- | :--- |
| 2 | Hardware store (such as Ace or True Value) | I 1 |
| 3 | Big box retailer (such as Target, K-Mart, Wal-Mart, Sears) | I |
| 4 | Costco | I 1 |
| 5 | Supermarket or grocery store | I |
| 6 | Drug store | I |
| 7 | Discount store (such as Dollar Tree) | I |
| 8 | Lighting supply store, lighting showroom | I |
| -77 | Other (specify) | I |
| -88 | Refused | I 1 |
| -99 | Don't know | I 1 |

## Current CFL Inventory

[IF CFLS INSTALLED FROM P5 ABOVE, READ "INCLUDING THE [P5] CFLS YOU PURCHASED IN 2003, 2004, OR 2005 AND INSTALLED IN YOUR HOME"]

I1. How many total CFLs are currently installed in your home or in an outdoor fixture at your home?

$$
\begin{aligned}
& \text { RECORD NUMBER: } \\
& \text {-88 = Refused; -99 = Don't know? } \\
& \text { [IF 0, -88 OR -99, SKIP TO S1] }
\end{aligned}
$$

## Appendices

12. Was this the same number of CFLs that you had installed in your home or in an outdoor fixture 3 years ago?

| 0 | No | I 3 |
| :--- | :--- | :--- |
| 1 | Yes | I 4 |
| -88 | Refused | I 4 |
| -99 | Don't know | I 4 |

13. About how many CFLs were installed in your home or in an outdoor fixture at your home 3 years ago?

RECORD NUMBER: $\qquad$ -88 = Refused; -99 = Don't know
14. In what rooms or outdoor locations are you currently using CFLs?

|  | [ROOM_TYPE] |  |  |
| :---: | :---: | :---: | :---: |
| 1 | Kitchen | RECORD \# INSTALLED | 15 |
| 2 | Dining room | RECORD \# INSTALLED | 15 |
| 3 | Living room | RECORD \# INSTALLED | 15 |
| 4 | Family room/den | RECORD \# INSTALLED | 15 |
| 5 | Bedroom | RECORD \# INSTALLED | 15 |
| 6 | Bathroom | RECORD \# INSTALLED | 15 |
| 7 | Laundry or utility room | RECORD \# INSTALLED | 15 |
| 8 | Closet | RECORD \# INSTALLED | 15 |
| 9 | Garage | RECORD \# INSTALLED | 15 |
| 10 | Hallway or entryway | RECORD \# INSTALLED | 15 |
| -77 | Other room (specify) | RECORD \# INSTALLED | 15 |
| 12 | Outdoor - porch or patio | RECORD \# INSTALLED | I5 |
| 13 | Outdoor - entryway | RECORD \# INSTALLED | 15 |
| 14 | Outdoor - walkway | RECORD \# INSTALLED | 15 |
| 15 | Outdoor - landscape lighting | RECORD \# INSTALLED | I5 |
| -76 | Other outdoor location (specify) | RECORD \# INSTALLED | I5 |
| -88 | Refused |  | S1 |
| -99 | Don't know |  | S1 |

[IF I4 TOTAL = 11 SKIP TO I6]
15. This totals to [I4 TOTAL] CFLs. You mentioned that you had a total of [I1] CFLs installed inside or outside your home. Please help me correct these responses. [GO BACK AND MAKE CORRECTIONS TO I1 AND/OR I4]

## Appendices

[REPEAT I7-I10 FOR UP TO 3 CFLS FROM 14.]
16. Question discarded
17. What is the wattage of the [first, second, third] CFL you installed in your [ROOM_TYPE]?

RECORD WATTAGE: $\qquad$
-88 = Refused; -99 = Don't know
18. For the [first, second, third] CFL you installed in your [ROOM_TYPE], what type of bulb did the CFL replace?

| 1 | Incandescent | 18 |
| :--- | :--- | :--- |
| 2 | CFL | 18 |
| 3 | Halogen | 18 |
| -77 | Other (specify) | 18 |
| -88 | Refused | 18 |
| -99 | Don't know | 18 |

19. What was the wattage of the bulb you replaced with the [first, second, third] CFL you installed in your [ROOM_TYPE]?

RECORD WATTAGE: $\qquad$

$$
-88=\text { Refused; -99 = Don't know }
$$

110. Was the bulb that was replaced with the CFL working or not working?

| 0 | Working | 19 |
| :--- | :--- | :--- |
| 1 | Not working | I9 |
| -88 | Refused | 19 |
| -99 | Don't know | I9 |

## Storage

[IF CFLS STORED FROM P6 ABOVE, READ "INCLUDING THE [P6] CFLS YOU PURCHASED IN 2003, 2004, OR 2005 AND ARE STORING IN YOUR HOME,"]
[If P1 $=0,88,99$, then skip to N1]

## Appendices

S1. How many total CFLs are you currently storing in your home for future use?
RECORD NUMBER: $\qquad$

$$
\begin{aligned}
& -88=\text { Refused; -99 = Don't know? } \\
& \text { [IF 0, -88 OR -99, SKIP TO R1] }
\end{aligned}
$$

S2. Was this the same number of CFLs that you were storing 3 years ago?

| 0 | No | S3 |
| :--- | :--- | :--- |
| 1 | Yes | S4 |
| -88 | Refused | S4 |
| -99 | Don't know | S4 |

S3. About how many CFLs were you storing at your home 3 years ago?
RECORD NUMBER: $\qquad$
-88 = Refused; -99 = Don't know

S4. Why are you storing CFLs?
[ACCEPT MULTIPLE RESPONSES.]

| 1 | So I have them on hand if a bulb burns out | S5 |
| :--- | :--- | :--- |
| 2 | Purchased more CFLs than I needed | S5 |
| 3 | Bought them on sale | S5 |
| 4 | Can't/won't use them in certain rooms | S5 |
| 5 | Can't/won't use them in certain applications | S5 |
| -77 | Other reason (specify) | S5 |
| -88 | Refused | S5 |
| -99 | Don't know | S5 |

S5. When do you think you will install the CFL(s) you currently have in storage? Would you say within the next 3 months, 3 to 6 months from now, 6 to 12 months from now, more than a year from now, or never?

| 1 | Within the next 3 months | R1 |
| :--- | :--- | :--- |
| 2 | 3 to 6 months from now | R1 |
| 3 | 6 to 12 months from now | R1 |
| 4 | More than a year from now | R1 |
| 5 | Never | R1 |
| -88 | Refused | R1 |
| -99 | Don't know | R1 |

## Appendices

## Replacement

[If P1 $=0,88,99$, then skip to N1]

R1. Have you had any CFLs that you installed but then removed and did not use elsewhere? (These bulbs could have been purchased at any time.) (INTERVIEWER: If removed CFL due to burn out, record as YES.)

| 0 | No | N1 |
| :--- | :--- | :--- |
| 1 | Yes | R2 |
| -88 | Refused | N1 |
| -99 | Don't know | N1 |

R2. How many CFLs did you remove?
RECORD NUMBER: $\qquad$
-88 = Refused; -99 = Don't know

R3. What was the main reason for removing the CFL?

| 1 | Burned out | R4 |
| :--- | :--- | :--- |
| 2 | Didn't like the color | R4 |
| 3 | Took too long to start up | R4 |
| 4 | Wasn't bright enough | R4 |
| 5 | Was too bright | R4 |
| 6 | Didn't like the way it looked | R4 |
| 7 | Didn't fit in fixture | R4 |
| -77 | Other reason (specify) | R4 |
| -88 | Refused | R4 |
| -99 | Don't know | R4 |

R4. What type of bulb did you use to replace the CFL you removed?

| 1 | Incandescent | N1 |
| :--- | :--- | :--- |
| 2 | CFL | N1 |
| 3 | Halogen | N1 |
| -77 | Other (specify) | N1 |
| -88 | Refused | N1 |
| -99 | Don't know | N1 |

## Appendices

## Non-Purchasers

[ASK N1 IF P1 = YES, ELSE SKIP TO N10]

N 1 . On a scale of 1 to 10 , where 1 means "not at all satisfied" and 10 means you are "extremely satisfied," how satisfied are you with CFLs in general?
N2. Using the same scale, how would you rate your satisfaction with the "color of light they provide?"
N3. ..."the brightness of the light they provide"?
N4. ..."amount of time they take to light up"?
N5. ..."way they fit into light fixtures?"
N6. ..."they way they look in light fixtures?"
N7. ..."how long they last before burning out?"
N8. Are they too bright, or not bright enough?

| 1 | Too bright | N9 |
| :--- | :--- | :--- |
| 2 | Not bright enough | N9 |
| -88 | Refused | N9 |
| -99 | Don't know | N9 |

N9. In general, what are the best features of CFLs?

| 1 | Last longer before burning out | N11 |
| :--- | :--- | :--- |
| 2 | Save money/reduce electricity bill | N11 |
| 3 | Save/conserve energy/electricity | N11 |
| 4 | Resource conservation/better for environment/green/global warming | N11 |
| 5 | CFLs work better/higher quality than incandescent bulbs | N11 |
| -77 | Other | N11 |
| -88 | Refused | N11 |
| -99 | Don't know | N11 |

## Appendices

[If P1 $=0,88,99]$
N10. Why haven't you ever purchased CFLs?

| 1 | Waiting for bulbs installed to burn out | N 2 |
| :--- | :--- | :--- |
| 2 | Storing incandescent bulbs | N 2 |
| 3 | Have enough CFLs in storage | N 2 |
| 4 | Operating hours -- don't use the other bulbs/lamps enough | N 2 |
| 5 | CFLs are too expensive/cost too much | N 2 |
| 6 | Need dimmable bulbs / can't get dimmable CFLs / can't use CFLs with <br> dimmers | N 2 |
| 7 | Need 3-way bulbs / can't get 3-way CFLs / can't use CFLs in my 3-way <br> fixtures | N 2 |
| 8 | Don't like the way CFLs look in fixtures | N 2 |
| 9 | Don't like the way CFLs fit in fixtures | N 2 |
| 10 | CFLs aren't bright enough | N 2 |
| 11 | CFL light color isn't what I want/isn't right | N 2 |
| 12 | CFLs take too long to light up | N 2 |
| -77 | Other (specify) | N 2 |
| -88 | Refused | N 2 |
| -99 | Don't know | N 2 |

N11. Using a scale of 1 to 10 , where 1 means DEFINITELY WILL NOT and 5 means you DEFINITELY WILL. . . How likely are you to purchase any CFLs within the next year?

N12. Using the same scale, when one of the regular incandescent light bulbs burns out, how likely would you be to replace it with a CFL? [IF NECESSARY: Please use a scale of 1 to 10 where 1 means you "definitely will not" and 10 means you "definitely will."]

## Appendices

N13. What, if anything, would motivate you to purchase CFLs before the end of 2008?

| 0 | Nothing at all | N4 |
| :--- | :--- | :--- |
| 1 | They need to be cheaper | N3 |
| 2 | I would need to be convinced of their energy savings potential | N3 |
| 3 | I would need to see them in the stores where I buy light bulbs | N3 |
| 4 | They need to make them in different sizes to fit in my fixtures | N3 |
| 5 | They need to have the features I'm looking for (e.g., dimmable, 3-way) | N3 |
| 6 | They need to make them look attractive in my fixtures | N3 |
| 7 | I still need more information about CFLs | N3 |
| 8 | Improved quality of the light | N3 |
| 9 | I still prefer incandescent/standard bulbs | N3 |
| 10 | If they did not contain mercury / did not need to be recycled | N3 |
| -77 | Other (specify) | N3 |
| -88 | Refused | N3 |
| -99 | Don't know | N3 |

## Demographics

D1. Do you own or rent your home?

| 1 | Own | D2 |
| :--- | :--- | :--- |
| 2 | Rent | D2 |
| -77 | Other (specify) | D2 |
| -88 | Refused | D2 |
| -99 | Don't know | D2 |

D2. In what type of building do you live? [READ LIST IF NEEDED.]

| 1 | One-family home detached from any other house | D3 |
| :--- | :--- | :--- |
| 2 | One-family home attached to one or more houses | D3 |
| 3 | A building with 2 apartments | D3 |
| 4 | A building with 3 or 4 apartments | D3 |
| 5 | A building with 5 or more apartments | D3 |
| 6 | Mobile home | D3 |
| -77 | Other (specify) | D3 |
| -88 | Refused | D3 |
| -99 | Don't know | D3 |

D3. About when was this building first built? (READ LIST IF NEEDED)

| 1 | Before the 1970s | D4 |
| :--- | :--- | :--- |
| 2 | 1970 s | D4 |
| 3 | 1980 s | D4 |
| 4 | $1990-1994$ | D4 |
| 5 | $1995-1999$ | D4 |
| 6 | 2000 s | D4 |
| -88 | Refused | D4 |
| -99 | Don't know | D4 |

D4. How many square feet of living space are there in your residence, including bathrooms, foyers and hallways? (Exclude garages, basements and unheated porches.) (READ LIST IF NEEDED)

| 1 | Less than 500 | D5 |
| :--- | :--- | :--- |
| 2 | $500-1,000$ | D5 |
| 3 | $1,001-1,500$ | D5 |
| 4 | $1,501-2,000$ | D5 |
| 5 | $2,001-2,500$ | D5 |
| 6 | $2,501-3,000$ | D5 |
| 7 | Greater than 3,000 | D5 |
| -88 | Refused | D5 |
| -99 | Don't know | D5 |

D5. Which of the following best describes your age?

| 1 | Less than 18 years old, | D6 |
| :--- | :--- | :--- |
| 2 | 18 to 24, | D6 |
| 3 | 25 to 34, | D6 |
| 4 | 35 to 44, | D6 |
| 5 | 45 to 54, | D6 |
| 6 | 55 to 64, or | D6 |
| 7 | 65 or older? | D6 |
| -88 | Refused | D6 |
| -99 | Don't know | D6 |

## Appendices

D6. Including yourself, how many people currently living in your home year-round are in the following age groups?

| 1 | Less than 18 years old | RECORD \# PEOPLE | D7 |
| :--- | :--- | :--- | :--- |
| 2 | 18 to 24 | RECORD \# PEOPLE | D7 |
| 3 | 25 to 34 | RECORD \# PEOPLE | D7 |
| 4 | 35 to 44 | RECORD \# PEOPLE | D7 |
| 5 | 45 to 54 | RECORD \# PEOPLE | D7 |
| 6 | 55 to 64 | RECORD \# PEOPLE | D7 |
| 7 | 65 or older | RECORD \# PEOPLE | D7 |
| -88 | Refused |  | D7 |
| -99 | Don't know |  | D7 |

D7. What is the highest level of education you have completed?

| 1 | No schooling | D8 |
| :--- | :--- | :--- |
| 2 | Less than high school | D8 |
| 3 | Some high school | D8 |
| 4 | High school graduate or equivalent (e.g., GED) | D8 |
| 5 | Trade or technical school | D8 |
| 6 | Some college | D8 |
| 7 | College degree | D8 |
| 8 | Some graduate school | D8 |
| 9 | Graduate degree | D8 |
| -88 | Refused | D8 |
| -99 | Don't know | D8 |

D8. Which of the following best represents your annual household income from all sources in 2007, before taxes? Was it . . . .?

| 1 | Less than $\$ 20,000$ per year, | D9 |
| :--- | :--- | :--- |
| 2 | $\$ 20,000-49,999$, | D9 |
| 3 | $\$ 50,000-74,999$, | D9 |
| 4 | $\$ 75,000-99,999$, | D9 |
| 5 | $\$ 100,000-149,999$, | D9 |
| 6 | $\$ 150,000-199,999$, or | D9 |
| 7 | $\$ 200,000$ or more? | D9 |
| -88 | Refused | D9 |
| -99 | Don't know | D9 |

## Appendices

D9. Are you Spanish/Hispanic/Latino?

| 0 | No | D10 |
| :--- | :--- | :--- |
| 1 | Yes | D10 |
| -88 | Refused | D10 |
| -99 | Don't know | D10 |

D10. What is your race? [ACCEPT MULTIPLE RESPONSES.]

| 1 | White | D11 |
| :--- | :--- | :--- |
| 2 | Black or African American | D11 |
| 3 | American Indian or Alaska Native | D11 |
| 4 | Asian | D11 |
| 5 | Chinese | D11 |
| 6 | Japanese | D11 |
| 7 | Korean | D11 |
| 8 | Vietnamese | D11 |
| 10 | Filipino | D11 |
| 11 | Native Hawaiian | D11 |
| 12 | Guamanian or Chamorro | D11 |
| 13 | Samoan | D11 |
| -77 | Other (specify) | D11 |
| -88 | Refused | D11 |
| -99 | Don't know | D11 |

D11. What is the primary language spoken in your home? [DO NOT READ LIST.]

| 1 | English | D 12 |
| :--- | :--- | :--- |
| 2 | Spanish | D 12 |
| 3 | Mandarin | D 12 |
| 4 | Cantonese | D 12 |
| 5 | Tagalog | D 12 |
| 6 | Korean | D 12 |
| 7 | Vietnamese | D 12 |
| 8 | Russian | D 12 |
| 9 | Japanese | D 12 |
| -77 | Other (specify) | D 12 |
| -88 | Refused | D 12 |
| -99 | Don't know | D 12 |

## Appendices

| 1 | Male |
| :--- | :--- |
| 2 | Female |
| -99 | Don't know |

## THANK \& TERMINATE

END_1. Those are all of the questions I have for you today. Thank you for your time.

## Appendices

## Appendix B: Manufacturer Interview Guide

## Final NJ CFL Manufacturer's Survey <br> Manufacturer Data

What is your job title? $\qquad$

Approximately what percentage of your firm's annual revenue comes from lighting products? $\qquad$

Approximately what percentage comes from sales in NJ? $\qquad$

Approximately what percentage of your firm's revenue comes from Compact Fluorescent lighting products, such as CFL bulbs, compact fluorescent fixtures, ceiling fans, portable sources, etc.? $\qquad$ 2004
According to our records, in 2004 you received rebates for $\qquad$ CFLs and $\qquad$ fixtures; is this correct?

2004 Approximate \# Rebated CFLs $\qquad$

How many CFLs did you sell altogether in NJ in 2004?

How many would you have sold if there had not been a Change-a-Light program in 2004?

What are you basing the 2004 estimate on? (e.g. past years, sales in other regions, internal projections, etc.) $\qquad$

## Appendices

## 2005

Do you have the number of CFLs and Fixtures that you got rebates for in 2005 in NJ?

2005 Approximate \# Rebated CFLs $\qquad$

How many CFLs did you sell altogether in NJ in 2005?

How many would you have sold if there had not been a Change-a-Light program in 2005?

What are you basing the 2005 estimate on? (e.g. past years, sales in other regions, internal projections, etc.)

