

# BPA 2018 Energy Efficiency Programs Survey Results



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# **Executive Summary**

# BPA engaged Navigant to evaluate specific components of its energy efficiency programs using a new evaluation approach

Utility customers are the most important source of feedback for BPA program operations. BPA's new process evaluation framework obtains customer feedback yearly and targets specific areas of in-depth inquiry as necessary via a three-step process. This new framework is:

- **Timely.** Yearly utility-customer survey provides relevant information to program staff
- **Customized.** Program staff choose when and in which stages to participate
- **Targeted.** Program staff spend resources when and where necessary
- **Measurable.** Tracks customer satisfaction over time

1

Document the  
**program  
understanding**

2

**Survey customers**  
regularly to obtain  
feedback on program  
satisfaction, program  
processes, and areas for  
program improvement

3

If necessary, gather  
additional program  
information from market  
actors and stakeholders  
through **targeted  
assessments**

This report presents results from Step 2, surveying customers to gather areas for program improvement.

# Survey Process



## Create Survey Instrument

The survey focused on general questions, such as satisfaction and participation, in addition to sector specific research requests



## Conduct Web Based Survey




68 out of 139 unique utilities responded, equating to a roughly 50% response rate



## Analyze Results

Navigant, working closely with BPA stakeholders, and synthesized findings from the survey responses into this report

## Survey objectives varied by sector based on the program needs identified by BPA staff

Sector	Objectives
<b>Commercial</b> 	<ul style="list-style-type: none"><li>• Understand what measures utilities currently offer.</li><li>• Gain insights that would facilitate the integration of the Lighting and HVAC TANs.</li><li>• Learn how to assess the attribution of projects to the TANs (i.e., to quantify the benefits of the TAN in terms of the incentive programs' performance)</li></ul>
<b>Industrial</b> 	<ul style="list-style-type: none"><li>• Understand what measures utilities currently offer.</li><li>• Obtain feedback from utilities on how well BPA is delivering and implementing the ESI program, and whether the program is meeting the needs of industrial end-use customers</li></ul>
<b>Residential</b> 	<ul style="list-style-type: none"><li>• Examine the types of HPWH programs customer utilities currently offer and/or plan to offer</li><li>• Understand the reasoning for non-participation in HPWH programs</li><li>• Gain insight into interest levels and feedback for potentially creating a HPWH offering through Simple Steps</li></ul>

## Survey responses yielded several key takeaways for each sector

### Commercial

- Survey respondents stated they lack time and expertise for marketing, outreach, and technical assistance
- Participants stated that internal staff and trade allies have gaps in knowledge for more complex measures
- Customer utilities revealed trade allies (contractors) need more education about BPA specific lighting measures and lighting calculators

### Industrial

- Survey respondents tend to fill administrative roles and lack the time and expertise for marketing, technical, and administrative assistance to trade allies and end-use customers
- Survey respondents revealed contractors need more education specific lighting measures, the lighting calculator, and benefit to cost information

### Residential

- Many customer utilities are currently offering HPWH rebates directly to customers, but not proactively marketing them
- Most survey respondents lack the time and expertise or have concerns with the availability of HPWH distributors and knowledgeable installers in their territories
- Customer utilities stated that they would like BPA to increase HPWH education and funding to facilitate HPWH rebate offerings to residential customers
- Customer utilities interested in a midstream offering would like to see BPA gather more stakeholder input, increase education, and communicate more often
- Almost of quarter of respondents stated they would not be interested in a midstream offering for HPWH if BPA offered it

## Based on the key takeaways, Navigant recommends the following for each sector

### Commercial

- Assess how TANs can provide more marketing, outreach, and technical assistance
- Create targeted educational trainings and print material
- (Lighting TAN) Provide technical information on specific lighting measures
- (Lighting TAN) Standardize lighting calculator and limit updates
- (HVAC TAN) Increase contractor education in specific areas
- (HVAC TAN) Consider identifying a designated contact for FAQs

### Industrial

- Develop a better understanding of who runs the industrial lighting program for utilities (e.g. who uploads the lighting calculator to BPA).
- Improve coordination with the Lighting TAN to ensure installers, manufacturers, and wholesalers understand the industrial lighting program offer mirrors that of the commercial lighting program

### Residential

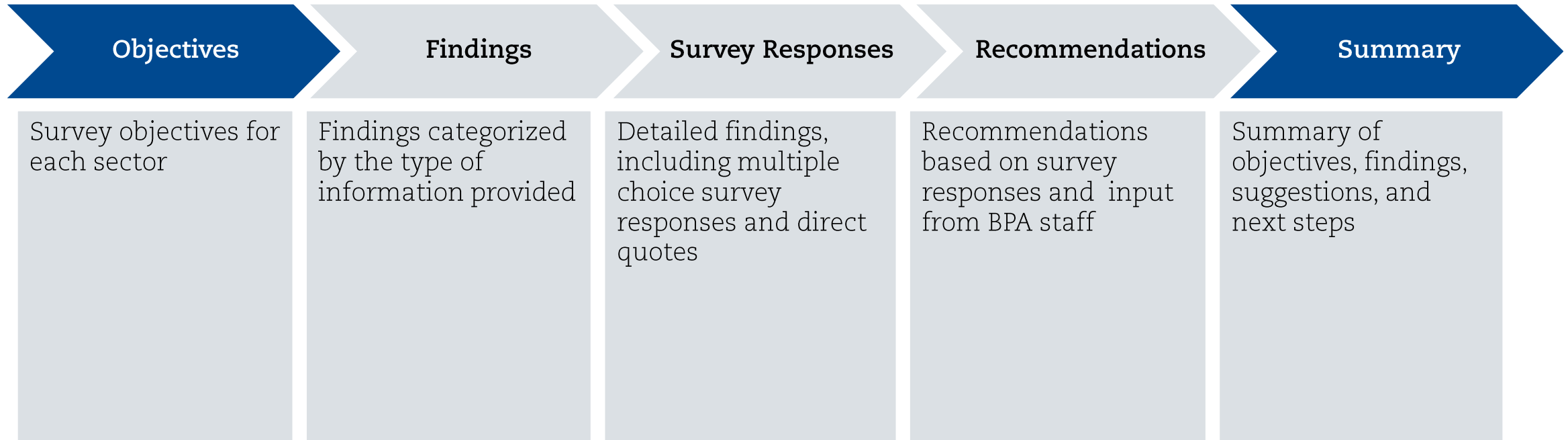
- Conduct research on HPWH distributors and installers
- Educate distributors and installers about BPA's HPWH programs
- Educate utilities about HPWH benefits
- (If Offering HPWH through Simple Steps) Educate utilities about midstream benefits
- (If Offering HPWH through Simple Steps) Increase utility branding opportunities



# **Methods & Objectives**

# Each sector section in this document includes an overview of the objectives and findings, detailed survey responses, recommendations, and a summary

Within each section, survey responses and recommendations are organized by findings category. The Commercial and Residential sections have multiple findings categories.



# Sixty-eight utilities completed the survey, but the number of respondents varies by question, so the number of respondents and question type is included with all the detailed survey responses



## Number of Respondents

- Respondents could take a variety of pathways through the survey depending on how they answered certain questions. Therefore, the number of respondents may vary by question. For example, the survey asked all Commercial sector participants (100%) what measures they currently offer. However, only those that offer lighting or HVAC measures (91% and 71%, respectively) were asked if they proactively market those measures. The survey funneled all other respondents to another question.
- The number of respondents is denoted by “N = #” in the title or legend of each chart
- In general, respondents are divided into two groups: (1) participants and (2) non-participants of the program. On the bottom of each chart, there are notes indicating whether the question was asked of participants or non-participants
- The “Percent of Utilities” noted in the X axis of most charts represents the percent of the number (“N”) of respondents



## Question Types

- The question titles in the charts are the original survey question. Survey questions indicate either “select one” – respondents can only select one answer, or “select all that apply” – respondents can select multiple answers
- Some survey questions asked respondents to describe their responses to multiple choice questions or provide their opinion. We’ve included direct quotes from respondents throughout this report

**In some cases, customer utilities asked more than one staff person to complete the same section of the survey, so Navigant weighted responses to avoid double counting**



**Weighting**

- Navigant sent the survey to one “primary contact” at each utility
- Primary contacts could nominate up to four “secondary contacts” at their utility to take the whole survey or a portion of the survey
- Navigant weighted respondents such that each utility had the same representation

**Example Survey Response Weighting Rules**

Output	Number of Secondary Contacts	Weight for Primary Contact	Weight for 1st Secondary Contact	Weight for 2nd Secondary Contact
Question Count	0	1	n/a	n/a
	1	0.5	0.5	n/a
	2	0.33	0.33	0.33

## **Navigant designed the survey and analysis to get a complete and unbiased understanding of customer utility opinions, however surveys and analyses have several inherent and unavoidable limitations**

- Despite best efforts to obtain the correct customer utility contact for each program, respondents may have had varying levels of familiarity with the programs
- Customer utilities could opt-in to participating in this survey. As this was the first Energy Efficiency Programs Survey, fifty percent of customer utilities responded. The results are representative of what we heard from those customer utilities that did participate.
- The majority of survey questions are multiple choice to ensure that respondents could complete the survey in a timely manner, however these types of questions do not always allow respondents to elaborate on their responses. This means evaluators must interpret these shortened responses without additional context.

# Commercial Findings

# The commercial survey focused on gaining insights into overall program offerings as well as specific Lighting and HVAC TAN interactions, benefits, and improvement areas

Research Objectives	
1	Gain a current and comprehensive understanding of <b>which programs and incentives the customer utilities offer</b> to their commercial customers
2	Capture the <b>roles of the survey respondent</b> in administering the commercial program
3	Learn more about <b>customer utilities' interactions with contractors</b> , and how the TANs might <b>improve those interactions</b>
4	Determine which aspects of the TANs utilities have had <b>direct interactions with</b> , and what <b>benefits</b> have they derived from the TAN

## Findings Overview

No.	Category	Findings
<b>1</b>	<b>Overall TAN Support</b>	<ul style="list-style-type: none"> <li>• A large portion of customer utilities offer lighting and HVAC measures, but few proactively market them</li> <li>• Survey respondents lack time and expertise for marketing, outreach, and technical assistance</li> <li>• Customer utilities benefit the most from TAN technical expertise and general project assistance</li> </ul>
<b>2</b>	<b>Education about Program Measures</b>	<ul style="list-style-type: none"> <li>• Internal staff and trade allies have gaps in knowledge for more complex lighting and HVAC measures</li> <li>• Lighting trade allies need more education about BPA specific lighting measures and lighting calculators</li> <li>• HVAC contractors need more education about BPA documentation, eligibility, and processes</li> </ul>
<b>3</b>	<b>TAN Engagement and Satisfaction</b>	<ul style="list-style-type: none"> <li>• Customer utilities reported being less engaged and less satisfied with the HVAC TANs (almost 30% rated them a 2 or lower) as compared to the Lighting TANs (72% rated them a 4 or higher)</li> <li>• Customer utilities reported satisfaction with the HVAC TAN offerings varied greatly, while satisfaction with the Lighting TANs tended to be more positive overall</li> </ul>
<b>4</b>	<b>Awareness and Improvement Areas</b>	<ul style="list-style-type: none"> <li>• Most non-participants are unaware of TAN service offerings</li> <li>• Non-participants identified 3 improvement areas for the TANs: (1) increased marketing, (2) increased funding and incentives, and (3) additional training and technical support</li> </ul>

