CADMUS

Appendix to the 2019 Washington Annual Conservation Report

PROCESS EVALUATION REPORT

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Executive Summary

As part of the Avista 2018–2019 demand-side management (DSM) portfolio evaluation, Cadmus conducted process evaluation activities for PY 2018 and PY 2019. The process evaluation focused on four fundamental objectives:

- Assess program delivery channel and marketing methods
- Assess participant and market actor program journeys, including participation barriers, satisfaction levels, and rebate levels' effectiveness
- Assess Avista's and implementer's staff experiences, including organizational structures, communication levels, and program processes
- Document program successes, challenges, and changes

This report describes Cadmus' data collection and process methods, presents analysis results, summarizes findings, draws conclusions, and recommends possible improvements for all Avista programs, except the Nonresidential Grocer program, the Residential ENERGY STAR® Homes program, and the third-party Community Energy Efficiency program.

Summary of Milestones and Deliverables

Cadmus conducted the evaluation by reviewing documents, surveying participants, and interviewing program and implementation staff and contractors. Table 1 lists these process evaluation activities.

Table 1. PY 2018 and PY 2019 Completed Milestones and Deliverables

Milestones and Deliverables	PY 2018	PY 2019
Document and Database Review	✓	✓
Avista and Implementer Interviews	✓	✓
Participant Surveys	✓	✓
Trade Ally Interviews		
HVAC Contractors	✓	
Multifamily Property Managers	✓	✓
Builders		✓
Retailers		✓
Community Action Program Agencies		✓

Key Findings

Nonresidential

- **Almost two-thirds of Nonresidential survey respondents participated in past business energy efficiency programs.** Most Site Specific (17 of 21) survey respondents previously participated in an Avista business energy efficiency program, compared with 56% of prescriptive respondents (42 of 75).
- **Contractors and equipment vendors were more engaged with participation drivers in PY 2019.**

    - In contrast with PY 2018 respondents, more PY 2019 respondents reported first learning about the Prescriptive program from a contractor (for an 8% increase) or an equipment vendor (a 4% increase).
    - PY 2019 respondents were more likely to designate their contractor or vendor as a motivating factor in PY 2019, increasing to 34% from 20% the previous year.
- **Participant motivations differed by program.**
    - Site Specific program participants identified saving money and using less energy as the top benefits from program participation, consistent with PY 2018 results.
    - PY 2019 Prescriptive survey respondents identified saving money and receiving a rebate as the top benefits (n=86; 76% and 66%, respectively), while, in PY 2018, Prescriptive survey respondents identified saving money and using less energy as the top benefits (n=46; 72% and 65%, respectively).
- **Though participants were highly satisfied with the program, a small number indicated some dissatisfaction.**
    - All Site Specific survey respondents (n=19) and 98% (n=83) of Prescriptive survey respondents expressed satisfaction with the program overall. In PY 2019, this satisfaction increased for Prescriptive survey respondents over PY 2018 respondents (98% and 91%, respectively).
    - Site Specific respondents expressed satisfaction with all program components, except for the equipment installed; one of 19 was *not too satisfied* with this component as the customer "chose a weak vendor." Except for communication with contractors and vendors, PY 2019 respondents provided a higher number of *very satisfied* responses than in PY 2018.
    - Prescriptive survey respondents were highly satisfied with the pre- and post-project inspection and the equipment installed. Several survey respondents, however, provided reasons for dissatisfaction with the program and some of its components. One respondent stated that the overall process took too long and did not provide them with a high-enough incentive. Another said their account executive originally told them their project would not qualify for incentives, and a third respondent said the program should cover the conversion of lower-wattage, high energy-usage lighting.
- **Site Specific survey respondents said the program succeeded due to Avista staff (6 of 11) while Prescriptive survey respondents cited the program application process and customer support (n=47; 28%).**
    - Site Specific program participants also cited energy and cost savings (3 of 11); and reported effective projects, easy processes, and multiple benefits (one response each) worked well.
    - Prescriptive survey respondents also cited better lighting (23%) and energy and cost savings (21%) as program elements that worked particularly well.
- **Participation challenges differed by program.**
    - For the Site Specific program, the top participation challenge was lack of program awareness. This differed from PY 2018's top challenge of determining rebate eligibility.

  - Prescriptive survey respondents listed their top challenges as identifying eligible measures and learning about the program. Lighting participants said using the Design Lights Consortium's (DLC) list or the ENERGY STAR-certified products list proved difficult.
- **Avista's rebate played an important role in the decision to complete the energy efficiency project.** All Site Specific and all but two Prescriptive survey respondents said Avista's rebate proved important in their decision to complete the project.
  - Site Specific respondents identified availability of rebates and/or other co-funding as the most important criteria for making energy efficiency improvements (14 of 18), followed by energy or operating costs (12 of 18), and the return on investment (12 of 18).
  - Prescriptive survey respondents identified energy or operating costs as the most important criteria (72%; n=43).

Multifamily

- **Multifamily property managers and tenants participating in the MFDI program generally were *highly satisfied* with the program and the measures installed.**
  - Property managers expressed satisfaction with contractors' professionalism, item quality, time required to complete installations, and the scheduling process.
  - Tenants proved *highly satisfied* with the quality of outdoor LED lighting installed during the program's supplemental lighting phase.
- **Communication during the MFDI program's supplemental lighting phase could improve.**
  - Two of five multifamily property managers that Cadmus interviewed in PY 2019 had yet to hear from the implementer's subcontractor regarding the program's supplemental lighting phase.
  - Similar delays and communications lapses remained an issue from the PY 2018 pilot, when two of 10 interviewed managers noted these problems.
- **Home builders participating in the MFMT program highlighted positive benefits from the program helping their business.**
  - Four home builders that participated in the PY 2019 MFMT program cited specific participation benefits (such as incentives helping with project financing and increased tenant interest in natural gas appliances).

Residential

- **Residential program participants learned about Avista programs differently in PY 2019 than in PY 2018.**
  - While contractors remained the primary method through which customers learned about their program in PY 2019 (38%), this represented a decrease from the number in PY 2018 (53%). Word-of-mouth, however, increased in PY 2019 (26%) over PY 2018 (14%).
- **Residential programs maintained high satisfaction levels throughout PY 2018 and PY 2019.**

  - All respondents (n=152) were *very satisfied* or *somewhat satisfied* with programs in which they participated; 98% were *very satisfied* or *somewhat satisfied* with Avista's role in their experience.

Third-Party Implementer

- **Some retailers experienced a slight learning curve when submitting Simple Steps, Smart Savings program data.**
  - Two participating retailers interviewed about the Simple Steps, Smart Savings program reported facing a small learning curve when first submitting data to the implementer. They found the process *somewhat easy* and were assisted by program staff.

Low-Income

- **CAP agencies and participating customers were highly satisfied with the Low-Income program.**
  - Avista and all five CAP agencies interviewed by Cadmus for PY 2019 emphasized positive, well-established relationships that were communicative and collaborative. Consequently, potential issues or changes that arose were easy to address.
  - All five CAP agencies reported that customers generally expressed positive feedback. Two CAP agencies said customers specifically had been satisfied with energy savings and with the program's effect on their energy bills.
- **The Low-Income program experienced high turnover among participating contractors.**
  - Three CAP agencies interviewed by Cadmus reported high turnover among contractors completing weatherization projects through the program—a problematic finding, given the contractors' low availability and highly competitive field.