## Thank you very much for your time

Record any last thoughts or additional comments verbatim

## Appendix C: Retailer Interview Guide

## Final Retailer Survey (CFL)

## Screening

Are you aware that your company received financial incentives from New Jersey's Change a Light Incentive program in order to buy down the selling prices of compact fluorescent lighting (CFL) products? [IF UNAWARE, FIND SOMEONE WITH THE COMPANY WHO IS AWARE] $\qquad$

## Firm-o-graphics

May I have your name? $\qquad$

What is your job title? $\qquad$

Approximately how many stores are in your chain?

Approximately how many stores are in NJ ? $\qquad$

Approximately what percentage of your chain's annual revenue comes from lighting products? $\qquad$

Approximately what percentage of your chain's revenue comes from Compact Fluorescent lighting products, such as CFL bulbs, compact fluorescent fixtures, ceiling fans, portable sources, etc.? $\qquad$

## 2004

According to our records, in 2004 you received rebates for $\qquad$ CFLs, is this correct?

2004 Approximate \# Rebated CFLs $\qquad$

How many CFLs did you sell altogether in NJ in 2004 (rebated PLUS not rebated)?

## Appendices

How many would you have sold if there had not been a Change-a-Light program in 2004?

What are you basing the 2004 estimate on? (e.g. past years, sales in other regions, internal projections, etc.)

## 2005

According to our records, in 2005 you received rebates for $\qquad$ CFLs, is this correct?

2005 Approximate \# Rebated CFLs $\qquad$

How many CFLs did you sell altogether in NJ in 2005 (rebated PLUS not rebated)?

How many would you have sold if there had not been a Change-a-Light program in 2005?

What are you basing the 2005 estimate on? (e.g. past years, sales in other regions, internal projections, etc.)

## Thank you very much for your time

Record any last thoughts or additional comments verbatim

## Appendices

## Appendix D: Cross Tabs

## TABLE OF CONTENTS

Table 7 Page 1...........A1. Have you ever heard of compact fluorescent light bulbs or CFLs?
Table 8 Page 2..........A2. Compact fluorescent light bulbs, or CFLs, are small fluorescent bulbs that fit in regular light bulb sockets. They are also called "energy saving bulbs" and look different than standard bulbs. They are often...

Table 9 Page 3...........A3. In what year did you first become aware of compact fluorescent light bulbs or CFLs?

Table 10 Page 4..........A4. Can you recall how you FIRST became aware of them?
Table 11 Page 6..........P1. Has anyone in your household - including yourself - ever purchased CFLs?
Table 12 Page 7..........P2. When was the first time you or someone else in your household ever purchased CFLs? Would you say it was..
Table 13 Page 8..........P3. This may be difficult to remember, but did you or someone else in your household purchase any CFLs specifically in 2003, 2004 or 2005?

Table 14 Page 9..........P4. Approximately how many CFLs did you purchase during 2003, 2004 or 2005?
Table 15 Page 11........P5. Of the CFLs you purchased during 2003, 2004 or 2005, how many are currently installed in your home or in an outdoor fixture at your home?

Table 16 Page 13.........This may be difficult to remember, but can you tell me where - that is, in what rooms or outdoor locations - you are CURRENTLY using the CFLs you purchased in 2003, 2004 or 2005 ? Kitchen

Table 17 Page 14.........This may be difficult to remember, but can you tell me where - that is, in what rooms or outdoor locations - you are CURRENTLY using the CFLs you purchased in 2003, 2004 or 2005 ? Dining Room

Table 18 Page 15........This may be difficult to remember, but can you tell me where - that is, in what rooms or outdoor locations - you are CURRENTLY using the CFLs you purchased in 2003, 2004 or 2005 ? Living Room

Table 19 Page 16.........This may be difficult to remember, but can you tell me where - that is, in what rooms or outdoor locations - you are CURRENTLY using the CFLs you purchased in 2003, 2004 or 2005 ? Family room/Den

Table 20 Page 17.........This may be difficult to remember, but can you tell me where - that is, in what rooms or outdoor locations - you are CURRENTLY using the CFLs you purchased in 2003, 2004 or 2005 ? Bedroom

Table 21 Page 18.........This may be difficult to remember, but can you tell me where - that is, in what rooms or outdoor locations - you are CURRENTLY using the CFLs you purchased in 2003, 2004 or 2005? Bathroom

Table 22 Page 19.........This may be difficult to remember, but can you tell me where - that is, in what rooms or outdoor locations - you are CURRENTLY using the CFLs you purchased in 2003, 2004 or 2005?
Laundry or utility room
Table 23 Page 20.........This may be difficult to remember, but can you tell me where - that is, in what rooms or outdoor locations - you are CURRENTLY using the CFLs you purchased in 2003, 2004 or 2005 ? Closet

Table 24 Page 21.........This may be difficult to remember, but can you tell me where - that is, in what rooms or outdoor locations - you are CURRENTLY using the CFLs you purchased in 2003, 2004 or 2005 ? Garage

Table 25 Page 22........This may be difficult to remember, but can you tell me where - that is, in what rooms or outdoor locations - you are CURRENTLY using the CFLs you purchased in 2003, 2004 or 2005 ? Hallway or entryway

Table 27 Page 23.........This may be difficult to remember, but can you tell me where - that is, in what rooms or outdoor locations - you are CURRENTLY using the CFLs you purchased in 2003, 2004 or 2005? Other room (specify)

Table 28 Page 24.........This may be difficult to remember, but can you tell me where - that is, in what rooms or outdoor locations - you are CURRENTLY using the CFLs you purchased in 2003, 2004 or 2005 ? Outdoor - porch or patio

## Appendices

Table 29 Page 25.........This may be difficult to remember, but can you tell me where - that is, in what rooms or outdoor locations - you are CURRENTLY using the CFLs you purchased in 2003, 2004 or 2005? Outdoor - entryway

Table 30 Page 26.........This may be difficult to remember, but can you tell me where - that is, in what rooms or outdoor locations - you are CURRENTLY using the CFLs you purchased in 2003, 2004 or 2005 ? Outdoor - walkway

Table 31 Page 27.........This may be difficult to remember, but can you tell me where - that is, in what rooms or outdoor locations - you are CURRENTLY using the CFLs you purchased in 2003, 2004 or 2005 ? Outdoor - landscape lighting

Table 33 Page 28.........This may be difficult to remember, but can you tell me where - that is, in what rooms or outdoor locations - you are CURRENTLY using the CFLs you purchased in 2003, 2004 or 2005 ? Other outdoor location

Table 34 Page 29.........This may be difficult to remember, but can you tell me where - that is, in what rooms or outdoor locations - you are CURRENTLY using the CFLs you purchased in 2003, 2004 or 2005 ? Refused/Don't Know room

Table 35 Page 30.........P5b. What is the wattage of the FIRST CFL you purchased in 2003, 2004 or 2005 and are currently using...
Table 36 Page 33.........P5b. What is the wattage of the SECOND CFL you purchased in 2003, 2004 or 2005 and are currently using...
Table 37 Page 35.........P5b. What is the wattage of the THIRD CFL you purchased in 2003, 2004 or 2005 and are currently using...
Table 38 Page 37.........P5c. What type of bulb did the FIRST CFL that you installed in your replace?
Table 38 Page 38.........P5c. What type of bulb did the SECOND CFL that you installed in your replace?
Table 38 Page 39.........P5c. What type of bulb did the THIRD CFL that you installed in your replace?
Table 39 Page 40.........P5d. What was the wattage of the bulb you replaced with the FIRST CFL that you installed in your [ROOM TYPE]?
Table 39 Page 42.........P5d. What was the wattage of the bulb you replaced with the SECOND CFL that you installed in your [ROOM TYPE]?
Table 39 Page 44.........P5d. What was the wattage of the bulb you replaced with the THIRD CFL that you installed in your [ROOM TYPE]?
Table 40 Page 46.........P5e. Was the bulb that was replaced with the FIRST CFL you purchased in 2003, 2004 or 2005 and are currently using in your [ROOM TYPE] working or not working when you installed the CFL?

Table 40 Page 47.........P5e. Was the bulb that was replaced with the SECOND CFL you purchased in 2003, 2004 or 2005 and are currently using in your [ROOM TYPE] working or not working when you installed the CFL?

Table 40 Page 48.........P5e. Was the bulb that was replaced with the THIRD CFL you purchased in 2003, 2004 or 2005 and are currently using in your [ROOM TYPE] working or not working when you installed the CFL?
Table 41 Page 49........P6. Of the [NUMBER OF] CFLs you purchased during 2003, 2004 or 2005, how many are currently being stored in your home for future use?

Table 42 Page 51........P7. You mentioned that you purchased [NUMBER] CFLs during 2003, 2004 or 2005, and of those, [NUMBER] are currently installed and [NUMBER] are currently stored. May I ask what happened to the remaining Burned out

Table 43 Page 52........P7. You mentioned that you purchased [NUMBER] CFLs during 2003, 2004 or 2005, and of those, [NUMBER] are currently installed and [NUMBER] are currently stored. May I ask what happened to the remaining Broke

Table 44 Page 53........P7. You mentioned that you purchased [NUMBER] CFLs during 2003, 2004 or 2005, and of those, [NUMBER] are currently installed and [NUMBER] are currently stored. May I ask what happened to the remaining Storing at another residence for future use

Table 45 Page 54........P7. You mentioned that you purchased [NUMBER] CFLs during 2003, 2004 or 2005, and of those, [NUMBER] are currently installed and [NUMBER] are currently stored. May I ask what happened to the remaining Storing at business location for future use

Table 46 Page 55........P7. You mentioned that you purchased [NUMBER] CFLs during 2003, 2004 or 2005, and of those, [NUMBER] are currently installed and [NUMBER] are currently stored. May I ask what happened to the remaining Installed in another residence

Table 47 Page 56........P7. You mentioned that you purchased [NUMBER] CFLs during 2003, 2004 or 2005, and of those, [NUMBER] are currently installed and [NUMBER] are currently stored. May I ask what happened to the remaining Installed in a business location

Table 48 Page 57.........P7. You mentioned that you purchased [NUMBER] CFLs during 2003, 2004 or 2005, and of those, [NUMBER] are currently installed and [NUMBER] are currently stored. May I ask what happened to the remaining Gave them away

Table 49 Page 58........P7. You mentioned that you purchased [NUMBER] CFLs during 2003, 2004 or 2005, and of those, [NUMBER] are currently

## Appendices

installed and [NUMBER] are currently stored. May I ask what happened to the remaining Misplaced them

Table 51 Page 59.........P7. You mentioned that you purchased [NUMBER] CFLs during 2003, 2004 or 2005, and of those, [NUMBER] are currently installed and [NUMBER] are currently stored. May I ask what happened to the remaining Other reason

Table 52 Page 60........P7. You mentioned that you purchased [NUMBER] CFLs during 2003, 2004 or 2005, and of those, [NUMBER] are currently installed and [NUMBER] are currently stored. May I ask what happened to the remaining Refused/Don't Know

Table 53 Page 61........For the next set of questions, I'd like to focus on the MOST RECENT CFL purchase you made. M1. In what year was your MOST RECENT CFL purchase?

Table 54 Page 62.........M2. How many CFLs did you buy in this most recent purchase?
Table 56 Page 65.........M4. Were there special promotions or price discounts on any of the CFLs you purchased most recently?
Table 57 Page 66.........M5. On a 0 to 10 scale, with 0 being not at all likely and 10 being very likely, how likely were you to have purchased [this bulb/these bulbs] if you didn't get the price discount?

Table 58 Page 68.........M6. Who provided the discount?
Table 59 Page 69.........M7. Do you recall seeing any CFL displays, information, or signs when you purchased your most recent CFLs?
Table 60 Page 70.........M8. On a 0 to 10 scale, with 0 being not at all likely and 10 being very likely, how likely were you to have purchased [this bulb/these bulbs] if you hadn't seen the CFL displays, information or signs?

Table 61 Page 72.........M9. How much did you pay PER BULB for the CFLs you purchased most recently? If you got a special discount or used a coupon, please tell me the price of the bulb after the discount or coupon.

Table 62 Page 77.........M10. How many CFLs did you buy at this price?
Table 63 Page 80.........M11. How many CFLs would you have purchased if they cost $\$ 1.00$ more per bulb?
Table 64 Page 83.........M12. What if they cost $\$ 2.00$ more per bulb? How many would you have purchased?
Table 65 Page 85.........M13. What if they cost $\$ 1.00$ less per bulb? How many would you have purchased?
Table 66 Page 88.........M14. At what price do CFLs become too expensive for your household to consider? That is, at what price per bulb would you definitely not purchase any?

Table 67 Page 92.........M15. From what type of store did you make your most recent CFL purchase?
Table 68 Page 94.........M16. Any others?
Table 69 Page 96.........M17. From which type of store did you buy CFLs using a mail-order catalog?
Table 70 Page 98.........M18. From which type of company did you buy CFLs over the internet?
Table 73 Page 100........I1. How many total CFLs are currently installed in your home or in an outdoor fixture at your home?
Table 74 Page 104........I2. Was this about the same 3 years ago?
Table 75 Page 105.......I3. About how many total CFLs were installed in your home or in an outdoor fixture at your home 3 years ago?
Table 76 Page 107........14. In what rooms or outdoor locations are you CURRENTLY using CFLs? Kitchen

Table 77 Page 109........I4. In what rooms or outdoor locations are you CURRENTLY using CFLs? Dining Room

Table 78 Page 111........I4. In what rooms or outdoor locations are you CURRENTLY using CFLs? Living Room

Table 79 Page 113........I4. In what rooms or outdoor locations are you CURRENTLY using CFLs? Family room/Den

Table 80 Page 114........I4. In what rooms or outdoor locations are you CURRENTLY using CFLs? Bedroom

Table 81 Page 116........I4. In what rooms or outdoor locations are you CURRENTLY using CFLs? Bathroom

Table 82 Page 118........I4. In what rooms or outdoor locations are you CURRENTLY using CFLs? Laundry or utility room

Table 83 Page 119........I4. In what rooms or outdoor locations are you CURRENTLY using CFLs? Closet

Table 84 Page 120........14. In what rooms or outdoor locations are you CURRENTLY using CFLs? Garage

Table 85 Page 121........14. In what rooms or outdoor locations are you CURRENTLY using CFLs? Hallway or entryway

Table 87 Page 122........14. In what rooms or outdoor locations are you CURRENTLY using CFLs? Other room (specify)

Table 88 Page 124.......I4. In what rooms or outdoor locations are you CURRENTLY using CFLs? Outdoor - porch or patio

Table 89 Page 126........I4. In what rooms or outdoor locations are you CURRENTLY using CFLs? Outdoor - entryway

Table 90 Page 127........I4. In what rooms or outdoor locations are you CURRENTLY using CFLs? Outdoor - walkway

Table 91 Page 128........I4. In what rooms or outdoor locations are you CURRENTLY using CFLs? Outdoor - landscape lighting

Table 93 Page 129........I4. In what rooms or outdoor locations are you CURRENTLY using CFLs? Other outdoor location

Table 94 Page 130........14. In what rooms or outdoor locations are you CURRENTLY using CFLs? Refused/Don't Know room

Table 98 Page 131........I7. What is the wattage of the FIRST CFL you are currently using in your?
Table 99 Page 135........I8. What type of bulb did the FIRST CFL in your replace?
Table 100 Page 136.......19. What was the wattage of the bulb you replaced with the FIRST CFL in your ?
Table 109 Page 139.......I10. Was the bulb that was replaced with the FIRST CFL in your working or not working when you installed the CFL?
Table 102 Page 140.......17. What is the wattage of the SECOND CFL you are currently using in your ?
Table 103 Page 144.......I8. What type of bulb did the SECOND CFL in your replace?
Table 104 Page 145.......I9. What was the wattage of the bulb you replaced with the SECOND CFL in your ?
Table 109 Page $147 \ldots . . .$. I10. Was the bulb that was replaced with the SECOND CFL in your working or not working when you installed the CFL?
Table 106 Page 148.......I7. What is the wattage of the THIRD CFL you are currently using in your ?
Table 107 Page 151.......I8. What type of bulb did the THIRD CFL in your replace?
Table 108 Page 152.......19. What was the wattage of the bulb you replaced with the THIRD CFL in your ?
Table 109 Page 155.......I10. Was the bulb that was replaced with the THIRD CFL in your working or not working when you installed the CFL?
Table 111 Page 156.......S1. How many total CFLs are you currently storing in your home for future use?
Table 112 Page 159.......S2. Was this the same 3 years ago?
Table 113 Page 160......S3. About how many CFLs were you storing at your home 3 years ago?
Table 114 Page 162.......S4. Why are you storing CFLs?
Table 115 Page 163......S5. When do you think you will install the CFL(s) you currently have in storage? Would you say within the next 3 months, 3 to 6 months from now, 6 to 12 months from now, more than a year from now, or never?

Table 116 Page 164.......R1. Have you had any CFLs that you installed but then removed and did not use elsewhere?
Table 117 Page 165.......R2. Approximately how many CFLs did you remove and did not use elsewhere?
Table 118 Page 166.......R3. What was the main reason for removing the CFL?
Table 119 Page 167.......R4. What type of bulb did you use to replace the CFL you removed?
Table 120 Page 168......N1. Using a scale of 0 to 10 , where 0 means you are "not at all satisfied" and 10 means you are "extremely satisfied," how satisfied are you with CFLs in general?

## Appendices

Table 121 Page $170 \ldots \ldots$. N2. Using the same scale, how would you rate your satisfaction with... "The color of the light they provide"?
Table 122 Page 172.......N3. "The brightness of the light they provide"?
Table 124 Page 174.......N4. "The amount of time they take to light up"?
Table 125 Page 176.......N5. "The way they fit into light fixtures"?
Table 126 Page 178.......N6. "The way they look in light fixtures"?
Table 127 Page 180.......N7. "How long they last before burning out"?
Table 123 Page 182.......N8. Are they too bright, or not bright enough?
Table 128 Page 183.......N9. In general, what are the best features of CFLs?
Table 129 Page 184.......N10. Why haven't you ever purchased CFLs?
Table 130 Page 186......N11. On a 0 to 10 scale, with 0 being definitely will not and 10 being definitely will, how likely are you to purchase any CFLs within the next year?

Table 131 Page 188.......N12. Using the same 0 to 10 scale, when one of your regular incandescent light bulbs burns out, how likely would you be to replace it with a CFL?

