

Table 60. Unadjusted CFL Survey Data

Room Type	Number of Installations	Mean Wattage of Bulb Removed	Mean Daily Hours of Use (Old)	Mean Daily Hours of Use (New)
Bathroom	26	50	3.46	3.46
Dining room	12	69	2.38	2.42
Hall	14	66	4.14	4.14
Kitchen	38	52	4.64	4.58
Living/family room	67	59	5.25	5.47
Master bedroom	39	57	3.24	3.24
Other	13	48	4.19	5.12
Garage	3	73	0.83	0.83
Other bedroom	10	56	2.80	3.20
Basement	11	64	4.10	3.77
MEAN/TOTAL	233	57	4.12	4.23

Figure 13 graphically shows the prevalence of CFL installations in each room type in ascending order. Living/family room, master bedroom, and kitchen, in that order, are the three most popular room types for bulb replacements; together they make up 62% of all bulb installations.

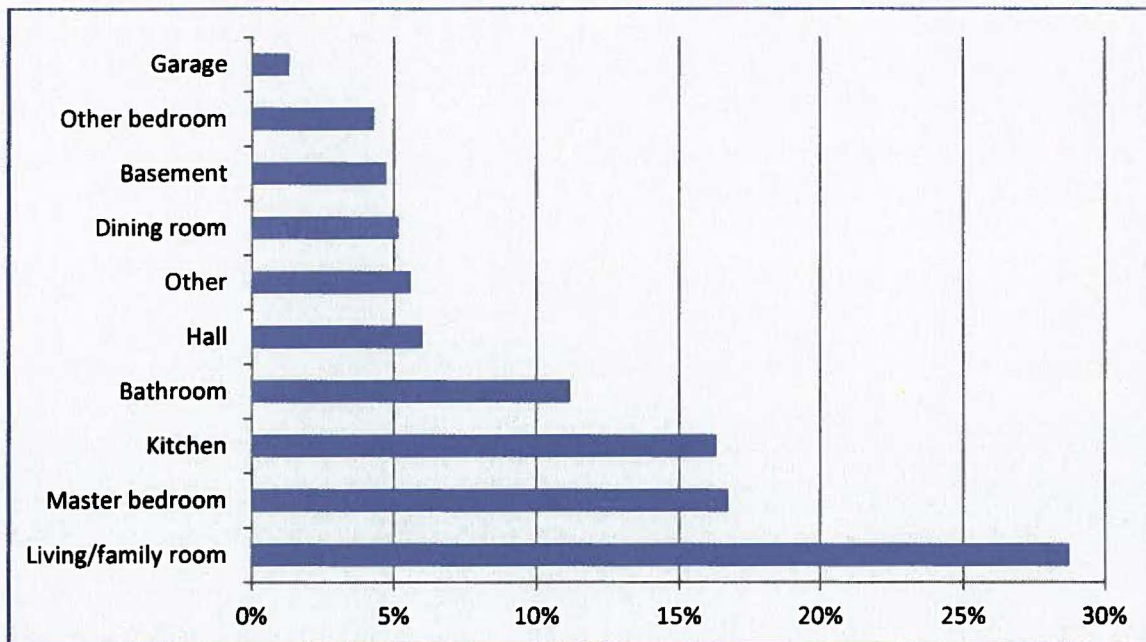


Figure 13. Percent of CFL Installations by Room Type

In Service Rate (ISR) Calculation

The data in the column headed “Number of Installations” of Table 60 and Table 62 represents the number of installations for which detailed information was collected, not the *total* number of installations. A total of 993 CFLs were distributed to survey participants. Respondents reported that 505 of them are currently installed in light fixtures, a first year ISR of 50.9%. To determine the final ISR, the calculation takes into consideration bulbs installed after the first year through a remainder value. The remainder is the percentage of bulbs that are not installed in the first year

(100% - 50.9% = 49.1%) less 3% for the 97% lifetime ISR²¹. In this case, the remainder used in the formula below is 46.1%. The 43% represents the percentage of the remainder that will replace an incandescent bulb rather than a CFL²².

The ISR is calculated to be 70.7% using the following formula:

$$\text{ISR} = \text{first year ISR} + (43\% * \text{remainder}) = 50.9\% + (43\% * 46.1\%) = 70.7\%$$

Self-Reporting Bias

Previous studies that have included both customer surveys and lighting loggers have shown that, comparing customers' self-reported hours of operation to the actual hours of operation, customers responding to the survey overestimated their lighting usage by about 27%²³. As this study did not employ lighting loggers, there is no data with which to make a comparison for this program specifically. Consequently, the self-reported hours of use obtained from the survey were reduced by the 27% established in the North Carolina and South Carolina Residential Smart Saver CFL Program report dated February 15, 2011.

Impact Estimates

Customers were asked if they had increased or decreased their lighting usage since installing the CFLs they received through the program. This enabled the detection of a slight increase in hours of use going from an incandescent bulb to a CFL. Table 61 shows the unadjusted weighted mean hours of use values along with the updated weighted mean values after the self-reporting bias is applied. The final values for mean daily hours of use are 3.01 and 3.09 for incandescent bulbs and CFLs, respectively. Hours of use by room type is shown in Table 62.

Table 61. Adjusted Mean Daily Hours of Use

Adjustment	Magnitude of Adjustment	Mean Daily Hours of Use (Incandescent)	Mean Daily Hours of Use (CFL)
Unadjusted	N/A	4.12	4.23
Self-Reporting Bias	26.97%	3.01	3.09

²¹ As established in the Nexus Market Research, RLW Analytics, and GDS Associates study, dated January 20th, 2009: "New England Residential Lighting Markdown Impact Evaluation".

²² As established in the Nexus Market Research, RLW Analytics, dated October 2004: "Impact Evaluation of the Massachusetts, Rhode Island, and Vermont 2003 Residential Lighting Programs", table 6-4 where 24 out of 56 respondents indicated that they did not purchase the CFLs as spares.

²³ The adjustment for the self-reporting bias used in this study was determined using paired lighting logger and customer self-reported data from Kentucky, Ohio, North Carolina, and South Carolina.