Recommendations

Nonresidential

Nonresidential Recommendation 1: Per some survey respondents, determining rebate eligibility proved challenging. Lighting survey participants specifically said using the DLC list or the ENERGY STAR-certified product list posed difficulties. Consider conducting an internal review of eligibility requirements and messaging to determine additional educational materials that could be created for and provided to customers. For example, a frequently asked questions pamphlet could be developed to answer common questions regarding eligibility, or a customer newsletter could provide information about determining eligibility.

Multifamily

Multifamily Recommendation 1: Improve the timeline and communication among parties between MDFI program's direct-install phase and supplemental lighting phase. Provide property managers with a point of contact to whom they can direct inquiries about the status of their outdoor lighting applications.

Multifamily Recommendation 2: Conduct an internal review of steps for qualifying new buildings for the MFMT program to determine whether the program can remove or streamline qualification steps and simplify the process for home builders. Consider developing a process flow map to outline the program steps, making it easier for builders to follow.

Multifamily Recommendation 3: Include language in MFMT program marketing and outreach to target participation benefits noted by builders (such as incentives that help with project financing and increased tenant interest in natural gas appliances).

Residential

Residential Recommendation 1: Consider increasing outreach and marketing efforts through bill inserts and Avista's website. While word-of-mouth referrals from contractors/trade allies and friends/family/coworkers proved beneficial, survey respondents in PY 2019 (n=76) most frequently preferred learning about energy efficiency programs and opportunities through bill inserts (43%) and Avista's website (21%). Using bill inserts and Avista's website to promote midstream and third-party programs (such as Simple Steps, Smart Savings) not only could cultivate more interest in these offerings; it could raise awareness of Avista's role in administering the programs, and it could improve data collection efforts where access to customer information is lacking or difficult to compile.

Third-Party Implementer

Recommendation 1: Develop supplemental documentation or provide direct assistance to retailers who participate in the Simple Steps, Smart Savings program to help troubleshoot issues with the data submission process. Cadmus interviewed two retailers who experienced a small learning curve while submitting their program data to the implementer.

Low-Income

Low-Income Recommendation 1: Dedicate a small percentage of CAP agency funding to incentives (beyond each project's cost) for contractors that work on Low-Income program projects. Retaining contractors will prevent coverage losses and the need for CAP agencies to train new contractors, which, given training's time- and resource-intensive nature, can prove more costly than providing a small incentive to ensure contractors' loyalty to the CAPs and the program.

Introduction

In 2018 and 2019, Avista provided rebates and services to its Nonresidential and Residential electric and natural gas customers throughout its Washington and Idaho service territories. The 2018–2019 portfolio process evaluation sought to identify and document the program's successes and challenges by reviewing program materials; conducting interviews with program and implementation staff and trade allies; and conducting surveys with Nonresidential and Residential program participants.

Though the evaluation results concentrate on PY 2019, they refer to PY 2018 results where differences occur. The evaluation included all Avista programs, except the Nonresidential Grocer program, the Residential ENERGY STAR® Homes program, and the third-party Community Energy Efficiency program.

Program Descriptions

Table 2 provides a summary of programs included in Avista's 2018–2019 demand-side management (DSM) portfolio's evaluation.

Table 2. PY 2018 and PY 2019 Evaluated Program Descriptions

Program	Measure(s)	Implementer	Program Summary
Nonresidential			
Site Specific	Custom measure(s)	Avista	Customers design energy efficiency projects with documented energy savings and a minimum 10-year measure life for a technical review and possible rebates.
Prescriptive	Lighting, HVAC, VFDs, food service equipment, and shell	Avista	Customers identify potential energy efficiency projects, submit paperwork, and receive prescriptive rebates for projects.
Fleet Heat	Smart block heating system	Avista	Electric customers receive a smart block heating system to install on vehicles. The device controls the water temperature in the block and the air temperature outside the block. HOTSTART can provide Installation help.
Green Motor Rewind	Repair/Rewind of motors	The Green Motors Practices Group (CMPG)	Electric customers who receive a green motor rewind at a participating service receive a rebate. The rebate applies to 15 HP to 5,000 HP industrial motors.
AirGuardian Compressed Air	Compressed air leak reduction device	Sight Energy Group	Following a compressed air audit, electric customers receive direct installation of a compressed air leak reduction device.
Multifamily			
Multifamily Direct Install (MFDI)	Lighting, water-saving measures, water heater insulation, VendingMisers	SBW Consulting	Direct installation of energy-saving measures, on-site audits to identify opportunities and interest in existing Avista programs, and follow-up- visits to install supplemental lighting measures.
Multifamily Market Transformation (MFMT)	Natural gas space and water heat	Avista	New multifamily development receives incentives to install natural gas space and water heating.

Program	Measure(s)	Implementer	Program Summary
Residential			
HVAC	Space heat, water heat, and smart thermostats	Avista	Customers identify potential energy efficiency projects, submit paperwork, and receive prescriptive rebates for projects.
Shell (Weatherization)	Standard and storm windows		
Fuel Efficiency	Natural gas space and water heat		
Residential Low-Income			
Low-Income	Weatherization products and services	N/A	Weatherization managers from Community Action Agencies (CAP) deliver energy efficiency programs to low-income communities. Qualified homes can be in Washington or Idaho and receive 100% reimbursement for the work's cost.
Residential Third-Party Implementer Programs			
Simple Steps, Smart Savings	LEDs, LED fixtures, showerheads, clothes washers	CLEAResult	Midstream program markdowns are offered for certain products in retail stores; CLEAResult receives monthly sales data and provides program support through retailer visits.

Methodology

This section describes the interview and survey methodology.

Program Administrator and Implementer Interviews

Cadmus conducted telephone interviews with the program staff and third-party implementers listed in Table 3. Interviews focused on the following program topics:

- Program roles and responsibilities
- Program goals and objectives
- Program design and implementation
- Data tracking
- Program participation
- Marketing and outreach
- Program successes
- Market barriers
- Program impacts on the market
- Future program changes, including redesigns

Table 3. PY 2018 and PY 2019 Stakeholder Interviews

<table>
<tr><th rowspan="2">Program</th><th>Avista Staff</th><th>Implementer Staff</th><th>Avista Staff</th><th>Implementer Staff</th></tr>
<tr><th colspan="2">PY 2018</th><th colspan="2">PY 2019</th></tr>
<tr><td colspan="5">Nonresidential</td></tr>
<tr><td>Lighting</td><td>✓</td><td>N/A</td><td>–</td><td>N/A</td></tr>
<tr><td>HVAC, Shell, VFD, Food Service Equipment</td><td rowspan="4">✓</td><td>N/A</td><td>–</td><td>N/A</td></tr>
<tr><td>Green Motors</td><td>*</td><td>–</td><td>–</td></tr>
<tr><td>AirGuardian</td><td>✓</td><td>–</td><td>–</td></tr>
<tr><td>Fleet Heat</td><td>N/A</td><td>–</td><td>N/A</td></tr>
<tr><td>Site Specific</td><td>✓</td><td>N/A</td><td>–</td><td>N/A</td></tr>
<tr><td>Grocer</td><td>–</td><td>–</td><td>✓</td><td>N/A</td></tr>
<tr><td colspan="5">Multifamily</td></tr>
<tr><td>Multifamily Direct Install</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td></tr>
<tr><td>Multifamily Market Transformation</td><td>-</td><td>-</td><td>✓</td><td>-</td></tr>
<tr><td colspan="5">Residential</td></tr>
<tr><td>Heating and Ventilation (HVAC)</td><td rowspan="3">✓</td><td rowspan="3">N/A</td><td>–</td><td rowspan="3">N/A</td></tr>
<tr><td>Weatherization (Shell)</td><td>–</td></tr>
<tr><td>Fuel Efficiency</td><td>–</td></tr>
<tr><td colspan="5">Residential Low-Income</td></tr>
<tr><td>Low-Income</td><td>–</td><td>–</td><td>✓</td><td>N/A</td></tr>
<tr><td>Residential Third-Party Implementer</td><td></td><td></td><td></td><td></td></tr>
<tr><td>Simple Steps, Smart Savings</td><td>–</td><td>–</td><td>✓</td><td>✓</td></tr>
</table>

* Cadmus could not reach the PY 2018 Green Motors implementer, despite support from Avista.