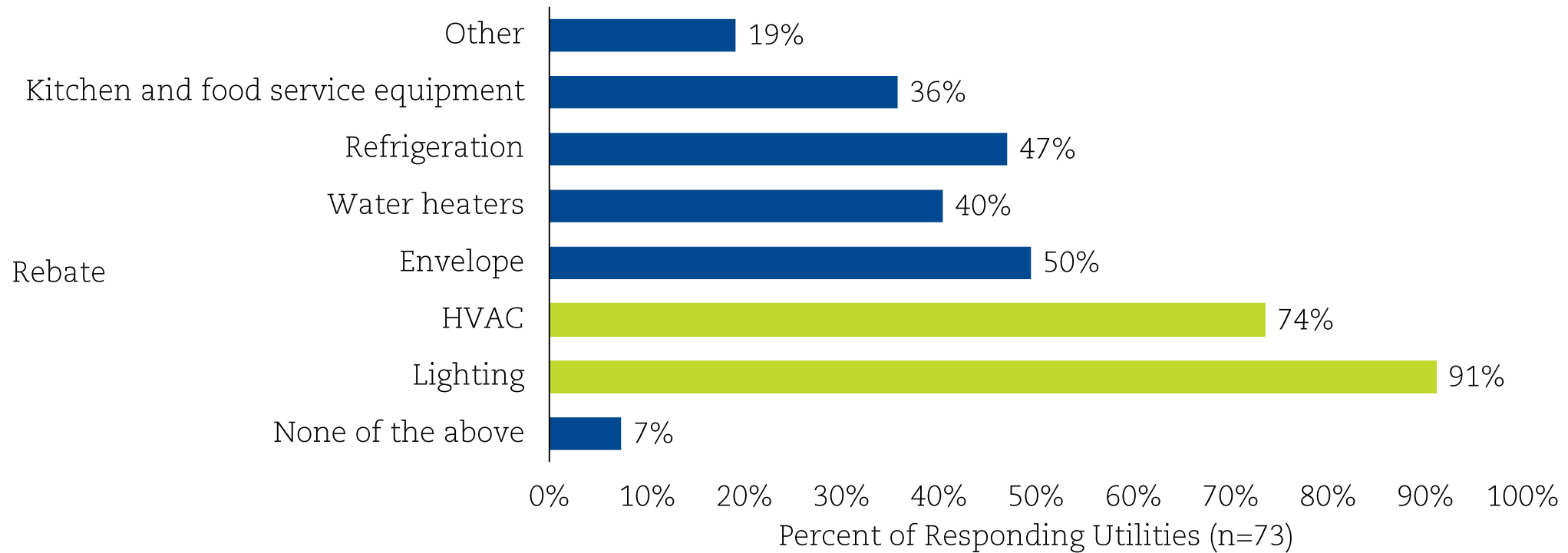


## Finding 1: Overall TAN Support

- A large portion of customer utilities offer lighting (91%) and HVAC (74%) measures, but few (50% at the most) proactively market any of the measures
- Survey respondents lack time and expertise for marketing, outreach, and technical assistance
- Customer utilities benefit the most from TAN technical expertise and general project assistance

## Customer utilities mainly offer Lighting and HVAC measures, aligning closely with TAN support

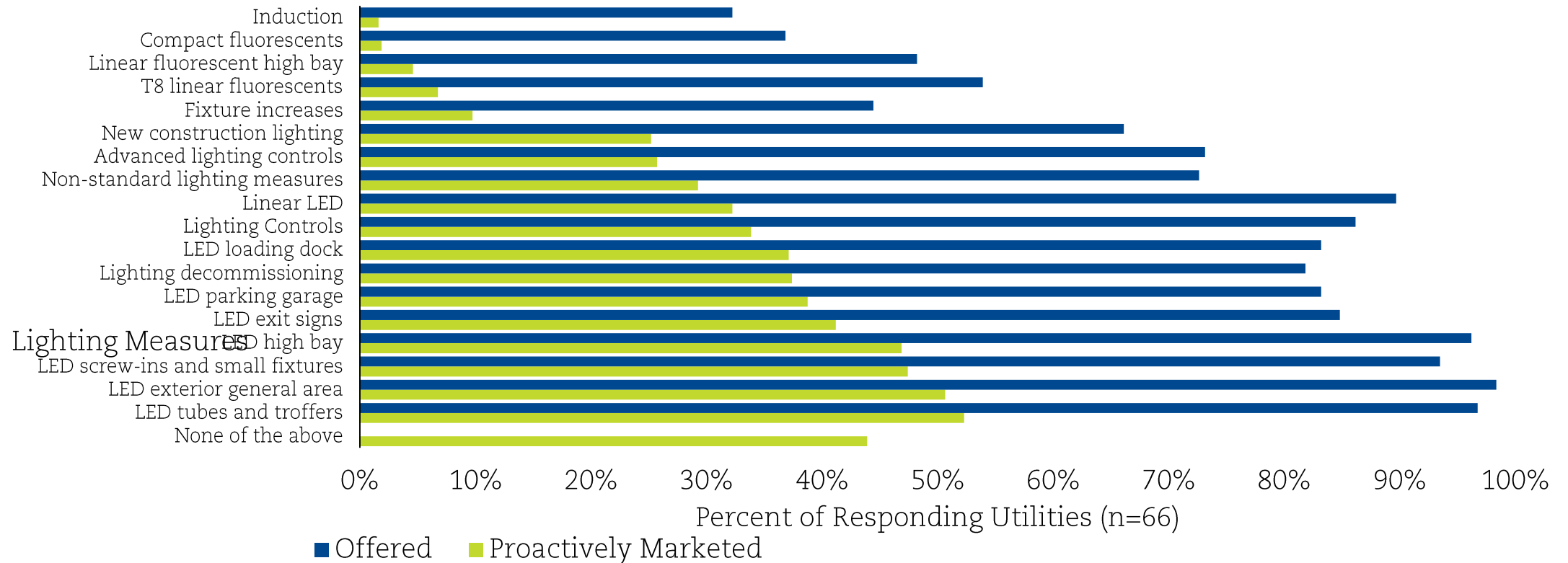
Which types of energy efficiency equipment rebates does your utility offer to your commercial sector customers? Please select all that apply.



*n = 73 represents the total number of primary and secondary contacts that took the survey. This does not represent the number of unique utilities that participated.*

## Customer utilities offer a variety of lighting measures, however most do not proactively market these measures

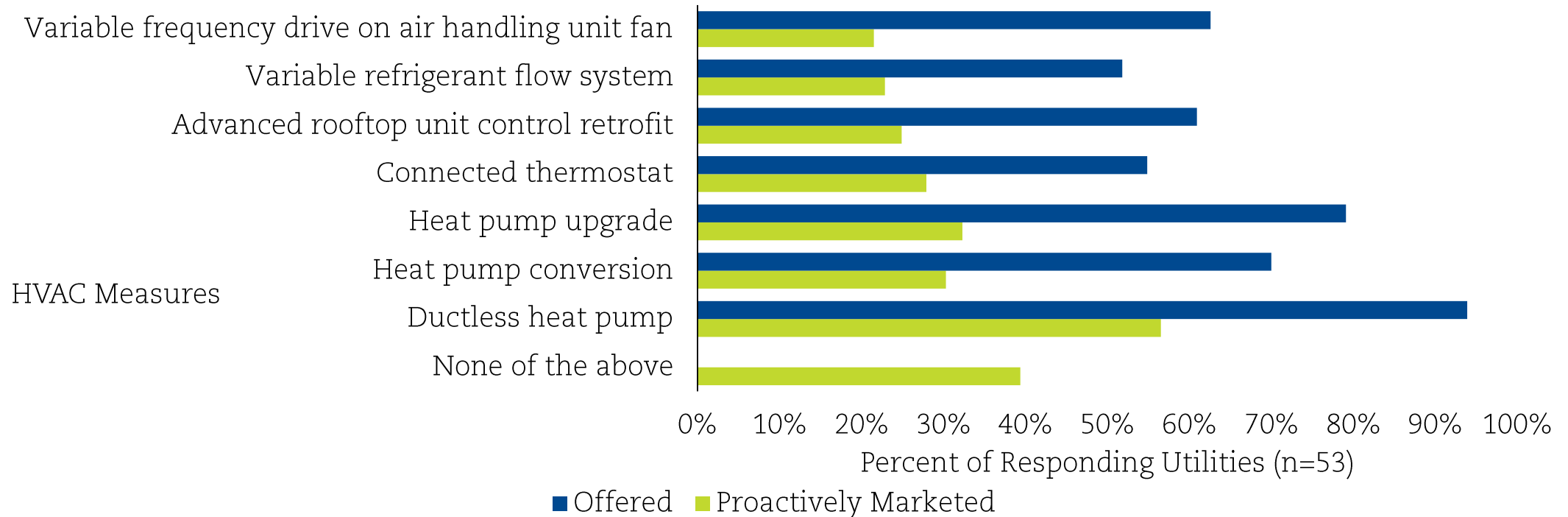
Which lighting measure rebates does your utility offer to your commercial sector customers? Of these lighting measure rebates that you offer, which ones does your utility proactively market to customers? Please select all that apply.



*n = 66 represents the number of respondents that offer commercial lighting measure rebates (91% of the total 73 respondents from the previous slide).*

## Similarly, customer utilities offer a variety of HVAC measures, however most do not proactively market these measures

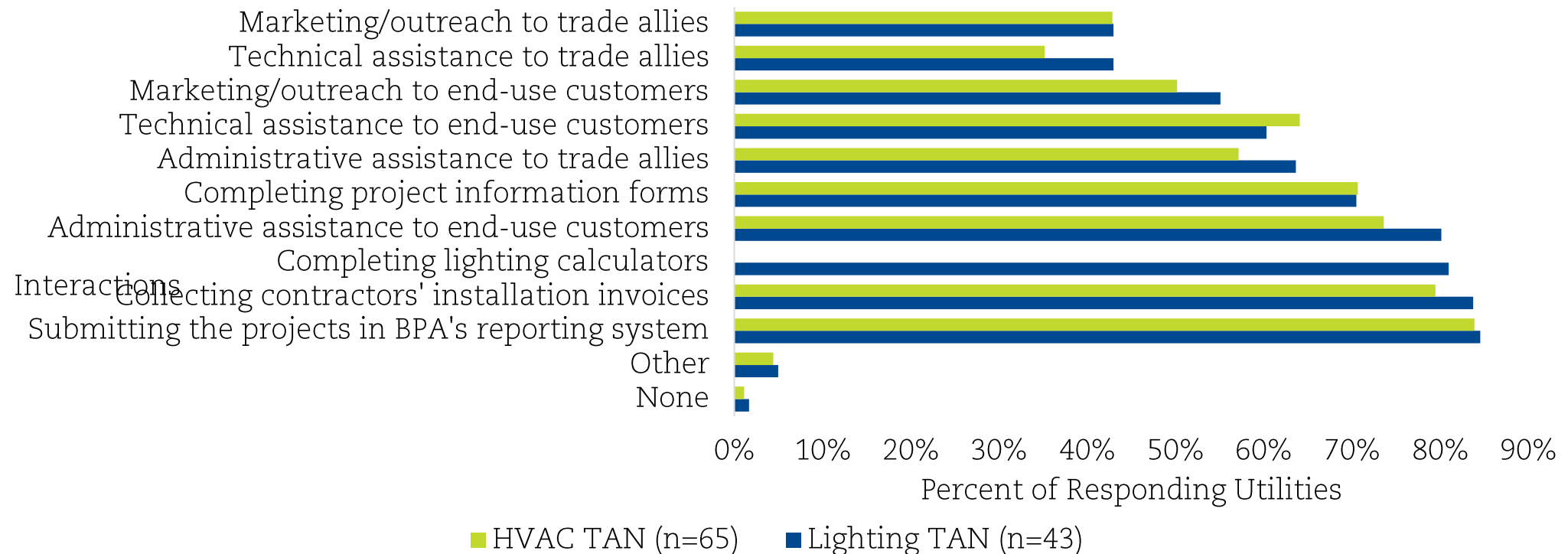
Which HVAC measure rebates does your utility offer to your commercial sector customers? Of these HVAC measure rebates that you offer, which ones does your utility proactively market to customers? Please select all that apply.