Table 62. Adjusted CFL Hours of Use by Room Type

Room Type	Number of Installations	Mean Daily Hours of Use (Old)	Mean Daily Hours of Use (New)
Bathroom	26	2.53	2.53
Dining room	12	1.73	1.76
Hall	14	3.03	3.03
Kitchen	38	3.39	3.34
Living/family room	67	3.83	3.99
Master bedroom	39	2.36	2.37
Other	13	3.06	3.74
Garage	3	0.61	0.61
Other bedroom	10	2.04	2.34
Basement	11	2.99	2.76

As previously stated, it is necessary to adjust baseline wattage to account for the effects of EISA. Table 63 shows the baseline wattage for each year of a CFL's EUL. The overall average in the bottom right corner of this table is the number used for program impact estimates.

Table 63. Baseline Wattage by Year

Room Type	2013	2014	2015	2016	2017	Average
Bathroom	50	47	42	39	37	43
Dining room	69	62	55	51	49	57
Hall	66	63	55	51	47	56
Kitchen	52	49	43	40	38	45
Living/family room	59	55	49	46	43	50
Master bedroom	57	53	47	43	41	48
Other	48	46	41	37	35	41
Garage	73	66	58	56	53	61
Other bedroom	56	55	48	44	41	49
Basement	64	56	50	48	46	53
Overall	57	53	47	44	41	49

Applying these adjustments to each individual room type allows a look at bulb savings by room type. Bulb savings at the room type level is an unreliable figure and should not be used in any calculations. Only the weighted mean across all room types, in the bottom rows of these tables, should be used. The overall averages in the bottom right corners are the numbers reported as per unit savings for the program seen in Table 1.

Table 64. Gross kWh Savings by Year and Room Type

Room Type	2013	2014	2015	2016	2017	Average
Bathroom	22.3	20.7	17.1	15.3	13.8	17.8
Dining room	23.7	20.5	17.5	15.7	14.9	18.5
Hall	39.4	36.6	30.4	27.4	24.8	31.7
Kitchen	32.0	29.5	24.5	21.8	19.8	25.5
Living/family room	42.7	38.7	32.1	29.1	26.6	33.8
Master bedroom	25.0	22.7	18.9	16.9	15.5	19.8
Other	23.0	21.5	17.2	14.6	12.8	17.8
Garage	9.1	8.0	6.7	6.3	5.8	7.2
Other bedroom	20.4	19.8	16.0	13.9	12.2	16.4

Basement	38.2	32.3	27.7	25.7	24.6	29.7
Overall	32.0	29.1	24.2	21.7	19.8	25.3

Table 65. Gross Coincident kW Reduction by Year and Room Type

Room Type	2013	2014	2015	2016	2017	Average
Bathroom	0.0031	0.0029	0.0024	0.0021	0.0019	0.0025
Dining room	0.0049	0.0042	0.0036	0.0032	0.0031	0.0038
Hall	0.0046	0.0043	0.0036	0.0032	0.0029	0.0037
Kitchen	0.0033	0.0031	0.0025	0.0023	0.0021	0.0026
Living/family room	0.0040	0.0036	0.0030	0.0027	0.0025	0.0032
Master bedroom	0.0037	0.0034	0.0028	0.0025	0.0023	0.0030
Other	0.0030	0.0028	0.0023	0.0020	0.0018	0.0024
Garage	0.0053	0.0046	0.0039	0.0036	0.0034	0.0042
Other bedroom	0.0037	0.0036	0.0030	0.0026	0.0023	0.0030
Basement	0.0044	0.0037	0.0032	0.0029	0.0028	0.0034
Overall	0.0038	0.0035	0.0029	0.0026	0.0024	0.0030

Table 66. Net kWh Savings by Year and Room Type

Room Type	2013	2014	2015	2016	2017	Average
Bathroom	17.3	16.1	13.3	11.8	10.7	13.8
Dining room	18.4	15.9	13.6	12.1	11.6	14.3
Hall	30.6	28.4	23.6	21.2	19.2	24.6
Kitchen	24.8	22.9	19.0	16.9	15.4	19.8
Living/family room	33.1	30.0	24.9	22.6	20.6	26.2
Master bedroom	19.4	17.6	14.6	13.1	12.0	15.3
Other	17.8	16.7	13.3	11.3	9.9	13.8
Garage	7.0	6.2	5.2	4.9	4.5	5.6
Other bedroom	15.8	15.3	12.4	10.8	9.4	12.8
Basement	29.7	25.1	21.5	20.0	19.0	23.0
Overall	24.8	22.6	18.7	16.8	15.4	19.7

Table 67. Net Coincident kW Reduction by Year and Room Type

Room Type	2013	2014	2015	2016	2017	Average
Bathroom	0.0024	0.0023	0.0019	0.0017	0.0015	0.0019
Dining room	0.0038	0.0033	0.0028	0.0025	0.0024	0.0029
Hall	0.0036	0.0033	0.0028	0.0025	0.0023	0.0029
Kitchen	0.0026	0.0024	0.0020	0.0018	0.0016	0.0021
Living/family room	0.0031	0.0028	0.0023	0.0021	0.0019	0.0025
Master bedroom	0.0029	0.0026	0.0022	0.0020	0.0018	0.0023
Other	0.0023	0.0022	0.0018	0.0015	0.0014	0.0018
Garage	0.0041	0.0036	0.0030	0.0028	0.0026	0.0032
Other bedroom	0.0029	0.0028	0.0023	0.0020	0.0018	0.0024
Basement	0.0034	0.0029	0.0025	0.0023	0.0022	0.0026
Overall	0.0029	0.0027	0.0022	0.0020	0.0018	0.0023

Total Program Savings Extrapolation

From the program's inception on September 10, 2012 through June 30, 2013, there were a total of 42,027 participants. These participants received 529,265 CFLs. The gross kWh and kW

savings calculated in Table 68 is the result of multiplying the number of bulbs distributed by the gross savings per bulb for the program seen in Table 1.