Trade Ally Interviews

In PY 2019, Cadmus conducted telephone interviews with various trade allies to assess program awareness levels, experiences, successes, and challenges. Avista provided contact lists for each audience. Table 4 lists the program, audience, number of records provided by Avista, interview target, and number of interviews.

Table 4. PY 2019 Trade Ally Interviews

Program	Audience	Number of Records	Target	Number of Interviews
Multifamily Direct Install (MFDI)	Participating Property managers	112	5	5
Multifamily Market Transformation (MFMT)	Participating multifamily home builders	27	5	5
Simple Steps, Smart Savings	Participating retailers	99	5	5
Low-Income	Participating CAP agencies	6	5	5

Participant Surveys

Cadmus completed 76 phone surveys with Residential program participants in PY 2018 and 76 phone surveys in PY 2019. Additionally, Cadmus completed 65 online surveys in PY 2018 and 107 online surveys in PY 2019 with Nonresidential program participants. Cadmus relied on site visits to increase Nonresidential survey participation.

The participant survey guides gathered critical insights into participants' program journey, covering the following topics:

- Program awareness
- How respondents learned about the program
- General program participation
- Reasons for participation
- Program benefits
- Program delivery experience
- Overall program satisfaction
- Satisfaction with Avista
- Current energy-efficient behaviors and purchases
- Suggestions for program improvements

Residential Sampling

For each program, Cadmus completed the targeted number of surveys—16 for HVAC, 14 for Shell, and eight for Fuel Efficiency—for each of the four survey waves conducted for PY 2018 and PY 2019 (with two waves per year). Overall, Cadmus collected 152 responses for process evaluation purposes, as shown in Table 5.

Table 5. Residential Participant Survey Sample Frame, Target, and Completes by Program

Program	PY 2018 Total			PY 2019 Total			Total		
	Sample	Target	Complete	Sample	Target	Complete	Sample	Target	Complete
HVAC	4,191	32	32	5,759	32	32	9,950	64	64
Shell	612	28	28	1,349	28	28	1,961	56	56
Fuel Efficiency	782	16	16	435	16	16	1,217	32	32
Total	**5,585**	**76**	**76**	**7,543**	**76**	**76**	**13,128**	**152**	**152**

Nonresidential Sampling

To prepare the contact lists for each Nonresidential survey, Cadmus removed duplicate records along with records having incorrect or missing email addresses. Cadmus sent an email invitation to a census of all participants in each program, except for Nonresidential Prescriptive Lighting participants. Due to the large number of participants in this program, Cadmus randomly selected a sample of 20 participants, sending email invitations in batches of 20 records until meeting the target. Following the initial email invitation, Cadmus sent a reminder email. To increase the number of survey responses, the field engineers urged participants to complete the survey during on-site visits, if they had not yet done so.

As shown in Table 6, 65 surveys were completed in PY 2018 and 107 were completed in PY 2019.

Table 6. Nonresidential Participant Survey Sample Frame, Target, and Completes by Program

Program	PY 2018 Total			PY 2019 Total			PY 2018 and PY 2019 Total		
	Population[a]	Target	Completes	Population[b]	Target	Completes	Population	Target	Completes
Nonresidential Site Specific									
Electric	127	27	**17**	138	20	**18**	265	47	**35**
Gas	5	5	**2**	9	7	**3**	14	12	**5**
Nonresidential Prescriptive									
Lighting	701	32	**29**	1153	58	**70**	1854	90	**99**
HVAC Motor Controls	10	8	**2**	6	5	**1**	16	13	**3**
Food Service Equipment (Electric)	12	9	**1**	7	6	**0**	19	15	**1**
Food Service Equipment (Gas)	59	22	**4**	48	16	**4**	107	38	**8**
Commercial HVAC	35	18	**6**	34	14	**7**	69	32	**13**
Green Motors Rewind	10	8	**1**	7	6	**1**	17	14	**2**
Fleet Heat	1	1	**0**	0	0	**0**	1	1	**0**
AirGuardian Compressed Air	0	0	**0**	4	4	**2**	4	4	**2**
Insulation	10	8	**3**	12	9	**1**	22	17	**4**
Total	**970**	**138**	**65**	**1418**	**145**	**107**	**2388**	**283**	**172**

[a]The sample population included only 2018 Nonresidential participants.

[b]The sample population included only 2019 Nonresidential participants.

Nonresidential Programs

This section focuses on two Nonresidential programs: Site Specific and Prescriptive. The Site Specific program provides incentives to customers who install custom energy efficiency projects, while the Prescriptive program offers incentives for specific measures and services.

Nonresidential Site Specific Findings

This section describes the findings from 21 surveys completed with PY 2019 Site Specific participants. Where meaningful, Cadmus compares PY 2018 results to PY 2019.

Program Changes

In PY 19, Avista made one change to the Site Specific program, realigning the 15-year simple payback criteria. Avista now offers an incentive for any qualifying electric or natural gas energy-saving improvement with a simple payback less than the life of the equipment installed.

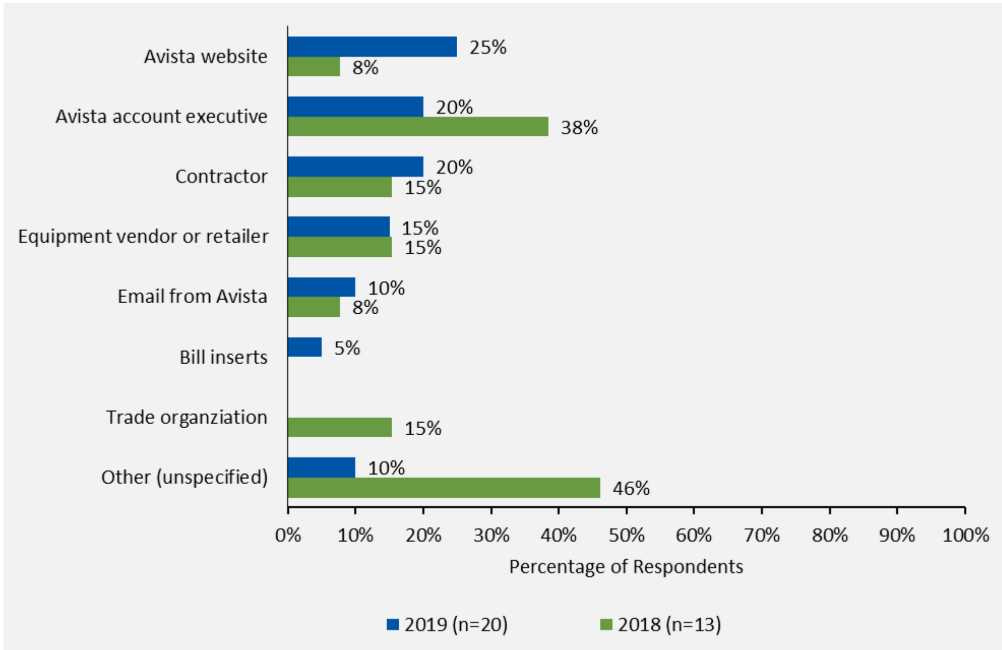
In addition to this program change, Avista launched the Business Partner pilot program in July 2019, specifically to reach a larger percentage of small- and medium-sized customers, reminding them about the availability of basic scoping energy audits, budget billing plans, and energy efficiency rebate programs. Avista created a new support team to assist commercial customers with their energy needs.