*n = 53 represents the number of respondents that offer commercial HVAC measure rebates (~74% of the total 73 respondents from the previous slide).*

## Survey participants' roles focus on administrative work, indicating opportunities for support in areas like marketing and technical assistance

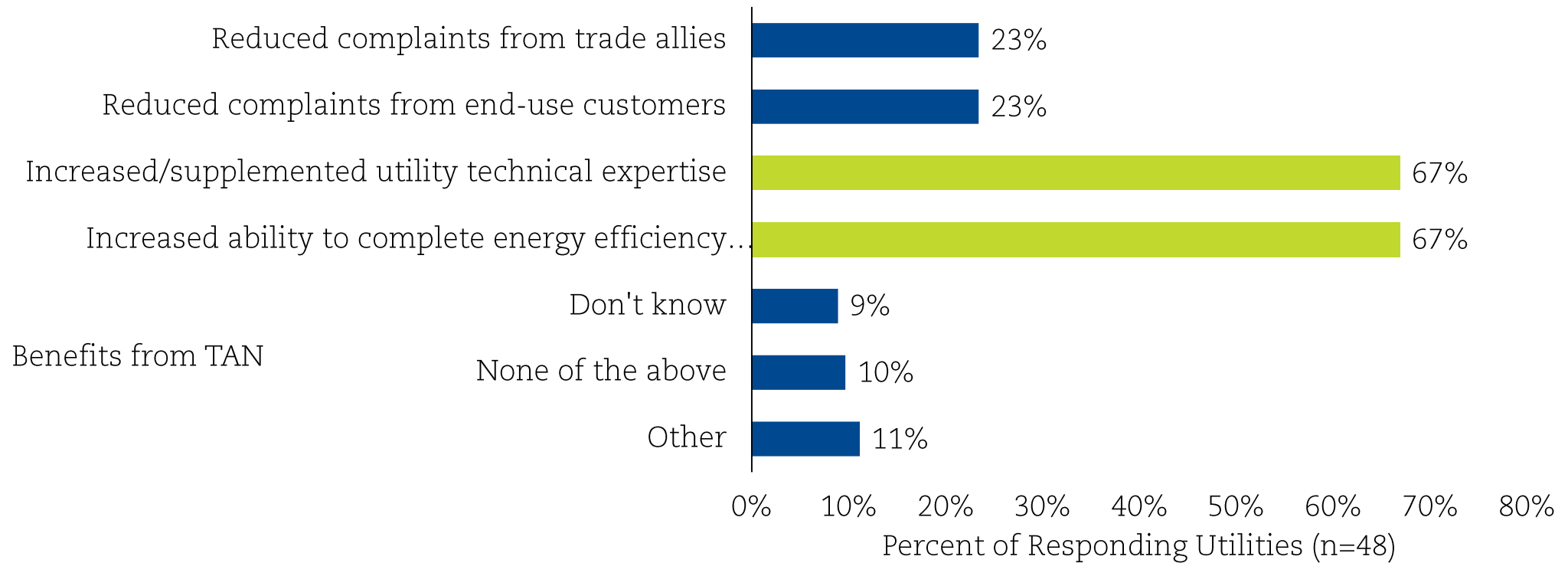
Regarding the commercial energy efficiency rebates that your utility offers, which tasks do you feel that your utility lacks the time or expertise to administer properly, if any? Please select all that apply.



Of the utilities that offer HVAC measures (74% of respondents or 54 utilities), and of the utilities that offer lighting measures (91% of respondents or 66 utilities),  $n = 65$  and  $n = 43$  represent the number of primary and secondary respondents that said their utility lacks the time and expertise to administer some tasks.

## Customer utilities benefit the most from TAN technical expertise and general project assistance

Which of the following benefits do you think you've experienced as a result of the TAN's assistance? Please select all that apply.



*n = 48 represents the number of primary and secondary respondents that have interacted with either the lighting (n = 37) or HVAC TAN (n = 11).*

## Recommendation from Finding 1: TAN Support

- TANs can play a key role in addressing the time and expertise gaps that utilities face. Assess how the TANs can provide more marketing, outreach, and technical assistance to customer utilities and end-use customers

“

My EER does a great job communicating with us and answers all my questions. I just wish there was a one day training to be like "here, these are the rebates, this is how you communicate them to members." I am sure there's a program out there but I work for a small co-op and I have a hard time fitting all my other jobs in with this one. [It would] be great if there were some online classes or videos we could reference.

“

[To make it easier to offer measures, BPA could] continue offering brown bag meetings and technical support when requested.

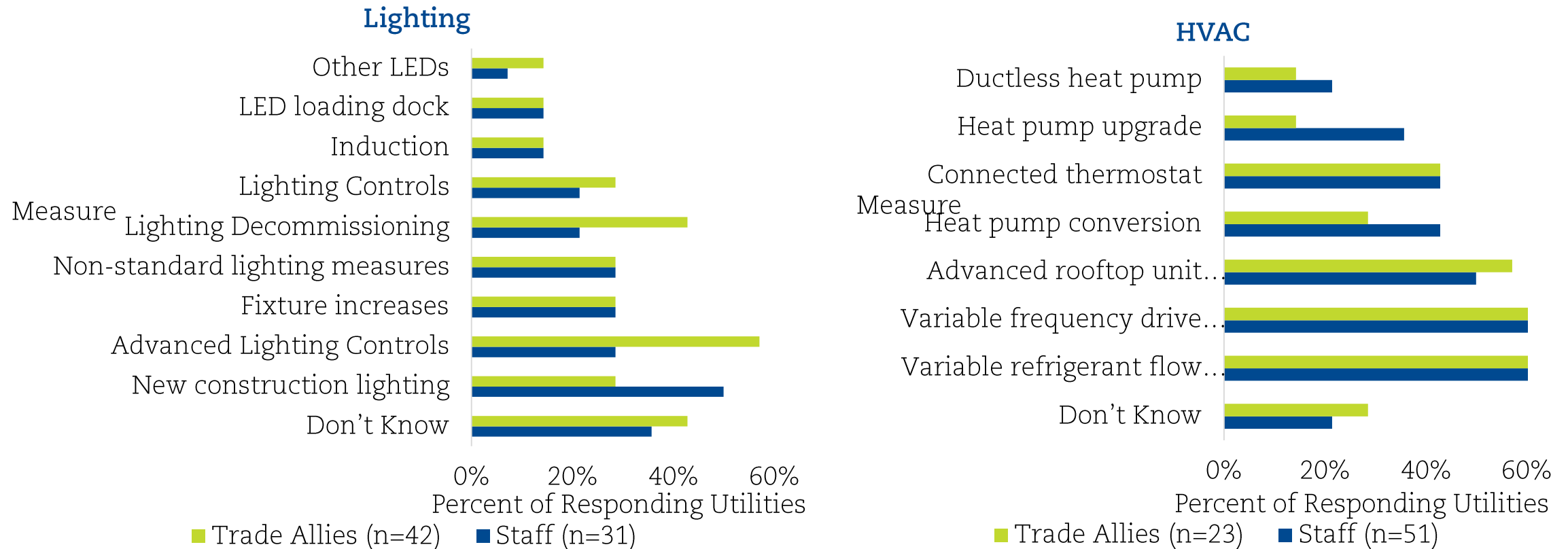
## Finding 2: Education about Program Measures

- Internal staff and trade allies have gaps in knowledge for more complex lighting and HVAC measures
- Lighting trade allies need more education about BPA specific lighting measures and lighting calculators
- HVAC contractors need more education about BPA documentation, eligibility, and processes



## Customer utilities indicated having internal gaps in knowledge with more complex Lighting and HVAC measures

Do you feel that your staff or trade allies lack the technical knowledge necessary to offer any of the following lighting measures? Please select all that apply.



The n's shown above represent the number of non-participants that stated that their staff has limited technical knowledge of the lighting or HVAC measures.

## Contractors need more education about BPA documentation, eligibility, and processes for both HVAC and Lighting measures in addition to specific lighting measure information

Are there aspects of the commercial lighting/HVAC energy efficiency rebates that you have to explain to contractors over and over again? Which ones? Open-ended or Don't Know.

### Lighting (n=31)

BPA documentation

Fixture schedule page

Lighting calculators

Specific measures: New construction, Non-Standard Options, Neon Signage

### HVAC (n=17)

BPA documentation

Incentive eligibility and other baseline questions

Explaining BPA programs and processes because contractors are not familiar with them

[We have to explain the process for] submitting the necessary supporting documentation at the completion of projects [to contractors].

[We have to explain the] changing lighting calculators. We are constantly getting old lighting calculators and then informing contractors to download the latest version and re-enter the data.

*The n's shown above represent the number of primary and secondary participants that stated that they play a role in providing marketing, outreach, administrative, or technical assistance to trade allies.*

## Recommendations from Finding 2: Education about Program Measures

- Create targeted educational in-person and online trainings and print material to support customer utilities' and trade allies' knowledge of more complex measure offerings

### Lighting TAN

- The Lighting TAN could provide additional technical information on specific lighting measures and increase contractor education around lighting calculators
- BPA could standardize the lighting calculator and limit the number of updates provided to avoid confusion

### HVAC TAN

- The HVAC TAN could increase contractor education materials and opportunities related to program eligibility, processes, and documentation through training sessions and informational materials
- Consider identifying a BPA HVAC TAN contact to answer contractor questions

## Findings 3: TAN Engagement and Satisfaction

- Customer utilities reported being less engaged and less satisfied with the HVAC TANs (almost 30% rated them a 2 or lower) as compared to the Lighting TANs (72% rated them a 4 or higher)
- Customer utilities reported satisfaction with the HVAC TAN offerings varied greatly, while satisfaction with the Lighting TANs tended to be more positive overall

“

Lighting TANS are great. They, like our residential contractors, are our marketing team. Commercial HVAC TANS...couldn't even tell you who they are.

“

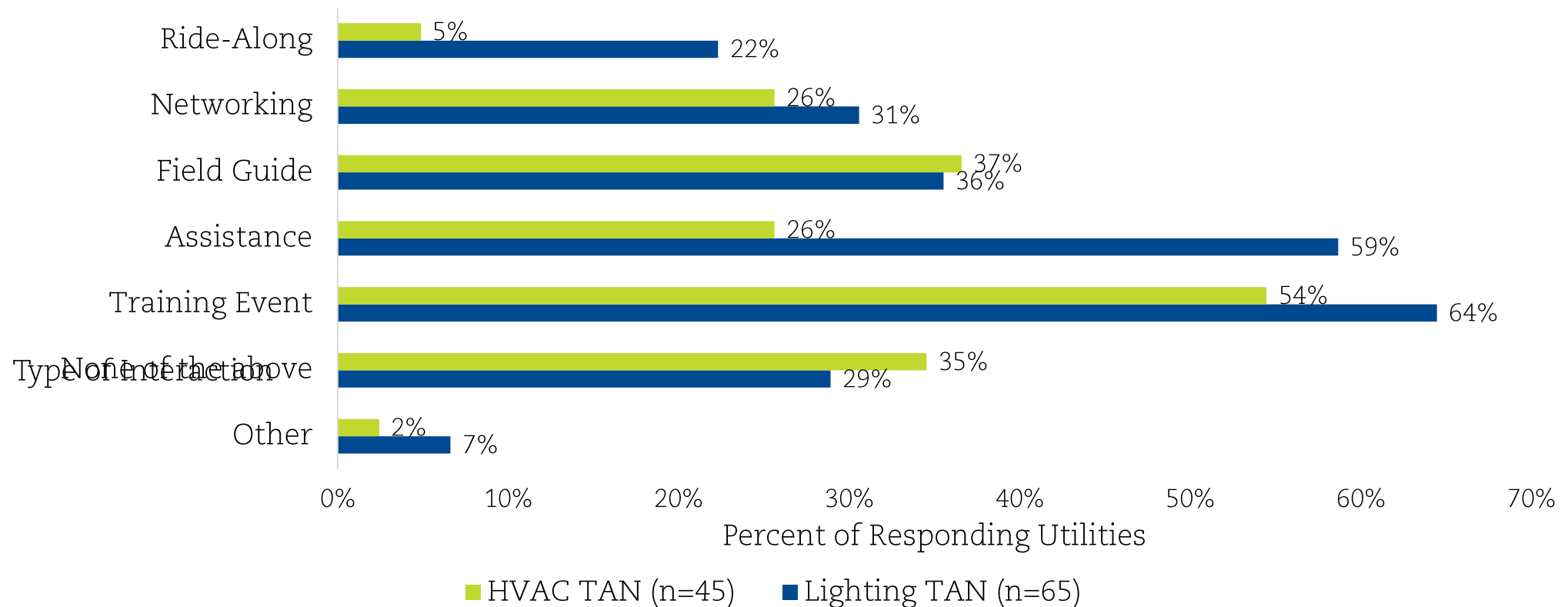
The lighting TAN has been able to provide technical expertise and knowledge. However, the HVAC TAN has only on a limited basis been helpful for my projects.

“

[Lighting] NW TAN is a fantastic resource. AirNW seems like it has not fully developed or found the right strategy to make it work.

