AEP KENTUCKY POWER ®

A unit of American Electric Power

Hello and Thank You for Participating in Our Survey

Kentucky Power is teaming with Opinion Research Specialists, LLC to learn more about how businesses use energy so that Kentucky Power can develop and deliver programs that help its customers to use energy more efficiently.

If you need to pause this survey at any time, you can come back later and begin again where you left off. Simply save your personalized URL to access your survey again. The survey will automatically take you to the point where you left off.

As you complete the survey, you will **not** be able to use your browser's back button. If you mistakenly press your browser's back button, you will need to press the "refresh" button to continue the survey.

We will use the information you provide for research purposes only and will NOT share it with any third parties for any purpose. Information you provide will be stored in a secure database. If you have questions about the survey, please contact us at *KentuckyPowerSurvey@appliedenergygroup.com*. Alternatively, if you would like to contact Kentucky Power to ensure the validity of the survey, please call Kentucky Power at 1-800-572-1113.

If you complete the survey, we will send you a report that allows you to compare the way your business uses energy to the way that other, similar-sized businesses in the region use energy. If you provide us with an email address at the end of this survey, we will send you the report approximately two weeks after we receive all of the survey responses.

X1a.   Our survey is about the electricity and natural gas that is used at the following address:

[MERGED_ADDRESS]

Does your company own or operate a facility at this address?

1. Yes
2. No

[**ASK IF X1A=2; OTHERWISE SKIP TO X1C**]

X1b.   Does your business manage the property at this address, or do you otherwise make energy use decisions for the facility at this address?

1. Yes
2. No **[TERMINATE AND SHOW X1-X2 TERMINATE TEXT]**

X1c.   We show the business name as **[COMPANY_NAME]**. Is this your company, or is it the name of the company that manages or owns the building your company is located in?

1. My company
2. Another company that manages this property/building **[TERMINATE AND SHOW X1-X2 TERMINATE TEXT]**
3. A former tenant or occupant of this space **[TERMINATE AND SHOW X1-X2 TERMINATE TEXT]**

X2.   Is this address for a business or a residence?

1. This is a business address
2. This is a business address that is associated with the operation of a rental or leased multi-family residential property
3. This is a residential address, but a home-operated business is located here
4. This is a residential address – it is not associated with a business **[TERMINATE AND SHOW X1-X2 TERMINATE TEXT]**

[X1-X2 TERMINATE TEXT:]

We truly appreciate your time and effort in responding to our survey invitation, but our questions are related to the energy-related aspects for a specific business address.

Thank you. Have a nice day!

S1.   Which of the following describes how knowledgeable you are about the way your organization makes decisions about energy-related issues?

   1.   You are **very knowledgeable** about **all** of the issues your organization takes into account as it makes decisions about changing out equipment, or about other energy-related issues
   2.   You are **knowledgeable** about **most** of the factors that your organization takes into account as it makes decisions about changing out equipment, or about other energy-related issues
   3.   You are **not very knowledgeable** about how and why your organization makes the decisions it does about energy-related issues **[GO TO R1]**
   4.   Don't know **[GO TO R1]**

[IF S1=1 OR 2, SKIP TO S2; OTHERWISE SHOW R1 AND TERMINATE WITHOUT SHOWING STANDARD TERMINATE LANGUAGE]

R1.   Thank you for taking the time to see if you are eligible to participate in this survey. However, at this time we need responses from someone at your company who has specific knowledge about the way your company makes decisions about energy-related issues.

Again, getting feedback from your organization will help Kentucky Power to deliver programs that enable its customers to use energy more efficiently and improve these programs so they work best for everyone. As a result, we would appreciate it if you would **please ask another person in your company who is knowledgeable about the way your company makes decisions about energy-related issues to complete this survey.**

Please provide that person with the invitation card you received so that they may complete this survey with the ID information provided on the card.

[PROGRAMMER NOTE: IF A RESPONDENT TERMINATES VIA R1, DELETE DATA COLLECTED AND RESET SURVEY REENTRY POSITION FOR THAT SURVEY ID# BACK TO THE BEGINNING OF THE SURVEY, WITH THE LETTER 'A' APPENDED TO THE BEGINNING OF THEIR ORIGINAL ID NUMBER. FOR ALL RESPONDENTS THAT TERMINATE AT OTHER TERM SPOTS, DO NOT ALLOW SURVEY ID# TO BE USED MORE THAN ONCE.]

S2.   Which of the following best describes how your business is billed for electricity at **[MERGED_ADDRESS]**?

   1.   We are **billed directly by our utility company** for the electricity we use
   2.   We are **NOT billed directly by our utility company** for the electricity we use; our electric **bill is handled by another part of our company or by a third party service provider**, but ultimately, our company is responsible for the cost for our electricity
   3.   We are **NOT billed directly by our utility company** for the electricity we use; the cost for our electricity is **included in our rent/lease [TERMINATE]**
   4.   We are **served by another utility; not located in Kentucky [TERMINATE]**
   5.   Don't know **[TERMINATE]**

[IF S2=3-5, TERMINATE AND SHOW STANDARD TERMINATE LANGUAGE; OTHERWISE CONTINUE]

S3.   Does your business own or lease the building space at this location?
        Again, we are referring specifically to the business at **[MERGED_ADDRESS]**.

        If you both lease some space, and own some space at this location, which accounts for the majority of the space?

        1.   Own (or in the process of buying it)
        2.   Shorter term lease / rent (less than 3 years)
        3.   Longer term lease / rent (3 years or more)

S4.   Does your operation at this location occupy any enclosed space, or is it an outdoor structure or operation, such as a billboard, a parking lot, a communications tower, or the like?