Table 132 Page 190......N13. What, if anything, would motivate you to purchase CFLs before the end of 2008?
Table 133 Page 192.......D1. Do you own or rent your home?
Table 134 Page 193.......D2. In what type of building do you live?
Table 135 Page 194.......D3. About when was this building first built?
Table 136 Page 195.......D4. How many square feet of living space are there in your residence, including bathrooms, foyers and hallways?
Table 137 Page 196.......D5. Which of the following best describes your age?
Table 138 Page 197.......D6. Including yourself, how many people currently living in your home year-round are in the following age groups? Less than 18

Table 139 Page 198.......D6. Including yourself, how many people currently living in your home year-round are in the following age groups? 18-24

Table 140 Page 199.......D6. Including yourself, how many people currently living in your home year-round are in the following age groups? 25-34

Table 141 Page 200.......D6. Including yourself, how many people currently living in your home year-round are in the following age groups? 35-44

Table 142 Page 201......D6. Including yourself, how many people currently living in your home year-round are in the following age groups? 45-54

Table 143 Page 202......D6. Including yourself, how many people currently living in your home year-round are in the following age groups? 55-64

Table 144 Page 203.......D6. Including yourself, how many people currently living in your home year-round are in the following age groups? 65 or older

Table 145 Page 204.......D6. Including yourself, how many people currently living in your home year-round are in the following age groups? Refused/Don't know

Table 146 Page 205......D7. What is the highest level of education you have completed?
Table 147 Page 207.......D8. Which of the following best represents your annual household income from all sources in 2007, before taxes?
Table 148 Page 208.......D9. Are you Spanish/Hispanic/Latino?
Table 149 Page 209.......D10. What is your race?
Table 150 Page 211.......D11. What is the primary language spoken in your home?
Table 151 Page 213.......D12. RECORD GENDER

## Appendices

Table 7 Page 1

A1. Have you ever heard of compact fluorescent light bulbs or CFLs?


| TOTAL ANSWERING | 614 | 400 | 112 | 91 | 66 | 113 | 286 | 39 | 78 | 272 | 95 | 110 | 163 | 120 | 22 | 100 | 268 | 449 | 149 | 478 | 96 | 145 | 167 | 94 | 18 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No | 171 | 38 | 37 | 89 | 9 | 14 | 42 | 5 | 6 | 25 | 29 | 19 | 20 | 5 | 3 | 9 | 25 | 100 | 63 | 116 | 42 | 56 | 38 | 11 | 4 |
|  | 27.9\% | 9.5\% | 33.0\% | 97.8\% | 13.6\% | 12.4\% | 14.7\% | 12.8\% | 7.7\% | 9.2\% | 30.5\% | 17.3\% | 12.3\% | 4.2\% | 13.6\% | 9.0\% | 9.3\% | 22.3\% | 42.3\% | 24.3\% | 43.8\% | 38.6\% | 22.8\% | 11.7\% | 22.2\% |
| Yes | 432 | 357 | 74 | - | 57 | 95 | 242 | 34 | 72 | 242 | 66 | 91 | 138 | 114 | 19 | 89 | 240 | 341 | 84 | 355 | 52 | 87 | 127 | 79 | 13 |
|  | 70.4\% | 89.3\% | 66.1\% |  | 86.4\% | 84.1\% | 84.6\% | 87.2\% | 92.3\% | 89.0\% | 69.5\% | 82.7\% | 84.7\% | 95.0\% | 86.4\% | 89.0\% | 89.6\% | 75.9\% | 56.4\% | 74.3\% | 54.2\% | 60.0\% | 76.0\% | 84.0\% | 72.2\% |
| Refused | 4 | - | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 | 1 | 2 | 1 | 1 | - | 2 | - |
|  | 0.7\% |  |  | 2.2\% |  |  |  |  |  |  |  |  |  |  |  |  |  | 0.4\% | 0.7\% | 0.4\% | 1.0\% | 0.7\% |  | 2.1\% |  |
| Don't know | 7 | 5 | 1 | - | - | 4 | 2 | - | - | 5 | - | - | 5 | 1 | - | 2 | 3 | 6 | 1 | 5 | 1 | 1 | 2 | 2 | 1 |
|  | 1.1\% | 1.3\% | 0.9\% |  |  | 3.5\% | 0.7\% |  |  | 1.8\% |  |  | 3.1\% | 0.8\% |  | 2.0\% | 1.1\% | 1.3\% | 0.7\% | 1.0\% | 1.0\% | 0.7\% | 1.2\% | 2.1\% | 5.6\% |

## Appendices

Table 8 Page 2

A2. Compact fluorescent light bulbs, or CFLs, are small fluorescent bulbs that fit in regular light bulb sockets. They are also called "energy saving bulbs" and look different than standard bulbs. They are often...

|  | CFL PURCHASES/ AWARENESS |  |  | FIRST BECAME AWARE OF CFL'S |  |  | FIRST |  |  | CFL USER TYPE |  |  |  | CFL | SATISFACTION | HOME | HOUSING |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | PURCHASED CFL'S |  |  |  |  |  |  |  |  |  |  | INCOME |  |  |  |
|  |  | AWARE |  | BE- |  | 2006 | BE- |  | 2006 | === | === | $====$ | === | ===- | ======= | OWNERSHIP | TYPE | ==== | ---- | $===$ | $====$ |
|  | PURCH | NON- | UN- | FORE | 2003- | OR | FORE | 2003- | OR |  |  | MODE- |  | NOT | SOME- | =========== | $===$ |  | \$50K- | \$100- |  |
| TOTAL | ASER | PRCHR | AWARE | 2003 | 2005 | AFTER | 2003 | 2005 | AFTER | NONE | LIGHT | RATE H | HEAVY | VERY | WHAT VERY | OWN RENT | SINGL MULTI | <\$50K | \$100K | \$200K | 200K+ |
|  | ----- | ----- |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |



## Appendices

## Table 9 Page 3

A3. In what year did you first become aware of compact fluorescent light bulbs or CFLs?



Appendices

|  | CFL PURCHASES/ AWARENESS |  |  |  | FIRST BECAME |  |  | FIRST |  |  | CFL USER TYPE |  |  |  | CFL SATISFACTION |  |  | HOME <br> OWNERSHIP |  | HOUSING TYPE |  | INCOME |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | TOTAL | PURCH ASER | AWARE <br> NON- UN- <br> PRCHR AWARE |  | BE- <br> FORE 2003- <br> 20032005 |  | ===== | === | ===== | ===== |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | $\begin{gathered} 2006 \\ \text { OR } \end{gathered}$ <br> AFTER | BE- 2006  <br> FORE $2003-$ OR <br> 2003 2005 AFTER |  |  | === | $=====$LIGHT | MODE - <br> RATE HEAVY |  | $\begin{aligned} & ===== \\ & \text { NOT } \\ & \text { VERY } \end{aligned}$ | SOMEWHAT | $=====$ | $=$ | ===== |  |  | ==== | ====== |  |  |  |  |
|  |  |  |  |  | NONE |  |  |  | VERY |  |  |  | $\begin{gathered} ========= \\ \text { OWN RENT } \end{gathered}$ |  | SINGL MULTI |  | \$50K- \$100-$<\$ 50 \mathrm{~K} \$ 100 \mathrm{~K}$ \$200K $200 \mathrm{~K}+$ |  |  |  |  |  |  |  |
| TOTAL ANSWERING | 514 | 400 | 112 | - |  | 66 | 113 | 286 | 39 | 78 | 272 | 95 |  | 110 | 163 | 120 | 22 | 100 | 268 |  |  | 400 | 106 | 414 | 69 | 116 | 150 | 87 | 17 |
| Noticed them in store or saw in-store display/ sale/point of purchase materials | 136 | 107 | 28 | - | 13 | 39 | 74 | 9 | 26 | 70 | 25 | 21 | 52 | 34 | 3 | 25 | 74 | 107 | 25 | 110 | 17 | 34 | 43 | 20 | 3 |
|  | 26.5\% | 26.8\% | 25.0\% |  | 19.7\% | 34.5\% | 25.9\% | 23.1\% | 33.3\% | 25.7\% | 26.3\% | 19.1\% | 31.9\% | 28.3\% | 13.6\% | 25.0\% | 27.6\% | 26.8\% | 23.6\% | 26.6\% | 24.6\% | 29.3\% | 28.7\% | 23.0\% | 17.6\% |
| Utility information (bill insert, mailing, other info) | 14 | 12 | 2 | - | 3 | 3 | 7 | 3 | 3 | 5 | 1 | 2 | 7 | 4 | - | 3 | 7 | 9 | 4 | 12 | 1 | 2 | 3 | 3 | - |
|  | 2.7\% | 3.0\% | 1.8\% |  | 4.5\% | 2.7\% | 2.4\% | 7.7\% | 3.8\% | 1.8\% | 1.1\% | 1.8\% | 4.3\% | 3.3\% |  | 3.0\% | 2.6\% | 2.3\% | 3.8\% | 2.9\% | 1.4\% | 1.7\% | 2.0\% | 3.4\% |  |
| Received free CFL at an event or giveaway | 5 | 5 | - | - | 2 | 2 | 1 | 2 | 1 | 2 | - | 1 | 2 | 2 | 1 | 1 | 3 | 4 | 1 | 4 | 1 | 2 | 3 | - | - |
|  | 1.0\% | 1.3\% |  |  | 3.0\% | 1.8\% | 0.3\% | 5.1\% | 1.3\% | 0.7\% |  | 0.9\% | 1.2\% | 1.7\% | 4.5\% | 1.0\% | 1.1\% | 1.0\% | 0.9\% | 1.0\% | 1.4\% | 1.7\% | 2.0\% |  |  |
| Television | 105 | 77 | 28 | - | 6 | 15 | 76 | 4 | 12 | 61 | 21 | 29 | 29 | 21 | 3 | 23 | 49 | 78 | 24 | 83 | 15 | 29 | 22 | 21 | 5 |
|  | 20.4\% | 19.3\% | 25.0\% |  | 9.1\% | 13.3\% | 26.6\% | 10.3\% | 15.4\% | 22.4\% | 22.1\% | 26.4\% | 17.8\% | 17.5\% | 13.6\% | 23.0\% | 18.3\% | 19.5\% | 22.6\% | 20.0\% | 21.7\% | 25.0\% | 14.7\% | 24.1\% | 29.4\% |
| Internet | 8 | 6 | 2 | - | 1 | 3 | 4 | - | 3 | 3 | 2 | - | 2 | 4 | - | 1 | 5 | 5 | 3 | 4 | 4 | - | 1 | 5 | - |
|  | 1.6\% | 1.5\% | 1.8\% |  | 1.5\% | 2.7\% | 1.4\% |  | 3.8\% | 1.1\% | 2.1\% |  | 1.2\% | 3.3\% |  | 1.0\% | 1.9\% | 1.3\% | 2.8\% | 1.0\% | 5.8\% |  | 0.7\% | 5.7\% |  |
| Newspaper | 46 | 37 | 9 | - | 4 | 14 | 22 | 1 | 7 | 28 | 9 | 9 | 14 | 10 | 3 | 8 | 26 | 41 | 4 | 40 | 1 | 7 | 10 | 8 | 3 |
|  | 8.9\% | 9.3\% | 8.0\% |  | 6.1\% | 12.4\% | 7.7\% | 2.6\% | 9.0\% | 10.3\% | 9.5\% | 8.2\% | 8.6\% | 8.3\% | 13.6\% | 8.0\% | 9.7\% | 10.3\% | 3.8\% | 9.7\% | 1.4\% | 6.0\% | 6.7\% | 9.2\% | 17.6\% |
| Magazines | 48 | 40 | 8 | - | 5 | 8 | 31 | 2 | 9 | 29 | 11 | 8 | 12 | 14 | 6 | 7 | 26 | 44 | 4 | 43 | 3 | 9 | 11 | 9 | 1 |
|  | 9.3\% | 10.0\% | 7.1\% |  | 7.6\% | 7.1\% | 10.8\% | 5.1\% | 11.5\% | 10.7\% | 11.6\% | 7.3\% | 7.4\% | 11.7\% | 27.3\% | 7.0\% | 9.7\% | 11.0\% | 3.8\% | 10.4\% | 4.3\% | 7.8\% | 7.3\% | 10.3\% | 5.9\% |
| Radio | 11 | 8 | 3 | - | 2 | 1 | 7 | - | - | 8 | 3 | 1 | 4 | 3 | 1 | - | 7 | 9 | 2 | 8 | 2 | 2 | 5 | 3 | - |
|  | 2.1\% | 2.0\% | 2.7\% |  | 3.0\% | 0.9\% | 2.4\% |  |  | 2.9\% | 3.2\% | 0.9\% | 2.5\% | 2.5\% | 4.5\% |  | 2.6\% | 2.3\% | 1.9\% | 1.9\% | 2.9\% | 1.7\% | 3.3\% | 3.4\% |  |
| Word of mouth (friends, family, neighbor, colleague) | 59 | 41 | 18 | - | 1 | 15 | 37 | 2 | 6 | 32 | 15 | 14 | 15 | 12 | 2 | 9 | 29 | 43 | 16 | 45 | 12 | 12 | 23 | 9 | 1 |
|  | 11.5\% | 10.3\% | 16.1\% |  | 1.5\% | 13.3\% | 12.9\% | 5.1\% | 7.7\% | 11.8\% | 15.8\% | 12.7\% | 9.2\% | 10.0\% | 9.1\% | 9.0\% | 10.8\% | 10.8\% | 15.1\% | 10.9\% | 17.4\% | 10.3\% | 15.3\% | 10.3\% | 5.9\% |

## Appendices

Table 10 Page 5
(Continued)

A4. Can you recall how you FIRST became aware of them?


## Appendices

Table 11 Page 6

|  |  | CFL PURCHASES/ AWARENESS |  |  | FIRST BECAME |  |  | FIRST |  | CFL'S | CFL USER TYPE |  |  | CFL SATISFACTION |  |  |  | HOME |  | HOUSING |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | ====== | $===$ | ==== | = | $==$ | $====$ | == | $==$ | ===== |  |  |  |  |  | COME |  |  |  |  |  |
|  |  | AWARE |  |  | BE- | 2006 |  | BE- | 2006 |  | ================= |  |  |  |  |  |  | $====$ | ================= |  |  | OWNERSHIP |  | TYPE |  | ====================== |  |  |  |
|  | TOTAL | PURCH ASER | NON- UNPRCHR AWARE |  | $\begin{aligned} & \text { FORE } \\ & 2003 \end{aligned}$ | $\begin{aligned} & 2003- \\ & 2005 \end{aligned}$ | $\begin{aligned} & \text { OR } \\ & \text { AFTER } \end{aligned}$ | $\begin{aligned} & \text { FORE } \\ & 2003 \end{aligned}$ | $\begin{aligned} & 2003- \\ & 2005 \end{aligned}$ | OR AFTER | NONE | LIGHT | MODE- <br> RATE HEAVY |  | VERY | SOME- <br> WHAT | VERY | $===========$OWN RENT |  | =========== |  | <\$50K | \$50K- \$100-$\$ 100 \mathrm{~K}$ \$200K 200K+ |  |  |
| TOTAL ANSWERING | 514 | 400 | 112 | - | 66 | 113 | 286 | 39 | 78 | 272 | 95 | 110 | 163 | 120 | 22 | 100 | 268 | 400 | 106 | 414 | 69 | 116 | 150 | 87 | 17 |
| No | 112 | - | 112 | - | 14 | 16 | 67 | - | - | - | 77 | 11 | 10 | 5 | - | - | - | 74 | 37 | 83 | 23 | 44 | 24 | 16 | 4 |
|  | 21.8\% |  | 100\% |  | 21.2\% | 14.2\% | 23.4\% |  |  |  | 81.1\% | 10.0\% | 6.1\% | 4.2\% |  |  |  | 18.5\% | 34.9\% | 20.0\% | 33.3\% | 37.9\% | 16.0\% | 18.4\% | 23.5\% |
| Yes | 400 | 400 | - | - | 52 | 97 | 218 | 39 | 78 | 272 | 18 | 98 | 153 | 115 | 22 | 100 | 268 | 325 | 68 | 330 | 45 | 71 | 126 | 71 | 13 |
|  | 77.8\% | 100\% |  |  | 78.8\% | 85.8\% | 76.2\% | 100\% | 100\% | 100\% | 18.9\% | 89.1\% | 93.9\% | 95.8\% | 100\% | 100\% | 100\% | 81.3\% | 64.2\% | 79.7\% | 65.2\% | 61.2\% | 84.0\% | 81.6\% | 76.5\% |
| Refused | 1 | - | - | - | - | - | 1 | - | - | - | - | 1 | - | - | - | - | - | - | 1 | - | 1 | 1 | - | - | - |
|  | 0.2\% |  |  |  |  |  | 0.3\% |  |  |  |  | 0.9\% |  |  |  |  |  |  | 0.9\% |  | 1.4\% | 0.9\% |  |  |  |
| Don't know | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 | - | 1 | - | - | - | - | - |
|  | 0.2\% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0.3\% |  | 0.2\% |  |  |  |  |  |

## Appendices

Table 12 Page 7

P2. When was the first time you or someone else in your household ever purchased CFLs? Would you say it was..