## Participants requested HVAC TAN assistance more so than Lighting TAN assistance

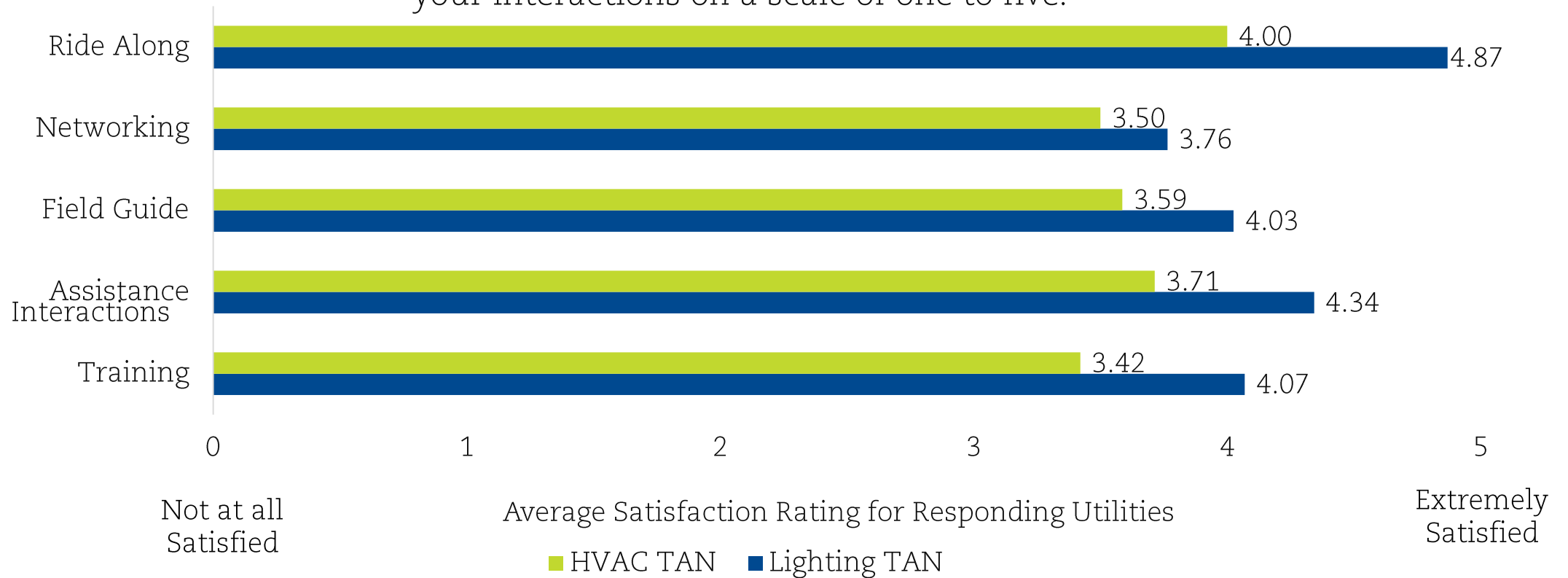
Which of the following types of interactions have you had with the Lighting TAN or HVAC TAN network(s), if any? Please select all that apply.



The n's shown above represent the number of primary and secondary respondents (participants) that stated they offer lighting or HVAC commercial rebates, and have had interactions with the TANs.

## Participants felt more satisfied with the Lighting TAN as compared to the HVAC TAN in each interaction area

How satisfied are you with each of these TAN offerings? Please rate each of your interactions on a scale of one to five.



*The number of respondents varied for each of the interactions based on whether or not the respondent stated they had interacted with the TAN offering.*

## Qualitative responses reinforced the satisfaction ratings

- **Positive** responses focused on the value TANs add (n=19)
- **Negative and neutral** responses focus on the differences between the Lighting/HVAC TANs (n=14)

What can BPA do to make it easier for you to offer commercial measures to your customers next year? (n=33) Open-ended or Don't Know.

Response Type	General Themes
<b>Positive</b>	<ul style="list-style-type: none"> <li>• TANs described as “valuable,” “great resource,” “helpful”, “great for training and educating trade allies”</li> </ul>
<b>Negative</b>	<ul style="list-style-type: none"> <li>• Disappointment with HVAC</li> <li>• Desire for improved explanation of help offered</li> </ul>
<b>Positive &amp; Negative</b>	<ul style="list-style-type: none"> <li>• Happy with Lighting TAN</li> <li>• Disappointed/unaware with HVAC TAN</li> </ul>

*n = 33 represents the number of respondents that provided an answer (rather than choosing “don't know”).*

## **Recommendation from Finding 3: TAN Engagement and Satisfaction**

- Pinpoint specific differences in how the HVAC TAN program is administered compared to the Lighting TAN program. After determining gaps, align the HVAC TAN program design to match the Lighting TAN program

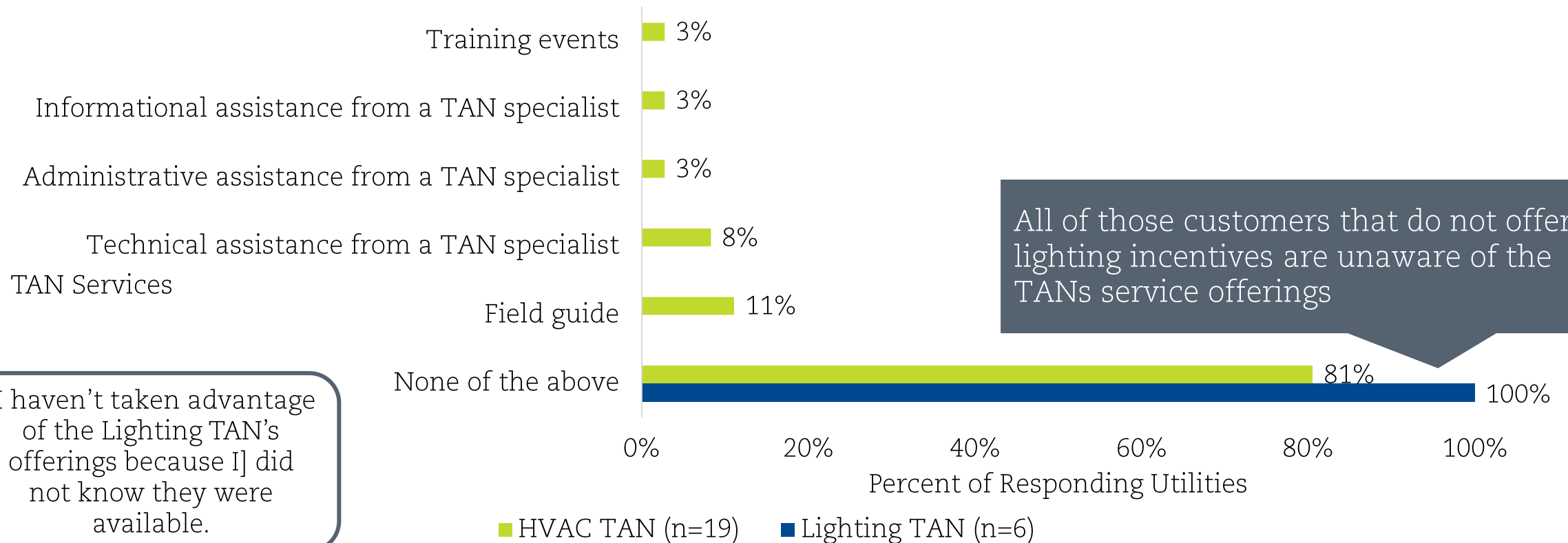


## Finding 4: Awareness and Improvement Areas

- Most (100% lighting, 81% HVAC) non-participants are unaware of TAN service offerings
- Non-participants identified 3 improvement areas for the TANs: (1) increased marketing, (2) increased funding and incentives, and (3) additional training and technical support

## Non-participants are mostly unaware of the TAN's service offerings

Are you aware of any of the following services offered by Lighting/HVAC TANs? Please select all that apply.



*The n's represent the number of primary and secondary respondents that stated their utility does not offer either lighting or HVAC measures (non-participants).*

## Non-participants identified three improvement areas across the two TANs

What can BPA do to make it easier for you to offer commercial measures to your customers next year? Open-ended or Don't Know. (n=32)

“ [BPA should] continue to offer trainings and resources.

“ [BPA could offer] more technical (engineering) support.

### Marketing

- Offer more marketing materials
- Provide additional marketing and outreach support



### Funding/Incentives

- Increase funding and incentives in general
- Support and promote stable requirements and incentives



### Training & Technical Support

- Provide online classes
- Collaborate with Air NW to meet quarterly with HVAC contractors
- Develop in-house and local expertise



*The n's represent the number of primary and secondary respondents that provided an answer to this question rather than selecting "Don't Know".*

## **Recommendation from Finding 4: Awareness and Improvement Areas**

- Conduct an outreach campaign to all customer utilities to help them understand and utilize TAN service offerings
- Ensure customer utilities are aware of the TAN offering: marketing collateral, marketing support, training, and technical support

# Commercial Lighting and HVAC TAN Findings and Recommendations Summary

## Research Objectives

- Gain a current and comprehensive understanding of which programs and incentives the customer utilities offer to their commercial customers
- Capture the roles of the survey respondent in administering the commercial program
- Learn more about interactions with contractors and how TANs can improve these interactions
- Determine how utilities engage with TANs and what benefits they have derived from the TANs

## Findings

- A large portion of customer utilities offer lighting and HVAC measures, but few proactively market them
- Survey respondents lack time and expertise for marketing, outreach, and technical assistance
- Customer utilities benefit the most from TAN technical expertise and general project assistance
- Internal staff and trade allies have gaps in knowledge for more complex lighting and HVAC measures
- Lighting trade allies need more education about BPA specific lighting measures and lighting calculators
- HVAC contractors need more education about BPA documentation, eligibility, and processes
- Customer utilities reported being less engaged and less satisfied with the HVAC TANs (almost 30% rated them a 2 or lower) as compared to the Lighting TANs (72% rated them a 4 or higher)
- Customer utilities reported satisfaction with the HVAC TAN offerings varied greatly, while satisfaction with the Lighting TANs tended to be more positive overall
- Most non-participants are unaware of TAN service offerings
- Non-participants identified 3 improvement areas for the TANs: (1) increased marketing, (2) increased funding and incentives, and (3) additional training and technical support

## Recommendations

- Assess how TANs can provide more marketing, outreach, and technical assistance
- Create targeted educational trainings and print material
- (Lighting TAN) Provide technical information on specific lighting measures
- (Lighting TAN) Standardize lighting calculator and limit updates
- (HVAC TAN) Increase contractor education in specific areas
- (HVAC TAN) Consider identifying a designated contact for FAQs
- Consider modeling HVAC TAN program on Lighting TAN program
- Increase internal marketing towards non-participants

## Next Steps

- Gather internal feedback
- Create a workplan to incorporate feedback

# Industrial Findings

# The industrial survey focused on gaining insights into the lighting component of the Energy Smart Industrial (ESI) program

Research Objectives	
1	Gain a more current and comprehensive understanding of <b>which lighting incentives customer utilities offer</b> to their industrial customers.
2	Capture the <b>roles of the survey respondent</b> in administering the industrial program, specifically as it relates to lighting measures.
3	Gain feedback from participating utilities regarding how the industrial lighting component is <b>delivered and implemented</b> , and whether the program is <b>meeting the needs</b> of industrial end-use customers.
4	Determine how BPA can make it <b>easier for non-participants</b> to participate in the industrial lighting program

## Findings Overview

No.	Category	Findings
1	<b>Opportunities for Improved Coordination</b>	<ul style="list-style-type: none"><li>• Some respondents stated they are not involved in administering the ESI program, indicating that despite best efforts to obtain the correct contact for each program, respondents may have had varying levels of familiarity with the programs</li><li>• Survey respondents tend to fill administrative roles and lack the time and expertise to provide assistance to trade allies and end-use customers</li><li>• A few survey respondents felt that contractors need more education about BPA programs and certain program aspects</li><li>• Only 4 out of 58 respondents definitively felt the ESI program could provide additional support for their lighting projects</li></ul>