        Our location…

        1.   Is ONLY an enclosed space
        2.   Is ONLY an outdoor structure or facility **[TERMINATE AFTER S5 – USE STANDARD TERMINATE TEXT]**
        3.   Includes both an enclosed space AND an outdoor structure or operation

[ASK IF S4=2; OTHERWISE SKIP TO INVITATION LANGUAGE]
S5.   What type of outdoor structure does your organization operate at this site?

        1.   Billboard
        2.   Communications / telecommunications tower or other equipment
        3.   Pump
        4.   Parking lot
        5.   Traffic light or other type of outdoor lighting
        990. Other (please specify:) _____

[IF S4=2 (Outdoor structure or facility only), TERMINATE AND SHOW STANDARD TERMINATE LANGUAGE; OTHERWISE GO TO INVITATION LANGUAGE]

[IF NOT OVER-QUOTA, GO TO INVITATION LANGUAGE; OTHERWISE TERMINATE AND SHOW STANDARD TERMINATE LANGUAGE]

STANDARD TERMINATE LANGUAGE (FOR NON-QUALIFYING AT OR AFTER S2, OR OVER-QUOTA RESPONDENTS)

We appreciate the time and effort you have spent in responding to our survey invitation and answering these initial questions, which were designed to see if your organization was eligible to participate in this research.

In order to achieve a representative sample, quotas with specific criteria have been designated. At this point, we have reached the number of respondents we can accept from organizations fitting your profile. Again, we would like to thank you for your time and effort.

INVITATION LANGUAGE FOR QUALIFYING RESPONDENTS

Congratulations. You qualify for our survey. Your responses are important to us, so please press "Continue" to begin answering the survey questions.

0 – BASIC FACILITY INFORMATION

[PROGRAMMER NOTE: THROUGHOUT THIS SURVEY, WORDS OR PHRASES WITH BLUE, UNDERLINED FONT WILL HAVE HYPERLINKED DEFINITIONS THAT POP-UP WHEN THE RESPONDENT CLICKS ON THE WORD OR PHRASE. HYPERLINKED DEFINITIONS ARE PROVIDED AT THE END OF THIS DOCUMENT]

First we'd like to ask a few questions about your facility/location.

A1.   What type of facility does your organization occupy at this location?

1.   Office (finance, insurance, real estate, law, etc.)
2.   Retail (department stores, services, boutiques, etc.)
3.   Grocery (supermarkets, convenience store, market, etc.)
4.   Restaurant (sit-down, fast food, coffee shop, etc.)
5.   Warehouse
6.   School (day care, pre-school, elementary, secondary)
7.   College, university or trade school
8.   Health Care (health practitioner office, hospital, urgent care center, etc.)
9.   Nursing home / assisted living facility / residential treatment facility
10.   Lodging / housing facility (hotel, motel, bed and breakfast, apartment building, etc.)
11.   Not-for profit housing facility (shelter, prison, jail, etc.)
12.   Entertainment / recreation facility (movie theater, bowling alley, health club/gym, library, museum, etc.)
13.   Public assembly facility (convention / conference center, etc.)
14.   Worship (church, temple, etc.)
15.   Multi-use or shopping mall (i.e., mixed use of space for offices, restaurants, stores, service, apartments, etc.)
16.   Manufacturing, production, or processing facility (including for-profit businesses and governmental facilities)
17.   Agricultural (farms, ranches, dairies, greenhouses, nurseries, orchards, hatcheries, etc.)
990. Other (please specify: _____)

A2.   Which of the following best describes the activity in which your business is engaged at this location? *Please select the <u>one option</u> that best describes the activity.*

{NOTE TO TEAM: IF THE RESPONDENT SELECTS RESPONSE A1=15 ("MIXED USE"), THEY ARE SHOWN ALL POSSIBLE OPTIONS FOR BUSINESS ACTIVITY EXCEPT HOSPITAL (80, 82), WAREHOUSE (30-33), MANUFACTURING / PROCESSING (68-79), AND AGRICULTURAL (80-81)}

Traditional Office-Based Business [IF A1=1 OR 15 OR 990, DISPLAY CODES 1-7]	
1. Finance	o
2. Insurance	o
4. Real estate / construction	o
5. Government	o
6. Other not-for-profit	o
7. Other office *(please specify: _____)*	o
Retail [IF A1=2 OR 15 OR 990, DISPLAY CODES 8-19]	
8. Major retail store/ "Big box" retail store	o
9. Department store	o
10. Small retail (boutique, store in strip mall)	o
11. Convenience store	o
12. Supermarket	o
13. Market	o