## Appendices

Table 13 Page 8

P3. This may be difficult to remember, but did you or someone else in your household purchase any CFLs specifically in 2003, 2004 or 2005?




$$
6.0 \% 26.0 \% \quad 22.9 \% \text { 33.3\% 66.7\% 23.1\% }
$$

$33.3 \% 12.5 \% 33.3 \% 18.2 \% 50.0 \%$ 6.7\% 33.3\% 30.0\% 11.1\% 29.3\% $16.7 \% ~ 36.4 \% ~ 20.0 \% ~ 16.7 \% ~ 50.0 \%$

Appendices

| P4. Approximately |  | CFL PURCHASES/ AWARENESS |  |  | FIRST BECAME <br> AWARE OF CFL'S |  |  | PURCHASED CFL'S |  |  | CFL USER TYPE |  |  |  | CFL SATISFACTION |  |  | HOME OWNERSHIP |  | HOUSING TYPE |  |  | ======================= |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $=========$AWARE |  |  |  |  |  | ================= |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | BE- |  | 2006 | BE- |  | 2006 | ====== | ===== | $=$ | $===$ | ====== | $===$ | $===$ |  |  |  |  |  |  |  |  |  |
|  | TOTAL | PURCH ASER | NON PRCHR | UNAWARE | $\begin{aligned} & \text { FORE } \\ & 2003 \end{aligned}$ | $\begin{aligned} & 2003- \\ & 2005 \end{aligned}$ | OR <br> AFTER | $\begin{aligned} & \text { FORE } \\ & 2003 \end{aligned}$ | $\begin{aligned} & 2003- \\ & 2005 \end{aligned}$ | $\begin{gathered} \text { OR } \\ \text { AFTER } \end{gathered}$ | NONE |  | MODERATE | HEAVY | NOT VERY | SOMEWHAT | VERY | OWN | RENT | ===== SINGL | $=====$ MULTI |  | <\$50K | $\begin{aligned} & \$ 50 \mathrm{~K}- \\ & \$ 100 \mathrm{~K} \end{aligned}$ | $\begin{aligned} & \$ 100- \\ & \$ 200 \mathrm{~K} \end{aligned}$ | K 200K+ |
| TOTAL ANSWERING | 105 | 105 | - | - | 27 | 61 | 10 | 23 | 78 | - | 5 | 18 | 37 | 38 | 2 | 33 | 66 | 87 | 14 | 87 | 9 |  | 19 | 34 | 15 | 5 |
| MEAN | 8.50 | 8.50 | - | - | 9.48 | 8.51 | 5.44 | 9.65 | 8.14 | - | 4.00 | 5.18 | 6.65 | 11.00 | 6.00 | 8.79 | 8.79 | 9.25 | 4.55 | 9.20 | 4.00 |  | 8.06 | 9.33 | 9.58 | 818.00 |
| MEDIAN | 6.00 | 6.00 |  |  | 8.00 | 6.00 | 4.00 | 7.00 | 5.00 |  | 4.00 | 4.00 | 5.00 | 8.00 | 6.00 | 5.00 | 6.00 | 6.00 | 4.00 | 6.00 | 3.00 |  | 5.50 | 5.50 | 6.50 | 18.00 |
| 1 | 4 | 4 | - | - | - | 2 | 1 | - | 4 | - | 1 | 1 | - | 1 | - | 1 | 2 | 2 | 2 | 2 | 2 |  | - | 2 |  | 1 |
|  | 3.8\% | 3.8\% |  |  |  | 3.3\% | 10.0\% |  | 5.1\% |  | 20.0\% | 5.6\% |  | 2.6\% |  | 3.0\% | 3.0\% | 2.3\% | 14.3\% | 2.3\% | 22.2\% |  |  | 5.9\% | 6.7\% |  |
| 2 | 13 | 13 | - | - | 3 | 8 | 1 | 3 | 10 | - | - | 5 | 4 | 3 | 1 | 6 | 5 | 12 | 1 | 11 | 1 |  | 1 | 2 | 2 | 2 |
|  | 12.4\% | 12.4\% |  |  | 11.1\% | 13.1\% | 10.0\% | 13.0\% | 12.8\% |  |  | 27.8\% | 10.8\% | 7.9\% | 50.0\% | 18.2\% | 7.6\% | 13.8\% | 7.1\% | 12.6\% | 11.1\% |  | 5.3\% | 5.9\% | 13.3\% |  |
| 3 | 4 | 4 | - | - | - | 4 | - | - | 4 | - | - | 2 | 1 | 1 | - | - | 3 | 2 | - | 2 | - |  | 1 | 1 |  | - - |
|  | 3.8\% | 3.8\% |  |  |  | 6.6\% |  |  | 5.1\% |  |  | 11.1\% | 2.7\% | 2.6\% |  |  | 4.5\% | 2.3\% |  | 2.3\% |  |  | 5.3\% | 2.9\% |  |  |
| 4 | 11 | 11 | - | - | 1 | 6 | 3 | 2 | 9 | - | 1 | 1 | 7 | 2 | - | 4 | 7 | 8 | 3 | 9 | 2 |  | 1 | 6 |  | - |
|  | 10.5\% | 10.5\% |  |  | 3.7\% | 9.8\% | 30.0\% | 8.7\% | 11.5\% |  | 20.0\% | 5.6\% | 18.9\% | 5.3\% |  | 12.1\% | 10.6\% | 9.2\% | 21.4\% | 10.3\% | 22.2\% |  | 5.3\% | 17.6\% |  |  |
| 5 | 12 | 12 | - | - | 4 | 6 | 2 | 3 | 9 | - | - | 3 | 6 | 3 | - | 4 | 8 | 10 | 2 | 10 | - |  | 5 | 4 |  | 1 |
|  | 11.4\% | 11.4\% |  |  | 14.8\% | 9.8\% | 20.0\% | 13.0\% | 11.5\% |  |  | 16.7\% | 16.2\% | 7.9\% |  | 12.1\% | 12.1\% | 11.5\% | 14.3\% | 11.5\% |  |  | 26.3\% | 11.8\% | 6.7\% |  |
| 6 | 9 | 9 | - | - | 3 | 6 | - | 2 | 7 | - | - | 2 | 3 | 4 | - | 3 | 6 | 7 | 1 | 7 | - |  | 1 | 3 |  | 21 |
|  | 8.6\% | 8.6\% |  |  | 11.1\% | 9.8\% |  | 8.7\% | 9.0\% |  |  | 11.1\% | 8.1\% | 10.5\% |  | 9.1\% | 9.1\% | 8.0\% | 7.1\% | 8.0\% |  |  | 5.3\% | 8.8\% | 13.3\% | \% 25.0\% |
| 7 | 1 | 1 | - | - | - | 1 | - | - | 1 | - | 1 | - | - | - | - | - | 1 | 1 | - | 1 | - |  | - | - |  | 1 |
|  | 1.0\% | 1.0\% |  |  |  | 1.6\% |  |  | 1.3\% |  | 20.0\% |  |  |  |  |  | 1.5\% | 1.1\% |  | 1.1\% |  |  |  |  | 6.7\% |  |
| 8 | 6 | 6 | - | - | 3 | 3 | - | 2 | 4 | - | - | 1 | 2 | 3 | - | - | 6 | 5 | 1 | 6 | - |  | 1 | 2 |  | 1 |
|  | 5.7\% | 5.7\% |  |  | 11.1\% | 4.9\% |  | 8.7\% | 5.1\% |  |  | 5.6\% | 5.4\% | 7.9\% |  |  | 9.1\% | 5.7\% | 7.1\% | 6.9\% |  |  | 5.3\% | 5.9\% | 6.7\% |  |
| 10 | 5 | 5 | - | - | 1 | 3 | - | - | 4 | - | - | - | 2 | 2 | 1 | - | 4 | 4 | 1 | 5 | - |  | 1 | - |  | - |
|  | 4.8\% | 4.8\% |  |  | 3.7\% | 4.9\% |  |  | 5.1\% |  |  |  | 5.4\% | 5.3\% | 50.0\% |  | 6.1\% | 4.6\% | 7.1\% | 5.7\% |  |  | 5.3\% |  |  |  |

## Appendices

Table 14 Page 10
(Continued)

P4. Approximately how many CFLs did you purchase during 2003, 2004 or 2005 ?


Appendices

Table 15 Page 11

P5. Of the CFLs you purchased during 2003, 2004 or 2005, how many are currently installed in your home or in an outdoor fixture at your home?


| TOTAL ANSWERING | 90 | 90 | - | - | 23 | 53 | 9 | 20 | 69 | - | 3 | 17 | 31 | 32 | 2 | 28 | 57 | 76 | 11 | 76 | 6 | 16 | 30 | 12 | 2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MEAN | 6.38 | 6.38 | - | - | 7.65 | 6.26 | 4.22 | 7.10 | 6.12 | - | 2.67 | 3.59 | 5.06 | 8.41 | 5.50 | 5.25 | 7.21 | 7.08 | 2.27 | 6.96 | 2.33 | 5.69 | 7.90 | 6.58 | 8.00 |
| MEDIAN | 4.50 | 4.50 |  |  | 5.00 | 4.00 | 4.00 | 5.50 | 4.00 |  | 1.00 | 2.00 | 5.00 | 7.00 | 5.50 | 4.50 | 5.00 | 5.00 | 2.00 | 5.00 | 1.00 | 5.00 | 4.00 | 5.00 | 8.00 |
| 0 | 9 | 9 | - | - | 3 | 5 | 1 | 2 | 7 | - | 1 | 1 | 2 | 5 | - | 4 | 4 | 6 | 3 | 7 | 2 | 1 | 3 | 3 | - |
|  | 10.0\% | 10.0\% |  |  | 13.0\% | 9.4\% | 11.1\% | 10.0\% | 10.1\% |  | 33.3\% | 5.9\% | 6.5\% | 15.6\% |  | 14.3\% | 7.0\% | 7.9\% | 27.3\% | 9.2\% | 33.3\% | 6.3\% | 10.0\% | 25.0\% |  |
| 1 | 6 | 6 | - | - | - | 2 | 1 | 1 | 5 | - | 1 | 3 | - | 1 | 1 | 2 | 3 | 4 | 2 | 4 | 2 | - | 3 | 1 | - |
|  | 6.7\% | 6.7\% |  |  |  | 3.8\% | 11.1\% | 5.0\% | 7.2\% |  | 33.3\% | 17.6\% |  | 3.1\% | 50.0\% | 7.1\% | 5.3\% | 5.3\% | 18.2\% | 5.3\% | 33.3\% |  | 10.0\% | 8.3\% |  |
| 2 | 15 | 15 | - | - | 3 | 12 | - | 3 | 12 | - | - | 7 | 4 | 3 | - | 6 | 8 | 12 | 2 | 13 | - | 2 | 5 | - | - |
|  | 16.7\% | 16.7\% |  |  | 13.0\% | 22.6\% |  | 15.0\% | 17.4\% |  |  | 41. $2 \%$ | 12.9\% | 9.4\% |  | 21.4\% | 14.0\% | 15.8\% | 18.2\% | 17.1\% |  | 12.5\% | 16.7\% |  |  |
| 3 | 3 | 3 | - | - | 1 | 2 | - | 1 | 2 | - | - | 2 | 1 | - | - | - | 2 | 2 | - | 1 | - | 2 | - | - | - |
|  | 3.3\% | 3.3\% |  |  | 4.3\% | 3.8\% |  | 5.0\% | 2.9\% |  |  | 11.8\% | 3.2\% |  |  |  | 3.5\% | 2.6\% |  | 1.3\% |  | 12.5\% |  |  |  |
| 4 | 12 | 12 | - | - | 1 | 6 | 5 | 1 | 11 | - | - | 1 | 8 | 3 | - | 2 | 10 | 10 | 2 | 10 | 1 | 2 | 5 | 1 | - |
|  | 13.3\% | 13.3\% |  |  | 4.3\% | 11.3\% | 55.6\% | 5.0\% | 15.9\% |  |  | 5.9\% | 25.8\% | 9.4\% |  | 7.1\% | 17.5\% | 13.2\% | 18.2\% | 13.2\% | 16.7\% | 12.5\% | 16.7\% | 8.3\% |  |
| 5 | 9 | 9 | - | - | 4 | 4 | 1 | 2 | 7 | - | - | - | 6 | 3 | - | 3 | 6 | 8 | 1 | 8 | - | 3 | 3 | 2 | - |
|  | 10.0\% | 10.0\% |  |  | 17.4\% | 7.5\% | 11.1\% | 10.0\% | 10.1\% |  |  |  | 19.4\% | 9.4\% |  | 10.7\% | 10.5\% | 10.5\% | 9.1\% | 10.5\% |  | 18.8\% | 10.0\% | 16.7\% |  |
| 6 | 5 | 5 | - | - | 1 | 4 | - | 1 | 4 | - | - | 1 | 3 | 1 | - | 2 | 3 | 3 | 1 | 3 | - | 1 | 1 | - | 1 |
|  | 5.6\% | 5.6\% |  |  | 4.3\% | 7.5\% |  | 5.0\% | 5.8\% |  |  | 5.9\% | 9.7\% | 3.1\% |  | 7.1\% | 5.3\% | 3.9\% | 9.1\% | 3.9\% |  | 6.3\% | 3.3\% |  | 50.0\% |
| 7 | 1 | 1 | - | - | - | 1 | - | - | 1 | - | 1 | - | - | - | - | - | 1 | 1 | - | 1 | - | - | - | 1 | - |
|  | 1.1\% | 1.1\% |  |  |  | 1.9\% |  |  | 1.4\% |  | 33.3\% |  |  |  |  |  | 1.8\% | 1.3\% |  | 1.3\% |  |  |  | 8.3\% |  |

## Appendices

Table 15 Page 12

P5. Of the CFLs you purchased during 2003, 2004 or 2005, how many are currently installed in your home or in an outdoor fixture at your home?



Appendices

Table 16 Page 13

This may be difficult to remember, but can you tell me where - that is, in what rooms or outdoor locations - you are CURRENTLY using the CFLs you purchased in 2003, 2004 or 2005?
Kitchen


## Appendices

Table 17 Page 14

This may be difficult to remember, but can you tell me where - that is, in what rooms or outdoor locations - you are CURRENTLY using the CFLs you purchased in 2003, 2004 or 2005?
Dining Room

|  |  | CFL <br> AW | PURCH WARENE | $\begin{aligned} & \text { HASES// } \\ & \text { ESS } \end{aligned}$ | $\begin{aligned} & \text { FIR } \\ & \text { AWAR } \end{aligned}$ | RST BEC E OF | $\begin{aligned} & \text { CAME } \\ & \text { CFL'S } \end{aligned}$ | PURCH | FIRST HASED | CFL'S |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | ===== | === | $==$ | == | == | === | === | ====== | $===$ |  | CFL USER | R TYPE |  | CFL S | SATISFA | ACTION | ном |  | HOUS | ING |  |  | Come |  |
|  |  |  | AWARE |  | BE- |  | 2006 | BE- |  | 2006 | $=$ | ===== | $=$ | $===$ | ==== | $=$ | $===$ | OWNER | SHIP | TYP |  | ==== | ===== | $==$ | $====$ |
|  | TOTAL | PURCH ASER | NONPRCHR | UNAWARE | $\begin{aligned} & \text { FORE } \\ & 2003 \end{aligned}$ | $\begin{aligned} & 2003- \\ & 2005 \end{aligned}$ | $\begin{gathered} \text { OR } \\ \text { AFTER } \end{gathered}$ | $\begin{aligned} & \text { FORE } \\ & 2003 \end{aligned}$ | $\begin{aligned} & 2003- \\ & 2005 \end{aligned}$ | $\begin{gathered} \text { OR } \\ \text { AFTER } \end{gathered}$ |  | LIGHT | MODERATE | HEAVY | NOT VERY | SOMEWHAT |  | OWN | RENT | SINGL | MULTI |  | $\begin{aligned} & \$ 50 \mathrm{~K}- \\ & \$ 100 \mathrm{~K} \end{aligned}$ | $\begin{aligned} & \$ 100- \\ & \$ 200 \mathrm{~K} \end{aligned}$ | 200K+ |
| TOTAL ANSWERING | 17 | 17 | - | - | 2 | 12 | 1 | 4 | 12 | - | 1 | 1 | 3 | 9 | 1 | 5 | 11 | 16 | 1 | 15 | 1 | 2 | 8 | 3 |  |
| MEAN | 2.29 | 2.29 | - | - | 2.50 | 2.08 | 4.00 | 2.00 | 2.33 | - | 2.00 | 2.00 | 1.67 | 2.33 | 3.00 | 1.80 | 2.45 | 2.31 | 2.00 | 2.33 | 2.00 | 4.00 | 2.00 | 1.67 | 1.00 |
| MEDIAN | 2.00 | 2.00 |  |  | 2.50 | 2.00 | 4.00 | 1.50 | 2.00 |  | 2.00 | 2.00 | 2.00 | 1.00 | 3.00 | 1.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 4.00 | 1.50 | 2.00 | 1.00 |
| 1 | 6 | 6 | - | - | 1 | 5 | - | 2 | 4 | - | - | - | 1 | 5 | - | 3 | 3 | 6 | - | 6 | - | - | 4 | 1 |  |
|  | 35.3\% | 35.3\% |  |  | 50.0\% | 41.7\% |  | 50.0\% | 33.3\% |  |  |  | 33.3\% | 55.6\% |  | 60.0\% | 27.3\% | 37.5\% |  | 40.0\% |  |  | 50.0\% | 33.3\% | 100\% |
| 2 | 6 | 6 | - | - | - | 5 | - | 1 | 5 | - | 1 | 1 | 2 | 1 | - | 1 | 5 | 5 | 1 | 4 | 1 | 1 | 2 | 2 |  |
|  | 35.3\% | 35.3\% |  |  |  | 41.7\% |  | 25.0\% | 41.7\% |  | 100\% | 100\% | 66.7\% | 11.1\% |  | 20.0\% | 45.5\% | 31.3\% | 100\% | 26.7\% | 100\% | 50.0\% | 25.0\% | 66.7\% |  |
| 3 | 1 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | 1 | - | - | 1 | - | 1 | - | - | - | - |  |
|  | 5.9\% | 5.9\% |  |  |  |  |  |  |  |  |  |  |  |  | 100\% |  |  | 6.3\% |  | 6.7\% |  |  |  |  |  |
| 4 | 3 | 3 | - | - | 1 | 1 | 1 | 1 | 2 | - | - | - | - | 2 | - | 1 | 2 | 3 | - | 3 | - | - | 2 | - |  |
|  | 17.6\% | 17.6\% |  |  | 50.0\% | 8.3\% | 100\% | 25.0\% | 16.7\% |  |  |  |  | 22.2\% |  | 20.0\% | 18.2\% | 18.8\% |  | 20.0\% |  |  | 25.0\% |  |  |
| 6 | 1 | 1 | - | - | - | 1 | - | - | 1 | - | - | - | - | 1 | - | - | 1 | 1 | - | 1 | - | 1 | - | - |  |
|  | 5.9\% | 5.9\% |  |  |  | 8.3\% |  |  | 8.3\% |  |  |  |  | 11.1\% |  |  | 9.1\% | 6.3\% |  | 6.7\% |  | 50.0\% |  |  |  |

## Appendices

Table 18 Page 15

This may be difficult to remember, but can you tell me where - that is, in what rooms or outdoor locations - you are CURRENTLY using the CFLs you purchased in 2003, 2004 or 2005?
Living Room