Table 68. Total Program Gross Savings Extrapolation

Participation Count	Number of Bulbs	Gross kWh	Gross kW
42,027	529,265	13,390,405	1,588

Appendix A: Management Interview Instrument

Name: _____

Title: _____

We are conducting this interview to obtain your opinions about and experiences with Duke Energy's Kentucky CFL program. We'll talk about the program and its objectives, your thoughts on improving the program, and the technologies the program covers. The purpose of this study is to capture the program's current operations as well as help identify areas where the program might be improved. Your responses will feed into a report that will be shared with Duke Energy and the state regulatory agency. We will not identify you by name, however, you may provide some information or opinions that could be attributed to you by virtue of your position and role in this program. If there is sensitive information that you wish to share, please warn me and we can discuss how best to include that information in the report. Do you have any questions for me before we begin?

Program Background and Objectives

1. Please describe your role and scope of responsibility in detail.
2. How long have you been involved with this program? Has your role in this program changed during that time? (if so, how?)
3. Describe the evolution of the program. Why was the program created, and how has the program changed since it was first started?
4. What are the customer eligibility requirements?
5. How many CFLs are customers allowed and of what type? Why that number of CFLs?
6. What are you doing to keep freeridership low for this program?
7. What are the program's goals? That is, what goals and metrics are you tasked with achieving (such as CFLs distributed, numbers of new enrollments, website visits, etc.)? What is the current performance towards these targets?
8. What are the current program's objectives? That is, aside from the numerical goals what is the program trying to accomplish (save energy, improve CSAT, protect environment, etc.)? In your opinion, which objectives do you think are being met or will be met? Have the objectives changed over time. If yes, how do you think they have changed??
9. Are there any program objectives that are not being addressed or that you think should have more attention focused on them? If yes, which ones? How should these objectives be addressed? What should be changed? How will these changes improve the program?

Program Implementation

10. Is there any other person or group within Duke Energy that you work with on the implementation of this program? Who is that and what role do they serve?

11. Which third parties or vendors do you work with to implement this program? Please describe their roles in the implementation of the program.
12. Can you please walk me through the program's implementation, starting with how the program is marketed and how you target your customers, through how the customer participates and finishing with how savings are verified?

Marketing

13. Roughly how many customers are eligible for this program and how are you targeting them?
14. What kinds of marketing, outreach and customer contact approaches do you use to make your customers aware of the program and its options?
15. Please describe the various marketing channels that you are using, including when and why you've selected to use them.
16. How did your experience marketing this program in other service territories inform your strategy for Kentucky?
17. How do you track the effectiveness of your various marketing efforts?

Enrollment

18. By what methods can customers enroll/order CFLs? How are the order platforms working?
19. How do you determine if customers are eligible? How does the system actually work? How is it used?

Fulfillment

20. What is typical volume of bulb requests? What is the typical order size?
21. How does AM Conservation receive and process orders?
22. What timeframe are customers told it will take to receive their orders? What is the actual delivery time on average?
23. What percent of KY participants are using the online CFL shipping tracking system?

Quality Assurance

24. Please describe your quality assurance measures for each step in the process, including tracking participants, CFL numbers, ordering, shipping, bulb quality, and other program data. What issues have been uncovered and how have they been addressed.
25. What is the warranty policy on the CFLs distributed by this program? How do customers go about getting replacements?
26. How effective is the current program? (Clarify standard for "effective") How does it compare to other programs? What do you think should be changed, and why?

Vendors

27. Do you use any vendors or contractors to help implement the program? What responsibilities do they have? Are there any areas in which think they can improve their services?
28. Please characterize your working relationship.
29. Please describe the reporting process that you use to track and manage vendor activities.
30. Do you think methods for coordination should be changed in any way? If so, how and why?

Improvements

31. Are you currently considering any changes to the program's design or implementation? IF so, what are the changes? What is the process for deciding whether or not to make these changes?
32. Do you have suggestions for improvements to the program that would increase participation rates, or is Duke Energy happy with the current level of participation?
33. Do you have suggestions for increasing energy impacts per participant, given the same participation rates, or is Duke Energy happy with the current per participant impact?
34. Overall, what would you say about the program is working really well?
35. Is there anything in this program you could highlight as a best practice that other utilities might like to adopt?
36. What area needs the most improvement, if any? (If not mentioned before) What would you suggest can be done to improve this?
37. If you could change any part of the program what would you change and why?

Market Assessment and Barriers

38. Describe the use of any advisors, technical groups or organizations that have in the past or are currently helping you think through the program's approach or methods. How often do you use them? What do you use them for?
39. What information, research or assessments are you using to identify barriers and to develop more effective approaches/mechanisms for achieving program goals?
40. Can you cite any market, operational or technical barriers that impede a more efficient program operation? Please describe.
41. How are you adjusting the program as the market becomes more saturated with CFLs?

Wrap Up

42. Are there any other issues or topics we haven't discussed that you feel should be included in this report?
43. Do you have any supporting materials about the program that you could share with me? E.g., communication plan, program objectives, advertisement copy

44. Do you have any further questions for me about this study or anything else?

45. Whom else do you recommend that we interview?

Thank you!

Appendix B: Vendor Interview Instrument

Name: _____

Title: _____

We are conducting this interview to obtain your opinions about and experiences with Duke Energy's Kentucky CFL program. We'll talk about the program and its objectives, your thoughts on improving the program, and the technologies the program covers. The purpose of this study is to capture the program's current operations as well as help identify areas where the program might be improved. Your responses will feed into a report that will be shared with Duke Energy and the state regulatory agency. We will not identify you by name, however, you may provide some information or opinions that could be attributed to you by virtue of your position and role in this program. If there is sensitive information that you wish to share, please warn me and we can discuss how best to include that information in the report. Do you have any questions for me before we begin?