14. Laundry	o
15. Dry cleaning	o
16. Copy center	o
17. Barber / salon	o
18. Gas station / auto shop	o
19. Other retail *(please specify: _____)*	o
Grocery [IF A1=3 OR 15 OR 990, DISPLAY CODES 20-23]	
20. Supermarket	o
21. Convenience store	o
22. Market	o
23. Other grocery *(please specify: _____)*	o
Restaurant / Food Service [IF A1=4 OR 15 OR 990, DISPLAY CODES 24-29]	
24. Sit-down restaurant	o
25. Casual restaurant, diner, etc.	
26. Fast food	o
27. Bakery	o
28. Coffee shop	o
29. Other restaurant/food service *(please specify: _____)*	o
Warehouse [IF A1=5 OR 990, DISPLAY CODES 30-33] [DO NOT DISPLAY FOR A1=15]	
30. Refrigerated warehouse	o
31. Non-refrigerated warehouse	o
32. Combination of refrigerated and non-refrigerated space	o
33. Other warehouse *(please specify:_____)*	o
School [IF A1=6 OR 15 OR 990, DISPLAY CODES 34-37]	
34. Preschool / daycare	o
35. Elementary school	o
36. Secondary school	o
37. Other pre-college *(please specify: _____)*	o
College, University or Trade School [IF A1=7 OR 15 OR 990, DISPLAY CODES 38-41]	
38. College	o
39. University	o
40. Trade school	o
41. Other post-secondary *(please specify: _____)*	o
Health Care [IF A1=8 OR 990, DISPLAY CODES 80-85; IF A1=15 DISPLAY CODES 85, 81, 83, 84]	
85. Medical / dental office or office for other health practitioners	o
80. General medical or surgical hospital **[DO NOT DISPLAY FOR A1=15]**	o
81. Veterinary hospital	o
82. Other hospital *(please specify: _____)* **[DO NOT DISPLAY FOR A1=15]**	o
83. Urgent care center	o
84. Other health care facility *(please specify: _____)*	o
Nursing Home / Assisted Living [IF A1=9 OR 15 OR 990, DISPLAY CODES 42-45]	
42. Nursing home	o
43. Assisted living facility	o
44. Residential treatment facility	o
45. Other care facility *(please specify: _____)*	o
Lodging / Housing [IF A1=10 OR 15 OR 990, DISPLAY CODES 46-49, AND 87]	
46. Hotel	o
47. Motel	o
48. Bed & Breakfast	o
87. Apartment building / condominium association	o

49. Other lodging / housing *(please specify: _____)*	○
Not-For-Profit Housing [IF A1=11 OR 15 OR 990, DISPLAY CODES 50-52]	
50. Shelter	○
51. Prison / jail	○
52. Other not-for-profit housing *(please specify: _____)*	○
Entertainment / Recreation [IF A1=12 OR 15 OR 990, DISPLAY CODES 53-59]	
53. Health club / gym	○
54. Movie theater	○
55. Theater	○
56. Library	○
57. Museum	○
58. Bowling alley	○
59. Other entertainment / recreation *(please specify: _____)*	○
Public Assembly [IF A1=13 OR 15 OR 990, DISPLAY CODES 60-62]	
60. Conference / convention center	○
61. Community center	○
62. Other public assembly *(please specify: _____)*	○
Worship [IF A1=14 OR 15 OR 990, DISPLAY CODES 63-66 AND 86]	
63. Church	○
64. Temple	○
65. Synagogue	○
86. Mosque	○
66. Other worship *(please specify: _____)*	○
Manufacturing / Production / Processing [IF A1=16 OR 990, DISPLAY CODES 68-79] [DO NOT DISPLAY FOR A1=15]	
68. Chemical processing	○
69. Electronics / technology	○
70. Food / beverage production or processing	○
71. General / light assembly or manufacturing	○
72. Glass production or processing	○
73. Metals production or processing or fabricated metal work	○
74. Machinery / appliance / equipment manufacturing	○
75. Paper products processing, printing or manufacturing	○
76. Textiles / apparel production or processing	○
77. Water / wastewater treatment	○
78. Wood products manufacturing	○
79. Other manufacturing / processing *(please specify: _____)*	○
Agricultural [IF A1=17 OR 990, DISPLAY CODES 90-91]	
90. Agricultural production (farms, ranches, dairies, greenhouses, nurseries, orchards, hatcheries, etc.)	○
91. Other agricultural support activities	○
Something else [IF A1=15 OR 990, DISPLAY CODE 92]	
92. Something else *(please specify: _____)*	○

A3.   What is the approximate square footage of all of the **enclosed floor space** at your business's location, including all buildings and any enclosed parking?

Please give your best estimate, including only indoor or enclosed space. If your business shares the space with other companies / organizations, only list the space your business uses. If your business occupies several floors or buildings, add the square footage together.

Please enter a whole number rather than a range of numbers.

1. **[RECORD NUMBER]** square feet
2. Not sure

[IF A3=2 (Not sure), ASK A4; OTHERWISE SKIP TO A5]

A4.   We understand you aren't sure, so using the ranges listed below, please just choose your best estimate of the total square footage of all of the **enclosed floor space** at this location, including all buildings and any enclosed parking.

Please give your best estimate, including only indoor or enclosed space. If your business shares the space with other companies / organizations, only list the space your business uses. If your business occupies several floors or buildings, add the square footage together.

1. Less than 1,000 sq. ft.
2. 1,000 – 4,999
3. 5,000 – 9,999
4. 10,000 – 14,999
5. 15,000 – 24,999
6. 25,000 – 49,999
7. 50,000 – 99,999
8. 100,000 – 499,999
9. 500,000 – 1 million
10. 1 million sq. ft. or more

A5.   Approximately how many employees work at this location?

1. Fewer than 5 employees
2. 5 – 9
3. 10 – 19
4. 20 – 49
5. 50 – 99
6. 100 – 199
7. 200 – 299
8. 300 – 399
9. 400 – 499
10. 500 – 999
11. 1,000 – 2,499
12. 2,500 – 4,999
13. 5,000 – 9,999
14. 10,000 – 24,999
15. 25,000 or more employees

A6.   Which of the following uses of **electricity** do you pay for at this location? In other words, does your electric bill include the cost of…? *Select all that apply.*

1. Heating some or all of your space
2. Cooling some or all of your space
3. Providing hot water or steam for your use
4. Interior lighting
5. Exterior lighting
6. Industrial Process Equipment
7. Compressed Air Systems
8. Pumping Equipment for water or other liquids
9. Substantial Information technology equipment (servers, etc.)
10. Refrigeration equipment (commercial freezers, coolers, etc.)