The program manager did not report problems or issues in implementing the Site Specific program, noting that the program continues to work well for customers as they become more aware of energy efficiency.

Customer Awareness

The majority of PY 2019 survey respondents (17 of 21) were repeat participants from an Avista business energy efficiency program, a finding consistent with PY 2018 survey results. As shown in Figure 1, survey respondents first learned about the Site Specific program through a variety of sources. While respondents most commonly cited Avista's website as an information source, respondents cited Avista account executives and contractors almost as often. This pattern of multiple information channels reaching customers differs from PY 2018, when respondents most likely learned of the program through an account executive or an unspecified source.

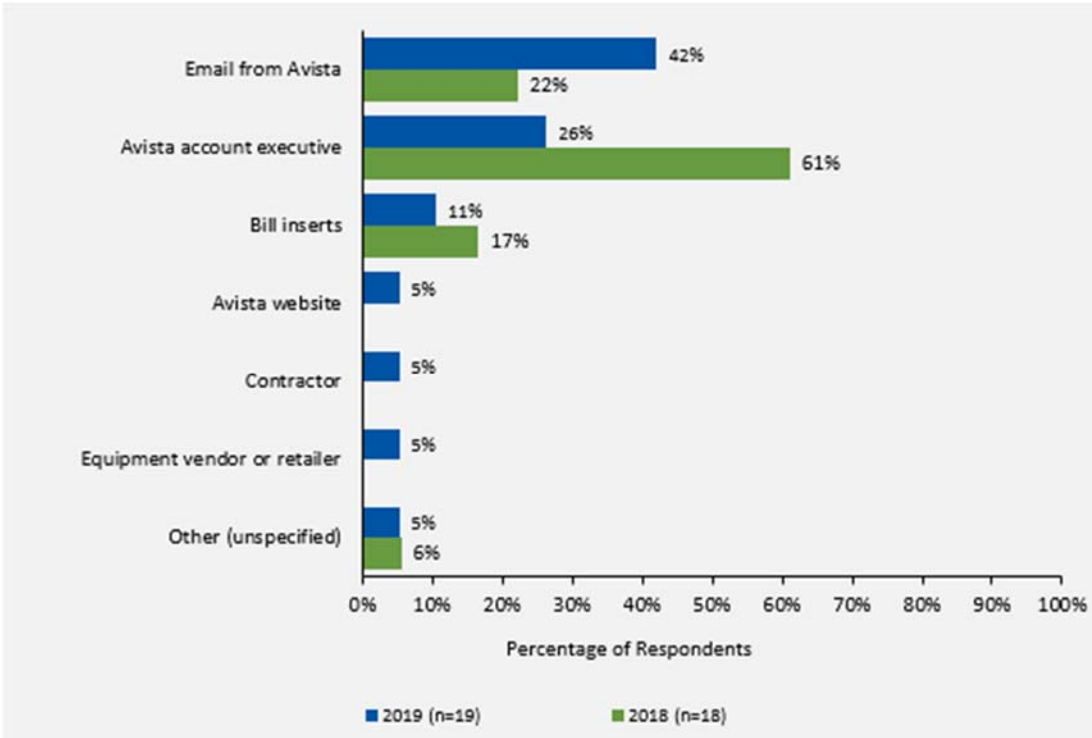
Figure 1. How Participants First Learned of Program



Source: Site specific survey questions C2: "How did you first hear about the Site Specific program?"

When asked how they preferred to learn of rebates and incentives, PY 2019 respondents most likely indicated email, followed by their account executive. As shown in Figure 2, this also represents a change from PY 2018, when over one-half of respondents preferred to learn about energy efficiency programs through their account executive. This change most likely reflected a different mix of organization types in the PY 2019 survey sample, rather than particular market changes. In PY 2018, six of 19 respondents were from manufacturing facilities. In PY 2019, the survey sample proved more diverse. Figure 9 shows more detail on organizations represented in the sample.

Figure 2. How Participants Prefer to Learn of Programs and Offers

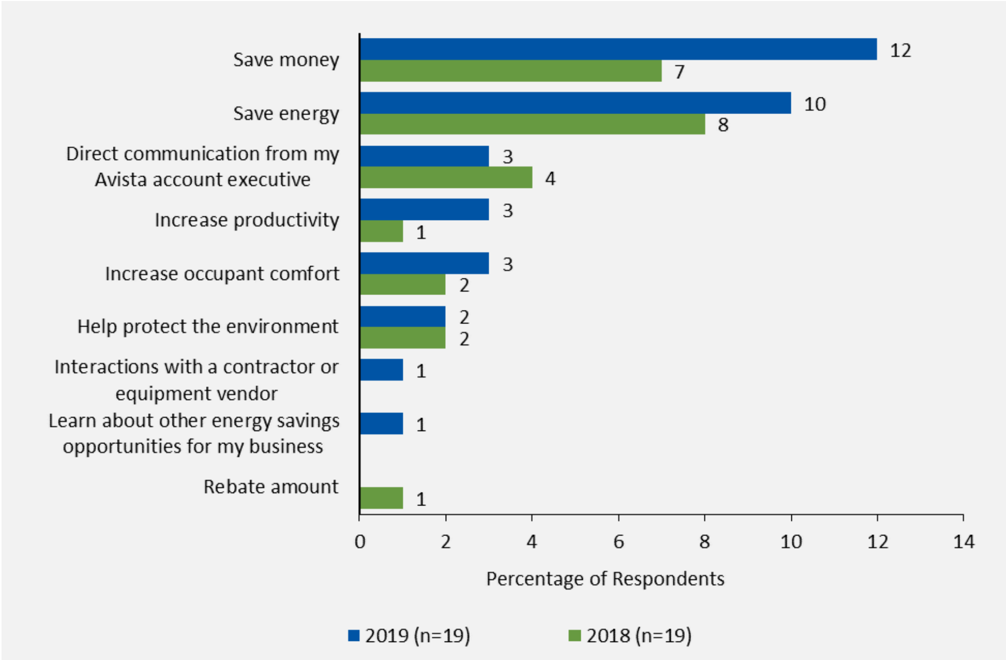


Source: Site specific survey questions C3: "What is the best way for Avista to inform commercial customers like you about their rebates and incentives for energy efficiency improvements?"

Participation Motivations and Benefits

As shown in Figure 3, PY 2019 survey respondents' participation motivations followed a pattern similar to that of PY 2018. Respondents cited saving money and saving energy as their most common motivators, though more participants mentioned each of these in PY 2019 than in the prior year.