Program Background and Objectives

1. Please describe your role and scope of responsibility in detail.
2. How long have you been involved with this program? Has your role in this program changed during that time? (if so, how?)
3. Describe the evolution of the program. Why was the program created, and how has the program changed since it was it first started?
4. What are the customer eligibility requirements?
5. What are the program's goals? That is, what goals and metrics are you tasked with achieving (such as CFLs distributed, numbers of new enrollments, website visits, etc.)? What is the current performance towards these targets?
6. What are the current program's objectives? That is, aside from the numerical goals what is the program trying to accomplish (save energy, improve CSAT, protect environment, etc.)? In your opinion, which objectives do you think are being met or will be met? Have the objectives changed over time. If yes, how do you think they have changed??
7. Are there any program objectives that are not being addressed or that you think should have more attention focused on them? If yes, which ones? How should these objectives be addressed? What should be changed? How will these changes improve the program?

Program Implementation

8. Can you please walk me through your company's role in the program's implementation?
9. How does your company receive and process orders?
10. How do you track the effectiveness of your efforts?
11. What is typical volume of bulb requests? What is the typical order size?

12. What timeframe are customers told it will take to receive their orders? What is the actual delivery time on average?
13. What percent of KY participants are using the online CFL shipping tracking system?

Quality Assurance

14. Please describe your quality assurance measures for each step in the process. What issues have been uncovered and how have they been addressed.
15. What is the warranty policy on the CFLs distributed by this program? How do customers go about getting replacements?
16. How effective is the current program? (Clarify standard for "effective") How does it compare to other programs? What do you think should be changed, and why?

Duke Energy

17. Please characterize your working relationship with Duke Energy.
18. Please describe the reporting process that you use to track and manage vendor activities.
19. Do you think methods for coordination should be changed in any way? If so, how and why?

Improvements

20. Overall, what would you say about the program is working really well?
21. Is there anything in this program you could highlight as a best practice that other utilities might like to adopt?
22. What area needs the most improvement, if any? (If not mentioned before) What would you suggest can be done to improve this?
23. Are you currently considering any changes to the program? If so, what are the changes? What is the process for deciding whether or not to make these changes?
24. Can you cite any market, operational or technical barriers that impede a more efficient program operation? Please describe.
25. How are you adjusting the program as the market becomes more saturated with CFLs?

Wrap Up

26. Are there any other issues or topics we haven't discussed that you feel should be included in this report?
27. Do you have any further questions for me about this study or anything else?
28. Whom else do you recommend that we interview?

Thank you!

Appendix C: Participant Survey Instrument

Number of CFLs customer was sent*

This value will be "piped" into questions on subsequent pages, but cannot be piped into the Introduction or q1a below, so is shown as (#) below

Use four attempts at different times of the day and different days before dropping from contact list. Call times are from 10:00 a.m. to 8:00 p.m. EST or 9-7 CST Monday through Saturday. No calls on Sunday.

Target: 80 in Kentucky.

Note: Only read words in bold type.

Introduction

for answering machine 1st through penultimate attempts:

Hello, my name is _____. I am calling to conduct a customer survey, on behalf of Duke Energy. I'm sorry I missed you. I'll try again another time.

for answering machine - Final Attempt:

Hello, my name is _____. I am calling to conduct a customer survey, on behalf of Duke Energy. This is my last attempt at reaching you, my apologies for any inconvenience.

if person answers

Hello, my name is _____. I am calling to conduct a customer survey, on behalf of Duke Energy. May I speak with _____ please?

If person talking, proceed. If person is called to the phone reintroduce.

We are conducting this survey to obtain your opinions about the Duke Energy CFL Program. Duke Energy's records indicate that you participated in the program and received (#) CFLs. We are not selling anything. Your responses to our survey questions will be combined with other responses and used to help us make improvements to the program to better serve others. If you qualify for the survey it will take about 20-30 minutes, but when we are done with the survey I will confirm your address and we will send you \$20 for your time

Note: If this is not a good time, ask if there is a better time to schedule a callback

1. Do you recall participating in the CFL program?*

- Yes
- No
- DK/NS

1a. This program was provided through Duke Energy. In this program, Duke Energy sent (#) CFLs directly to your household.

Do you remember participating in this program? *

- Yes
- No
- DK/NS

If No or DK/NS terminate interview and go to next participant.

2. How did you learn of the free CFL Program?*

Check all that apply

- I visited Duke Energy's website
- From another Web Site **Which one?**
- I got a brochure in the mail
- Advertisement in my bill
- Email from family/friend
- Email from a Duke Energy employee
- Paperless billing email
- From friend/family (ask if through email, if so, select e above)
- Social media **Which one?**
- CAP Agency (low income agency)
- Other Low income service **Which one?**
- Other

3. Why did you decide to take advantage of the offer?*

Check all that apply

- I needed light bulbs
- To save energy
- Because it was free
- To save money
- To try CFLs
- It was environmentally correct
- Offer made it easy to get bulbs (convenient)
- The bulbs last longer than standard bulbs
- Other (please specify):

4. How did you order the CFLs?*

- Automated 800 number
- Web Site
- Mail-in card
- Called customer service
- Other: _____ *

5. Which of the following statements best describes the level of success you had in completing your order for CFLs:*

- You were successful at placing the order on your first attempt
- You had to make more than one attempt using the same method
- You had to make more than one attempt using different methods (which ones?):

- _____*
- Don't remember
 - Other:: _____*

6. On a 1-to-10 scale with 1 being very dissatisfied and 10 being very satisfied, please rate your satisfaction with the ease of ordering your free CFLs.*

- Very dissatisfied
- 1
 - ...
 - 10
 - DK/NS
- very satisfied

If 7 or less,

6a. Why were you less than satisfied with the ease of ordering?*

If 7 or less,

6b. Would you have preferred another method to order the free CFLs?*

- Yes ask: 6c. Which method? : _____*
- No
- DK/NS

7. On a 1-to-10 scale with 1 being very dissatisfied and 10 being very satisfied, please rate your satisfaction with the delivery time in ordering your free CFLs.*

- Very dissatisfied
- 1
 - ...
 - 10
 - DK/NS
- very satisfied

If 7 or less,

7a. Why were you less than satisfied with the delivery time?*

8. Were you aware of the order-tracking feature that allowed you to check the progress of your CFL order?*

- Yes
- No

If yes to 8,

8a. Did you use the order-tracking feature?*

- Yes
- No
- DK/NS

If yes to 8a,

8b. On a 1-to-10 scale with 1 being very dissatisfied and 10 being very satisfied, please rate your satisfaction with the order-tracking feature of the CFL program.*