A7.   Which of the following are present at this location? *Select all that apply.*

1. Natural gas service
2. Propane service
3. Purchased steam or hot water
4. Fuel oil for one or more end uses
5. Onsite electricity generation with/without heat recovery (that is, combustion turbine, steam turbine, reciprocating engine [or "generator"], microturbine, photovoltaic, fuel cell, etc.)
6. Electric Vehicle charging stations
7. None of the above **[EXCLUSIVE]**

A8.   Approximately when was the facility your business occupies at this location constructed?

If your business is located in several buildings across a campus/complex, please estimate the average year across all buildings.

1. Before 1900
2. 1900-1919
3. 1920-1929
4. 1930-1939
5. 1940-1949
6. 1950-1959
7. 1960-1969
8. 1970-1979
9. 1980-1989
10. 1990-1999
11. 2000-2009
12. 2010-present
13. Not sure

I – BASIC ENERGY USAGE

[PROGRAMMER NOTE: THROUGHOUT THIS SURVEY, WORDS OR PHRASES WITH BLUE, UNDERLINED FONT WILL HAVE HYPERLINKED DEFINITIONS THAT POP-UP WHEN THE RESPONDENT CLICKS ON THE WORD OR PHRASE. HYPERLINKED DEFINITIONS ARE PROVIDED AT THE END OF THIS DOCUMENT]

Our next few questions are about the equipment you have at this facility.

Q1.   Approximately what percentage of the space your business occupies, or uses, at this location is heated?

[ENTER RESPONSE: 0-100%]

[IF Q1>0%, ASK Q7; OTHERWISE SKIP TO Q3]
Q2.   What type of space heating system is used as a means of heating your space? *Please select one in each column.*

[PROGRAMMER: ONLY ONE TYPE CAN BE SELECTED IN EACH COLUMN]

	Heating Equipment	A. Primary Heat Source [Q2A]	B. Secondary Heat Source [Q2B]
1.	Natural gas warm air furnace with ducts & vents to individual rooms	☐	☐
2.	Electric warm air furnace with ducts & vents to individual rooms	☐	☐
3.	Natural gas boiler with hot water/steam radiators or baseboards in individual rooms	☐	☐
4.	Electric boiler with hot water/steam radiators or baseboards in individual rooms	☐	☐
5.	Electric baseboard or electric coils radiant heating (no supply ducts or water/steam pipes)	☐	☐
6.	Air-source heat pump	☐	☐
7.	Geothermal heat pump	☐	☐
8.	Natural gas unit heater or wall furnace	☐	☐
9.	Electric unit heater or wall furnace	☐	☐
10.	An oil-fueled furnace or boiler	☐	☐
11.	None	☐	☐
998.	Not sure **[EXCLUSIVE]**	☐	☐
990.	Other	☐	☐

[ASK IF ANY Q2A=990 OR Q2B=990 ("OTHER"); OTHERWISE SKIP TO Q5]
Q3.   Please specify the primary and/or secondary space heating system you listed as "Other" on the last screen.

[ONLY DISPLAY ITEMS FOR WHICH "OTHER" WAS SELECTED AT Q2A OR Q2B]	
A. Primary Heat Source	**[RECORD RESPONSE]**
B. Secondary Heat Source	**[RECORD RESPONSE]**

Q4.   Approximately what percentage of the space your business occupies, or uses, at this location is cooled?

[ENTER RESPONSE: 0-100%]

Q5.   What type of cooling system is your <u>primary</u> means to cool your space?

By "primary", we mean the cooling system that you use for the largest amount of your space.

1. <u>Air cooled chiller</u>
2. <u>Water cooled chiller</u>
3. Central air conditioner
4. Packaged air conditioner units (sometimes called Roof top units or RTUs)
5. <u>Floor-by-floor packaged water cooled DX (Direct Expansion) units</u>
6. Wall or window air conditioner units
7. <u>Air-source heat pump</u>
8. <u>Geothermal heat pump</u>
9. Other *(please specify: _____)*
10. None – We do not use a cooling system to cool our space
998. Not sure

Q6.   What type of water heater does your business use? **[SELECT ONE]**

1. None
2. Hot water either purchased or provided by building to tenants
3. Self-contained or stand-alone storage water heaters/boilers
4. Central boiler
5. <u>Tankless (instantaneous) water heater</u>
6. <u>Heat pump water heater</u>
7. <u>Heat recovery water heater</u>
8. Other *(please specify: _____)*
998. Not sure

[ASK Q7 IF Q6=2-9; OTHERWISE SKIP TO Q8]
Q7.   What type of fuel is used by the water heater(s)? **[SELECT ONE]**

1. Natural gas
2. Electricity
3. Steam
4. Propane
5. Oil
6. Other *(please specify: _____)*
998. Not sure

Q8. What size kitchen, if any, is used for food preparation in your facility, including any kitchens used for employees' personal use?
   1. None
   2. Small kitchenette
   3. Residential-scale kitchen
   4. Commercial-scale kitchen
   5. Institution-scale kitchen (in larger hospitals, universities)

Q9. [**IF Q8=2-5, DISPLAY**, "How many of the following units can be found in your kitchen / food preparation / food storage and/or sales area(s)?"] [**IF Q8=1, DISPLAY,** "Even though you mentioned you don't have any kitchens, do you have any refrigerator and/or freezer units? Please indicate how many you have at your location.]

Your best estimate is fine, but please enter whole numbers rather than ranges of numbers. Please enter 0 if you do not have any of the units at your location?