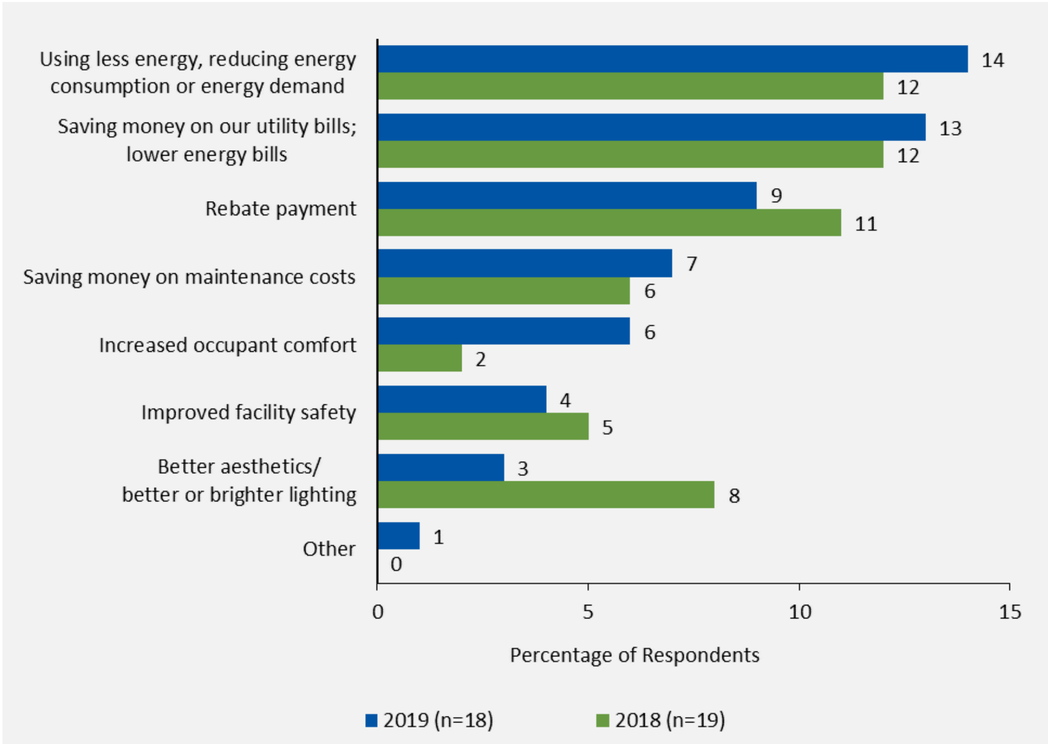
Figure 3. Site Specific Participation Motivation



Source: Site specific survey question C4: "What motivated you to participate in the Site Specific program?" Multiple responses allowed.

Respondents' perceived benefits aligned closely with their motivations, as shown in Figure 4. The majority of respondents cited using less energy and saving money on utility bills as benefits, and one-half of respondents noted the rebate payment.

Figure 4. Site Specific Participation Benefits



Source: Site specific survey question C5: "What would you say are the main benefits your company has experienced as a result of participation?" Multiple responses allowed.

Customer Experience

Program Delivery

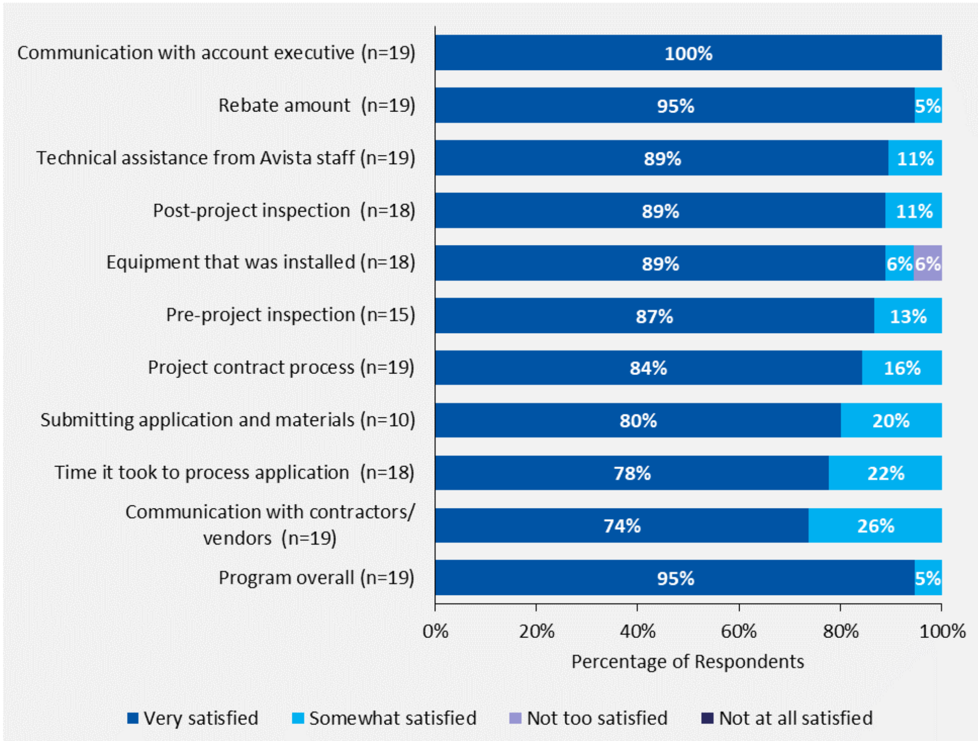
All PY 2019 survey respondents (except one) cited their Avista account representative (7 of 19); their contractor, vendor, or retailer (4 of 19); or both (7 of 19) as involved in the design or implementation of the project they completed through the program—responses similar to PY 2018. Nevertheless, the majority of respondents took the lead in completing the application, though five reported that contractors, vendors, or retailers took the lead, and four indicated that the Avista account representative took the lead.

Three of 12 respondents said they received an instant discount toward the project's cost (seven did not respond). One respondent said the company preferred to handle "these types of transactions" through the instant discount; one said they wanted lower out-of-pocket costs, and a third said they wanted paperwork completion to burden their staff less.

Program Satisfaction

Figure 5 shows very high respondent satisfaction levels with different aspects of Avista's Site Specific program. Satisfaction ran very high, with almost all respondents either *very* or *somewhat satisfied* with all program aspects. One respondent reported they were *not too satisfied* with equipment installed, commenting that the company "chose a weak vendor." Respondents were most satisfied with communications from Avista account executives and were least satisfied with communications from program contractors and vendors.