## Appendices

Table 19 Page 16

This may be difficult to remember, but can you tell me where - that is, in what rooms or outdoor locations - you are CURRENTLY using the CFLs you purchased in 2003, 2004 or 2005?
Family room/Den

|  | CFL PURCHASES/ AWARENESS |  |  |  | FIRST BECAME AWARE OF CFL'S |  |  | FIRST <br> PURCHASED CFL'S |  |  | CFL USER TYPE |  |  |  | CFL SATISFACTION |  |  | HOME |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ================= |  |  |  | $==$ | = | $==$ | ==== | $=$ | === |  |  |  |  |  |  |  | Hous | ING |  |  | INC | OME |  |
|  |  | AWARE |  |  | BE- |  | 2006 | BE- |  | 2006 | ====================== |  |  |  | ================= |  |  |  |  | OWNERSHIP |  | TYPE |  |  | $==$ |  |  |  |
|  | TOTAL | PURCH ASER | NONPRCHR | UN AWARE | $\begin{aligned} & \text { FORE } \\ & 2003 \end{aligned}$ | $\begin{aligned} & 2003- \\ & 2005 \end{aligned}$ | OR AFTER | $\begin{aligned} & \text { FORE } \\ & 2003 \end{aligned}$ | $\begin{aligned} & 2003- \\ & 2005 \end{aligned}$ | OR AFTER | NONE | LIGHT | MODERATE | HEAVY | NOT <br> VERY | SOMEWHAT | VERY | $=====$ OWN | $===$ RENT | = ====== | ===== |  | \$50K- \$100- |  |  |  |
| TOTAL ANSWERING | 14 | 14 | - | - | 1 | 11 | 1 | 1 | 12 | - | 1 | 1 | 3 | 7 | 1 | 3 | 10 | 14 |  | 14 |  | - | 2 | 4 | 2 | 1 |
| MEAN | 1.93 | 1.93 | - | - | 3.00 | 1.91 | 2.00 | 3.00 | 1.92 | - | 1.00 | 2.00 | 1.33 | 2.00 | 1.00 | 3.67 | 1.50 | 1.93 |  | - 1.93 |  | - | 2.50 | 1.25 | 1.50 | 3.00 |
| MEDIAN | 2.00 | 2.00 |  |  | 3.00 | 2.00 | 2.00 | 3.00 | 2.00 |  | 1.00 | 2.00 | 1.00 | 2.00 | 1.00 | 3.00 | 1.50 | 2.00 |  | 2.00 |  |  | 2.50 | 1.00 | 1.50 | 3.00 |
| 1 | 6 | 6 | - | - | - | 5 | - | - | 5 | - | 1 | - | 2 | 2 | 1 | - | 5 | 6 |  | - 6 |  | - | - | 3 | 1 | - |
|  | 42.9\% | 42.9\% |  |  |  | 45.5\% |  |  | 41.7\% |  | 100\% |  | 66.7\% | 28.6\% | 100\% |  | 50.0\% | 42.9\% |  | 42.9\% |  |  |  | 75.0\% | 50.0\% |  |
| 2 | 5 | 5 | - | - | - | 4 | 1 | - | 5 | - | - | 1 | 1 | 3 | - | - | 5 | 5 |  | - 5 |  | - | 1 | 1 | 1 | - |
|  | 35.7\% | 35.7\% |  |  |  | 36.4\% | 100\% |  | 41.7\% |  |  | 100\% | 33.3\% | 42.9\% |  |  | 50.0\% | 35.7\% |  | 35.7\% |  |  | 50.0\% | 25.0\% | 50.0\% |  |
| 3 | 2 | 2 | - | - | 1 | 1 | - | 1 | 1 | - | - | - | - | 2 | - | 2 | - | 2 |  | - 2 |  | - | 1 | - | - | 1 |
|  | 14.3\% | 14.3\% |  |  | 100\% | 9.1\% |  | 100\% | 8.3\% |  |  |  |  | 28.6\% |  | 66.7\% |  | 14.3\% |  | 14.3\% |  |  | 50.0\% |  |  | 100\% |
| 5 | 1 | 1 | - | - | - | 1 | - | - | 1 | - | - | - | - | - | - | 1 | - | 1 |  | 1 |  | - | - | - | - | - |
|  | 7.1\% | 7.1\% |  |  |  | 9.1\% |  |  | 8.3\% |  |  |  |  |  |  | 33.3\% |  | 7.1\% |  | 7.1\% |  |  |  |  |  |  |

Appendices

## Table 20 Page 17

This may be difficult to remember, but can you tell me where - that is, in what rooms or outdoor locations - you are CURRENTLY using the CFLs you purchased in 2003, 2004 or 2005?
Bedroom


## Appendices

Table 21 Page 18

This may be difficult to remember, but can you tell me where - that is, in what rooms or outdoor locations - you are CURRENTLY using the CFLs you purchased in 2003, 2004 or 2005?
Bathroom


## Appendices

Table 22 Page 19

This may be difficult to remember, but can you tell me where - that is, in what rooms or outdoor locations - you are CURRENTLY using the CFLs you purchased in 2003, 2004 or 2005?
Laundry or utility room


| TOTAL ANSWERING | 5 | 5 | - | - | 1 | 4 | - | - | 5 | - | - | - | - | 3 | - | 2 | 3 | 5 | - | 5 | - | - | 3 | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MEAN | 2.00 | 2.00 | - | - | 4.00 | 1.50 | - | - | 2.00 | - | - | - | - | 1.67 | - | 2.00 | 2.00 | 2.00 | - | 2.00 | - | - | 2.67 | - |
| MEDIAN | 1.00 | 1.00 |  |  | 4.00 | 1.00 |  |  | 1.00 |  |  |  |  | 1.00 |  | 2.00 | 1.00 | 1.00 |  | 1.00 |  |  | 3.00 |  |
| 1 | 3 | 3 | - | - | - | 3 | - | - | 3 | - | - | - | - | 2 | - | 1 | 2 | 3 | - | 3 | - | - | 1 | - |
|  | 60.0\% | 60.0\% |  |  |  | 75.0\% |  |  | 60.0\% |  |  |  |  | 66.7\% |  | 50.0\% | 66.7\% | 60.0\% |  | 60.0\% |  |  | 33.3\% |  |
| 3 | 1 | 1 | - | - | - | 1 | - | - | 1 | - | - | - | - | 1 | - | 1 | - | 1 | - | 1 | - | - | 1 | - |
|  | 20.0\% | 20.0\% |  |  |  | 25.0\% |  |  | 20.0\% |  |  |  |  | 33.3\% |  | 50.0\% |  | 20.0\% |  | 20.0\% |  |  | 33.3\% |  |
| 4 | 1 | 1 | - | - | 1 | - | - | - | 1 | - | - | - | - | - | - | - | 1 | 1 | - | 1 | - | - | 1 | - |
|  | 20.0\% | 20.0\% |  |  | 100\% |  |  |  | 20.0\% |  |  |  |  |  |  |  | 33.3\% | 20.0\% |  | 20.0\% |  |  | 33.3\% |  |

## Appendices

Table 23 Page 20

This may be difficult to remember, but can you tell me where - that is, in what rooms or outdoor locations - you are CURRENTLY using the CFLs you purchased in 2003, 2004 or 2005?
Closet


## Appendices

Table 24 Page 21

This may be difficult to remember, but can you tell me where - that is, in what rooms or outdoor locations - you are CURRENTLY using the CFLs you purchased in 2003, 2004 or 2005?
Garage


## Appendices

Table 25 Page 22

This may be difficult to remember, but can you tell me where - that is, in what rooms or outdoor locations - you are CURRENTLY using the CFLs you purchased in 2003, 2004 or 2005?
Hallway or entryway


## Appendices

This may be difficult to remember, but can you tell me where - that is, in what rooms or outdoor locations - you are CURRENTLY using the CFLs you purchased in 2003, 2004 or 2005?
Other room (specify)


## Appendices

Table 28 Page 24

This may be difficult to remember, but can you tell me where - that is, in what rooms or outdoor locations - you are CURRENTLY using the CFLs you purchased in 2003, 2004 or 2005?
Outdoor - porch or patio


| TOTAL ANSWERING | 10 | 10 | - | - | 2 | 5 | 2 | 2 | 8 | - | - | - | 2 | 7 | - | 2 | 8 | 8 | 2 | 10 | - | 2 | 5 | 2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MEAN | 1.90 | 1.90 | - | - | 3.00 | 2.00 | 1.00 | 1.50 | 2.00 | - | - | - | 2.50 | 1.43 | - | 1.00 | 2.13 | 2.00 | 1.50 | 1.90 | - | 1.50 | 2.20 | 1.50 |
| MEDIAN | 1.50 | 1.50 |  |  | 3.00 | 2.00 | 1.00 | 1.50 | 1.50 |  |  |  | 2.50 | 1.00 |  | 1.00 | 2.00 | 1.50 | 1.50 | 1.50 |  | 1.50 | 1.00 | 1.50 |
| 1 | 5 | 5 | - | - | - | 2 | 2 | 1 | 4 | - | - | - | 1 | 4 | - | 2 | 3 | 4 | 1 | 5 | - | 1 | 3 | 1 |
|  | 50.0\% | 50.0\% |  |  |  | 40.0\% | 100\% | 50.0\% | 50.0\% |  |  |  | 50.0\% | 57.1\% |  | 100\% | 37.5\% | 50.0\% | 50.0\% | 50.0\% |  | 50.0\% | 60.0\% | 50.0\% |
| 2 | 3 | 3 | - | - | 1 | 2 | - | 1 | 2 | - | - | - | - | 3 | - | - | 3 | 2 | 1 | 3 | - | 1 | - | 1 |
|  | 30.0\% | 30.0\% |  |  | 50.0\% | 40.0\% |  | 50.0\% | 25.0\% |  |  |  |  | 42.9\% |  |  | 37.5\% | 25.0\% | 50.0\% | 30.0\% |  | 50.0\% |  | 50.0\% |
| 4 | 2 | 2 | - | - | 1 | 1 | - | - | 2 | - | - | - | 1 | - | - | - | 2 | 2 | - | 2 | - | - | 2 | - |
|  | 20.0\% | 20.0\% |  |  | 50.0\% | 20.0\% |  |  | 25.0\% |  |  |  | 50.0\% |  |  |  | 25.0\% | 25.0\% |  | 20.0\% |  |  | 40. $0 \%$ |  |

## Appendices

Table 29 Page 25

This may be difficult to remember, but can you tell me where - that is, in what rooms or outdoor locations - you are CURRENTLY using the CFLs you purchased in 2003, 2004 or 2005?
Outdoor - entryway


## Appendices

Table 30 Page 26

This may be difficult to remember, but can you tell me where - that is, in what rooms or outdoor locations - you are CURRENTLY using the CFLs you purchased in 2003, 2004 or 2005? Outdoor - walkway


## Appendices

Table 31 Page 27

This may be difficult to remember, but can you tell me where - that is, in what rooms or outdoor locations - you are CURRENTLY using the CFLs you purchased in 2003, 2004 or 2005?
Outdoor - landscape lighting


## Appendices

Table 33 Page 28

This may be difficult to remember, but can you tell me where - that is, in what rooms or outdoor locations - you are CURRENTLY using the CFLs you purchased in 2003, 2004 or 2005?
Other outdoor location



## Appendices

Table 34 Page 29

This may be difficult to remember, but can you tell me where - that is, in what rooms or outdoor locations - you are CURRENTLY using the CFLs you purchased in 2003, 2004 or 2005?
Refused/Don't Know room



Appendices

Table 35 Page 30
P5b. What is the wattage of the FIRST CFL you purchased in 2003, 2004 or 2005 and are currently using...


Appendices

Table 35 Page 31
(Continued)

P5b. What is the wattage of the FIRST CFL you purchased in 2003, 2004 or 2005 and are currently using...



## Appendices

Table 35 Page 32
(Continued)

P5b. What is the wattage of the FIRST CFL you purchased in 2003, 2004 or 2005 and are currently using...


## Appendices

Table 36 Page 33
P5b. What is the wattage of the SECOND CFL you purchased in 2003, 2004 or 2005 and are currently using...


## Appendices

Table 36 Page 34
(Continued)

P5b. What is the wattage of the SECOND CFL you purchased in 2003,2004 or 2005 and are currently using...


Appendices

Table 37 Page 35
P5b. What is the wattage of the THIRD CFL you purchased in 2003, 2004 or 2005 and are currently using...


## Appendices

Table 37 Page 36
(Continued)

P5b. What is the wattage of the THIRD CFL you purchased in 2003, 2004 or 2005 and are currently using..

|  | CFL PURCHASES/ AWARENESS |  |  |  | FIRST BECAME AWARE OF CFL'S |  |  |  | PURCH | FIRST HASED | CFL'S | CFL USER TYPE |  |  |  | CFL SATISFACTION |  |  | HOME |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | $===============$ |  |  |  | BE- | $=====$ | $=$ |  |  |  |  |  |  |  | HOUS | SING | INCOME |  |  |  |
|  |  | AWARE |  |  | BE- |  | 2006 |  |  | 2006 |  | ====================== |  |  |  | ================= |  |  |  |  |  | OWNERSHIP |  |  | TYPE |  | === | === | ==== | ====== |
|  | TOTAL | PURCH ASER | NON- <br> PRCHR | UN- <br> R AWARE | $\begin{aligned} & \text { FORE } \\ & 2003 \end{aligned}$ | $\begin{aligned} & 2003- \\ & 2005 \end{aligned}$ | OR AFTER |  | $\begin{aligned} & \text { FORE } \\ & 2003 \end{aligned}$ | $\begin{aligned} & 2003- \\ & 2005 \end{aligned}$ | OR <br> AFTER | NONE | LIGHT | MODERATE | HEAVY | NOT VERY | SOME - <br> WHAT | VERY | $\begin{gathered} ==== \\ \text { OWN } \end{gathered}$ | RENT |  | $======$ SINGL | $=====$ MULTI | <\$50K | $\begin{aligned} & \$ 50 \mathrm{~K}- \\ & \$ 100 \mathrm{~K} \end{aligned}$ | $\begin{aligned} & \text { \$100- } \\ & \text { \$200K } \end{aligned}$ | K 200K+ |
| 40 | 7 | 7 | - | - - | 2 | 4 | 1 | 1 | 2 | 5 | - | - - | 2 | 2 | 3 | - | 1 | 6 | 5 |  | 2 | 6 | - | 2 | 2 | 1 | 1 |
|  | 9.9\% | 9.9\% |  |  | 9.1\% | 10.0\% | 14.3\% |  | 11.1\% | 9.6\% |  |  | 20.0\% | 7.4\% | 11.1\% |  | 4.8\% | 12.8\% | 8.2\% | 28.6\% | \% 1 | 10.0\% |  | 13.3\% | 10.5\% | 11.1\% |  |
| 50 | 1 | 1 | - | - - | 1 | - | - - |  | 1 | - | - | - - | - | 1 | - | - | - - | 1 | 1 |  | - | 1 | - | - | 1 |  | - |
|  | 1.4\% | 1.4\% |  |  | 4.5\% |  |  |  | 5.6\% |  |  |  |  | 3.7\% |  |  |  | 2.1\% | 1.6\% |  |  | 1.7\% |  |  | 5.3\% |  |  |
| 60 | 20 | 20 | - | - - | 5 | 13 | 2 | 2 | 4 | 16 | - | - - | 3 | 5 | 11 | - | 7 | 12 | 17 |  | 1 | 16 | - | 4 | 6 |  | 3 |
|  | 28.2\% | 28.2\% |  |  | 22.7\% | 32.5\% | 28.6\% |  | 22.2\% | 30.8\% |  |  | 30.0\% | 18.5\% | 40.7\% |  | 33.3\% | 25.5\% | 27.9\% | 14.3\% | \% 2 | 26.7\% |  | 26.7\% | 31.6\% | 33.3\% | 3\% 50.0\% |
| 65 | 1 | 1 | - | - - | - | 1 | - | - | - | 1 | - | - - | - | - | - | - | - - | 1 | 1 |  | - | 1 | - | - | - |  | - |
|  | 1.4\% | 1.4\% |  |  |  | 2.5\% |  |  |  | 1.9\% |  |  |  |  |  |  |  | 2.1\% | 1.6\% |  |  | 1.7\% |  |  |  |  |  |
| 75 | 6 | 6 | - | - - | 3 | 1 | 2 | 2 | 2 | 4 | - | - - | - | 6 | - | - | 2 | 4 | 4 |  | 2 | 4 | 2 | 2 | 1 | 1 | 1 |
|  | 8.5\% | 8.5\% |  |  | 13.6\% | 2.5\% | 28.6\% | 1 | 11.1\% | 7.7\% |  |  |  | 22.2\% |  |  | 9.5\% | 8.5\% | 6.6\% | 28.6\% | \% | 6.7\% | 66.7\% | 13.3\% | 5.3\% | 11.1\% |  |
| 88 | 1 | 1 | - | - - | - | 1 | - | - | - | 1 | - | - - | - | - | - | - | - - | 1 | 1 |  | - | 1 | - | 1 | - |  | - |
|  | 1.4\% | 1.4\% |  |  |  | 2.5\% |  |  |  | 1.9\% |  |  |  |  |  |  |  | 2.1\% | 1.6\% |  |  | 1.7\% |  | 6.7\% |  |  |  |
| 100 | 5 | 5 | - | - - | 2 | 3 | - | - | 1 | 4 | - | 1 | 1 | 2 | - | - | - - | 5 | 5 |  | - | 5 | - | - | 4 |  | 1 |
|  | 7.0\% | 7.0\% |  |  | 9.1\% | 7.5\% |  |  | 5.6\% | 7.7\% |  | 100\% | 10.0\% | 7.4\% |  |  |  | 10.6\% | 8. $2 \%$ |  |  | 8.3\% |  |  | 21.1\% | 11.1\% |  |
| Refused | 1 | 1 | - | - - | - | 1 | - |  | - | 1 | - | - - | 1 | - | - | - | - - | 1 | 1 |  | - | 1 | - | - | - |  | - |
|  | 1.4\% | 1.4\% |  |  |  | 2.5\% |  |  |  | 1.9\% |  |  | 10.0\% |  |  |  |  | 2.1\% | 1.6\% |  |  | 1.7\% |  |  |  |  |  |
| Don't know | 8 | 8 | - | - - | 4 | 4 | 4 - |  | 3 | 5 | - | - - | 2 | 3 | 2 | - | 3 | 4 | 8 |  | - | 7 | - | 2 | 1 |  | - |
|  | 11.3\% | 11.3\% |  |  | 18.2\% | 10.0\% |  |  | 16.7\% | 9.6\% |  |  | 20.0\% | 11.1\% | 7.4\% |  | 14.3\% | 8.5\% | 13.1\% |  |  | 11.7\% |  | 13.3\% | 5.3\% |  |  |

## Appendices

Table 38 Page 37

P5c. What type of bulb did the FIRST CFL that you installed in your replace?

|  | CFL <br> AW | PURCHA <br> WARENES | AASES/ SS |  | RST BE RE OF | Came <br> CFL'S | PURC | FIRST HASED | CFL'S |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ====== | $=$ | $=$ | === | ==== | $=$ | ===== | $=$ | $====$ |  | CFL USER | R TYPE |  | CFL S | SATISFAC | CTION | home | HOUSING |  |  | COME |  |
|  |  | AWARE |  | BE- |  | 2006 | BE- |  | 2006 | ===== | ======== | $=====$ | $====$ | ===== | $==$ | $===$ | OWNERSHIP | TYPE |  | -- | $===$ | === |
|  | PURCH | NON- | UN- | FORE | 2003- | OR | FORE | 2003- | OR |  |  | MODE- |  | NOT | SOME- |  | = | $===$ |  | \$50K- | \$100- |  |
| TOTAL | ASER | PRCHR | AWARE | 2003 | 2005 | AFTER | 2003 | 2005 | AFTER | NONE | LIGHT | RATE | HEAVY | VERY | WHAT | VERY | OWN RENT | SINGL MULTI | <\$50K | \$100K | \$200K | 200K+ |
|  | - | -- | ----- | -- | -- | -- | ---- | -- | ---- |  | - | ---- | -- | -- | -- | --- | ---- -- | - |  |  | ----- | ----- |


| TOTAL ANSWERING | 86 | 86 | - | - | 23 | 50 | 8 | 20 | 65 | - | 2 | 17 | 30 | 30 | 2 | 27 | 55 | 73 | 10 | 73 | 5 | 16 | 28 | 11 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Incandescent | 74 | 74 | - | - | 19 | 43 | 8 | 17 | 56 | - | 2 | 11 | 25 | 29 | 2 | 24 | 47 | 63 | 9 | 63 | 4 | 14 | 22 | 9 |  |
|  | 86.0\% | 86.0\% |  |  | 82.6\% | 86.0\% | 100\% | 85.0\% | 86.2\% |  | 100\% | 64.7\% | 83.3\% | 96.7\% | 100\% | 88.9\% | 85.5\% | 86.3\% | 90.0\% | 86.3\% | 80.0\% | 87.5\% | 78.6\% | 81.8\% | 100\% |
| CFL | 4 | 4 | - | - | 2 | 2 | - | 1 | 3 | - | - | 1 | 2 | 1 | - | 2 | 2 | 4 | - | 3 | 1 | - | 2 | 2 |  |
|  | 4.7\% | 4.7\% |  |  | 8.7\% | 4.0\% |  | 5.0\% | 4.6\% |  |  | 5.9\% | 6.7\% | 3.3\% |  | 7.4\% | 3.6\% | 5.5\% |  | 4.1\% | 20.0\% |  | 7.1\% | 18.2\% |  |
| Halogen | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  |
| Other (specify) | 1 | 1 | - | - | 1 | - | - | - | 1 | - | - | 1 | - | - | - | - | 1 | 1 | - | 1 | - | - | 1 | - |  |
|  | 1. $2 \%$ | 1.2\% |  |  | 4.3\% |  |  |  | 1.5\% |  |  | 5.9\% |  |  |  |  | 1.8\% | 1.4\% |  | 1.4\% |  |  | 3.6\% |  |  |
| Refused | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  |
| Don't know | 7 | 7 | - | - | 1 | 5 | - | 2 | 5 | - | - | 4 | 3 | - | - | 1 | 5 | 5 | 1 | 6 | - | 2 | 3 | - |  |
|  | 8.1\% | 8.1\% |  |  | 4.3\% | 10.0\% |  | 10.0\% | 7.7\% |  |  | 23.5\% | 10.0\% |  |  | 3.7\% | 9.1\% | 6.8\% | 10.0\% | 8.2\% |  | 12.5\% | 10.7\% |  |  |

## Appendices

## Table 38 Page 38

P5c. What type of bulb did the SECOND CFL that you installed in your replace?