- Very dissatisfied
- 1
- ...
- 10
- DK/NS
- very satisfied

If 7 or less,

8c. Why were you less than satisfied with the order tracking feature? *

9. On a scale of 1 to 10 where 1 is not likely and 10 is very likely, how likely would you be to continue to buy and use CFLs in the future?*

- very unlikely
- 1
- ...
- 10
- DK/NS
- very likely

10. On a scale of 1 to 10 where 1 is not likely and 10 is very likely, how likely are you to use CFLs when there is a need to change a bulb in your home? *

- very unlikely
- 1
- ...
- 10
- DK/NS
- very likely

11. On a scale of 1 to 10 where 1 is not likely and 10 is very likely, how likely would you be to tell friends and/or family about this offer?*

- very unlikely
- 1
- ...
- 10
- DK/NS

very likely

We would like to know if the direct mailing of CFLs to your home made you more likely or less likely to obtain and use CFLs compared to several other methods:

On a 1-to-10 scale with 1 being very unlikely and 10 being very likely, please rate your likelihood of participating in a CFL program that:*

	1	2	3	4	5	6	7	8	9	10	DK/NS
12. Offers discounted CFLs by direct-mail sent to your home											
13. Offers discounted CFLs through a retailer or store coupon											
14. Offers discounted CFLs through a manufacturers coupon that can be used at any store where that brand is sold											
15. Offers discounted CFLs through an online vendor such as Amazon.com											

On a 1-to-10 scale with 1 being not at all important and 10 being very important, please rate the importance of each of the following characteristics when choosing a light bulb for your home*

	1	2	3	4	5	6	7	8	9	10	DK/NS
16. Ability to dim the lighting level											
17. Speed of which the bulb comes up to full lighting level											
18. Purchase price of the bulb											
19. Availability of the bulb in stores you normally shop											
20. Selection of wattage and light output levels available											
21. Cost savings on your utility bill											
22. Energy savings											
23. Attractiveness or appearance of the bulb											
24. Recommendations from family and friends											
25. Recommendations from the utility company											
26. Availability of utility programs or services that offer the bulbs to you directly											
27. Ease of bulb disposal											
28. Mercury content of the bulb											

29. Out of the next 10 light bulbs you buy, about how many will be . . .*
*read list and repeat as necessary, enter number for each including zeros –
number responses must add up to 10*

- _____ **Standard incandescent bulbs**
- _____ **CFL bulbs (compact fluorescent "curly" bulbs)**
- _____ **LED bulbs**
- _____ **Halogen bulbs**
- _____ **Traditional fluorescent bulbs (2 foot or 4 foot straight tubes)**
- _____ **Other**
- _____ **Don't Know**

if answered "Other" in q29, please specify what other type of bulb:

30. I'd like to talk about the CFLs you received from this program. Our records indicate that you received [question("value"), id="252"] CFLs, is this correct?*

- Yes
- No *ask: 30a. How many CFLs did you receive?: _____**
- DK/NS

31. Did you order all of the bulbs that you were eligible to receive?*

- Yes
- No *ask: 31a. Why not?: _____**
- DK/NS

32. How many of the CFLs are now installed in light fixtures?*

- 0
- 1
- 2
- 3
- 4
- 5
- 6 or more: _____*

"Now I'm going to ask you about each bulb you put into a light fixture..."

(Repeat 33 and 33a to 33e for up to 3 installed bulbs)

1st bulb

33. For the first CFL, in which room was the bulb installed?*

- Living/family room
- Dining room
- Kitchen
- Master bedroom
- Bedroom 2

- Bedroom 3 or other bedroom
- Hall
- Closet
- Basement
- Garage
- Other (*specify*): _____ *

33a. Was the bulb you removed a standard bulb or a CFL?*

- Standard Incandescent
- CFL
- There was no bulb in the socket
- Other: _____ *
- DK/NS

33b. How many watts was the old bulb that you took out?*

- Less than 44
- 45-70
- 71-99
- 100 or more
- DK/NS

33c. What did you do with the bulb you removed?*

- Recycled It
- Threw it away
- Stored it
- Other: _____ *

33d. On average, approximately how many hours per day is this light used?*

- Less than 1
- 1 to 2
- 3 to 4
- 5 to 10
- 11 to 12
- 13 to 24

33e. Did the hours of use for this fixture increase, decrease or stay the same since you replaced the old bulb with the CFL?*

- Increased *ask: How many hours more?:* _____ *
- Decreased *ask: How many hours less?:* _____ *
- Stayed the same

2nd bulb

33. For the second CFL, in which room was the bulb installed?*

- Living/family room
- Dining room

- Kitchen
- Master bedroom
- Bedroom 2
- Bedroom 3 or other bedroom
- Hall
- Closet
- Basement
- Garage
- Other (*specify*): _____ *

33a. Was the bulb you removed a standard bulb or a CFL?*

- Standard Incandescent
- CFL
- There was no bulb in the socket
- Other: _____ *
- DK/NS

33b. How many watts was the old bulb that you took out?*

- Less than 44
- 45-70
- 71-99
- 100 or more
- DK/NS

33c. What did you do with the bulb you removed?*

- Recycled It
- Threw it away
- Stored it
- Other: _____ *

33d. On average, approximately how many hours per day is this light used?*

- Less than 1
- 1 to 2
- 3 to 4
- 5 to 10
- 11 to 12
- 13 to 24

33e. Did the hours of use for this fixture increase, decrease or stay the same since you replaced the old bulb with the CFL?*

- Increased How many hours more?: _____ *
- Decreased How many hours less?: _____ *
- Stayed the same

3rd bulb

33. For the third CFL, in which room was the bulb installed?*

- Living/family room
- Dining room
- Kitchen
- Master bedroom
- Bedroom 2
- Bedroom 3 or other bedroom
- Hall
- Closet
- Basement
- Garage
- Other (*specify*): _____ *