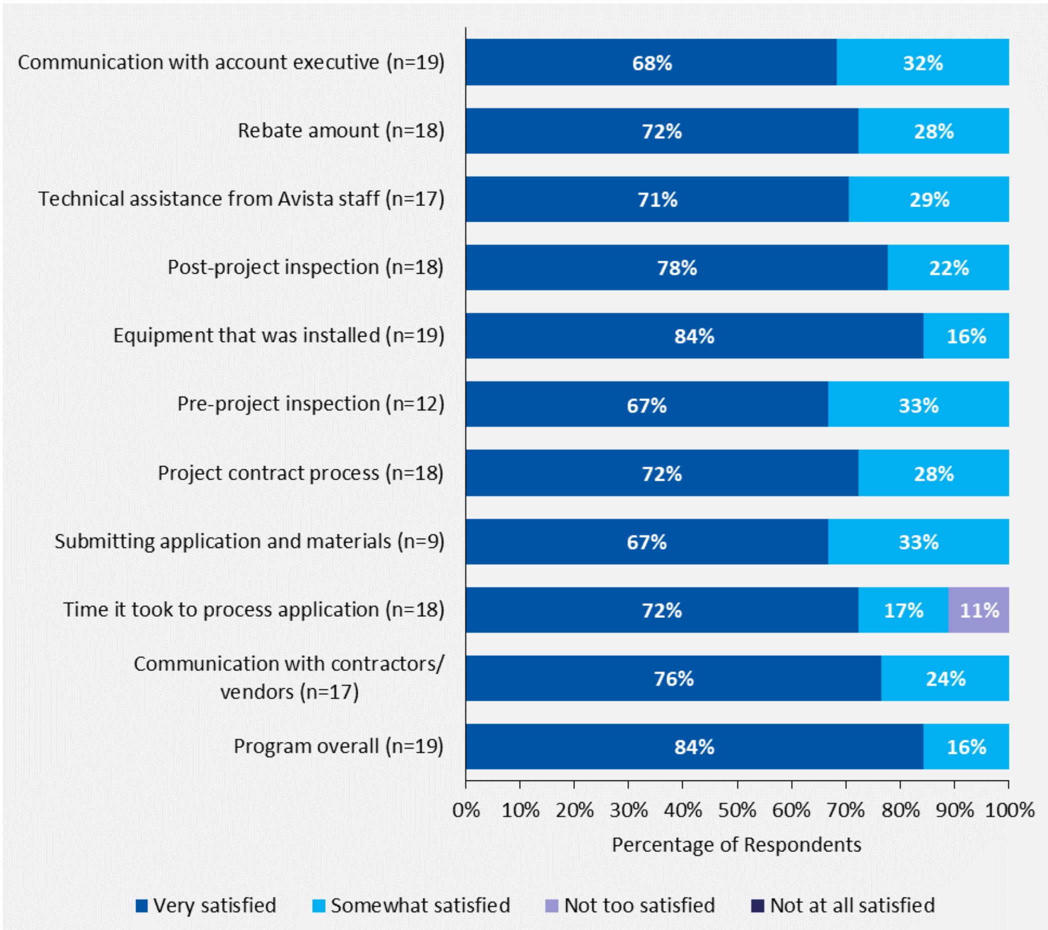
Figure 5. Satisfaction with Site Specific Program Components (PY 2019)



Source: Site Specific survey question E1: "In terms of the Site Specific program, how satisfied were you with the following aspects? Please think about each item individually as you select your answer."

In addition, PY 2019's satisfaction ratings ran higher than PY 2018's satisfaction ratings in terms of the number of *very satisfied* respondents in all categories, except communication with contractors and vendors. In this category, 74% (n=19) were *very satisfied* in PY 2019 compared to 76% (n=19) in PY 2018. For comparison, Figure 6 shows the PY 2018 satisfaction ratings. Two PY 2018 respondents were *not too satisfied* with the time it took to process their application: one reported issues with correct calculations during the rebate process and one said the check was delayed because of delays with site inspections.

Figure 6. Satisfaction with Site Specific Program Components (PY 2018)



Source: PY 2018 Participant Survey, Site Specific survey question E1: "In terms of the Site Specific program, how satisfied were you with the following aspects? Please think about each item individually as you select your answer."

Program Challenges and Successes

As shown in Table 7, nine PY 2019 respondents reported an array of program participation challenges, another four reported no problems or challenges with the program, while six did not answer the question. In PY 2019, respondents reported lack of awareness about the program as its primary challenge (noted by four), followed by the time required to complete the program (noted by two). Such issues differed from PY 2018, when respondents most commonly reported issues related to understanding program requirements.

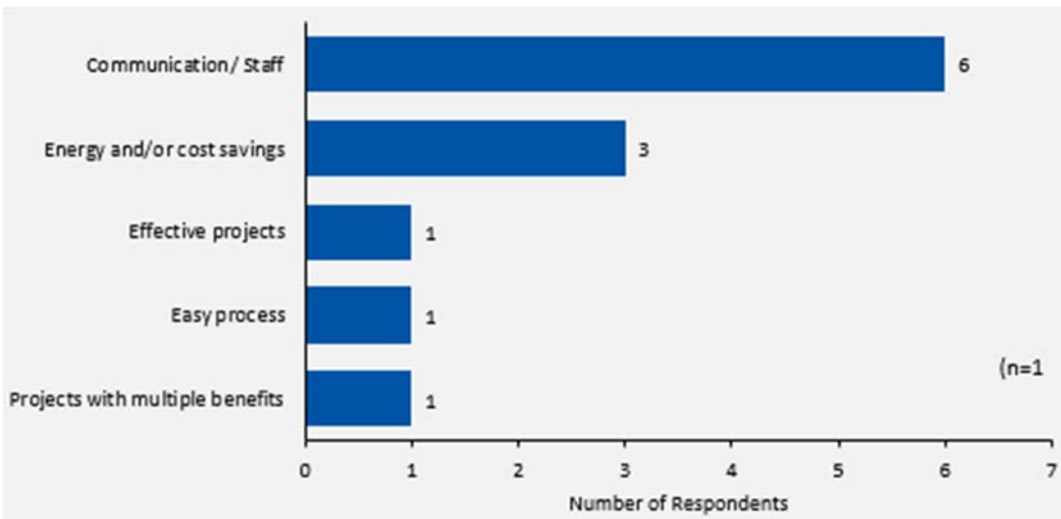
Table 7. Participation Challenges

Challenge	Number of Responses	
	PY 2019 (n=9)	PY 2018 (n=12)
Lack of awareness of the program	4	0
Time needed to complete the project	2	1
Understanding the program requirements and measure eligibility	1	6
Desired measures not eligible	1	0
Getting internal buy-in	1	2
Determining the correct rebate amount	0	1
Vendor availability	0	1
Working with multiple internal and external staff to complete the project	0	1

Source: Site specific survey question E3: "What do so see as the biggest challenges to participating in Avista's Site Specific program?"

Despite these issues, 11 PY 2019 respondents called out several program areas that they viewed as working well, as shown in Figure 7. These categories are similar to those reported for PY 2018.

Figure 7. Site Specific Program Successes



Source: Site specific survey question E5: "What would you say is working particularly well with Avista's Site specific program?" Multiple responses allowed.

While nine PY 2019 respondents indicated they could not think of ways to improve the program, four survey respondents provided recommendations:

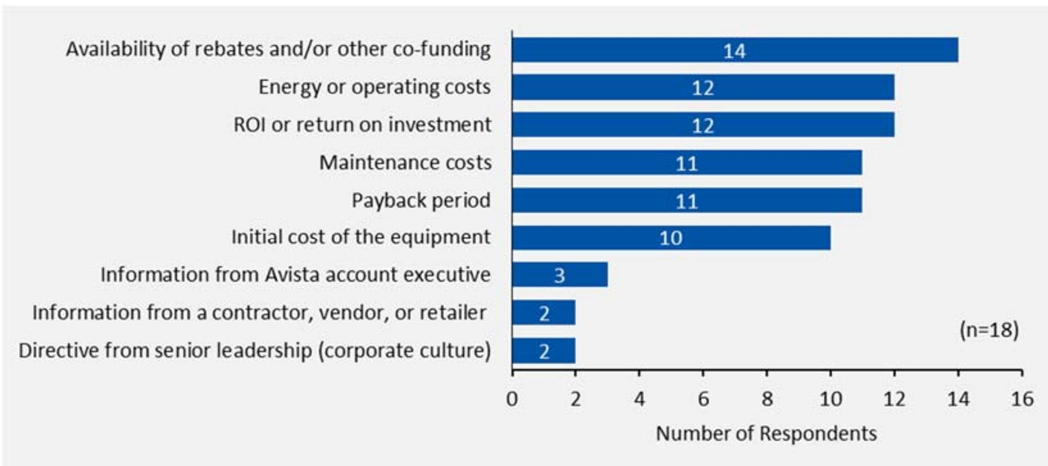
- Increase awareness
- Increase efficiency requirements
- More communication (in particular with engineers when working with fixture types and loads)
- Simplify the approval process

Energy Efficiency Attitudes and Behaviors

All PY 2019 respondents (n=18) said the rebate provided by Avista was *very* or *somewhat important* in their decision to complete their project, but all respondents said energy efficiency was *very* or *somewhat important* when making capital upgrades or improvements. (One respondent did not answer.)

