Appendix 2. Question Architecture for Crowd-Sourced Data Gathering from Electricity Providers

Thank you for participating in the U.S. Department of Energy' Utility Data Access Questionnaire. The information from these questions will be used to create a map of electricity data services across the country. Consumers will use this map to learn about services that would help them use energy more economically. The results will be made available to the public through the **OpenEI website**.

Please note: You'll only need to complete one questionnaire for each utility service area. Use the U.S. Energy Information Administration (EIA) identification number (10-digit ID# assigned by EIA) to locate your utility service areas.

Want to change your responses? Contact **openei.webmaster@nrel.gov**

OMB Control Number: 1910-xxxx

Expiration Date: xx/xx/2016

Public reporting burden for this collection of information is estimated to average 20 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Office of Management, Paperwork Reduction Project (1910-0400), U.S. Department of Energy, 1000 Independence Avenue, S.W., Washington, DC 20585; and to the Office of Management and Budget (OMB), Paperwork Reduction Project (1910-0400), Washington, DC 20503.

The information reported will be considered public information and may be released in identifiable form. All information gathered will be subject to the Freedom of Information Act and the Paperwork Reduction Act.

1. **In which state do you currently provide residential or commercial electricity services? If your company serves more than one area, please complete individual questionnaires for each state in which your utility company provides electricity to residential or commercial customers based on their EIA identification number.**

Drop-down list of states

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Red text will not be displayed in the questionnaire.

2. **Which utility company do you represent?**

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Drop-down list of utilities + EIA ID#'s
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3. **What is your contact information? This information will be used to avoid duplicate entries.**
   *indicates required fields

Name*: _____

Title*: _____

Email*: _____

Contact phone number: _____

Did Privacy Office review and approve?

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4. **How would you best describe your utility company?**
   - ☐ Investor Owned Utility (IOU)
   - ☐ Rural Electric Administration Cooperative (REA)
   - ☐ Municipal Electric System (Muni)
   - ☐ Federal Government Entity
   - ☐ Other

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Questions about Residential Customers

Now, we have some questions about your **residential customers**. If you offer different information services to different customers, select the option that applies to *most* of your residential customers. This usually excludes short-term, experimental or "pilot" programs traditionally offered to only a small percentage of total customers.

If respondents select "I don't know" for *any* of the following questions: Offer option to proceed or go to "**Recommend an appropriate respondent**" page. If the respondent selects "proceed," a message must be sent to utilityaccess@ee.doe.gov as an alert to reviewers of the responses and for follow-up.

Red text will not be displayed in the questionnaire.

1. **Does your company provide residential customer access to information about how much electricity they have used?**
   a. Yes
   b. No
   c. Our company does not serve residential customers.
   d. I don' t know

2. **What type of electricity data do you offer to residential customers?** *Select all that apply.*
   a. Consumption (kWh)
   b. Demand (kW)

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Display residential customer questions #3-#6 on this page.

3. **Does your company currently offer paper mail for** *most* **of your residential customers to access information about their electricity usage?**
   a. Yes
   b. No
   c. I don't know

4. **Some utility companies offer electricity usage information in text formats such as PDF files or text that is visible directly on a web page. Does your company currently offer online data as a PDF, visible directly on a web page, or similar forms for** *most* **of your residential customers to access information about their electricity usage?**
   a. Yes
   b. No
   c. I don't know

5. **Some utility companies offer electricity usage information in easily downloadable and machine-readable formats such as xml spreadsheets or industry-standardized formats such as Energy Service Provider Interface (ESPI), also known as "Green Button Download My Data."** *PDF documents and web text are not considered machine-readable.* **Does your company currently offer online downloadable and machine-readable formats for** *most* **of your residential customers to access information about their electricity**

usage? *Select all that apply.*
   a. Yes, xml spreadsheet, other spreadsheet or similar format
   b. Yes, ESPI or ESPI-subset (Green Button) format
   c. No
   d. I don't know

6. **Does your company currently offer a home area network, dedicated device or mobile app for *most* of your residential customers to access information about their electricity usage?**
   a. Yes
   b. No
   c. I don't know

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If response (a) is selected for residential customer question #1, proceed to residential customer question #7 and display residential customer questions #7-#10 on this page.

Only display fields for questions to which a "Yes" response was selected for residential customer questions #3-6.

7. If response (a) is selected in residential customer question #4: **For the majority of your residential customers, how far back in time does your company offer historical electricity usage information as a PDF, visible directly on a web page, or similar format?**
   a. Please fill in the blank _____ months
   b. I don't know

8. If response (a) is selected in residential customer question #5: **For the majority of your residential customers, how far back in time does your company offer historical electricity usage information online in a downloadable and machine-readable format (xml spreadsheet, other spreadsheet or similar format)?**
   c. Please fill in the blank _____ months
   d. I don't know

9. If response (b) is selected in residential customer question #5: **For the majority of your residential customers, how far back in time does your company offer historical electricity usage information online in a downloadable and machine-readable format (ESPI or ESPI-subset format, Green Button)?**
   e. Please fill in the blank _____ months
   f. I don't know

Red text will not be displayed in the questionnaire.