1. Residential- type refrigerator, units	**[RECORD NUMBER 0-99]**
2. Stand-alone freezer, units	**[RECORD NUMBER 0-99]**
3. Refrigerated display cases	**[RECORD NUMBER 0-99]**

Q10. [**IF Q8=4-5, DISPLAY, "**In square feet, how much space is there in the following kitchen / food preparation / food storage and/or sales area(s)?**"]** Please indicate the approximate total square footage at your location for each category.**"]**

Your best estimate is fine, but please enter whole numbers rather than ranges of numbers. Please enter 0 if you do not have any square footage of that type of unit at your location.

1. Refrigerator, walk-in	**[RECORD NUMBER 0-99]**
2. Freezer, walk-in	**[RECORD NUMBER 0-99]**

[IF A1 NE 5 (facility type is not a warehouse), ASK Q11; OTHERWISE SKIP TO Q12]
Q11. Is there any warehouse or large storage space at your location?

   1. No
   2. Yes, unrefrigerated
   3. Yes, refrigerated
   4. Yes, both unrefrigerated and refrigerated

Q12. Do you have any operational swimming pools, hot tubs, spas, or other similar items at your location?

   1. No
   2. Yes, unheated
   3. Yes, heated using electricity as a heat source
   4. Yes, heated using natural gas as a heat source
   5. Yes, heated using another heat source

Q13. What percentage of the total enclosed floorspace your business occupies at this location can be characterized by each of the following area descriptions?

Your best estimate is fine, but please enter whole numbers that will add up to 100%.

Area description [PROGRAMMER, SET DEFAULT RESPONSE AT 0]	% of total enclosed floorspace
1. Office	[RECORD NUM 0-100]%
2. Data center / computer room	[RECORD NUM 0-100]%
3. Food preparation, food service or food sales (e.g., kitchen, cafeteria, restaurant, coffee shop, convenience store, supermarket, market, etc.)	[RECORD NUM 0-100]%
4. Retail (e.g., mall, department store, small retail/boutique etc.)	[RECORD NUM 0-100]%
5. Lodging (e.g., sleeping quarters, hotel room, bedroom in nursing home, etc.)	[RECORD NUM 0-100]%
6. Warehouse/storage area	[RECORD NUM 0-100]%
7. Manufacturing / processing / production	[RECORD NUM 0-100]%
990. Other	[RECORD NUM 0-100]%
TOT. **Total**	[CALCULATE TOTAL]%

[PROGRAMMER: Q13 TOT MUST EQUAL 100 IN ORDER TO CONTINUE TO NEXT SCREEN]

II – LIGHTING

[DISPLAY IF A6=4 OR 5; OTHERWISE SKIP TO FILTER BEFORE "MANUFACTURING / PROCESSING OPERATIONS" INTRO TEXT (ABOVE Q20)]
The next few questions focus on the lighting used at your location.

[IF A6=4, ASK Q14; OTHERWISE SKIP TO FILTER BEFORE Q18]
Q14. How many of each of the following types of lamps / fixtures are used in the **interior** of the building(s) at your business, considering only the areas your business occupies?

Your best estimate is fine, but please enter a whole number for each type of lamp / fixture. Please enter a zero for any items that your business does not have.

Lamp/fixture type	Example Images	Number of interior lamps / fixtures
1. Fluorescent (linear fluorescent, circuline type, U-type, etc.)		[RECORD NUM 0-9999]
2. Incandescent		[RECORD NUM 0-9999]

3. Compact fluorescent		[RECORD NUM 0-9999]
4. LED		[RECORD NUM 0-9999]
5. Mercury vapor		[RECORD NUM 0-9999]
6. Metal halide – standard		[RECORD NUM 0-9999]
7. Metal halide – Pulse start		[RECORD NUM 0-9999]
8. High pressure sodium		[RECORD NUM 0-9999]
9. Low pressure sodium		[RECORD NUM 0-9999]
10. Neon		[RECORD NUM 0-9999]
11. Self / battery powered exit signs		[RECORD NUM 0-9999]
12. Quartz / halogen		[RECORD NUM 0-9999]
13. Induction		[RECORD NUM 0-9999]
14. Other (please specify:		[RECORD NUM

_____]		0-9999]
TOT. **Total number of lamps / fixtures**		**[CALCULATE TOTAL]**

Q15. Of the **interior** lamps/fixtures that you have, what percentage are on during business versus non-business hours?

[ONLY DISPLAY RESPONSE OPTIONS >0 AT Q14]

Lamp/fixture type	Q14. Number that you have	Q15a. % on during business hours	Q15b. % on during non-business hours
1. Fluorescent (standard type, circuline type, U-type, etc.)	**[DISPLAY Q14 RESPONSE]**	**[RECORD % 0-100]%**	**[RECORD % 0-100]%**
2. Incandescent	**[DISPLAY Q14 RESPONSE]**	**[RECORD % 0-100]%**	**[RECORD % 0-100]%**
3. Compact fluorescent	**[DISPLAY Q14 RESPONSE]**	**[RECORD % 0-100]%**	**[RECORD % 0-100]%**
4. Mercury vapor	**[DISPLAY Q14 RESPONSE]**	**[RECORD % 0-100]%**	**[RECORD % 0-100]%**
5. Metal halide – standard	**[DISPLAY Q14 RESPONSE]**	**[RECORD % 0-100]%**	**[RECORD % 0-100]%**
6. Metal halide – Pulse start	**[DISPLAY Q14 RESPONSE]**	**[RECORD % 0-100]%**	**[RECORD % 0-100]%**
7. High pressure sodium	**[DISPLAY Q14 RESPONSE]**	**[RECORD % 0-100]%**	**[RECORD % 0-100]%**
8. Low pressure sodium	**[DISPLAY Q14 RESPONSE]**	**[RECORD % 0-100]%**	**[RECORD % 0-100]%**
9. Neon	**[DISPLAY Q14 RESPONSE]**	**[RECORD % 0-100]%**	**[RECORD % 0-100]%**
10. LED	**[DISPLAY Q14 RESPONSE]**	**[RECORD % 0-100]%**	**[RECORD % 0-100]%**
11. Self / battery powered exit signs	**[DISPLAY Q14 RESPONSE]**	**[RECORD % 0-100]%**	**[RECORD % 0-100]%**
12. Quartz / halogen	**[DISPLAY Q14 RESPONSE]**	**[RECORD % 0-100]%**	**[RECORD % 0-100]%**
13. Induction	**[DISPLAY Q14 RESPONSE]**	**[RECORD % 0-100]%**	**[RECORD % 0-100]%**
14. **[PIPE IN SPECIFIED TEXT FROM Q14]**	**[DISPLAY Q14 RESPONSE]**	**[RECORD % 0-100]%**	**[RECORD % 0-100]%**