## Appendices

Table 38 Page 39

P5c. What type of bulb did the THIRD CFL that you installed in your replace?

|  | CFL <br> AW | PURCH JARENE | $\begin{aligned} & \text { ASES/ } \\ & \text { SS } \end{aligned}$ | $\begin{aligned} & \text { FIF } \\ & \text { AWAF } \end{aligned}$ | RST BE RE OF | $\begin{aligned} & \text { CAME } \\ & \text { CFL'S } \end{aligned}$ | PURC | FIRST HASED | CFL'S |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ====== | $=$ | ===== | = $=$ | = | $=$ | ====== | $===$ | $===$ |  | CFL USER | R TYPE |  | CFL S | SATISFAC | CTION | home | Hous | SING |  |  | Come |  |
|  |  | AWARE |  | BE- |  | 2006 | BE- |  | 2006 | === | ====== | $=====$ | $==$ | ==== | $===$ | === | OWNERSHIP | TYP |  | ==== | $===$ | $=$ | == |
|  | PURCH | NON- | UN- | FORE | 2003- | OR | FORE | 2003- | OR |  |  | MODE- |  | NOT | SOME- |  | == | ==== | ===== |  | \$50K- | \$100- |  |
| TOTAL | ASER | PRCHR | AWARE | 2003 | 2005 | AFTER | 2003 | 2005 | AFTER | NONE | LIGHT | RATE | HEAVY | VERY | WHAT | VERY | OWN RENT | SINGL | MULTI | <\$50K | \$100K | \$200K | 200K+ |
|  | ----- | --- | ---- | -- | --- | --- | ---- | -- | ---- |  | - | - | - | --- | -- | ---- | -- --- |  |  |  | ---- | ---- | --- |


| TOTAL ANSWERING | 71 | 71 | - | - | 22 | 40 | 7 | 18 | 52 | - | 1 | 10 | 27 | 27 | 1 | 21 | 47 | 61 | 7 | 60 | 3 | 15 | 19 | 9 | 2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Incandescent | 63 | 63 | - | - | 20 | 34 | 7 | 16 | 46 | - | 1 | 7 | 24 | 26 | 1 | 21 | 41 | 55 | 6 | 54 | 3 | 14$93.3 \%$ | 16 | 9 | 2 |
|  | 88.7\% | 88.7\% |  |  | 90.9\% | 85.0\% | 100\% | 88.9\% | 88.5\% |  | 100\% | 70.0\% | 88.9\% | 96.3\% | 100\% | 100\% | 87.2\% | 90.2\% | 85.7\% | 90.0\% | 100\% |  | 84.2\% | 100\% 100\% |  |
| CFL | 4 | 4 | - | - | 2 | 2 | - | 2 | 2 | - | - | 2 | 2 | - | - | - | 3 | 2 | 1 | 3 | - | - | 3 | - |  |
|  | 5.6\% | 5.6\% |  |  | 9.1\% | 5.0\% |  | 11.1\% | 3.8\% |  |  | 20.0\% | 7.4\% |  |  |  | 6.4\% | 3.3\% | 14.3\% | 5.0\% |  |  | 15.8\% |  |  |

Halogen


## Appendices

Table 39 Page 40
P5d. What was the wattage of the bulb you replaced with the FIRST CFL that you installed in your [ROOM TYPE]?


## Appendices

Table 39 Page 41
(Continued)

P5d. What was the wattage of the bulb you replaced with the FIRST CFL that you installed in your [ROOM TYPE]?


## Appendices

Table 39 Page 42
P5d. What was the wattage of the bulb you replaced with the SECOND CFL that you installed in your [ROOM TYPE]?


## Appendices

Table 39 Page 43
(Continued)

P5d. What was the wattage of the bulb you replaced with the SECOND CFL that you installed in your [ROOM TYPE]?



## Appendices

Table 39 Page 44
P5d. What was the wattage of the bulb you replaced with the THIRD CFL that you installed in your [ROOM TYPE]?


## Appendices

Table 39 Page 45
(Continued)

P5d. What was the wattage of the bulb you replaced with the THIRD CFL that you installed in your [ROOM TYPE]?



## Appendices

Table 40 Page 46

P5e. Was the bulb that was replaced with the FIRST CFL you purchased in 2003, 2004 or 2005 and are currently using in your [ROOM TYPE] working or not working when you installed the CFL?

|  | $\begin{aligned} & \text { CFL } \\ & \text { AW } \end{aligned}$ | PURCHA ARENES | $\begin{aligned} & \text { ASES/ } \\ & \text { SS } \end{aligned}$ | FIRST BECAME |  |  | PURCHASED CFL'S |  |  | CFL USER TYPE |  |  |  | CFL | SATISFACTION |  | HOME | HOUSING |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | = | $=$ | == |  | $=$ | $=$ |  |  |  |  |  |  |  |  |  |  | COME |  |
|  |  | AWARE |  | BE- |  | 2006 | BE- |  | 2006 | === | ====== | ==== | $====$ | = | ==== | $===$ |  | OWNERSHIP | TYPE | === | == | ==== | $==$ |
|  | PURCH | NON- | UN- | FORE | 2003- | OR | FORE | 2003- | OR |  |  | MODE- |  | NOT | SOME- |  | = | $====$ |  | \$50K- | \$100- |  |
| TOTAL | ASER | PRCHR | AWARE | 2003 | 2005 | AFTER | 2003 | 2005 | AFTER | NONE | LIGHT | RATE | HEAVY | VERY | WHAT | VERY | OWN RENT | SINGL MULTI | <\$50K | \$100K | \$200K | 200K+ |



Refused

Don't know

## Appendices

Table 40 Page 47

P5e. Was the bulb that was replaced with the SECOND CFL you purchased in 2003, 2004 or 2005 and are currently using in your [ROOM TYPE] working or not working when you installed the CFL?

|  | CFL PURCHASES/ AWARENESS |  |  | FIRST BECAME |  |  | FIRST |  |  | CFL USER TYPE |  |  |  |  | SATISFACTION |  | HOME | HOUSING |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  | $=$ | $=$ |  |  |  |  |  |  |  |  |  |  | COME |  |
|  |  | AWARE |  | BE- |  | 2006 | BE- |  | 2006 | === | ====== | ===== | $=$ | $=$ | $===$ | $===$ |  | OWNERSHIP | TYPE |  | --- | === | $==$ |
|  | PURCH | NON- | UN- | FORE | 2003- | OR | FORE | 2003- | OR |  |  | MODE- |  | NOT | SOME- |  | =========== | =========== |  | \$50K- | \$100- |  |
| TOTAL | ASER | PRCHR | AWARE | 2003 | 2005 | AFTER | 2003 | 2005 | AFTER | NONE | LIGHT | RATE | HEAVY | VERY | WHAT | VERY | OWN RENT | SINGL MULTI | <\$50K | \$100K | \$200K | 200K+ |



## Appendices

Table 40 Page 48

P5e. Was the bulb that was replaced with the THIRD CFL you purchased in 2003, 2004 or 2005 and are currently using in your [ROOM TYPE] working or not working when you installed the CFL?


| TOTAL ANSWERING | 71 | 71 | - | - | 22 | 40 | 7 | 18 | 52 | - | 1 | 10 | 27 | 27 | 1 | 21 | 47 | 61 | 7 |  | 60 | 3 | 15 | 19 | 9 | 2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Working | 34 | 34 | - | - | 6 | 23 | 4 | 5 | 28 | - | 1 | 3 | 16 | 11 | 1 | 10 | 22 | 27 | 5 |  | 28 | 2 | 9 | 9 | 4 | - |
|  | 47.9\% | 47.9\% |  |  |  | 57.5\% | 57.1\% | 27.8\% | 53.8\% |  | 100\% | 30.0\% | 59.3\% | 40.7\% | 100\% | 47.6\% | 46.8\% | 44.3\% | 71.4\% |  | 6.7\% | 66.7\% | 60.0\% | 47.4\% | 44.4\% |  |
| Not working | 33 | 33 | - | - | 5 | 14 | 3 | 12 | 21 | - | - | 6 | 10 | 15 | - | 10 | 23 | 30 | 2 |  | 29 | 1 | 5 | 10 | 5 | 2 |
|  | 46.5\% | 46.5\% |  |  | \% | 35.0\% | 42.9\% | 66.7\% | 40.4\% |  |  | 60.0\% | 37.0\% | 55.6\% |  | 47.6\% | 48.9\% | 49.2\% | 28.6\% |  | 8.3\% | 33.3\% | 33.3\% | 52.6\% | 55.6\% | 100\% |
| Refused | 2 | 2 | - | - | - | 2 | - | - | 2 | - | - | 1 | - | - | - | - | 2 | 2 | - |  | 2 | - | 1 | - | - | - |
|  | 2.8\% | 2.8\% |  |  |  | 5.0\% |  |  | 3.8\% |  |  | 10.0\% |  |  |  |  | 4.3\% | 3.3\% |  |  | 3.3\% |  | 6.7\% |  |  |  |
| Don't know | 2 | 2 | - | - | 1 | 1 | - | 1 | 1 | - | - | - | 1 | 1 | - | 1 | - | 2 | - |  | 1 | - | - | - | - | - |
|  | 2.8\% | 2.8\% |  |  |  | 2.5\% |  | 5.6\% | 1.9\% |  |  |  | 3.7\% | 3.7\% |  | 4.8\% |  | 3.3\% |  |  | 1.7\% |  |  |  |  |  |

## Appendices

## Table 41 Page 49

P6. Of the [NUMBER OF] CFLs you purchased during 2003, 2004 or 2005, how many are currently being stored in your home for future use?


## Appendices

Table 41 Page 50
(Continued)

P6. Of the [NUMBER OF] CFLs you purchased during 2003, 2004 or 2005, how many are currently being stored in your home for future use?


## Appendices

Table 42 Page 51

P7. You mentioned that you purchased [NUMBER] CFLs during 2003, 2004 or 2005, and of those, [NUMBER] are currently installed and [NUMBER] are currently stored. May I ask what happened to the remaining
Burned out


## Appendices

Table 43 Page 52

P7. You mentioned that you purchased [NUMBER] CFLs during 2003, 2004 or 2005, and of those, [NUMBER] are currently installed and [NUMBER] are currently stored. May I ask what happened to the remaining
Broke


## Appendices

Table 44 Page 53

P7. You mentioned that you purchased [NUMBER] CFLs during 2003, 2004 or 2005, and of those, [NUMBER] are currently installed and [NUMBER] are currently stored. May I ask what happened to the remaining Storing at another residence for future use


TOTAL ANSWERING

MEAN
MEDIAN

## Appendices

Table 45 Page 54

P7. You mentioned that you purchased [NUMBER] CFLs during 2003, 2004 or 2005, and of those, [NUMBER] are currently installed and [NUMBER] are currently stored. May I ask what happened to the remaining
Storing at business location for future use


## Appendices

Table 46 Page 55

P7. You mentioned that you purchased [NUMBER] CFLs during 2003, 2004 or 2005, and of those, [NUMBER] are currently installed and [NUMBER] are currently stored. May I ask what happened to the remaining
Installed in another residence

|  |  | PURCHA <br> WARENES | $\begin{aligned} & \text { ASES/ } \\ & \text { SS } \end{aligned}$ | $\begin{aligned} & \text { FIR } \\ & \text { AWAR } \end{aligned}$ | $\begin{aligned} & \text { RST BE } \\ & \text { RE OF } \end{aligned}$ | $\begin{aligned} & \text { CAME } \\ & \text { CFL'S } \end{aligned}$ | PURC | FIRST HASED | CFL'S |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | == |  | - |  | $===$ | ==== | - | $=$ |  | CFL USER | R TYPE |  | CFL S | SATISFAC | CTION | home | HOUSING |  |  | COME |  |
|  |  | AWARE |  | BE- |  | 2006 | BE- |  | 2006 | ==== |  | ===== |  | ===== | $=$ | === | OWNERSHIP | TYPE |  | $====$ | $===$ | $=$ |
|  | PURCH | NON- | UN- | FORE | 2003- | OR | FORE | 2003- | OR |  |  | MODE- |  | NOT | SOME- |  | =========== | $=======$ |  | \$50K- | \$100- |  |
| TOTAL | ASER | PRCHR | AWARE | 2003 | 2005 | AFTER | 2003 | 2005 | AFTER | NONE | LIGHT | RATE | HEAVY | VERY | WHAT | VERY | OWN RENT | SINGL MULTI | <\$50K | \$100K | \$200K | 200K+ |

TOTAL ANSWERING

MEAN
MEDIAN

## Appendices

Table 47 Page 56

P7. You mentioned that you purchased [NUMBER] CFLs during 2003, 2004 or 2005, and of those, [NUMBER] are currently installed and [NUMBER] are currently stored. May I ask what happened to the remaining
Installed in a business location


## Appendices

Table 48 Page 57

P7. You mentioned that you purchased [NUMBER] CFLs during 2003, 2004 or 2005, and of those, [NUMBER] are currently installed and [NUMBER] are currently stored. May I ask what happened to the remaining Gave them away


## Appendices

Table 49 Page 58

P7. You mentioned that you purchased [NUMBER] CFLs during 2003, 2004 or 2005, and of those, [NUMBER] are currently installed and [NUMBER] are currently stored. May I ask what happened to the remaining Misplaced them


TOTAL ANSWERING
MEAN
MEDIAN

## Appendices

Table 51 Page 59

P7. You mentioned that you purchased [NUMBER] CFLs during 2003, 2004 or 2005, and of those, [NUMBER] are currently installed and [NUMBER] are currently stored. May I ask what happened to the remaining
Other reason


## Appendices

Table 52 Page 60

P7. You mentioned that you purchased [NUMBER] CFLs during 2003, 2004 or 2005, and of those, [NUMBER] are currently installed and [NUMBER] are currently stored. May I ask what happened to the remaining
Refused/Don't Know