10. If response (a) is selected in residential customer question #6: **For the majority of your residential customers, how far back in time does your company offer historical electricity usage information through a home area network, dedicated device or mobile app?**
    g. Please fill in the blank _____ months
    h. I don't know

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11. If response (a) is selected in residential customer question #4: **For what time increments does your company offer residential electricity usage information to *most* of your customers as a PDF, visible directly on a web page or similar format? *Select all that apply*.**
    a. Less than 15-minute increments with reporting delay
    b. Less than 15-minute increments without reporting delay
    c. 15-minute increments
    d. Hourly
    e. Daily
    f. Monthly
    g. Less frequently than monthly
    h. I don't know

12. If response (a) is selected in residential customer question #5: **For what time increments does your company offer residential electricity usage information to *most* of your customers online in a downloadable and machine-readable format (xml spreadsheet, other spreadsheet or similar format)? *Select all that apply*.**
    a. Less than 15-minute increments with reporting delay
    b. Less than 15-minute increments without reporting delay
    c. 15-minute increments
    d. Hourly
    e. Daily
    f. Monthly
    g. Less frequently than monthly
    h. I don't know

13. If response (b) is selected in residential customer question #5: **For what time increments does your company offer residential electricity usage information to *most* of your customers online in a downloadable and machine-readable format (ESPI or ESPI-**

subset, etc.)? *Select all that apply.*

    a. Less than 15-minute increments with reporting delay
    b. Less than 15-minute increments without reporting delay
    c. 15-minute increments
    d. Hourly
    e. Daily
    f. Monthly
    g. Less frequently than monthly
    h. I don't know

14. If response (a) is selected in residential customer question #6: **For what time increments does your company offer residential electricity usage information to** *most* **of your customers through a home area network, dedicated device or mobile app?** *Select all that apply.*

    a. Less than 15-minute increments with reporting delay
    b. Less than 15-minute increments without reporting delay
    c. 15-minute increments
    d. Hourly
    e. Daily
    f. Monthly
    g. Less frequently than monthly
    h. I don't know

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15. **Some utility companies allow residential customers to designate third party energy managers and consultants to access their electricity usage data in order to analyze and develop energy use strategies. Does your company allow** *most* **of your residential customers to authorize customer-designated third-parties to access and download their electricity usage data?**

    a. Yes
    b. No, we require customers to use utility-designated parties to analyze their data
    c. No
    d. I don't know

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If response (a) is selected in residential customer question #15, proceed to residential customer question #16.
If response (b or c) is selected in residential customer question #15, proceed to the "Commercial Customers" page.

Red text will not be displayed in the questionnaire.

16. **Does your company allow customer-designated third parties to create a separate account with unique password protection to collect the residential customer's data?**
     a. Yes
     b. No
     c. I don't know

17. **Does your company allow customer-designated third parties to directly access the customer's account to collect their data?**
     a. Yes
     b. No
     c. I don't know

18. **Does your company charge your residential customers a fee for providing third party direct access to electricity usage information?**
     a. Yes
     b. No
     c. I don't know

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Questions about Commercial Customers

Next, we have some questions about your **commercial customers**. If you offer different information services to different customers, select the option that applies to *most* of your commercial customers. This usually excludes short-term, experimental or "pilot" programs traditionally offered to only a small percentage of total customers.

19. **Does your company provide commercial customer access to information about how much electricity they have used?**
     a. Yes
     b. No
     c. Our company does not serve commercial customers.
     d. I don't know

20. **What type of electricity data do you offer to commercial customers?** *Select all that apply.*
     a. Consumption (kWh)
     b. Demand (kW)

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21. **Does your company currently offer paper mail for *most* of your commercial customers to access information about their electricity usage?**
    a. Yes
    b. No
    c. I don't know

22. **Some utility companies offer electricity usage information in text formats such as PDF files or text that is visible directly on a web page. Does your company currently offer online data as a PDF, visible directly on a web page, or a similar form for *most* of your commercial customers to access information about their electricity usage?**
    a. Yes
    b. No
    c. I don't know

23. **Some utility companies offer electricity usage information in easily downloadable and machine-readable formats such as xml spreadsheets or industry-standardized formats such as Energy Service Provider Interface (ESPI), also known as "Green Button Download My Data."** *PDF documents and web text are not considered machine-readable.* **Does your company currently offer online downloadable and machine-readable formats for *most* of your commercial customers to access information about their electricity usage?** *Select all that apply.*
    a. Yes, xml spreadsheet, other spreadsheet or similar format
    b. Yes, ESPI or ESPI-subset format, Green Button
    c. No
    d. I don't know

24. **Does your company currently offer a building area network, dedicated device or mobile app for *most* of your commercial customers to access information about their electricity usage?**
    a. Yes

b. No
c. I don't know

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25. If response (a) is selected in commercial customer question #22: **For the majority of your commercial customers, how far back in time does your company offer historical electricity usage information as a PDF, visible directly on a web page, or similar format?**
    a. Please fill in the blank _____ months
    b. I don't know