[IF Q15_1 > 0, ASK Q16; OTHERWISE SKIP TO Q18]

Q16. What percentage of all the **interior** fluorescent lamps your business uses can be described as each of the following types?

Your best estimate is fine, but please enter whole numbers that will add up to 100%.

	[SET DEFAULT RESPONSE AT 0]	% of all **fluorescent** lamps / fixtures used…
1.	T-12	[RECORD NUM 0-100]%
2.	T-8	[RECORD NUM 0-100]%
3.	Super T-8	[RECORD NUM 0-100]%
4.	T-5	[RECORD NUM 0-100]%
5.	LED	[RECORD NUM 0-100]%
6.	Circuline	[RECORD NUM 0-100]%
7.	U- type	[RECORD NUM 0-100]%
8.	Other *(please specify: _____)*	[RECORD NUM 0-100]%
TOT.	**Total**	**[CALCULATE TOTAL]**%

[PROGRAMMER: Q16a TOT MUST EQUAL 100% IN ORDER TO CONTINUE TO NEXT SCREEN]

Q17. Which of the following types of lighting controls are primarily used to control your interior lighting? *Select all that apply.*

1. Manual – single switch or circuit breaker
2. Manual – bi-level (dual) switch
3. Occupancy sensor
4. Timers / Time clock
5. Photocell
6. Daylighting sensor
7. Energy management system
990. Other *(please specify: _____)*
998. Not sure

[IF A6=5, ASK Q18; OTHERWISE SKIP TO FILTER BEFORE "MANUFACTURING / PROCESSING OPERATIONS" INTRO TEXT (ABOVE Q20)]

Q18. Thinking about the exterior lighting that you pay for in your electric bill, how many of each of the following types of lamps / fixtures are used on the **exterior** of your business's building(s)?

Your best estimate is fine, but please enter a whole number for each type of lamp / fixture. Please enter a zero for any items that your business does not have.

[PROGRAMMER: DO NOT REQUIRE RESPONSES FOR Q18A AND Q18B WHEN THE NUMBER OF EXTERIOR LAMPS / FIXTURES GIVEN AT Q18X= 0. ONLY REQUIRE IF Q18X>0]

Lamp/fixture type	Example Images	Q18. Number of exterior lamps / fixtures	Q18a. % on during business hours	Q18b. % on during non-business hours
1. Fluorescent (standard type, circuline type, U-type, etc.)		[RECORD NUM 0-9999]	[RECORD % 0-100]%	[RECORD % 0-100]%
2. Incandescent		[RECORD NUM 0-9999]	[RECORD % 0-100]%	[RECORD % 0-100]%
3. Compact fluorescent		[RECORD NUM 0-9999]	[RECORD % 0-100]%	[RECORD % 0-100]%
4. Mercury vapor		[RECORD NUM 0-9999]	[RECORD % 0-100]%	[RECORD % 0-100]%
5. Metal halide – standard		[RECORD NUM 0-9999]	[RECORD % 0-100]%	[RECORD % 0-100]%
6. Metal halide – Pulse start		[RECORD NUM 0-9999]	[RECORD % 0-100]%	[RECORD % 0-100]%
7. High pressure sodium		[RECORD NUM 0-9999]	[RECORD % 0-100]%	[RECORD % 0-100]%

8. Low pressure sodium		[RECORD NUM 0-9999]	[RECORD % 0-100]%	[RECORD % 0-100]%
9. Neon		[RECORD NUM 0-9999]	[RECORD % 0-100]%	[RECORD % 0-100]%
10. LED		[RECORD NUM 0-9999]	[RECORD % 0-100]%	[RECORD % 0-100]%
11. Self / battery powered exit signs		[RECORD NUM 0-9999]	[RECORD % 0-100]%	[RECORD % 0-100]%
12. Quartz / halogen		[RECORD NUM 0-9999]	[RECORD % 0-100]%	[RECORD % 0-100]%
13. Induction		[RECORD NUM 0-9999]	[RECORD % 0-100]%	[RECORD % 0-100]%
14. Other *(please specify: _____)*		[RECORD NUM 0-9999]	[RECORD % 0-100]%	[RECORD % 0-100]%
TOT. **Total number of lamps / fixtures**		[CALCULATE TOTAL]		

Q19. Which of the following types of lighting controls is primarily used to control your exterior lighting?

1. Manual – single switch or circuit breaker
2. Manual – bi-level (dual) switch
3. Occupancy sensor
4. Timers / Time clock
5. Photocell
6. Daylighting sensor
7. Energy management system
99. None of the above
990. Other *(please specify:)* [RECORD RESPONSE]
998. Not sure

III – MANUFACTURING / PROCESSING OPERATIONS

[IF Q13_7>0, ASK Q20; OTHERWISE SKIP TO END]
Now we would like to ask you some questions about your manufacturing / processing operations.