As shown in Figure 8, respondents most commonly selected rebate or outside funding availability as the most important criteria, followed closely by energy or operating costs and the project's return on investment. These respondents produced results similar to those from PY 2018.

Figure 8. Important Criteria for Making Energy Efficiency Improvements



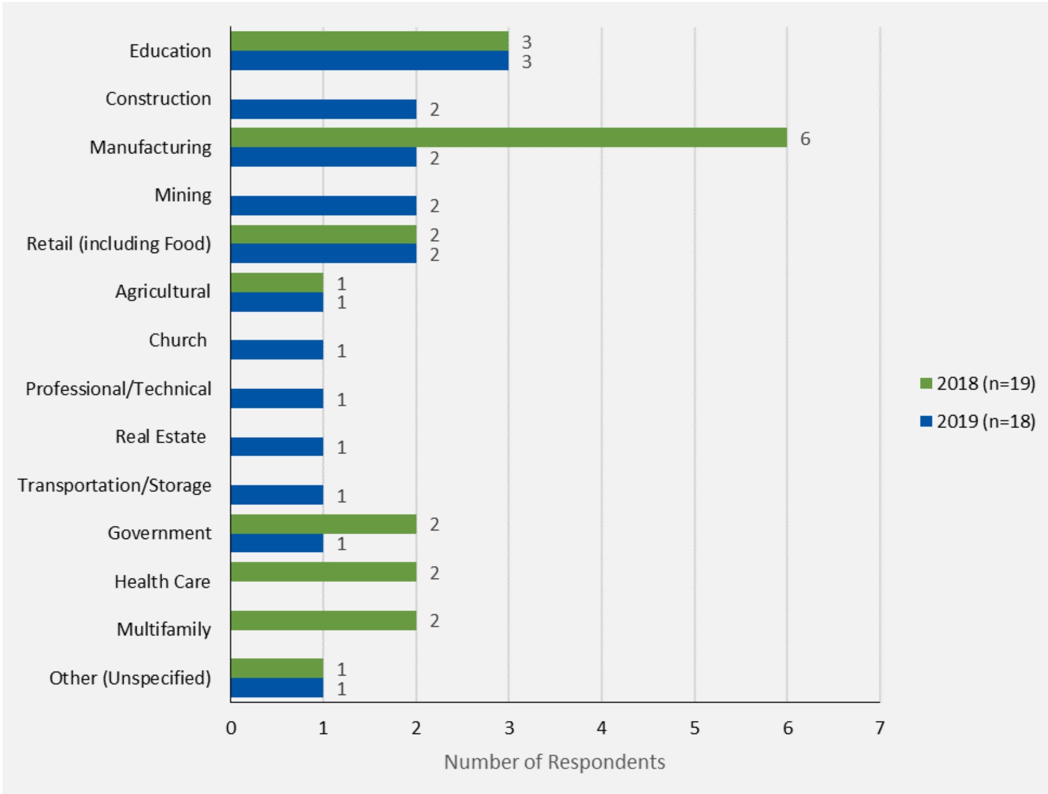
Source: Site specific survey question F3: "Which of the following criteria are important in deciding whether your company makes energy efficiency improvements?" Multiple responses allowed.

Since participating in the Site Specific program, eight PY 2019 respondents purchased energy-efficient equipment, and one adopted new energy-efficient protocols. New equipment included boilers (two respondents), LEDs (two respondents), compressed air upgrade (one respondent), and controls (two respondents). Two respondents did not name equipment types or protocols they adopted.

Survey Respondent Profile

The majority of PY 2019 respondents (14 of 17) owned their facilities; three leased, and two did not respond. Employee numbers at each facility ranged from three to 5,000: seven companies had 20 employees or fewer, six had 100 to 700 employees, and one facility had 5,000 employees (n=14). Twelve of 17 facilities used gas for heating, three used electricity, one used different fuels across different facilities, and one used a different fuel. As shown in Figure 9, the PY 2019 sample included a range of sectors, including industrial, commercial, public sector, and nonprofits. Unlike in PY 2018, when six of 19 respondents came from the manufacturing sector, no more than three respondents represented a group in the PY 2019 sample.

Figure 9. Site Specific Project Respondent Type



Source: PY 2019 and PY 2018 program participant data.

Nonresidential Prescriptive Findings

This section describes findings from 86 online surveys completed with Prescriptive participants for PY 2019. Where meaningful, Cadmus compared PY 2018 results to those from PY 2019.

Program Changes

As shown in Table 8, Avista made several changes to the Lighting Rebates program in PY19; the *PY19 Avista DSM Standard Operating Procedures Manual*, pages 36 and 37, compares the PY18 and PY19 Prescriptive Lighting Rebates.

Table 8. Prescriptive Lighting Rebate Changes

Change	PY18	PY19	Notes
Fluorescent Tubular Lamps			
T5HO four-foot TLED	$15	$15	Must be Design Lights Consortium (DLC) rated
T8 four-foot TLED	$6.50	$6.50	
U-bend LED	Site Specific	$8	New prescriptive measure; must be DLC rated
T8 eight-foot TLED	Site Specific	$13	
Fluorescent Fixtures			
2, 3, or 4-lamp T12/T8 fixture to LED qualified 2x4 fixture	$26-$35	$40	Removed hourly requirement; must be DLC rated