33a. Was the bulb you removed a standard bulb or a CFL?*

- Standard Incandescent
- CFL
- There was no bulb in the socket
- Other: _____ *
- DK/NS

33b. How many watts was the old bulb that you took out?*

- Less than 44
- 45-70
- 71-99
- 100 or more
- DK/NS

33c. What did you do with the incandescent you removed?*

- Recycled It
- Threw it away
- Stored it
- Other: _____ *

33d. On average, approximately how many hours per day is this light used?*

- Less than 1
- 1 to 2
- 3 to 4
- 5 to 10
- 11 to 12
- 13 to 24

33e. Did the hours of use for this fixture increase, decrease or stay the same since you replaced the old bulb with the CFL?*

- Increased **How many hours more?:** _____ *
- Decreased **How many hours less?:** _____ *
- Stayed the same

34. What have you done with the remaining CFLs that were not installed?*

- Put them in storage/closet/shelf
- Gave them away **To whom?**
- Threw them out
- Recycled them
- Other
- Have installed all bulbs

If "Gave them away", ask:

34b. How many did you give away?*

- #: _____ *
- DK/NS

If answered a. "Put them in storage" to question (34), ask (35-37)

35. Do you plan on using the remaining CFLs in the next year?*

- Yes
- No **35a. Why Not? :** _____ *
- Maybe or DK/NS

36. Thinking of the CFL bulbs you have stored for later use, what are the reasons that you have not installed these bulbs?*

(Select all that apply)

- I am waiting for my other standard bulbs to burn out
- I am waiting for my other CFL bulbs to burn out
- I already have CFLs installed everywhere they will fit
- The other lamps or light fixtures in my home are on a dimmer and don't work with the CFLs
- The CFL bulbs are too dim for the other locations where I could install them
- I don't like the way the CFL bulbs look in some of my fixtures
- Other *specify*
- DK/NS
- Have installed all bulbs

37. How long do you think it will be before you will have installed all of the free bulbs you received from the Duke Energy program?*

- 1 year or less
- 12 to 24 months (2 years)
- 25 to 36 months (3 years)
- 37 to 48 months (4 years)
- 49 to 60 months (5 years)
- More than 5 years
- DK/NS
- other: _____ *
- Not applicable

38. Have you removed any of the CFLs you installed that you received through the direct mail CFL program?*

- Yes **How many?**: _____ *
- No
- DK/NS

39. Why did you remove them?*

Select all that apply

- Not bright enough
- Did not like the color of the light
- The light was too bright
- Too slow to start
- Burned out
- Not working properly
- Did not like appearance/shape of the bulbs
- Other (*specify*)
- DK/NS

40. How many standard incandescent bulbs do you have in storage to replace bulbs that burn out?*

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7 – 11
- 12 or more
- DK/NS

41. On a 1-to-10 scale with 1 being very dissatisfied and 10 being very satisfied, please rate your satisfaction with the light quality of your free CFLs.*

- very dissatisfied
- 1
- ...
- 10
- DK/NS
- very satisfied

If 7 or less,

41a. Why were you less than satisfied with the light quality? *

42. On a 1-to-10 scale with 1 being very dissatisfied and 10 being very satisfied, please rate your satisfaction with the overall bulb quality of your free CFLs.*

- very dissatisfied
- 1
- ...
- 10
- DK/NS
- very satisfied

If 7 or less,

42a. Why were you less than satisfied with the quality of the CFLs? *

43. On a scale from 1-10, with 1 indicating that you were very dissatisfied, and 10 indicating that you were very satisfied, please rate your satisfaction with the direct mail CFL program.*

- very dissatisfied
- 1
- ...
- 10
- DK/NS
- very satisfied

If 7 or less,

43a. How could this be improved?*

44. On a scale from 1-10, with 1 indicating that you were very dissatisfied, and 10 indicating that you were very satisfied, please rate your satisfaction with Duke Energy overall.*

- very dissatisfied
- 1
- ...
- 10
- DK/NS
- very satisfied

If 7 or less,

44a. How could this be improved?*

45. If you were rating your overall satisfaction with the CFL Program, would you say you were Very Satisfied, Somewhat Satisfied, Neither Satisfied nor Dissatisfied, Somewhat Dissatisfied, or Very Dissatisfied?*

- Very Satisfied
- Somewhat Satisfied
- Neither Satisfied nor Dissatisfied
- Somewhat Dissatisfied

- Very Dissatisfied
- Refused
- DK/NS

46. Why do you give it that rating?*

47. What did you like most about the direct mail CFL program?*

48. What did you like least about the direct mail CFL program?*

49. Before you received the free CFLs from Duke Energy, had you already installed CFLs in your home?*

- Yes
- No
- DK/NS

If yes to Q49

49a. How many CFLs were you using in your home when you received the shipment from Duke Energy?*

- # of Bulbs: _____ *
- DK/NS

50. How many years have you been using CFLs?*

- Never purchased until now
- 1 year or less
- 1 to 2 years
- 2 to 3 years
- 3 to 4 years
- 4 or more years
- DK/NS

51. Before you received the free CFLs from Duke Energy, did you have any LED light bulbs installed in your home?*

- Yes
- No
- DK/NS

If yes to Q51

51a. How many LEDs were you using in your home when you received the shipment of CFLs from Duke Energy?*

- # of Bulbs: _____ *
- DK/NS

If yes to Q51

51b. Where did you get the LEDs were you using in your home before receiving the shipment of CFLs from Duke Energy?