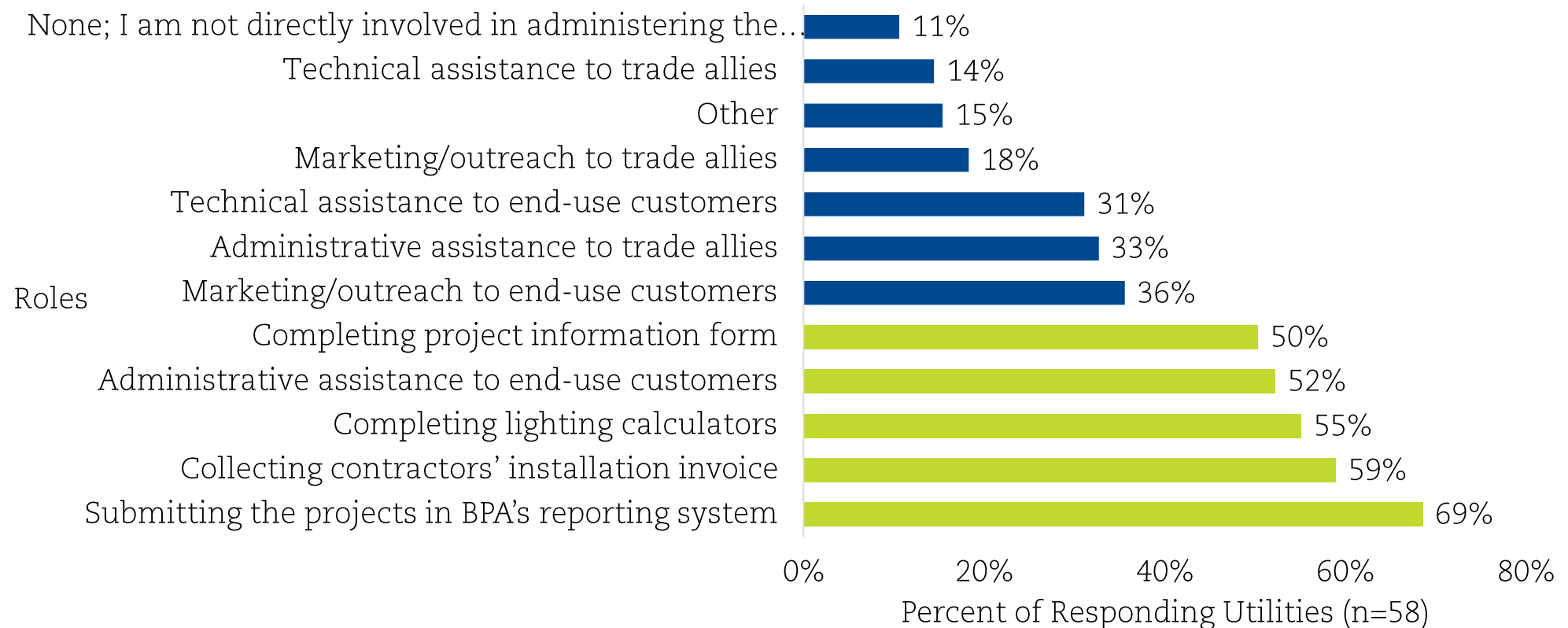


## Findings: 1. Opportunities for Improved Coordination

- Roughly 10% of respondents stated they are not involved in administering the ESI program, indicating room for additional surveying
- Survey respondents tend to fill administrative roles and lack the time and expertise for marketing, technical, and administrative assistance to trade allies and end-use customers
- A few survey respondents felt that contractors need more education about BPA programs in general in addition to specific lighting measure, calculator, and benefit to cost information
- Only four out of fifty-eight respondents definitively felt the ESI program could provide additional support for their lighting projects

## Utilities mainly fill administrative roles when it comes to industrial lighting projects

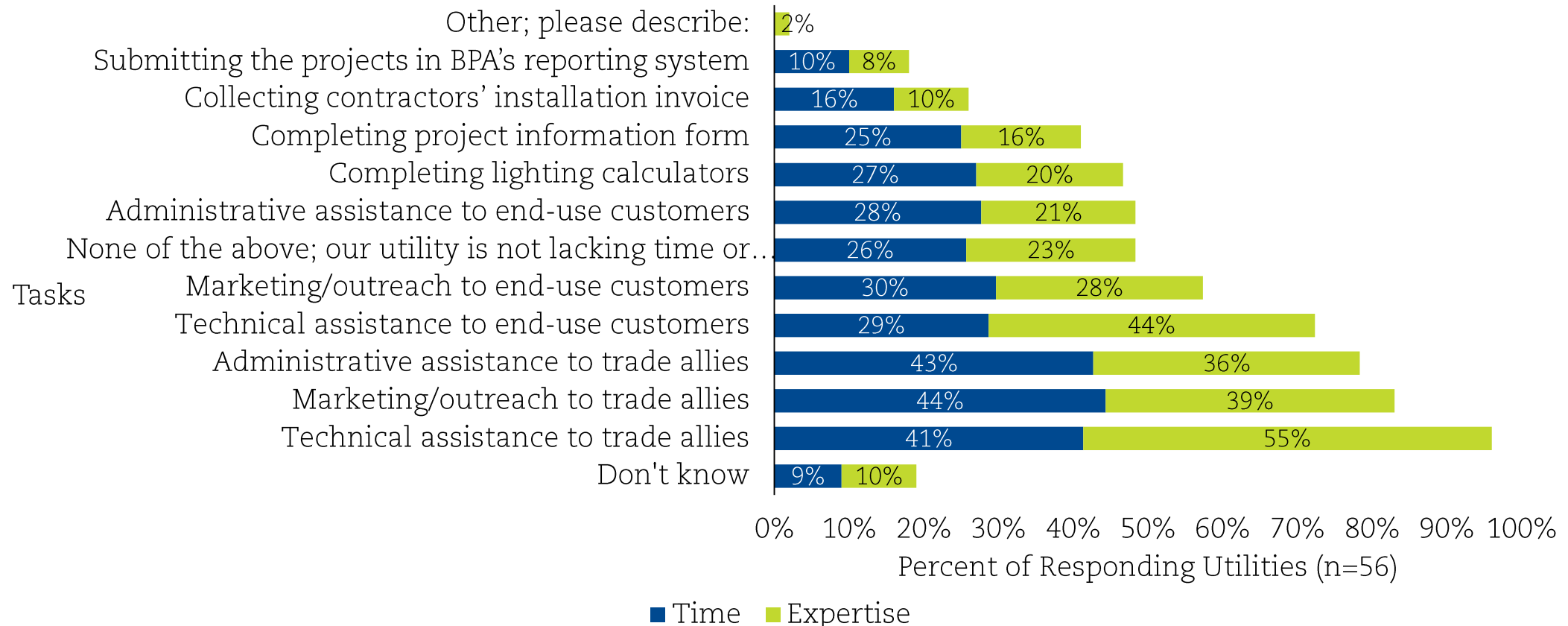
What roles do you play in administering the ESI program for industrial lighting projects? Please select all that apply.



*n = 58 represents the number of primary and secondary respondents who responded to this question after stating their utility offers industrial lighting measures (participants).*

# Utilities lack the time and expertise to conduct functions related to trade allies and non-administrative roles to end-use customers

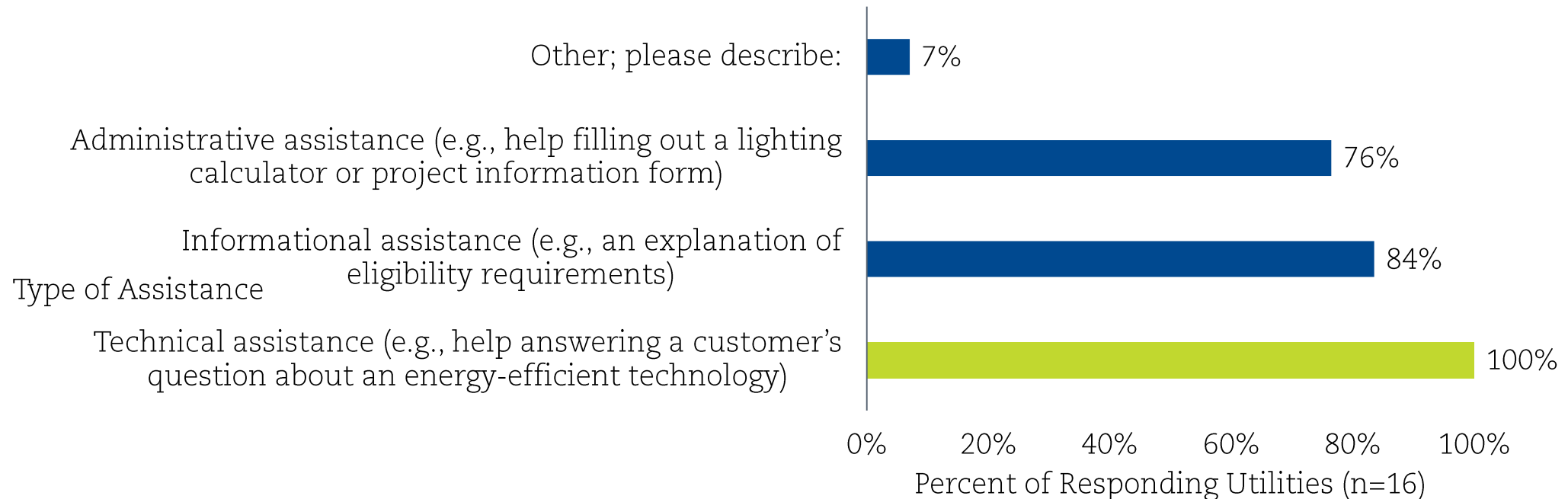
Which tasks do you feel that your utility lacks the time or expertise to administer properly? Please select all that apply.



*n = 56 represents the number of primary and secondary respondents who responded to this question after stating their utility offers industrial lighting measures.*

## Participants mainly requested technical assistance, while some requested a variety of additional assistance

What type of assistance did you request from BPA's ESI program lighting specialist? Please select all that apply.



*n = 16 represents the number of primary and secondary respondents who responded to this question after stating their utility offers industrial lighting measures, and who stated that a BPA ESI specialist helped with their lighting projects.*

## Contractors need more education about BPA programs in addition to specific lighting measure, calculator, and benefit to cost information

Are there aspects of the ESI program for industrial lighting that you have to explain to contractors over and over again? Which ones? Open-ended or Don't Know.

“

[Contractors] understand the concepts of utility calculators and incentives but we have to explain our process, step by step, starting with the qualified products list, BPA calculator, inspection standards, incentives, etc.

Yes (n=7)

Benefit to cost ratios

Receiving final project invoices

The program in general, deemed measures

Lighting calculator

“

Many lighting contractors are familiar with ETO programs but not theirs, often need to explain the entire process to them even though they might be familiar with concepts.

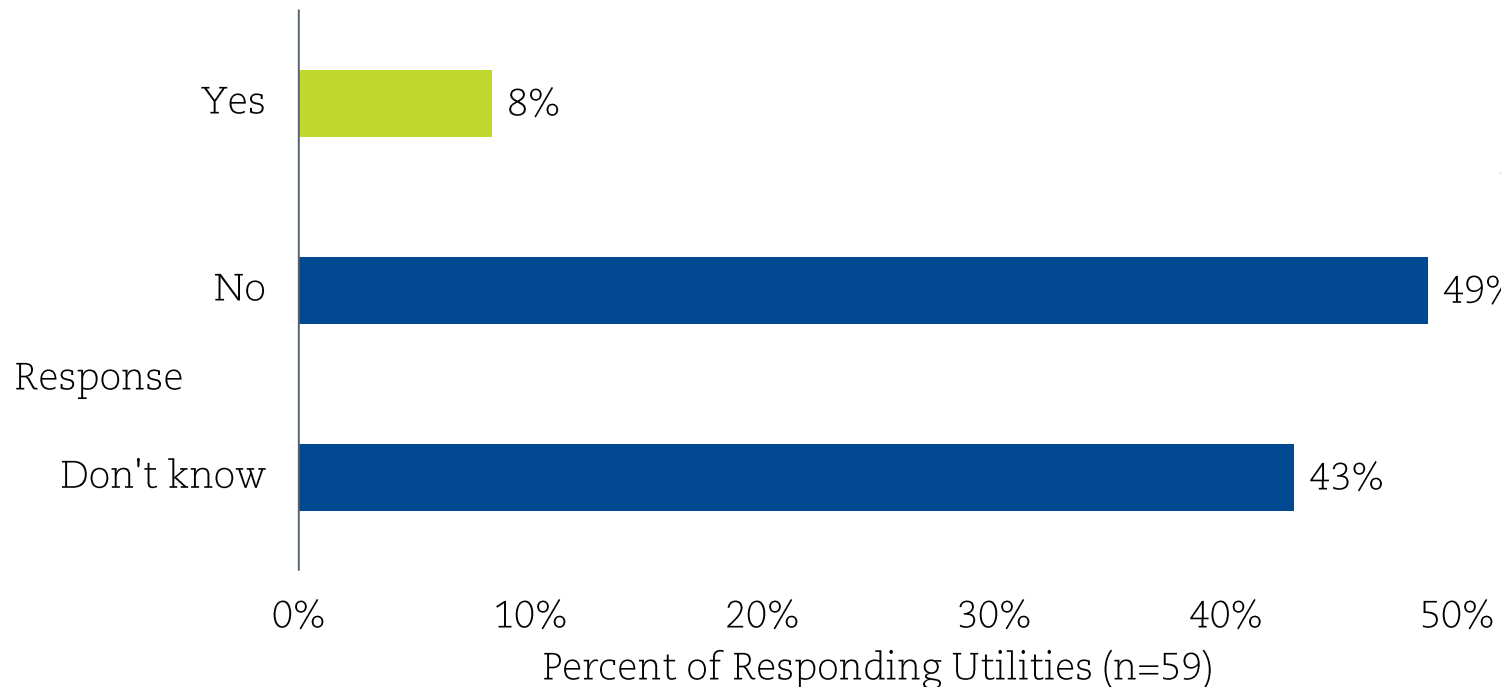
“

[We have to explain to contractors] Benefit to cost ratios, the need for accurate cost documentation, and the process of determining incentives for incremental projects.