26. If response (a) is selected in commercial customer question #23: **For the majority of your commercial customers, how far back in time does your company offer historical electricity usage information online in a downloadable and machine-readable format (xml spreadsheet, other spreadsheet or similar format)?**
    a. Please fill in the blank _____ months
    b. I don't know

27. If response (b) is selected in commercial customer question #23: **For the majority of your commercial customers, how far back in time does your company offer historical electricity usage information online in a downloadable and machine-readable format (ESPI or ESPI-subset format, Green Button)?**
    a. Please fill in the blank _____ months
    b. I don't know

28. If response (a) is selected in commercial customer question #24: **For the majority of your commercial customers, how far back in time does your company offer historical electricity usage information through a building area network, dedicated device or mobile app?**
    a. Please fill in the blank _____ months
    b. I don't know

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29. If response (a) is selected in commercial customer question #22: **For what time increments does your company offer commercial electricity usage information to *most* of your customers as a PDF, visible directly on a web page, or similar format?** *Select all that*

apply.

    a. Less than 15-minute increments with reporting delay
    b. Less than 15-minute increments without reporting delay
    c. 15-minute increments
    d. Hourly
    e. Daily
    f. Monthly
    g. Less frequently than monthly
    h. I don't know

30. If response (a) is selected in commercial customer question #23: **For what time increments does your company offer commercial electricity usage information to *most* of your customers online in a downloadable and machine-readable format (xml spreadsheet, other spreadsheet or similar format)?** *Select all that apply*.

    a. Less than 15-minute increments with reporting delay
    b. Less than 15-minute increments without reporting delay
    c. 15-minute increments
    d. Hourly
    e. Daily
    f. Monthly
    g. Less frequently than monthly
    h. I don't know

31. If response (b) is selected in commercial customer question #23: **For what time increments does your company offer commercial electricity usage information to *most* of your customers online in a downloadable and machine-readable format (ESPI or ESPI-subset format, Green Button)?** *Select all that apply*.

    a. Less than 15-minute increments with reporting delay
    b. Less than 15-minute increments without reporting delay
    c. 15-minute increments
    d. Hourly
    e. Daily
    f. Monthly
    g. Less frequently than monthly
    h. I don't know

Red text will not be displayed in the questionnaire.

32. If response (a) is selected in commercial customer question #24: **For what time increments does your company offer commercial electricity usage information to** *most* **of your customers through a building area network, dedicated device or mobile app?** *Select all that apply.*

    a. Less than 15-minute increments with reporting delay
    b. Less than 15-minute increments without reporting delay
    c. 15-minute increments
    d. Hourly
    e. Daily
    f. Monthly
    g. Less frequently than monthly
    h. I don't know

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33. **Some utility companies allow commercial customers to designate third party energy managers and consultants to access their electricity usage data in order to analyze and develop energy use strategies. Does your company allow** *most* **of your commercial customers to authorize customer-designated third-parties to access and download their electricity usage data?** *Select those that apply to the majority of your customers.*

    a. Yes
    b. No, we require customers to use utility-designated parties to analyze their data
    c. No
    d. I don't know

If response (b or c) is selected in commercial customer question #33, proceed to commercial customer question #37.
If response (a) is selected in commercial customer question #33, proceed to commercial customer question #34.

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Display commercial customer questions #34-#36 on this page.

34. **Does your company allow customer-designated third parties to create a separate account with unique password protection to collect the commercial customer's data?**

    a. Yes
    b. No
    c. I don't know

Red text will not be displayed in the questionnaire.

35. **Does your company allow customer-designated third parties to directly access the customer's account to collect their data?**
    e. Yes
    f. No
    g. I don't know

36. **Does your company charge your commercial customers a fee for providing third party direct access to electricity usage information?**
    a. Yes
    b. No
    c. I don't know

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37. **Some utility companies allow owners of multi-tenant buildings to collect electricity usage information while tenants pay the utility bill. Does your company allow commercial customers to access aggregate data from multiple meters regardless of who pays the bill?**
    a. Yes
    b. No
    c. I don't know
    d. Other: _____ [250 characters]

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Your questionnaire has **not** been submitted yet. Click the Previous button to change your answers, or click Submit to finalize your answers and view the results.

Would you like to include any additional information for the public to see about current or planned data access services that your utility offers for its customers? Your response will be posted to the website exactly as you enter it.

Please limit your response to 255 characters.

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Thank you for submitting the utility data access questionnaire: your entries have been successfully saved. Analyzed and aggregated responses

to the questionnaire for all utilities are browsable at Utility Access results map. If your questionnaire entries do not require review, your results will be added to these maps in approximately 30 minutes. View the questionnaire results on a map. Your responses will also be posted on the OpenEI wiki page for your utility company.

* Please note that all information gathered will be subject to the Freedom of Information Act.

Red text will not be displayed in the questionnaire.