*(Do not read list, check all that apply)**

- Assistance office (CAP Agency)
- Another Duke Energy program
- A program from a company other than Duke Energy
- Purchased at a store
- Some other way
- DK/NS

If yes to Q51

52. How many years have you been using LEDs?*

- Have never used LED light bulbs at all
- Never used until recently (first time user)
- 1 year or less (but not first time)
- 1 to 2 years
- 2 to 3 years
- 3 to 4 years
- 4 or more years
- Other, specify:: _____ *
- DK/NS

If yes to Q51

52b. Do you have any LED bulbs in storage to replace bulbs that burn out?*

- None
- One or more (record number):: _____ *
- DK/NS

53. Were you planning on buying CFLs for your home before you received the CFL bulbs from Duke Energy?*

- Yes
- No
- No, already have CFLs installed in all available sockets
- Maybe
- DK/NS

54. Were you planning on buying LEDs for your home before you received the CFL bulbs from Duke Energy?*

- Yes
- No
- No, already have LEDs installed in all available sockets
- Maybe
- DK/NS

*Read answers until they reply affirmatively.
Then ask any follow up.*

55. If the CFL direct shipment program had not been available, would you have:*

Purchased the same amount of CFLs at the same time

Purchased fewer CFLs at the same time

55a. How many?: _____ *

Purchased CFLs at a later time,

55b. How many?: _____

Not purchased CFLs

if "Purchased CFLs at a later time"

55c. When?*

56. On a scale from 1-10, with 1 indicating that the factor was not at all influential, and 10 indicating that the factor was very influential, please rate the level of influence of the following factors on your decision to obtain CFLs through the Duke Energy program.*

	1	2	3	4	5	6	7	8	9	10	DK/NS
56a. Duke Energy advertising on TV, Radio, or newspaper											
56b. Advertising on Duke Energy's Web site											
56c. Duke Energy advertising on social media sites such as Facebook											
56d. The brand of CFLs offered by the program											
56e. Other non-Duke Energy advertising											
56f. Friends or family by word of mouth											
56g. Friends or family by email											
56h. Friends or family by social media such as Facebook											
56i. Someone you don't know personally or a group that you follow on Facebook or Twitter											
56j. Your desire to save energy											
56k. Your desire to save on utility costs											
56l. Your desire to be environmentally responsible.											

57. Did you tell anyone about the program?*

Yes ask 57a and 57b

No

DK/NS

57a. Who did you tell?*

(add number to all that apply)

Friends (How many?): _____

Family (How many?): _____

Co-workers (How many?): _____

Neighbors (How many?): _____

Other (How many?): _____

57b. How did you tell them?*

check all that apply

Word of mouth

Email

Facebook

Twitter

Web site forum

Other

58. Did your experience with the CFLs provided by the Duke Energy Free CFL program make it more or less likely that you would purchase and install CFLs in the future?*

More likely

Less likely

Neither more or less likely

58a. Why are you more likely to use CFLs in the future?*

58b. Why are you less likely to use CFLs in the future?*

59. Have you purchased any additional CFLs since receiving the free CFLs from Duke Energy?*

Yes ask 59a, 59b and 59c

No

DK/NS

*if Yes, ask.**

59a. How many did you purchase?: _____

59b. How many of those are you currently using?: _____

59c. Using a 1 to 10 scale, with 1 meaning that the Duke program had no influence, and a 10 to mean that the Duke program was very influential, please rate the influence of the Duke Energy free CFL program on your decision to purchase additional CFLs.*

Not at all influential

1

...

10

DK/NS

Very influential

60. Did your experience with the CFLs provided by the Duke Energy Free CFL program make it more or less likely that you would purchase and install LEDs in the future?*

- More likely
- Less likely
- Neither more or less likely

60a. Why are you more likely to use LEDs in the future?*

60b. Why are you less likely to use LEDs in the future? *

61. Have you purchased any LEDs since receiving the free CFLs from Duke Energy?*

- Yes
- No
- DK/NS

61a. How many did you purchase?*

61b. How many of those are you currently using?*

61c. Using a 1 to 10 scale, with 1 meaning that the Duke program had no influence, and a 10 to mean that the Duke program was very influential, please rate the influence of the Duke Energy free CFL program on your decision to purchase LEDs. *

- very dissatisfied
- 1
- ...
- 10
- DK/NS
- very satisfied

61d. On a 1-to-10 scale with 1 being very unlikely and 10 being very likely, please rate your likelihood of buying and using LEDs in the future:*

- very dissatisfied
- 1
- ...
- 10
- DK/NS
- very satisfied

62. Considering future CFL purchases, how many CFL bulbs would you purchase in the next year if they were...*

The same price as standard bulbs: _____

\$1 more than standard bulbs: _____

\$2 more than standard bulbs: _____

\$3 more than standard bulbs: _____

Free, but you had to mail in a rebate form to get your money back:

Free, but you had to fill out a form online: _____

63. Considering future LED purchases, how many LED bulbs would you purchase in the next year if they were...*

The same price as standard bulbs: _____

\$2 more than standard bulbs: _____

\$5 more than standard bulbs: _____

\$10 more than standard bulbs: _____

Free, but you had to mail in a rebate form to get your money back:

Free, but you had to fill out a form online: _____

63b. On a scale from 1-10, with 1 indicating not at all interested and 10 indicating very interested, please rate your interest in Duke Energy providing a direct mail service that ships discounted LED light bulbs to your home, similar to their program that shipped CFL bulbs to your home.*

not at all interested

1

...

10

DK/NS

very interested

64. What is your best estimate of the number of bulbs installed in your home that are standard incandescent bulbs?*

65. How many of these standard incandescent bulbs are in sockets that are typically used for more than 2 hours a day?*

66. Please list the number of bulbs currently installed in your home that are specialty bulbs such as dimmable bulbs, three-way bulbs, recessed, flood or directional lights, candelabra lights or other non-standard bulbs...

How many [a] do you have in your home?... how many [b], etc.

*Answer all, with 0's if appropriate**

Dimmable bulbs: _____

Outdoor flood bulbs: _____

Three-way bulbs: _____

Spotlight bulbs: _____
Recessed bulbs: _____
Candelabra bulbs: _____
Other (specify): _____

67. For each of these specialty bulbs installed, how many are CFLs?*

Dimmable bulbs: _____
Outdoor flood bulbs: _____
Three-way bulbs: _____
Spotlight bulbs: _____
Recessed bulbs: _____
Candelabra bulbs: _____
Other (specify): _____

68. For each of these specialty bulbs installed, how many are LEDs?*

Dimmable bulbs: _____
Outdoor flood bulbs: _____
Three-way bulbs: _____
Spotlight bulbs: _____
Recessed bulbs: _____
Candelabra bulbs: _____
Other (specify): _____

69. On a scale from 1-10, with 1 indicating not at all interested and 10 indicating very interested, please rate your interest in Duke Energy providing a direct mail specialty CFL program that shipped discounted specialty bulbs directly to your home:*

Not at all interested
() 1
...
() 10
() DK/NS
very interested

Please tell me if you would be interested in receiving the following types of CFLs if they were to be offered in the future...