Appendices

Table 53 Page 61
For the next set of questions, I'd like to focus on the MOST RECENT CFL purchase you made. M1. In what year was your MOST RECENT CFL purchase?
CFL PURCHASES/ FIRST BECAME FIRST
AWARENESS AWARE OF CFL'S PURCHASED CFL'S


| TOTAL ANSWERING | 400 | 400 | - | - | 52 | 97 | 218 | 39 | 78 | 272 | 18 | 98 | 153 | 115 | 22 | 100 | 268 | 325 | 68 | 330 | 45 | 71 | 126 | 71 | 13 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2008 | 254 | 254 | - | - | 34 | 57 | 144 | 24 | 38 | 188 | 7 | 56 | 98 | 87 | 13 | 64 | 174 | 211 | 39 | 214 | 24 | 36 | 78 | 59 |  |
|  | 63.5\% | 63.5\% |  |  | 65.4\% | 58.8\% | 66.1\% | 61.5\% | 48.7\% | 69.1\% | 38.9\% | 57.1\% | 64.1\% | 75.7\% | 59.1\% | 64.0\% | 64.9\% | 64.9\% | 57.4\% | 64.8\% | 53.3\% | 50.7\% | 61.9\% | 83.1\% | 61.5\% |
| 2007 | 88 | 88 | - | - | 10 | 20 | 54 | 7 | 15 | 65 | 5 | 32 | 32 | 17 | 5 | 23 | 56 | 66 | 20 | 67 | 14 | 20 | 28 | 6 |  |
|  | 22.0\% | 22.0\% |  |  | 19.2\% | 20.6\% | 24.8\% | 17.9\% | 19.2\% | 23.9\% | 27.8\% | 32.7\% | 20.9\% | 14.8\% | 22.7\% | 23.0\% | 20.9\% | 20.3\% | 29.4\% | 20.3\% | 31.1\% | 28.2\% | 22.2\% | 8.5\% | 30.8\% |
| 2006 | 23 | 23 | - | - | 1 | 6 | 13 | 1 | 5 | 16 | 1 | 3 | 12 | 5 | 2 | 6 | 14 | 18 | 4 | 20 | 2 | 3 | 8 | 4 | - |
|  | 5.8\% | 5.8\% |  |  | 1.9\% | 6.2\% | 6.0\% | 2.6\% | 6.4\% | 5.9\% | 5.6\% | 3.1\% | 7.8\% | 4.3\% | 9.1\% | 6.0\% | 5.2\% | 5.5\% | 5.9\% | 6.1\% | 4.4\% | 4. $2 \%$ | 6.3\% | 5.6\% |  |
| 2005 | 10 | 10 | - | - | - | 7 | 2 | 1 | 9 | - | 1 | 3 | 4 | 2 | - | 1 | 8 | 9 | 1 | 8 | 2 | 2 | 5 | - | - |
|  | 2.5\% | 2.5\% |  |  |  | 7.2\% | 0.9\% | 2.6\% | 11.5\% |  | 5.6\% | 3.1\% | 2.6\% | 1.7\% |  | 1.0\% | 3.0\% | 2.8\% | 1.5\% | 2.4\% | 4.4\% | 2.8\% | 4.0\% |  |  |
| 2004 | 1 | 1 | - | - | - | - | - | - | - | 1 | - | - | 1 | - | - | - | 1 | 1 | - | 1 | - | - | 1 | - | - |
|  | 0.3\% | 0.3\% |  |  |  |  |  |  |  | 0.4\% |  |  | 0.7\% |  |  |  | 0.4\% | 0.3\% |  | 0.3\% |  |  | 0.8\% |  |  |
| 2003 | 1 | 1 | - | - | - | 1 | - | - | 1 | - | - | - | 1 | - | - | - | 1 | 1 | - | 1 | - | 1 | - | - | - |
|  | 0.3\% | 0.3\% |  |  |  | 1.0\% |  |  | 1.3\% |  |  |  | 0.7\% |  |  |  | 0.4\% | 0.3\% |  | 0.3\% |  | 1.4\% |  |  |  |
| Before 2003 | 4 | 4 | - | - | 4 | - | - | 3 | - | 1 | 1 | - | 1 | 1 | 1 | 1 | 2 | 4 | - | 4 | - | 1 | 2 | - | - |
|  | 1.0\% | 1.0\% |  |  | 7.7\% |  |  | 7.7\% |  | 0.4\% | 5.6\% |  | 0.7\% | 0.9\% | 4.5\% | 1.0\% | 0.7\% | 1.2\% |  | 1.2\% |  | 1.4\% | 1.6\% |  |  |
| Refused | 2 | 2 | - | - | - | 1 | - | - | 1 | - | - | - | - | 1 | 1 | - | 1 | 2 | - | 1 | 1 | 1 | - | 1 | - |
|  | 0.5\% | 0.5\% |  |  |  | 1.0\% |  |  | 1.3\% |  |  |  |  | 0.9\% | 4.5\% |  | 0.4\% | 0.6\% |  | 0.3\% | 2.2\% | 1.4\% |  | 1.4\% |  |
| Don't know [Try to get | 17 | 17 | - | - | 3 | 5 | 5 | 3 | 9 | 1 | 3 | 4 | 4 | 2 | - | 5 | 11 | 13 | 4 | 14 | 2 | 7 | 4 | 1 | 1 |
| respondent to remember] | 4.3\% | 4.3\% |  |  | 5.8\% | 5.2\% | 2.3\% | 7.7\% | 11.5\% | 0.4\% | 16.7\% | 4.1\% | 2.6\% | 1.7\% |  | 5.0\% | 4.1\% | 4.0\% | 5.9\% | 4.2\% | 4.4\% | 9.9\% | 3.2\% | 1.4\% | 7.7\% |

Appendices

Table 54 Page 62
M2. How many CFLs did you buy in this most recent purchase?

|  | TOTAL | CFL PURCHASES/ AWARENESS |  |  | FIRST BECAME AWARE OF CFL'S |  |  | FIRST |  |  | CFL USER TYPE |  |  |  | CFL SATISFACTION |  |  | HOME OWNERSHIP |  | HOUSING TYPE |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | ===== | ====== | $=$ | - |  | === | -- | $====$ | $===$ |  |  |  |  |  |  |  |  | INC |  |  | OME |  |
|  |  |  | AWARE |  | BE- |  | 2006 | BE- |  | 2006 | $===$ | ====== | $======$ | $===$ | $=$ | $=====$ | $=====$ |  |  | ====== | ====== | $=====$ | ===== |
|  |  | PURCH <br> ASER | NON PRCHR | UNAWARE | $\begin{aligned} & \text { FORE } \\ & 2003 \end{aligned}$ | $\begin{aligned} & 2003- \\ & 2005 \end{aligned}$ | $\begin{gathered} \text { OR } \\ \text { AFTER } \end{gathered}$ | $\begin{aligned} & \text { FORE } \\ & 2003 \end{aligned}$ | $\begin{aligned} & 2003- \\ & 2005 \end{aligned}$ | OR <br> AFTER |  | LIGHT | MODERATE | HEAVY | NOT VERY | SOME- <br> WHAT | VERY |  |  | OWN | $====$ RENT | ====== | $=====$ MULTI | <\$50K | $\begin{aligned} & \$ 50 \mathrm{~K}- \\ & \$ 100 \mathrm{~K} \end{aligned}$ | $\begin{aligned} & \$ 100- \\ & \$ 200 \mathrm{~K} \end{aligned}$ | 200K+ |
| TOTAL ANSWERING | 400 | 400 | - | - | 52 | 97 | 218 | 39 | 78 | 272 | 18 | 98 | 153 | 115 | 22 | 100 | 268 | 325 | 68 |  |  | 330 | 45 | 71 | 126 | 71 | 13 |
| MEAN | 5.26 | 5.26 | - | - | 3.94 | 5.25 | 5.69 | 3.81 | 4.79 | 5.58 | 3.56 | 3.21 | 4.86 | 7.75 | 4.63 | 4.42 | 5.64 | 5.47 | 4.28 | 5.50 | 3.95 | 4.25 | 5.15 | 6.39 | 6.45 |
| MEDIAN | 4.00 | 4.00 |  |  | 3.00 | 4.00 | 4.00 | 3.00 | 4.00 | 4.00 | 2.50 | 3.00 | 4.00 | 6.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 5.00 | 6.00 |
| 0 | 7 | 7 | - | - | 1 | 3 | 2 | 2 | 5 | - | 1 | 1 | 3 | 1 | - | 2 | 5 | 5 | 2 | 4 | 2 | 3 | 2 | 1 | - |
|  | 1.8\% | 1.8\% |  |  | 1.9\% | 3.1\% | 0.9\% | 5.1\% | 6.4\% |  | 5.6\% | 1.0\% | 2.0\% | 0.9\% |  | 2.0\% | 1.9\% | 1.5\% | 2.9\% | 1.2\% | 4.4\% | 4.2\% | 1.6\% | 1.4\% |  |
| 1 | 32 | 32 | - | - | 5 | 11 | 13 | 4 | 12 | 16 | 3 | 18 | 6 | 4 | 3 | 14 | 11 | 24 | 7 | 25 | 6 | 5 | 13 | 5 | - |
|  | 8.0\% | 8.0\% |  |  | 9.6\% | 11.3\% | 6.0\% | 10.3\% | 15.4\% | 5.9\% | 16.7\% | 18.4\% | 3.9\% | 3.5\% | 13.6\% | 14.0\% | 4.1\% | 7.4\% | 10.3\% | 7.6\% | 13.3\% | 7.0\% | 10.3\% | 7.0\% |  |
| 2 | 58 | 58 | - | - | 14 | 13 | 27 | 9 | 9 | 40 | 4 | 20 | 25 | 9 | 5 | 14 | 39 | 49 | 9 | 50 | 3 | 10 | 19 | 6 | 2 |
|  | 14.5\% | 14.5\% |  |  | 26.9\% | 13.4\% | 12.4\% | 23.1\% | 11.5\% | 14.7\% | 22.2\% | 20.4\% | 16.3\% | 7.8\% | 22.7\% | 14.0\% | 14.6\% | 15.1\% | 13.2\% | 15.2\% | 6.7\% | 14.1\% | 15.1\% | 8.5\% | 15.4\% |
| 3 | 46 | 46 | - | - | 6 | 12 | 23 | 5 | 8 | 32 | 1 | 22 | 14 | 6 | 1 | 15 | 29 | 33 | 12 | 34 | 8 | 11 | 15 | 7 | - |
|  | 11.5\% | 11.5\% |  |  | 11.5\% | 12.4\% | 10.6\% | 12.8\% | 10.3\% | 11.8\% | 5.6\% | 22.4\% | 9.2\% | 5.2\% | 4.5\% | 15.0\% | 10.8\% | 10.2\% | 17.6\% | 10.3\% | 17.8\% | 15.5\% | 11.9\% | 9.9\% |  |
| 4 | 88 | 88 | - | - | 10 | 16 | 58 | 7 | 15 | 65 | 2 | 17 | 40 | 27 | 2 | 18 | 68 | 72 | 14 | 72 | 11 | 17 | 32 | 14 | 2 |
|  | 22.0\% | 22.0\% |  |  | 19.2\% | 16.5\% | 26.6\% | 17.9\% | 19.2\% | 23.9\% | 11.1\% | 17.3\% | 26.1\% | 23.5\% | 9.1\% | 18.0\% | 25.4\% | 22.2\% | 20.6\% | 21.8\% | 24.4\% | 23.9\% | 25.4\% | 19.7\% | 15.4\% |
| 5 | 16 | 16 | - | - | 3 | 6 | 5 | 1 | 5 | 9 | 1 | 1 | 11 | 2 | - | 4 | 12 | 15 | 1 | 13 | 2 | 5 | 5 | 2 | 1 |
|  | 4.0\% | 4.0\% |  |  | 5.8\% | 6.2\% | 2.3\% | 2.6\% | 6.4\% | 3.3\% | 5.6\% | 1.0\% | 7.2\% | 1.7\% |  | 4.0\% | 4.5\% | 4.6\% | 1.5\% | 3.9\% | 4.4\% | 7.0\% | 4.0\% | 2.8\% | 7.7\% |
| 6 | 45 | 45 | - | - | 2 | 8 | 32 | 2 | 5 | 38 | 2 | 8 | 22 | 12 | 4 | 9 | 31 | 34 | 10 | 37 | 4 | 6 | 15 | 10 | 3 |
|  | 11.3\% | 11.3\% |  |  | 3.8\% | 8.2\% | 14.7\% | 5.1\% | 6.4\% | 14.0\% | 11.1\% | 8.2\% | 14.4\% | 10.4\% | 18.2\% | 9.0\% | 11.6\% | 10.5\% | 14.7\% | 11.2\% | 8.9\% | 8.5\% | 11.9\% | 14.1\% | 23.1\% |
| 7 | 3 | 3 | - | - | - | 2 | 1 | - | 2 | 1 | - | - | 1 | 2 | - | 1 | 2 | 3 | - | 3 | - | - | - | 1 | - |
|  | 0.8\% | 0.8\% |  |  |  | 2.1\% | 0.5\% |  | 2.6\% | 0.4\% |  |  | 0.7\% | 1.7\% |  | 1.0\% | 0.7\% | 0.9\% |  | 0.9\% |  |  |  | 1.4\% |  |
| 8 | 26 | 26 | - | - | 4 | 5 | 12 | 5 | 2 | 19 | 1 | 2 | 10 | 13 | 1 | 5 | 19 | 22 | 3 | 24 | 2 | 2 | 6 | 10 | 1 |
|  | 6.5\% | 6.5\% |  |  | 7.7\% | 5.2\% | 5.5\% | 12.8\% | 2.6\% | 7.0\% | 5.6\% | 2.0\% | 6.5\% 1 | 11.3\% | 4.5\% | 5.0\% | 7.1\% | 6.8\% | 4.4\% | 7.3\% | 4.4\% | 2.8\% | 4.8\% | 14.1\% | 7.7\% |

## Appendices

Table 54 Page 63
(Continued)

M2. How many CFLs did you buy in this most recent purchase?


| 9 | 3 | 3 | - | - | - | 1 | 2 | - | 1 | 2 | - | - | 1 | 2 | - | - | 3 | 2 | - | 2 | - | - | 1 | - |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 0.8\% | 0.8\% |  |  |  | 1.0\% | 0.9\% |  | 1.3\% | 0.7\% |  |  | 0.7\% | 1.7\% |  |  | 1.1\% | 0.6\% |  | 0.6\% |  |  | 0.8\% |  |  |
| 10 | 18 | 18 | - | - | - | 6 | 11 | - | 3 | 14 | 1 | 1 | 7 | 8 | 2 | 5 | 10 | 16 | 2 | 15 | 2 | 2 | 4 | 3 |  |
|  | 4.5\% | 4.5\% |  |  |  | 6.2\% | 5.0\% |  | 3.8\% | 5.1\% | 5.6\% | 1.0\% | 4.6\% | 7.0\% | 9.1\% | 5.0\% | 3.7\% | 4.9\% | 2.9\% | 4.5\% | 4.4\% | 2.8\% | 3.2\% | 4.2\% |  |
| 12 | 20 | 20 | - | - | 2 | 4 | 14 | - | 3 | 17 | - | 2 | 5 | 11 | 1 | 2 | 17 | 16 | 4 | 18 | 1 | 2 | 6 | 5 | 1 |
|  | 5.0\% | 5.0\% |  |  | 3.8\% | 4.1\% | 6.4\% |  | 3.8\% | 6.3\% |  | 2.0\% | 3.3\% | 9.6\% | 4.5\% | 2.0\% | 6.3\% | 4.9\% | 5.9\% | 5.5\% | 2.2\% | 2.8\% | 4.8\% | 7.0\% | 7.7\% |
| 14 | 1 | 1 | - | - | - | - | 1 | - | - | 1 | - | - | - | 1 | - | - | 1 | 1 | - | 1 | - | 1 | - | - |  |
|  | 0.3\% | 0.3\% |  |  |  |  | 0.5\% |  |  | 0.4\% |  |  |  | 0.9\% |  |  | 0.4\% | 0.3\% |  | 0.3\% |  | 1.4\% |  |  |  |
| 15 | 2 | 2 | - | - | 1 | - | 1 | 1 | - | 1 | - | - | - | 2 | - | 1 | 1 | 2 | - | 2 | - | 1 | - | - |  |
|  | 0.5\% | 0.5\% |  |  | 1.9\% |  | 0.5\% | 2.6\% |  | 0.4\% |  |  |  | 1.7\% |  | 1.0\% | 0.4\% | 0.6\% |  | 0.6\% |  | 1.4\% |  |  |  |
| 16 | 4 | 4 | - | - | - | 2 | 2 | - | 1 | 3 | - | - | - | 4 | - | 1 | 3 | 4 | - | 4 | - | - | - | 2 |  |
|  | 1.0\% | 1.0\% |  |  |  | 2.1\% | 0.9\% |  | 1.3\% | 1.1\% |  |  |  | 3.5\% |  | 1.0\% | 1.1\% | 1.2\% |  | 1.2\% |  |  |  | 2.8\% | 7.7\% |
| 20 | 2 | 2 | - | - | - | 1 | 1 | - | 1 | 1 | - | - | 1 | 1 | - | - | 2 | 2 | - | 2 | - | - | 1 | 1 |  |
|  | 0.5\% | 0.5\% |  |  |  | 1.0\% | 0.5\% |  | 1.3\% | 0.4\% |  |  | 0.7\% | 0.9\% |  |  | 0.7\% | 0.6\% |  | 0.6\% |  |  | 0.8\% | 1.4\% |  |
| 22 | 1 | 1 | - | - | - | - | 1 | - | - | 1 | - | - | - | 1 | - | 1 | - | 1 | - | 1 | - | - | - | - |  |
|  | 0.3\% | 0.3\% |  |  |  |  | 0.5\% |  |  | 0.4\% |  |  |  | 0.9\% |  | 1.0\% |  | 0.3\% |  | 0.3\% |  |  |  |  |  |
| 24 | 2 | 2 | - | - | - | - | 2 | - | - | 2 | - | - | 1 | 1 | - | - | 2 | 2 | - | 2 | - | - | - | 2 |  |
|  | 0.5\% | 0.5\% |  |  |  |  | 0.9\% |  |  | 0.7\% |  |  | 0.7\% | 0.9\% |  |  | 0.7\% | 0.6\% |  | 0.6\% |  |  |  | 2.8\% |  |
| 30 | 2 | 2 | - | - | - | - | 2 | - | - | 2 | - | - | - | 2 | - | - | 2 | 2 | - | 2 | - | - | 2 | - |  |
|  | 0.5\% | 0.5\% |  |  |  |  | 0.9\% |  |  | 0.7\% |  |  |  | 1.7\% |  |  | 0.7\% | 0.6\% |  | 0.6\% |  |  | 1.6\% |  |  |

## Appendices

Table 54 Page 64
(Continued)

M2. How many CFLs did you buy in this most recent purchase?