*n = 7 represents the number of primary and secondary contacts that stated they offer industrial lighting measures (participants) and answered “Yes” to this question. Fourteen respondents answered “No” to this question.*

## 8% of respondents felt the ESI program could provide additional support for their lighting projects

Is there additional support the ESI program could provide for your lighting projects that it currently does not? Select one.



Qualitative responses with suggestions request:

- Outreach to regional equipment wholesalers
- More frequent site visits
- Increased design coordination with TAN

*n = 59 represents the number of primary and secondary respondents that stated they offer industrial lighting measures (participants), and answered this question.*

## Recommendations from Finding 1: Opportunities for Improved Coordination

- Develop a better understanding of who administers the industrial lighting program for utilities (e.g. who uploads the lighting calculator to BPA).
- Improve coordination with the Lighting TAN to ensure installers, manufacturers, and wholesalers understand the industrial lighting program offer mirrors that of the commercial lighting program.
- Improve outreach, education, and general awareness across both programs, given that select respondents requested this assistance and their needs suggest gaps in these areas.

# Industrial Lighting Component Findings and Recommendations Summary

## Research Objectives

- Gain a more current and comprehensive understanding of which lighting incentives customer utilities offer to their industrial customers.
- Capture the roles of the survey respondent in administering the industrial program, specifically as it relates to lighting measures.
- Gain feedback from participating utilities regarding how the industrial lighting component is delivered and implemented, and whether the program is meeting the needs of industrial end-use customers.
- Determine how BPA can make it easier for non-participants to participate in the industrial lighting program

## Findings

- Some respondents stated they are not involved in administering the ESI program, indicating that despite best efforts to obtain the correct contact for each program, respondents may have had varying levels of familiarity with the programs
- Survey respondents tend to fill administrative roles and lack the time and expertise to provide assistance to trade allies and end-use customers
- A few survey respondents felt that contractors need more education about BPA programs and certain program aspects
- Only 4 out of 58 respondents definitively felt the ESI program could provide additional support for their lighting projects

## Recommendations

- Develop a better understanding of who administers the industrial lighting program for utilities (e.g. who uploads the lighting calculator to BPA).
- Improve coordination with the Lighting TAN to ensure installers, manufacturers, and wholesalers understand the industrial lighting program offer mirrors that of the commercial lighting program.
- Improve outreach, education, and general awareness across both programs, given that select respondents requested this assistance and their needs suggest gaps in these areas.

## Next Steps

- Gather internal feedback
- Create a workplan to incorporate feedback



# Residential Findings

# The residential survey focused on heat pump water heater measure adoption and program design

## Research Objectives

<b>1</b>	Understand what <b>HPWH programs</b> customer utilities <b>offer or plan to offer</b>
<b>2</b>	Understand <b>how HPWH programs are currently being administered</b> and <b>what assistance utilities need</b> to administer the program
<b>3</b>	Gain insight into <b>why customer utilities do or do not offer HPWH programs</b> ; Understand what would <b>make it easier to participate</b> in <b>Simple Steps</b> if BPA were to offer HPWH
<b>4</b>	Assess <b>satisfaction with BPA</b> and the measures offered through <b>Simple Steps</b> , including <b>if BPA offered HPWHs through the program</b>
<b>5</b>	<b>Determine awareness</b> of program components
<b>6</b>	<b>Gather suggestions</b> on how to <b>structure a HPWH measure</b> if it were to be offered <b>through Simple Steps</b>

## Findings Overview

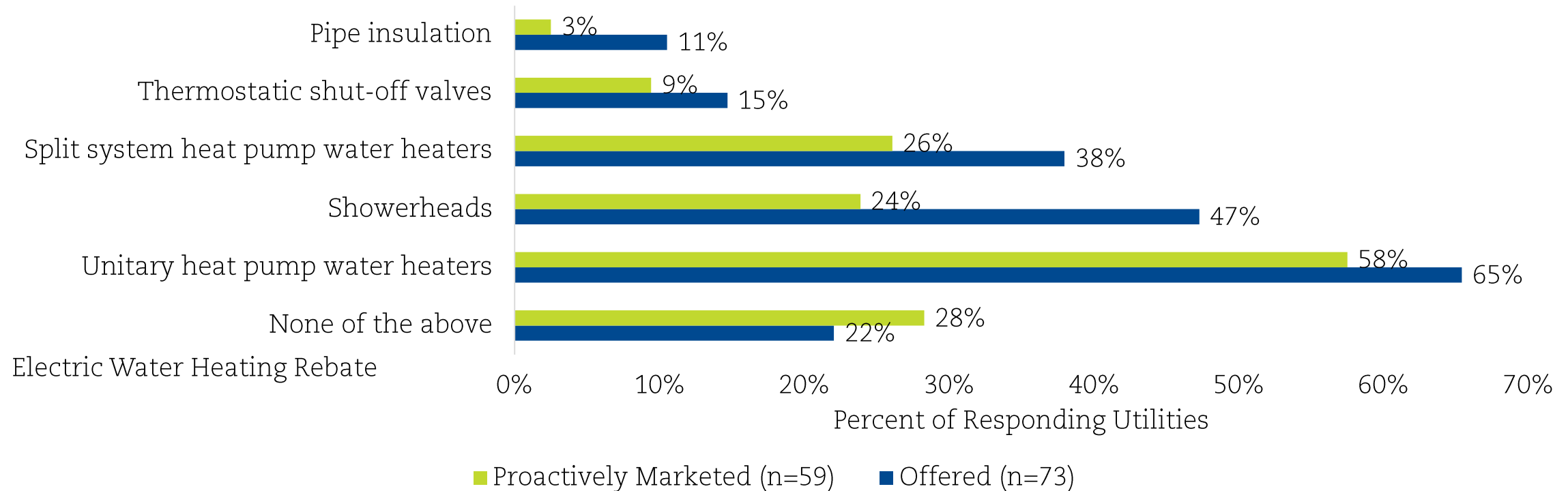
No.	Category	Specific Findings
<b>1</b>	<b>Opportunities for BPA Support for HPWH measures</b>	<ul style="list-style-type: none"> <li>• Many customer utilities offer HPHW rebates to customers, but far fewer proactively market the rebates</li> <li>• Most respondents lack the time and expertise to market to distributors and installers, or have concerns with the availability of HPWH distributors and knowledgeable installers in their territories</li> <li>• Customer utilities stated that they would like BPA to educate customers and utilities about the benefits of HPWHs to facilitate adoption</li> </ul>
<b>2</b>	<b>Opportunities to Explore Potential HPWH Offerings through Simple Steps</b>	<ul style="list-style-type: none"> <li>• Almost a quarter of qualitative responses stated utilities are uninterested in Simple Steps or a midstream offering because they enjoy direct contact with end-users or don't have enough end-users requesting HPWHs</li> <li>• Those interested in Simple Steps requested more outreach with key stakeholders, including the customer utilities, end-users, and distributors and installers</li> </ul>

## Finding 1: Opportunities for BPA Support for HPWH measures

- A decent portion (38% split system, 65% unitary) of customer utilities offer HPHW rebates to customers, but fewer (26% split system, 58% unitary) proactively market the rebates
- Most survey respondents (57%-90%) lack the time and expertise to market to distributors and installers, or have concerns with the availability of HPWH distributors and knowledgeable installers in their territories
- Customer utilities stated that they would like BPA to educate customers and utilities about the benefits of HPWHs to facilitate adoption

## Many offer HPWH rebates, although a smaller amount proactively market the rebates

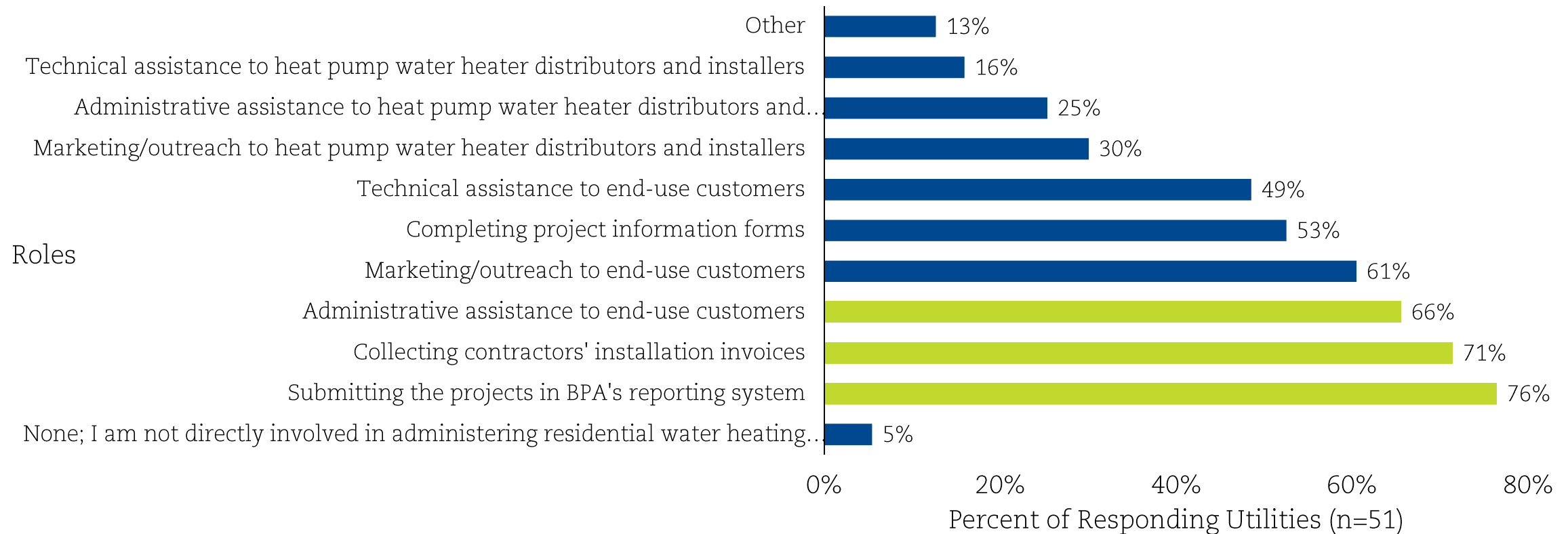
Which Electric Water Heating measure rebates does your utility offer to your residential sector customers? Of these Electric Water Heating measure rebates that you offer, which ones does your utility proactively market to customers? Please select all that



*n = 59 and n = 73 represent all primary and secondary respondents who answered this question.*