70. Dimmable CFLs*

() Yes
About how many hours per day would these bulbs be used?: _____*
() No
() DK/NS

71. Outdoor flood CFLs *

() Yes
About how many hours per day would these bulbs be used?: _____*

- No
- DK/NS

72. Three-way CFLs*

- Yes
- About how many hours per day would these bulbs be used?:** _____ *
- No
- DK/NS

73. Spotlight CFLs*

- Yes
- About how many hours per day would these bulbs be used?:** _____ *
- No
- DK/NS

73b. Recessed CFLs*

- Yes
- About how many hours per day would these bulbs be used?:** _____ *
- No
- DK/NS

74. Candelabra CFLs*

- Yes
- About how many hours per day would these bulbs be used?:** _____ *
- No
- DK/NS

(If responder indicated a different specialty bulb in Q66g)

75. Other

- Yes
- About how many hours per day would these bulbs be used?:** _____ *
- No
- DK/NS

75b. On a scale from 1-10, with 1 indicating not at all interested and 10 indicating very interested, please rate your interest in Duke Energy providing a direct mail specialty LED program that shipped discounted specialty LED bulbs directly to your home:*

- Not at all interested
- 1
- ...
- 10
- DK/NS
- very interested

Please tell me if you would be interested in receiving the following types of specialty LEDs if they were to be offered in the future...

76. Dimmable LEDs*

Yes

About how many hours per day would these bulbs be used?: _____ *

No

DK/NS

77. Outdoor flood LEDs *

Yes

About how many hours per day would these bulbs be used?: _____ *

No

DK/NS

78. Three-way LEDs*

Yes

About how many hours per day would these bulbs be used?: _____ *

No

DK/NS

79. Spotlight LEDs*

Yes

About how many hours per day would these bulbs be used?: _____ *

No

DK/NS

79b. Recessed LEDs*

Yes

About how many hours per day would these bulbs be used?: _____ *

No

DK/NS

80. Candelabra LEDs*

Yes

About how many hours per day would these bulbs be used?: _____ *

No

DK/NS

(If responder indicated a different specialty LED in Q66g)

81. Other

Yes

About how many hours per day would these bulbs be used?: _____ *

No

DK/NS

82. Since you received the free CFLs from Duke Energy,

82a. Have you purchased and installed any energy efficiency equipment (such as high efficiency appliances, windows or heating and cooling equipment)?*

- Yes
- No
- DK/NS

82b. Have you made energy efficiency improvements in your home, such as...?*

- Wall or ceiling insulation
- Caulking
- Faucet aerators
- Outlet or switch gaskets
- Lowflow showerhead
- Programmable thermostat
- Weatherstripping
- None of the above

82c. Have you changed any of your habits related to energy use?*

- Yes *Please specify:* _____ *
- No
- DK/NS

83. Please rate the influence of your experience with the Duke Energy CFL program regarding your decision to purchase additional equipment on your own on a scale from 1-10, with 1 indicating that the CFL program was not at all influential, and 10 indicating that the CFL program was very influential:*

- Not at all influential
- 1
- ...
- 10
- DK/NS
- Very influential

84. How often do you use the Duke Energy Web Site?*

- Often (once a month or more)
- Sometimes (less than once a month)
- Never

85. Have you added any major electrical appliances to your home in the past year?*

- Yes
- No

86. Are you aware of the ENERGY STAR label for appliances?*

- Yes

No

87. Do you typically look for the ENERGY STAR label when purchasing an appliance?*

Yes

No

88. Do you typically buy appliances with the ENERGY STAR label?*

Yes, all of the time

Yes, some of the time

No, never

89. Why do you believe that Duke Energy is providing free CFLs to their customers?*

Do not read response options, check all that apply.

Duke Energy wants to save their customers money

Duke Energy wants to save energy for environmental reasons

Duke Energy wants to save energy for economic reasons

Duke Energy wants to look good (PR)

The government is forcing Duke Energy to do it

Other (*specify*)

"None of the above" or DK/NS

90. Are you currently a participant in any of the following Duke Energy programs (check all that apply):*

Power Manager

Residential Smart Saver

Home Energy House Call

My Home Energy Report

Personalized Energy Report

Online Services

"None of the above" or DK/NS

Callers FYI: descriptions of the programs:

Power Manager:

A program that provides bill credits in exchange for allowing Duke Energy to temporarily cycle your air conditioning unit during periods of high use

Residential Smart Saver:

A program that provides rebates for energy efficient improvements to your house such as energy efficient heating and cooling units

Home Energy House Call:

A program in which an assessor comes to your house, suggests energy efficiency improvements, and Duke Energy provides certain low-cost improvement materials for free

My Home Energy Report:

A program that provides an ongoing comparison of your energy use with that of people who live in similar homes

Personalized Energy Report:

A program that provides personalized energy analysis and ways to save energy and money by filling out a few questions about your home either online or by mail

For all programs not checked in Q90, ask the following question

On a scale from 1-10, with 1 indicating not at all interested and 10 indicating very interested, please rate your interest in Duke Energy providing the following programs:

(Power Manager)

91a. A program that provides bill credits in exchange for allowing Duke Energy to temporarily cycle your air conditioning unit during periods of high use*

Not at all interested

1

...

10

DK/NS

very interested

(Residential Smart Saver)

91b. A program that provides rebates for energy efficient improvements to your house such as energy efficient heating and cooling units.*

Not at all interested

1

...

10

DK/NS

very interested

(Home Energy House Call)

91c. A program in which an assessor comes to your house, suggests energy efficiency improvements, and Duke Energy provides certain low-cost improvement materials for free.*

Not at all interested

1

...

10

DK/NS

very interested