Q20. How many motors are there in each of the following categories that operate at this facility (not including motors in HVAC equipment)?

Your best estimate is fine, but please enter whole numbers rather than ranges of numbers.

	# of Pumps	# of Fans & Blowers	# of Compressors (Air or Gas)	# of Conveyor Motors	# of Other Motors
1. Less than 5 HP	[RECORD NUM 0-999]	[RECORD NUM 0-999]	[RECORD NUM 0-999]	[RECORD NUM 0-999]	[RECORD NUM 0-999]
2. 5–24 HP	[RECORD NUM 0-999]	[RECORD NUM 0-999]	[RECORD NUM 0-999]	[RECORD NUM 0-999]	[RECORD NUM 0-999]
3. 25–99 HP	[RECORD NUM 0-999]	[RECORD NUM 0-999]	[RECORD NUM 0-999]	[RECORD NUM 0-999]	[RECORD NUM 0-999]
4. 100–249 HP	[RECORD NUM 0-999]	[RECORD NUM 0-999]	[RECORD NUM 0-999]	[RECORD NUM 0-999]	[RECORD NUM 0-999]
5. 250–499 HP	[RECORD NUM 0-999]	[RECORD NUM 0-999]	[RECORD NUM 0-999]	[RECORD NUM 0-999]	[RECORD NUM 0-999]
6. 500 or more HP	[RECORD NUM 0-999]	[RECORD NUM 0-999]	[RECORD NUM 0-999]	[RECORD NUM 0-999]	[RECORD NUM 0-999]
TOT. **Total**	[CALCULATE TOTAL]	[CALCULATE TOTAL]	[CALCULATE TOTAL]	[CALCULATE TOTAL]	[CALCULATE TOTAL]

[TOTAL MUST BE >=1; ALLOW BLANK CELLS TO BE AUTOCODED AS 0's]

Q21. What percentage of these motors are high efficiency motors, or variable speed drives?
Your best estimate is fine, but please enter whole numbers that will add up to 100%.

	[SET DEFAULT RESPONSE AT 0]	% of all **motors…**
1.	High efficiency	[RECORD NUM 0-100]%
2.	Variable speed drives	[RECORD NUM 0-100]%
4.	Not sure	[RECORD NUM 0-100]%

[PROGRAMMER, TOTAL MUST EQUAL 100% TO CONTINUE]

Q22. What major electricity-using processes are used at your facility? *Select all that apply.*

1. Process Heating (e.g., Furnace, Boiler)
2. Process Cooling (e.g., Chiller)
3. Electrochemical Process
4. Other Process
5. None **[EXCLUSIVE]**

[ASK IF Q22=1, 2, 3, or 4; OTHERWISE SKIP TO END]

Q23.   For the major electricity-using processes used at your facility, what is the total demand (in kW), the average number of hours per week those processes run, and the average age of equipment running these processes?

Your best estimate is fine, but please enter whole numbers rather than ranges of numbers.

[ONLY DISPLAY ITEMS SELECTED AT Q22]	Total Demand (in kW)	Average hours per week running	Average Age of Equipment (in years)
1. Process Heating (e.g., Furnace, Boiler)	**[RECORD NUMBER 0-9999999]**	**[RECORD NUMBER 0-168]**	**[RECORD NUMBER 0-99]**
2. Process Cooling (e.g., Chiller)	**[RECORD NUMBER 0-9999999]**	**[RECORD NUMBER 0-168]**	**[RECORD NUMBER 0-99]**
3. Electrochemical Process	**[RECORD NUMBER 0-9999999]**	**[RECORD NUMBER 0-168]**	**[RECORD NUMBER 0-99]**
4. Other Process	**[RECORD NUMBER 0-9999999]**	**[RECORD NUMBER 0-168]**	**[RECORD NUMBER 0-99]**

IV – CONCLUSION

Those are all the questions we have for you today. Thank you for your participation!

E1.   If you would like to receive the free Energy Comparison Report that we mentioned in the introduction, please provide an email address below where we can send that report when it is ready.

_____

Thank you. Have a nice day!

DEFINITIONS

[THE DEFINITIONS IN THE TABLE BELOW WILL EACH BE SHOWN IN A POP-UP BOX THAT IS TRIGGERED BY A HYPERLINKED WORD OR PHRASE]