## Appendices

## Table 56 Page 65

M4. Were there special promotions or price discounts on any of the CFLs you purchased most recently?


| TOTAL ANSWERING | 400 | 400 | - | - | 52 | 97 | 218 | 39 | 78 | 272 | 18 |  | 98 | 153 | 115 | 22 | 100 | 268 | 325 | 68 | 330 | 45 | 71 | 126 | 71 | 13 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No | 208 | 208 | - | - | 32 | 53 | 107 | 25 | 45 | 136 | 8 |  | 53 | 82 | 58 | 7 | 54 | 144 | 167 | 39 | 168 | 29 | 41 | 63 | 39 |  |
|  | 52.0\% | 52.0\% |  |  | 61.5\% | 54.6\% | 49.1\% | 64.1\% | 57.7\% | 50.0\% | 44.4\% |  | 4.1\% | 53.6\% | 50.4\% | 31.8\% | 54.0\% | 53.7\% | 51.4\% | 57.4\% | 50.9\% | 64.4\% | 57.7\% | 50.0\% | 54.9\% | 69.2\% |
| Yes | 146 | 146 | - | - | 15 | 35 | 82 | 10 | 26 | 104 | 6 |  | 33 | 52 | 48 | 6 | 34 | 102 | 123 | 19 | 128 | 11 | 20 | 48 | 28 | $3$ |
|  | 36.5\% | 36.5\% |  |  | 28.8\% | 36.1\% | 37.6\% | 25.6\% | 33.3\% | 38.2\% | 33.3\% |  | 3.7\% | 34.0\% | 41.7\% | 27.3\% | 34.0\% | 38.1\% | 37.8\% | 27.9\% | 38.8\% | 24.4\% | 28.2\% | 38.1\% | 39.4\% | 23.1\% |
| Refused | 1 | 1 | - | - | - | - | - | - | - | - | - |  | - | - | - | 1 | - | - | 1 | - | - | 1 | 1 | - | - |  |
|  | 0.3\% | 0.3\% |  |  |  |  |  |  |  |  |  |  |  |  |  | 4.5\% |  |  | 0.3\% |  |  | 2.2\% | 1.4\% |  |  |  |
| Don't know | 45 | 45 | - | - | 5 | 9 | 29 | 4 | 7 | 32 | 4 |  | 12 | 19 | 9 | 8 | 12 | 22 | 34 | 10 | 34 | 4 | 9 | 15 | 4 |  |
|  | 11.3\% | 11.3\% |  |  | 9.6\% | 9.3\% | 13.3\% | 10.3\% | 9.0\% | 11.8\% | 22.2\% |  | 2.2\% | 12.4\% | 7.8\% | 36.4\% | 12.0\% | 8.2\% | 10.5\% | 14.7\% | 10.3\% | 8.9\% | 12.7\% | 11.9\% | 5.6\% | 7.7\% |

Appendices

## Table 57 Page 66

M5. On a 0 to 10 scale, with 0 being not at all likely and 10 being very likely, how likely were you to have purchased [this bulb/these bulbs] if you didn't get the price discount?
CFL PURCHASES/ FIRST BECAME FIRST
AWARENESS AWARE OF CFL'S PURCHASED CFL'S


| TOTAL ANSWERING | 146 | 146 | - | - | 15 | 35 | 82 | 10 | 26 | 104 | 6 | 33 | 52 | 48 | 6 | 34 | 102 | 123 | 19 | 128 | 11 | 20 | 48 | 28 | 3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MEAN | 6.72 | 6.72 | - | - | 5.62 | 6.37 | 7.41 | 6.13 | 6.38 | 6.97 | 4.20 | 7.16 | 6.20 | 7.20 | 2.17 | 6.52 | 7.10 | 6.55 | 7.84 | 6.54 | 8.73 | 7.63 | 7.04 | 7.30 | 6.67 |
| MEDIAN | 8.00 | 8.00 |  |  | 5.00 | 7.00 | 8.00 | 7.00 | 8.00 | 8.00 | 6.00 | 8.00 | 7.00 | 9.00 | 1.50 | 7.00 | 8.00 | 8.00 | 10.00 | 8.00 | 10.00 | 10.00 | 8.00 | 8.00 | 10.00 |
| 0 | 16 | 16 | - | - | 2 | 3 | 6 | 1 | 4 | 9 | 1 | 2 | 7 | 5 | 2 | 3 | 11 | 14 | 1 | 14 | 1 | 2 | 5 | 3 | $1$ |
|  | 11.0\% | 11.0\% |  |  | 13.3\% | 8.6\% | 7.3\% | 10.0\% | 15.4\% | 8.7\% | 16.7\% | 6.1\% | 13.5\% | 10.4\% | 33.3\% | 8.8\% | 10.8\% | 11.4\% | 5.3\% | 10.9\% | 9.1\% | 10.0\% | 10.4\% | 10.7\% | 33.3\% |
| 1 | 4 | 4 | - | - | 1 | 3 | - | 1 | 2 | 1 | 1 | - | 2 | 1 | 1 | 2 | 1 | 3 | 1 | 4 | - | - | 1 | - |  |
|  | 2.7\% | 2.7\% |  |  | 6.7\% | 8.6\% |  | 10.0\% | 7.7\% | 1.0\% | 16.7\% |  | 3.8\% | 2.1\% | 16.7\% | 5.9\% | 1.0\% | 2.4\% | 5.3\% | 3.1\% |  |  | 2.1\% |  |  |
| 2 | 2 | 2 | - | - | - | 1 | 1 | - | - | 2 | - | 1 | 1 | - | 1 | 1 | - | 2 | - | 2 | - | - | 1 | - |  |
|  | 1.4\% | 1.4\% |  |  |  | 2.9\% | 1.2\% |  |  | 1.9\% |  | 3.0\% | 1.9\% |  | 16.7\% | 2.9\% |  | 1.6\% |  | 1.6\% |  |  | 2.1\% |  |  |
| 3 | 3 | 3 | - | - | 1 | 1 | - | - | 1 | 2 | - | - | - | 3 | - | - | 3 | 3 | - | 3 | - | 1 | - | - |  |
|  | 2.1\% | 2.1\% |  |  | 6.7\% | 2.9\% |  |  | 3.8\% | 1.9\% |  |  |  | 6.3\% |  |  | 2.9\% | 2.4\% |  | 2.3\% |  | 5.0\% |  |  |  |
| 4 | 7 | 7 | - | - | 2 | 1 | 4 | 1 | - | 6 | - | 2 | 2 | 2 | 1 | 2 | 4 | 7 | - | 7 | - | 1 | 3 | - |  |
|  | 4.8\% | 4.8\% |  |  | 13.3\% | 2.9\% | 4.9\% | 10.0\% |  | 5.8\% |  | 6.1\% | 3.8\% | 4.2\% | 16.7\% | 5.9\% | 3.9\% | 5.7\% |  | 5.5\% |  | 5.0\% | 6.3\% |  |  |
| 5 | 18 | 18 | - | - | 1 | 5 | 11 | 1 | 3 | 13 | - | 6 | 9 | 3 | - | 4 | 12 | 15 | 3 | 17 | - | 2 | 4 | 4 |  |
|  | 12.3\% | 12.3\% |  |  | 6.7\% | 14.3\% | 13.4\% | 10.0\% | 11.5\% | 12.5\% |  | 18.2\% | 17.3\% | 6.3\% |  | 11.8\% | 11.8\% | 12.2\% | 15.8\% | 13.3\% |  |  | 8.3\% | 14.3\% |  |
| 6 | 4 | 4 | - | - | - | 2 | 1 | - | 2 | 2 | 1 | - | 3 | - | 1 | - | 2 | 4 | - | 4 | - | - | 1 | 1 |  |
|  | 2.7\% | 2.7\% |  |  |  | 5.7\% | 1. $2 \%$ |  | 7.7\% | 1.9\% | 16.7\% |  | 5.8\% |  | 16.7\% |  | 2.0\% | 3.3\% |  | 3.1\% |  |  | 2.1\% | 3.6\% |  |
| 7 | 11 | 11 | - | - | 1 | 3 | 5 | - | - | 10 | 2 | 3 | 3 | 3 | - | 4 | 6 | 8 | 1 | 7 | 1 | - | 3 | 3 |  |
|  | 7.5\% | 7.5\% |  |  | 6.7\% | 8.6\% | 6.1\% |  |  | 9.6\% | 33.3\% | 9.1\% | 5.8\% | 6.3\% |  | 11.8\% | 5.9\% | 6.5\% | 5.3\% | 5.5\% | 9.1\% |  | 6.3\% | 10.7\% |  |

## Appendices

Table 57 Page 67
(Continued)

M5. On a 0 to 10 scale, with 0 being not at all likely and 10 being very likely, how likely were you to have purchased [this bulb/these bulbs] if you didn't get the price discount?



## Appendices

## Table 58 Page 68

M6. Who provided the discount?

|  | CFL AWA | PURCHA ARENES | $\begin{aligned} & \text { ASES/ } \\ & \text { SS } \end{aligned}$ | FIR AWAR | RST BEC RE OF C | CAME <br> CFL'S | PURC | FIRST <br> HASED | CFL'S |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $=$ | $=$ | === | $====$ | $=$ | $=$ | ===== | === | ===== |  | CFL USER | R TYPE |  | CFL | SATISFACTION | Home | HOUSING |  |  | COME |  |
|  |  | AWARE |  | BE- |  | 2006 | BE- |  | 2006 |  |  |  |  | -=- | $====$ | OWNERSHIP | TYPE |  |  |  |  |
|  | PURCH N | NON- | UN- | FORE | 2003- | OR | FORE | 2003- | OR |  |  | MODE- |  | NOT | SOME- | $=========$ | $=========$ |  | \$50K- | \$100- |  |
| TOTAL | ASER P | PRCHR | AWARE | 2003 | 2005 | AFTER | 2003 | 2005 | AFTER | NONE | LIGHT | RATE | HEAVY | VERY | WHAT VERY | OWN RENT | SINGL MULTI | <\$50K | \$100K | \$200K | 200K+ |
| ----- | ---- | - | - | ---- | -- | - | ---- | - | ----- | ---- | ----- | - | ---- | -- | ---- ---- | -------- | - | -- | ----- | ----- | ----- |



## Appendices

## Table 59 Page 69

M7. Do you recall seeing any CFL displays, information, or signs when you purchased your most recent CFLs?

|  |  | PURC <br> WARENE | HASES/ SS | FIR <br> AWAR | ST BEC E OF C | $\begin{aligned} & \text { CAME } \\ & \text { CFL'S } \end{aligned}$ | PURC | $\begin{aligned} & \text { FIRST } \\ & \text { CHASED } \end{aligned}$ | CFL'S |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $=$ | $=$ | $=$ | ===== | = | === | $=$ | $======$ | === |  | CFL USER | R TYPE |  | CFL S | ATISFA | ACTION | Hom |  | HOUS | ING |  |  | Come |  |
|  |  | AWARE |  | BE- |  | 2006 | BE- |  | 2006 |  |  |  |  |  | $==$ | $=$ | OWNER | SHIP | TYP |  |  | = | = |  |
| TOTAL | $\begin{aligned} & \text { PURCH } \\ & \text { ASER } \end{aligned}$ | NONPRCHR | UN - <br> R AWARE | $\begin{aligned} & \text { FORE } \\ &=\quad 2003 \end{aligned}$ | $\begin{aligned} & 2003- \\ & 2005 \end{aligned}$ | $\begin{gathered} \text { OR } \\ \text { AFTER } \end{gathered}$ | $\begin{aligned} & \text { FORE } \\ & 2003 \end{aligned}$ | $\begin{aligned} & =2003- \\ & 32005 \end{aligned}$ | OR AFTER | NONE | LIGHT | MODERATE | HEAVY | NOT VERY | SOMEWHAT |  | $\begin{gathered} ===== \\ \text { OWN } \end{gathered}$ | === | ====== | $=====$ MULTI | <\$50K | $\begin{aligned} & \$ 50 \mathrm{~K}- \\ & \$ 100 \mathrm{~K} \end{aligned}$ | $\begin{aligned} & \$ 100- \\ & \$ 200 \mathrm{~K} \end{aligned}$ | K 200K+ |
| 400 | 400 | - | - - | 52 | 97 | 218 | 39 | 78 | 272 | 18 | 98 | 153 | 115 | 22 | 100 | 268 | 325 | 68 | 330 | 45 | 71 | 126 | 71 | 113 |
| 198 | 198 | - | - - | 24 | 50 | 108 | 18 | 36 | 141 | 9 | 60 | 67 | 54 | 10 | 55 | 131 | 160 | 34 | 158 | 24 | 39 | 59 | 34 | 410 |
| 49.5\% | 49.5\% |  |  | 46. 2\% | 51.5\% | 49.5\% | 46.2\% | 46.2\% | 51.8\% | 50.0\% | 61.2\% | 43.8\% | 47.0\% | 45.5\% | 55.0\% | 48.9\% | 49.2\% | 50.0\% | 47.9\% | 53.3\% | 54.9\% | 46.8\% | 47.9\% | \% 76.9\% |
| 164 | 164 | - | - - | 23 | 39 | 93 | 16 | 33 | 111 | 3 | 33 | 65 | 56 | 6 | 39 | 114 | 133 | 29 | 141 | 16 | 28 | 50 | 33 | 33 |
| 41.0\% | 41.0\% |  |  | 44. 2\% | 40.2\% | 42.7\% | 41.0\% | 42.3\% | 40.8\% | 16.7\% | 33.7\% | 42.5\% | 48.7\% | 27.3\% | 39.0\% | 42.5\% | 40.9\% | 42.6\% | 42.7\% | 35.6\% | 39.4\% | 39.7\% | 46.5\% | \% 23.1\% |
| 2 | 2 | - | - - | - | - | 1 | - | - | 1 | - | 1 | - | - | 1 | - | 1 | 2 | - | 1 | 1 | 1 | 1 |  | - - |
| 0.5\% | 0.5\% |  |  |  |  | 0.5\% |  |  | 0.4\% |  | 1.0\% |  |  | 4.5\% |  | 0.4\% | 0.6\% |  | 0.3\% | 2.2\% | 1.4\% | 0.8\% |  |  |
| 36 | 36 | - | - - | 5 | 8 | 16 | 5 | 9 | 19 | 6 | 4 | 21 | 5 | 5 | 6 | 22 | 30 | 5 | 30 | 4 | 3 | 16 |  | 4 |
| 9.0\% | 9.0\% |  |  | 9.6\% | 8.2\% | 7.3\% | 12.8\% | 11.5\% | 7.0\% | 33.3\% | 4.1\% | 13.7\% | 4.3\% | 22.7\% | 6.0\% | 8.2\% | 9.2\% | 7.4\% | 9.1\% | 8.9\% | 4.2\% | 12.7\% | 5.6\% |  |

Appendices

## Table 60 Page 70

M8. On a 0 to 10 scale, with 0 being not at all likely and 10 being very likely, how likely were you to have purchased [this bulb/these bulbs] if you hadn't seen the CFL displays, information or signs?


| TOTAL ANSWERING | 164 | 164 | - | - | 23 | 39 | 93 | 16 | 33 | 111 | 3 | 33 | 65 | 56 | 6 | 39 | 114 | 133 | 29 | 141 | 16 | 28 | 50 | 33 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MEAN | 6.12 | 6.12 | - | - | 8.85 | 6.23 | 5.67 | 8.77 | 6.70 | 5.71 | 4.33 | 4.84 | 6.54 | 6.49 | 4.33 | 6.46 | 6.22 | 5.84 | 7.43 | 6.10 | 6.06 | 5.85 | 6.80 | 6.79 | 9.50 |
| MEDIAN | 7.00 | 7.00 |  |  | 10.00 | 8.00 | 6.00 | 10.00 | 9.00 | 6.00 | 2.00 | 5.00 | 7.00 | 9.00 | 3.00 | 7.00 | 8.00 | 6.00 | 9.50 | 7.00 | 9.00 | 6.00 | 8.00 | 8.00 | 9.50 |
| 0 | 27 | 27 | - | - | - | 8 | 16 | 1 | 8 | 16 | - | 6 | 8 | 11 | 2 | 3 | 21 | 23 | 4 | 21 | 5 | 6 | 6 | 4 |  |
|  | 16.5\% | 16.5\% |  |  |  | 20.5\% | 17.2\% | 6.3\% | 24.2\% | 14.4\% |  | 18.2\% | 12.3\% | 19.6\% | 33.3\% | 7.7\% | 18.4\% | 17.3\% | 13.8\% | 14.9\% | $31.3 \%$ | 21.4\% | 12.0\% | 12.1\% |  |
| 1 | 4 | 4 | - | - | 1 | 1 | 2 | - | - | 4 | 1 | 2 | - | 1 | 1 | 1 | 2 | 4 | - | 4 | - | 1 | 2 | - |  |
|  | 2.4\% | 2.4\% |  |  | 4.3\% | 2.6\% | 2.2\% |  |  | 3.6\% | 33.3\% | 6.1\% |  | 1.8\% | 16.7\% | 2.6\% | 1.8\% | 3.0\% |  | 2.8\% |  | 3.6\% | 4.0\% |  |  |
| 2 | 5 | 5 | - | - | - | - | 4 | - | - | 5 | 1 | - | 1 | 3 | - | 1 | 4 | 5 | - | 5 | - | - | 1 | 1 |  |
|  | 3.0\% | 3.0\% |  |  |  |  | 4.3\% |  |  | 4.5\% | 33.3\% |  | 1.5\% | 5.4\% |  | 2.6\% | 3.5\% | 3.8\% |  | 3.5\% |  |  | 2.0\% | 3.0\% |  |
| 3 | 9 | 9 | - | - | - | 3 | 6 | - | 1 | 8 | - | 4 | 4 | 1 | - | 2 | 6 | 8 | - | 7 | 1 | 3 | 1 | 2 |  |
|  | 5.5\% | 5.5\% |  |  |  | 7.7\% | 6.5\% |  | 3.0\% | 7.2\% |  | 12.1\% | 6.2\% | 1.8\% |  | 5.1\% | 5.3\% | 6.0\% |  | 5.0\% | 6.3\% | 10.7\% | 2.0\% | 6.1\% |  |
| 4 | 5 | 5 | - | - | - | - | 4 | - | - | 5 | - | 2 | 2 | - | - | 3 | 1 | 5 | - | 5 | - | - | 1 | 2 |  |
|  | 3.0\% | 3.0\% |  |  |  |  | 4.3\% |  |  | 4.5\% |  | 6.1\% | 3.1\% |  |  | 7.7\% | 0.9\% | 3.8\% |  | 3.5\% |  |  | 2.0\% | 6.1\% |  |
| 5 | 19 | 19 | - | - | 1 | 4 | 13 | 1 | 2 | 16 | - | 7 | 9 | 3 | 1 | 5 | 12 | 16 | 3 | 18 | - | 1 | 6 | 4 |  |
|  | 11.6\% | 11.6\% |  |  | 4.3\% | 10.3\% | 14.0\% | 6.3\% | 6.1\% | 14.4\% |  | 21.2\% | 13.8\% | 5.4\% | 16.7\% | 12.8\% | 10.5\% | 12.0\% | 10.3\% | 12.8\% |  | 3.6\% | 12.0\% | 12.1\% |  |
| 6 | 8 | 8 | - | - | 2 | - | 6 | - | - | 8 | - | 1 | 5 | 2 | - | 3 | 5 | 6 | 2 | 7 | 1 | 3 | 4 | - |  |
|  | 4.9\% | 4.9\% |  |  | 8.7\% |  | 6.5\% |  |  | 7.2\% |  | 3.0\% | 7.7\% | 3.6\% |  | 7.7\% | 4.4\% | 4.5\% | 6.9\% | 5.0\% | 6.3\% | 10.7\% | 8.0\% |  |  |
| 7 | 4 | 4 | - | - | - | 2 | 2 | - | 1 | 3 | - | 1 | 3 | - | - | 2 | 2 | 4 | - | 4 | - | - | 1 | 1 |  |
|  | 2.4\% | 2.4\% |  |  |  | 5.1\% | 2.2\% |  | 3.0\% | 2.7\% |  | 3.0\% | 4.6\% |  |  | 5.1\% | 1.8\% | 3.0\% |  | 2.8\% |  |  | 2.0\% | 3.0\% |  |

## Appendices

Table 60 Page 71
(Continued)

M8. On a 0 to 10 scale, with 0 being not at all likely and 10 being very likely, how likely were you to have purchased
[this bulb/these bulbs] if you hadn't seen the CFL displays, information or signs?



## Appendices

M9. How much did you pay PER BULB for the CFLs you purchased most recently? If you got a special discount or used a coupon, please tell me the price of the bulb after the discount or coupon.


Appendices

Table 61 Page 73

M9. How much did you pay PER BULB for the CFLs you purchased most recently? If you got a special discount or used a coupon, please tell me the price of the bulb after the discount or coupon.



[^0]:    ${ }^{12}$ Percents based on program year 2005 activities reported in the NJCEP annual financial report.
    ${ }^{13}$ New Jersey Clean Energy Program. New Jersey's Clean Energy Program Report submitted to the New Jersey Board of Public Utilities. Reports from 2001-2006.