## Participants mostly fill administrative roles and are not providing assistance to HPWH distributors and installers

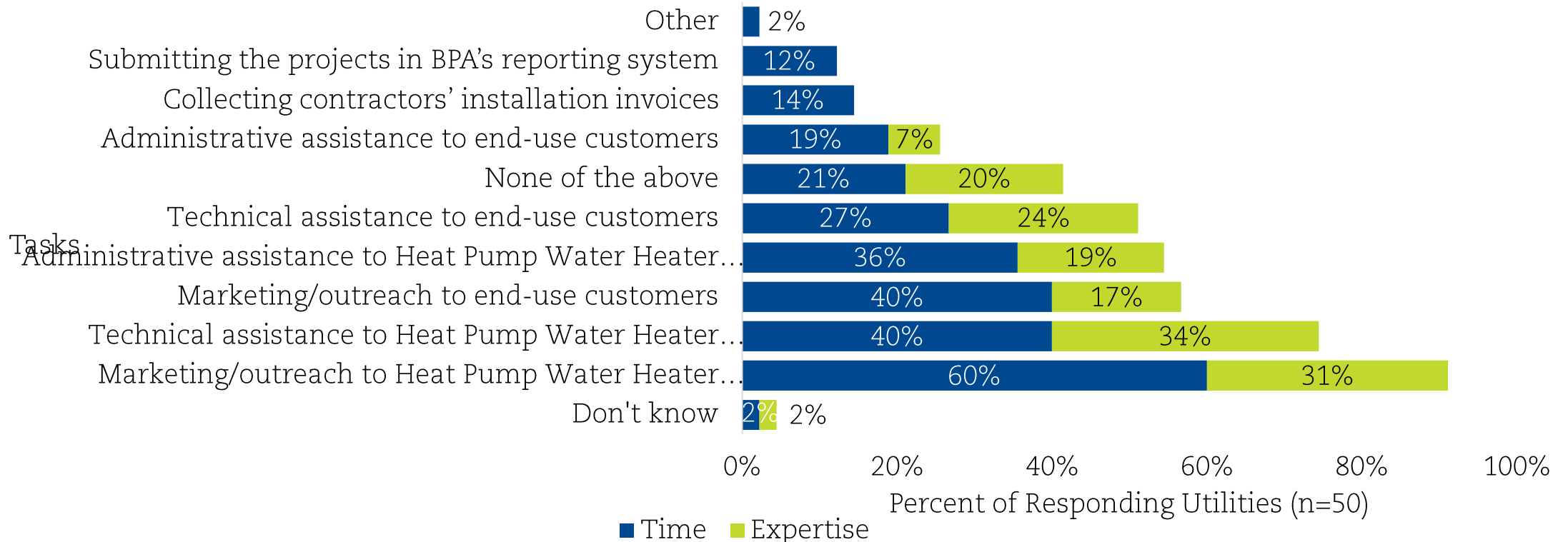
What roles do you play in administering residential energy efficiency water heating rebates for your utility? Please select all that apply.



*Of those that responded that their utility offers water heating rebates, n = 51 represents the number of primary and secondary respondents that answered this question.*

## Utilities lack the time and expertise to conduct marketing, outreach, and technical-related tasks to HPWH distributors and installers

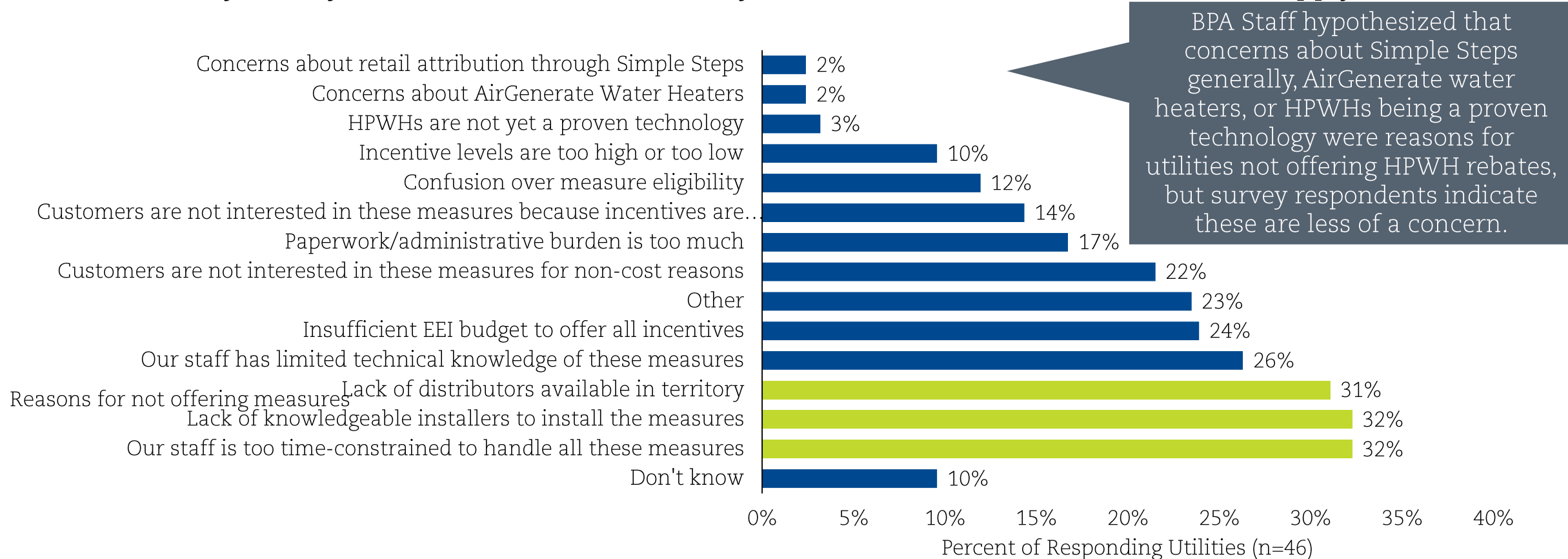
Regarding the water heating rebates your utility offers, which tasks do you feel that your utility lacks the time or expertise to administer properly, if any? Please select all that apply.



*Of those that responded that their utility offers water heating rebates, n = 50 represents the number of primary and secondary respondents that said their utility lacks time or expertise to administer the program.*

## Non-participants cited internal staff time constraints and external concerns related to distributors and installers as reasons for not offering HPWH rebates

Why don't you offer HPWH measures to your customers?\* Please select all that apply.



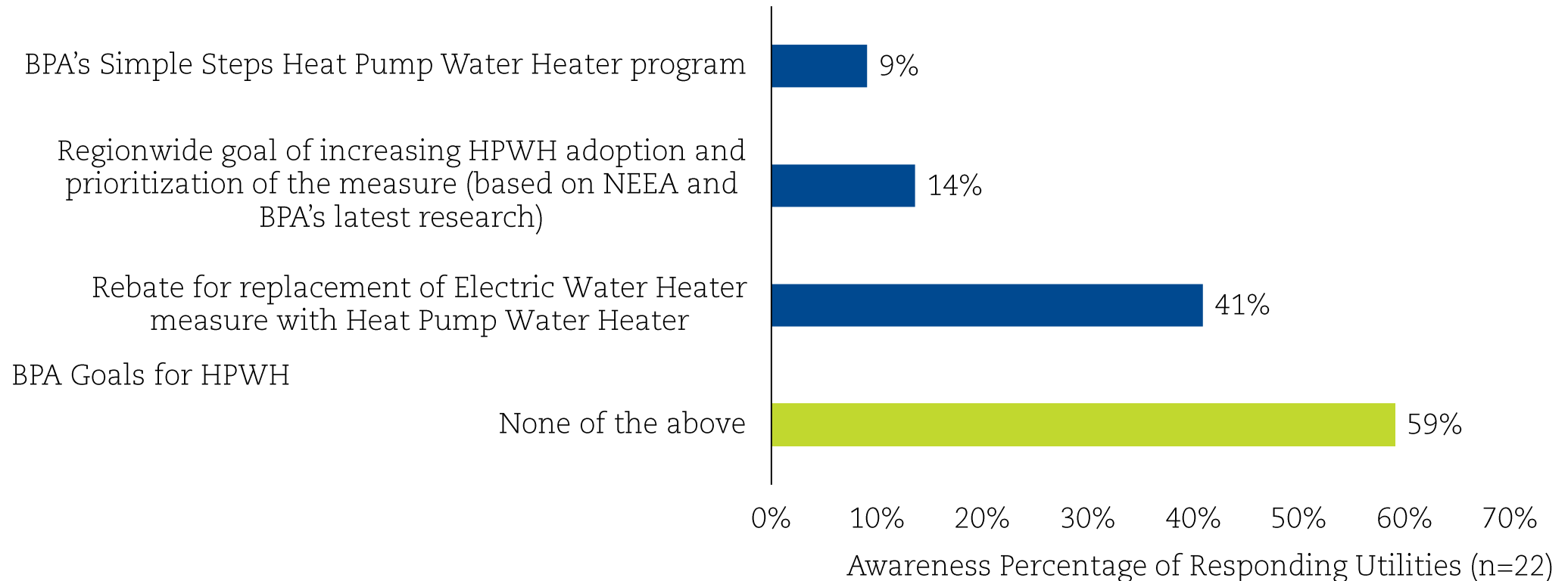
*n = 46 represents the number of primary and secondary respondents that stated they do not offer HPWHs (non-participants).*

*\*Note: Respondents were asked to select one of the answers listed above. Of those who answered "other", several noted that customers are not requesting enough HPWH to have an offering*



## Non-participants are unaware of BPA's HPWH goals, rebates, and Simple Steps program

BPA has prioritized Heat Pump Water Heater adoption for its 2017-2019 energy efficiency goals. Are you aware of any of the following related to this goal? Please select all that apply.



*n = 22 represents the number of utilities that do not offer HPWHs (non-participants).*

## Customer utilities identified one main area of improvement to facilitate HPWH offerings to residential customers

What improvements can BPA make to the Heat Pump Water Heater rebate offering that would make it easier for you to offer Heat Pump Water Heater rebates to your residential customers? Open-ended or Don't Know.

“...I myself am not familiar with the details of the energy efficiency of a heat pump. It would be nice to have a "new EE" class where I could sit and learn about all the programs offered and how I can communicate this to my members.

“ Consumers not knowledgeable or interested.

### Education (n=8)

- Offer more information about HPWH to customer utilities
- Educate end-use customers about the benefits of HPWHs

“ Our customers will require more education and assurance of the dependability and efficiency of HPWH vs the traditional hot water heater to justify the investment.

“ We would need to see real evidence that there is real energy savings with this product.

*n = 8 represents the number of primary and secondary respondents that provided an answer to the question (rather than selecting “Don't Know”).*

# Recommendations from Finding 1: Opportunities for BPA Support for HPWH measures

## Marketing

- Determine the best way to assist customer utilities with marketing HPWH incentives to end-use customers

## Education: Distributors and Installers

- Conduct market research to learn about the HPWH distributors and installers in utility territories
- Educate HPWH distributors and installers about BPA's HPWH programs through regular gatherings with distributors and/or manufacturers
- Explore cooperative marketing opportunities with distributors and manufacturers to take advantage of their networks of contractors and other stakeholders

## Education: Utilities and Customers

- Create a workshop on HPWH to educate customer utilities about benefits of HPWH and distributors and installers in their territories
- Establish a HPWH forum to educate and communicate with all key stakeholders (customer utilities, distributors, installers)

## Finding 2: Opportunities to Explore Potential HPWH Offerings through Simple Steps

- Almost a quarter (22%) of qualitative responses stated they would be uninterested in a HPWH offering through Simple Steps or a midstream offering in general, if BPA offered it, because they enjoy direct contact with end-users or don't have enough end-users requesting HPWHs

“ We only have a few customers each rate period contact us about HPWHs so we are able to process them in house. If more customers are interested in the technology, we will look into simple steps again.