Term / Phrase	Definition
Compressed air - optimization control system	System optimization is a thorough overhaul of the compressed air system which involves the resizing, sequencing, and improving control over all compressors in a system in order to reduce energy consumption to a minimum.
CFL-specific fixture	A fixture that has a CFL-ballast located inside, which is larger and lasts longer than integrated CFLs (CFLs with a screw-in mechanism so that they can replace incandescent bulbs). CFL-specific fixtures use replaceable bulbs that have a starter in the base of the bulb.
Compact fluorescent lamp (CFL)	A newer type of light bulb that screws into a light socket, but which is a fluorescent light rather than a traditional incandescent light bulb, and which also often has a non-traditional swirly or curved shape.
Conventional bulb / Incandescent bulb	A traditional screw-in light bulb that may range from 15 – 100 watts or more
Daylighting sensors	Electronic devices that are used to control lights in a room, so that when there is sufficient daylight / sunlight present, then room lights are turned off
District steam with chiller	A district steam system works by having a central steam plant that typically serves multiple clients, or in larger cities, even multiple city blocks or other areas; district steam with chiller systems use district steam to drive a local chiller system
Floor-by-floor packaged water-cooled DX units	Separate air conditioning units that serve each floor individually; these units are typically water-cooled, rather than air-cooled
Air-source heat pump	An Air Source Heat Pump performs just as an air conditioner in cooling mode and uses outside air as the source of heat while operating in the heating mode
Geothermal heat pump	A geothermal heat pump uses water and the constant temperature of the earth for absorbing heat in the winter and releasing heat in the summer.
Central chilled water plant (chiller)	A central chiller plant creates chilled water for distribution throughout the facility. Because of the wide variety of system types and sizes, savings and cost values for efficiency improvements represent an average over screw, reciprocating, and centrifugal technologies.
Economizer (air-side or water-side)	A heat exchanger that uses either cold outdoor air or water cooled by a wet cooling tower to meet the cooling needs of occupied spaces whenever possible.
Electric resistance	Sometimes called electric "baseboard" heat, electric resistance heaters generate hot air to warm an interior space by heating up coils that are located in each individual room or space that is heated
Energy Management System	An electronic system that can be programmed to automatically turn on / off (or to otherwise operate) HVAC, lighting, and / or other building systems according to a schedule that a building operator has established ahead of time
ENERGY STAR®	A label for some new appliances that indicates the appliance meets the standards for high efficiency appliances
Forced air furnace	A furnace that operates by heating air which is then forced through ductwork to different outlets throughout a building or facility
Heat pump water heater	A system that uses a refrigeration cycle in reverse to draw heat out of the surrounding air to provide hot water in a traditional water heater storage tank.
Heat recovery water heater	A water heater that uses heat "recovered" from another application (for example, by recovering "waste heat" from a process that heats another material) to heat

	water for different purposes
High-efficiency fluorescent tubes (T8)	Newer fluorescent tubes (T8s) that fit into traditional fixtures, but which represent a more efficient (lower wattage) tube
Occupancy sensors	An occupancy sensor is a motion detector that is integrated with a timing device. It senses when motion has stopped for a specified time period in order to trigger a light extinguishing signal.
Programmable thermostat	A thermostat that lets you program a schedule and set the temperature up or down at different times of the day and/or different days of the week
T-5	Super high-efficiency fluorescent tubes
Tankless (instantaneous) water heater	A water heater that only heats water for delivery to your application when you ask for it by using hot water. These systems do not keep a tank of water hot at all times.
Variable air volumes	Controls air from a single supply duct and varies the airflow to each zone or room based upon the temperature in the room
Variable speed drive	A more sophisticated control that allows these units to run at many different speeds, rather than simply "on" or "off"
Air cooled chiller	A central chiller plant creates chilled water for distribution throughout a facility inside a closed loop of piping. A refrigeration cycle with compressors and heat exchangers works to draw heat out of the water and expel it into the exterior environment using another heat exchanger/condenser unit outside. An air-cooled chiller uses fans to blow air over this exterior condensing unit and facilitate the heat transfer.
Water cooled chiller	A central chiller plant creates chilled water for distribution throughout a facility inside a closed loop of piping. A refrigeration cycle with compressors and heat exchangers works to draw heat out of the water and expel it into the exterior environment using another heat exchanger/condenser unit outside. A water-cooled chiller uses water or mist in a cooling tower to facilitate the heat transfer.
LED lamp	A "light emitting diode" lamp is an electronic form of lighting that does not use filaments like traditional incandescent bulbs, but instead, uses solid state electronics.
Mercury vapor	Pressurized gas inside an arc tube ionized by current flowing between electrodes, resulting in light being emitted. Contains mercury and small amounts of argon, neon and krypton gas.
Metal halide – standard	A discharge lamp in which metal halide salts are added to the contents of a discharge tube in which there is a high-pressure arc in mercury vapor; the added metals generate different wavelengths, to give substantially white light at an efficiency approximating that of high-pressure sodium lamps
Metal halide – pulse start	Pulse start metal halide lamps do not require a starting electrode, and instead use a special starting circuit referred to as an igniter to generate a high-voltage pulse to the operating electrodes. Pulse start metal halide offers better efficiency than standard.
High/Low pressure sodium	A sodium vapor lamp is a gas discharge lamp which uses sodium in an excited state to produce light. They are used in generating yellow light for lighting streets and highways. The low-pressure sodium lamp has remarkably high luminous efficiency, or efficacy, producing as much as 200 lumens per watt of input power. High pressure sodium (HPS) lamps are smaller and contain additional elements such as mercury, and produce a dark pink glow when first struck, and a pinkish orange light when warmed.
Neon	Tube shaped lights that contain neon or other inert gases at low pressure. Applying a high voltage, makes the gas glow brightly. Typically used in commercial advertising or signage.
Quartz / halogen	An incandescent light bulb in which the envelope is made of quartz instead of glass, and the filament is surrounded by an atmosphere of a halogen gas, usually iodine.
Induction	Electrodeless lamps that can last up to 20 years before burning out. Typically used in

	exterior lighting.
Standard fluorescent tubes (T12)	Traditional fluorescent tube lights with standard efficiency (T12) tubes
Super T-8	Newer fluorescent tubes (T8s) that fit into traditional fixtures, but which represent a more efficient (lower wattage) tube
Manual – single switch	One switch controls one or more light fixtures
Manual – dual switch	Sometimes referred to as a "three-way switch"; two or more switches control one or more light fixtures. It is commonly used in locations with two different entrances/exits, such as at the top and bottom of a stairwell or in a classroom with doors in opposite corners.
Photocell	A light sensing device used to control luminaires and dimmers in response to detected light levels. Also known as photosensor lights. These are typically used in outdoor lighting so that lights are turned off during daylight.
T-8 or Super T-8	High-efficiency fluorescent tubes that are smaller in diameter than standard T12 lamps, resulting in greater light output per watt. T8 lamps also operate at a lower current and wattage, which increases the efficiency of the ballast but requires the lamps to be compatible with the ballast.