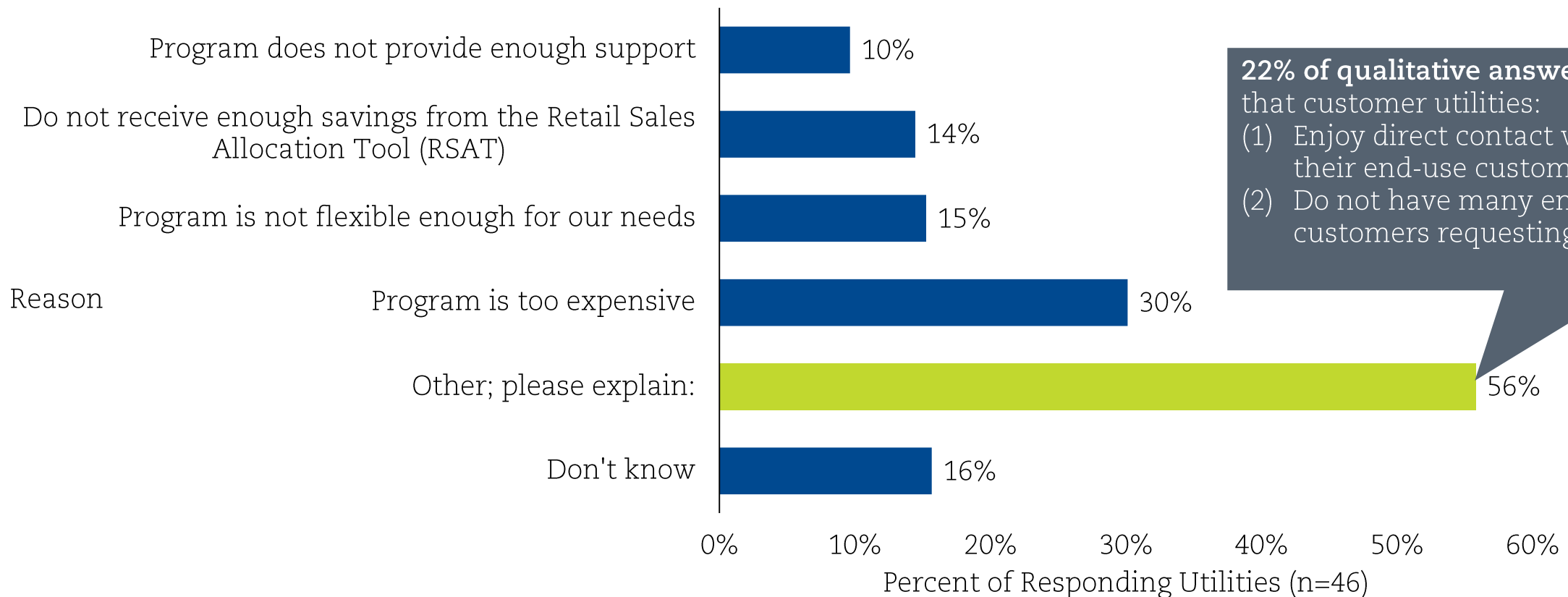
“ [We are uninterested because] we think customer contact is important.

- Those interested in a potential HPWH offering through Simple Steps requested more outreach with key stakeholders, including the customer utilities, end-users, and distributors and installers

“ [To provide a viable midstream HPWH program] Keep us informed, ask for input, keep the dialog open, take the initiative to reach out to utilities and ask them how's it going.

## Most participants seem uninterested in a Simple Steps or midstream program for HPWHs, although their time and expertise gaps align well with this type of program

Why has your utility chosen to offer a HPWH incentive to residential customers but not participate in Simple Steps? Please select all that apply.



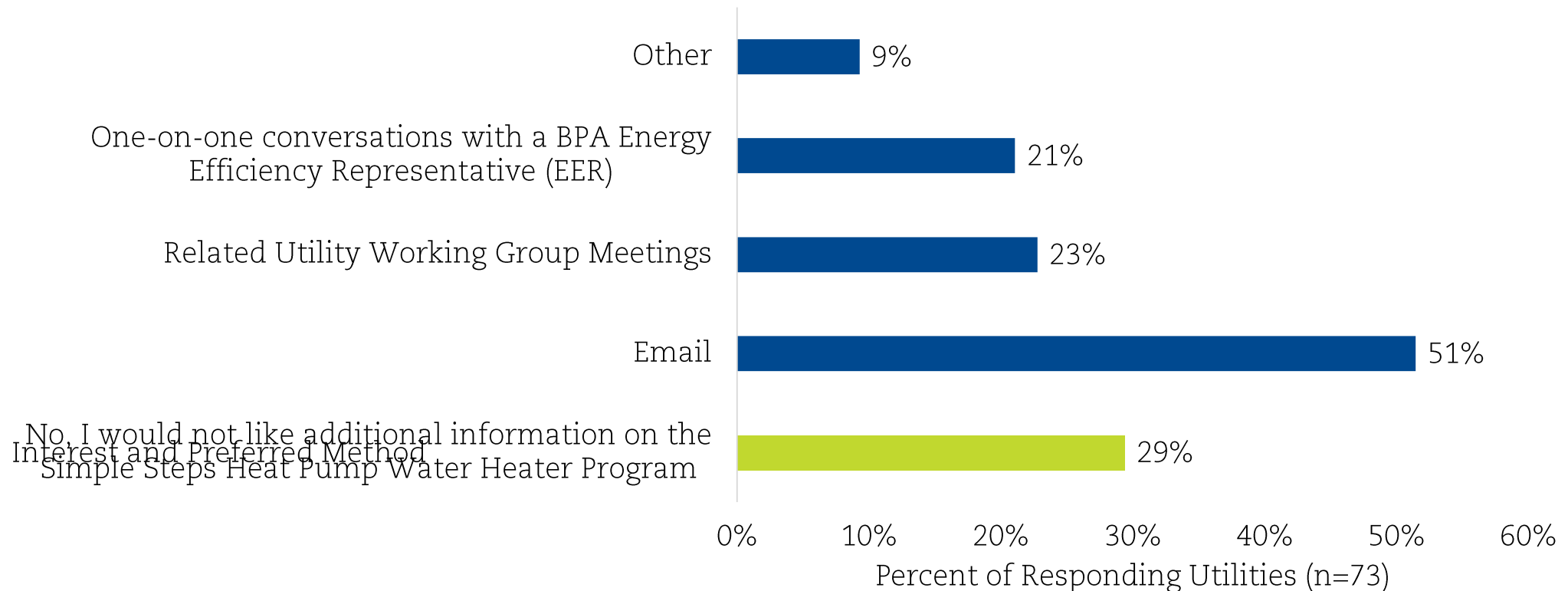
**22% of qualitative answers** show that customer utilities:

- (1) Enjoy direct contact with their end-use customers
- (2) Do not have many end-use customers requesting HPWHs

*n = 46 represents the number of primary and secondary respondents (participants) that stated they offer HPWH incentives, but do not participate in Simple Steps.*

## Almost a third of non-participants do not want more information on Simple Steps if it were to become an offering

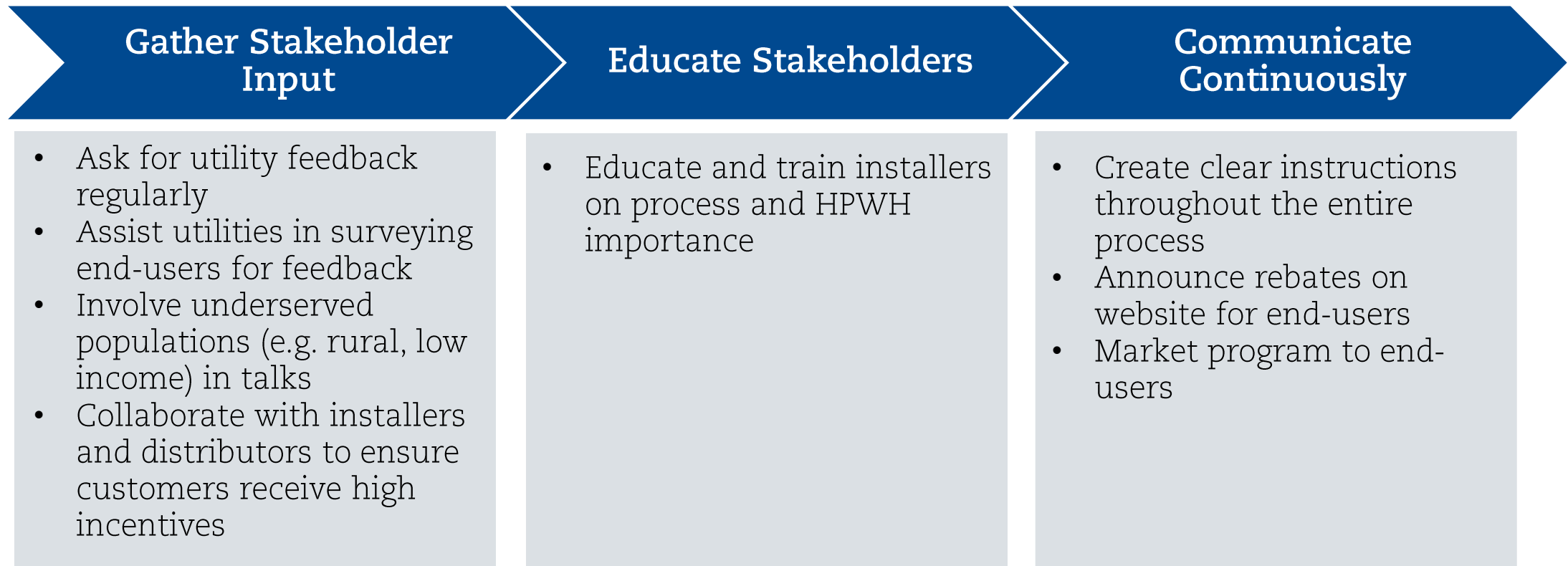
When available, would you like more information on the Simple Steps Heat Pump Water Heater program? How would you like to receive this information? Select one.



*n = 73 represents the number of primary and secondary respondents (participants and non participants).*

## Those interested in a midstream HPWH offering if it becomes available requested that BPA gather stakeholder input, educate stakeholders, and communicate continuously

What can BPA do to provide your utility with a viable, regional, midstream Heat Pump Water Heater program offering next year? Open-ended or Don't Know. (n=27)



*n = 27 represents the total number of respondents that offer HPWHs (participants) and provided an answer to the question (rather than selecting "Don't Know").*

## Recommendations from Finding 2: Opportunities to Explore HPWH Offerings through Simple Steps

**If BPA moves towards a Simple Steps offering for HPWH, recommendations include:**

- Quantify the benefits to customer utilities such as:
  - increased distributor stocking of eligible HPWHs, promotion of HPWHs by contractors/builders,
  - increased installation rates,
  - reduction in kWh, increased market penetration,
  - development of new efficiency standards
- Educate utilities about general benefits, such as offering ease for end-use customers and increased satisfaction with their utility. They can also increase program engagement while decreasing the utility's administrative burden and lessen the utility's need for in-house expertise.
- Increase utility branding for the a midstream or Simple Steps program. Marketing should still include midstream products (e.g., point of purpose signage, radio, billboard, TV, educational webpages, direct mail, and geo-targeted online ads)



# Residential HPWH Findings and Recommendations Summary

## Research Objectives

- Understand what HPWH programs customer utilities offer or plan to offer
- Understand how HPWH programs are currently being administered and what assistance utilities need to administer the program
- Gain insight into why customer utilities do or do not offer HPWH programs; Understand what would make it easier to participate in Simple Steps if BPA were to offer HPWH
- Assess satisfaction with BPA and the measures offered through Simple Steps, including if BPA offered HPWHs through the program
- Determine awareness of program components
- Gather suggestions on how to structure a HPWH measure if it were to be offered through Simple Steps

## Findings

- Many customer utilities offer HPWH rebates to customers, but far fewer proactively market the rebates
- Most respondents lack the time and expertise to market to distributors and installers, or have concerns with the availability of HPWH distributors and knowledgeable installers in their territories
- Customer utilities stated that they would like BPA to educate customers and utilities about the benefits of HPWHs to facilitate adoption
- Almost a quarter of qualitative responses stated utilities are uninterested in Simple Steps or a midstream offering because they enjoy direct contact with end-users or don't have enough end-users requesting HPWHs
- Those interested in Simple Steps requested more outreach with key stakeholders, including the customer utilities, end-users, and distributors and installers

## Recommendations

- Conduct market research to learn about the HPWH distributors and installers in utility territories
- Educate HPWH distributors and installers about BPA's HPWH programs through regular gatherings with distributors and/or manufacturers
- Explore cooperative marketing opportunities with distributors and manufacturers to take advantage of their networks of contractors and other stakeholders
- (If Simple Steps HPWH Offering) Educate utilities about midstream benefits
- (If Simple Steps HPWH Offering) Increase utility branding opportunities

## Next Steps

- Gather internal feedback
- Create a workplan to incorporate feedback

**Thank you!**