Change	PY18	PY19	Notes
2-lamp T12/T8 fixture to LED qualified 2x2 fixture	Site Specific	$30	New prescriptive measure; must be DLC rated
HID Lighting			
250-watt HID fixture to ≤140-watt LED fixture or lamp	$155	$155	Increased hourly requirements; lamps eligible only upon removing ballasts and other existing electric components; must be used more than 70 hours per week; must be DLC rated
1,000-watt HID fixture to ≤400-watt LED fixture or lamp	$18	$205	
1,000-watt HID fixture to ≤400-watt LED fixture or lamp	$460	$460	
Incandescent Replacement Lamps, MR16, and Can Light Kits			
6-watt to 20-watt LED lamp	$8	$8	Must be ENERGY STAR rated
50-watt to 60-watt LED lamp	$55	$55	
2-watt to 9-watt MR16 lamp	$10	$10	
12-watt to 20-watt LED fixture retrofit	$20	$20	
Occupancy Sensors			
Occupancy sensors with built-in relays	$40	$40	Must control greater than 170 watts (not wall switch sensors)
Replacement HID Lighting (Pole, Wallpack, or Canopy)			
70-watt to 89-watt HID fixture to ≤25-watt LED fixture, retrofit kit, or lamp	$60	$60	Lamps become eligible upon removal of ballasts and all other existing electric components; must be used at least 4,288 hours per year; must be DLC rated
90-watt to 100-watt HID fixture to ≤30-watt LED fixture, retrofit kit, or lamp	$80	$80	
150-watt HID fixture to ≤50-watt LED fixture, retrofit kit, or lamp	$125	$125	
175-watt HID fixture to ≤100-watt LED fixture, retrofit kit, or lamp	$130	$130	
250-watt HID fixture to ≤140-watt LED fixture, retrofit kit, or lamp	$140	$140	
320-watt HID fixture to ≤160-watt LED fixture, retrofit kit, or lamp	$180	$180	
400-watt HID fixture to ≤175-watt LED fixture, retrofit kit, or lamp	$255	$255	
750-watt HID fixture to ≤300-watt LED fixture, retrofit kit, or lamp	Site Specific	$450	
1,000-watt HID fixture to ≤400-watt LED fixture, retrofit kit, or lamp	$610	$610	
New Construction Fixtures – HID Lighting			
175-watt code HID fixture to ≤100-watt LED fixture	$130	$130	Must be used at least 4,288 hours each year; must be DLC rated
250-watt code HID fixture to ≤140-watt LED fixture	$140	$140	
320-watt and 400-watt code HID fixture to ≤160-watt LED fixture	$250	$250	
Sign Lighting Retrofit			
T12 to LED sign lighting	$17/sq ft	$17/sq ft	Must be used at least 4,288 hours each year

In PY19, Avista began implementing the Grocer program directly; currently, it allows only prescriptive measures. The program's manager said additional program changes may occur in PY20, but the planning phase has just started; so those changes have yet to be determined.

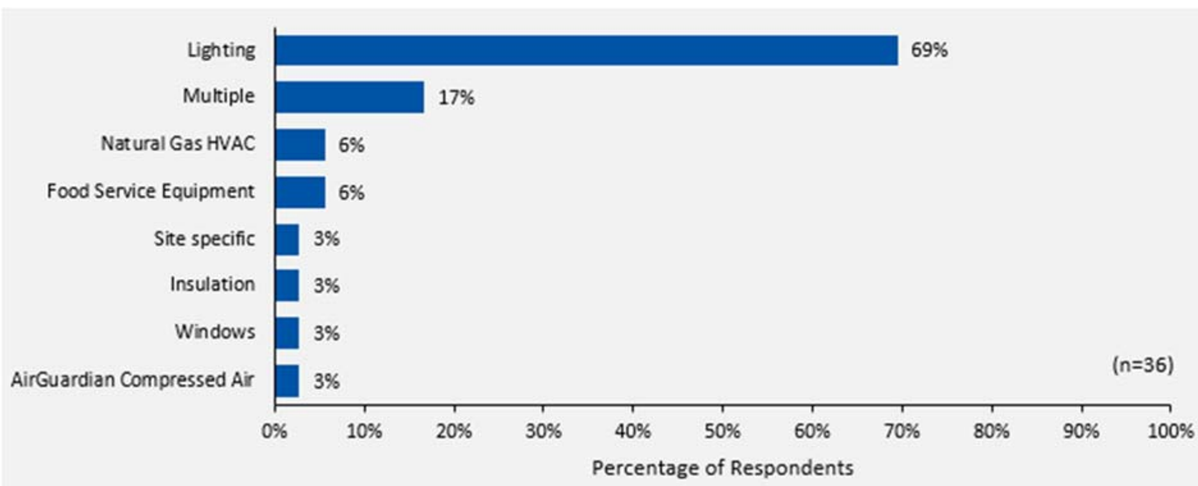
In addition to the Grocer program change, Avista made a process change to the Fleet Heat program: after a customer submits the rebate form (necessary to order the heater cord), Avista places the order, and the customer is billed for the equipment. The customer then receives reimbursement for the heater cord once verification has been completed.

Customer Awareness

Over one-half of PY 2019 survey respondents (56%, n=75) previously participated in an Avista business energy efficiency program, for a previous participation rate about equal to the PY 2018 program year (58%, n=40); this held consistently across lighting and non-lighting participants.

Of 42 respondents who participated previously, 36 provided details about programs in which they participated. As shown in Figure 10, most reported installing lighting, with five respondents reporting they participated multiple times in previous years.

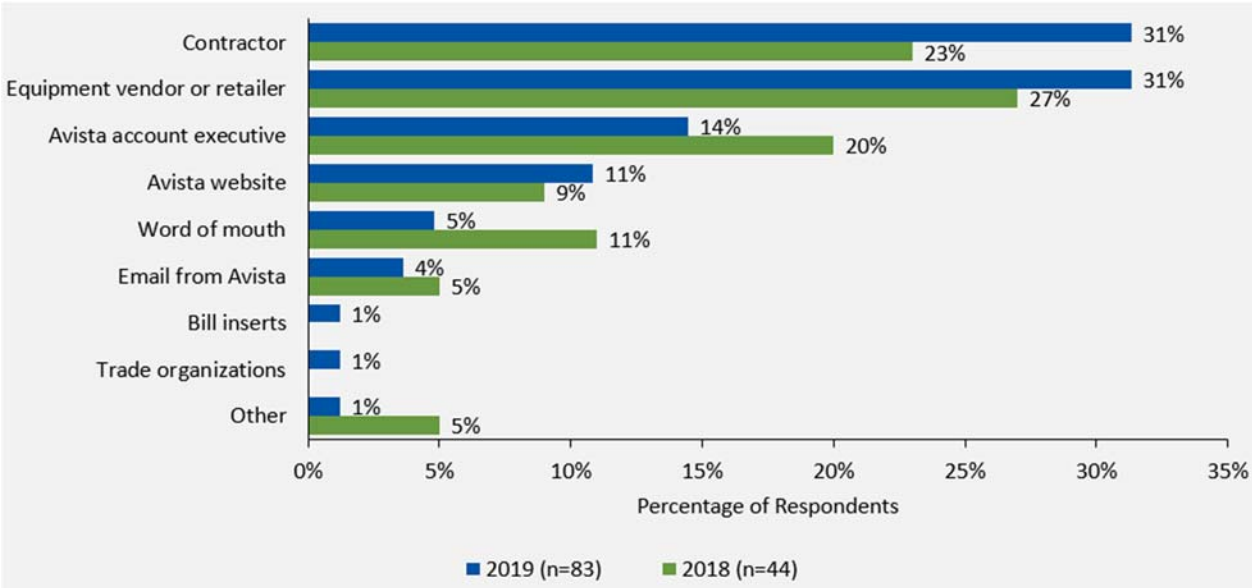
Figure 10. Equipment Installed by Previous Avista Program Participants



Source: Prescriptive survey question C1.2: "What other Avista Nonresidential energy efficiency programs has your business participated in?" Multiple responses accepted.

In PY 2019, Lighting respondents most likely said they first learned about the program from a contractor (36%, n=67), followed by a vendor or retailer (28%). Non-lighting participants most likely reported first learning about the program through an equipment vendor (44%, n=16), with only 13% reporting they learned about the program through a contractor. As shown in Figure 11, PY 2019 respondents, overall, proved equally likely to learn about the program through a contractor or an equipment vendor, with about 31% of respondents citing each one of the two most common channels in PY 2018.

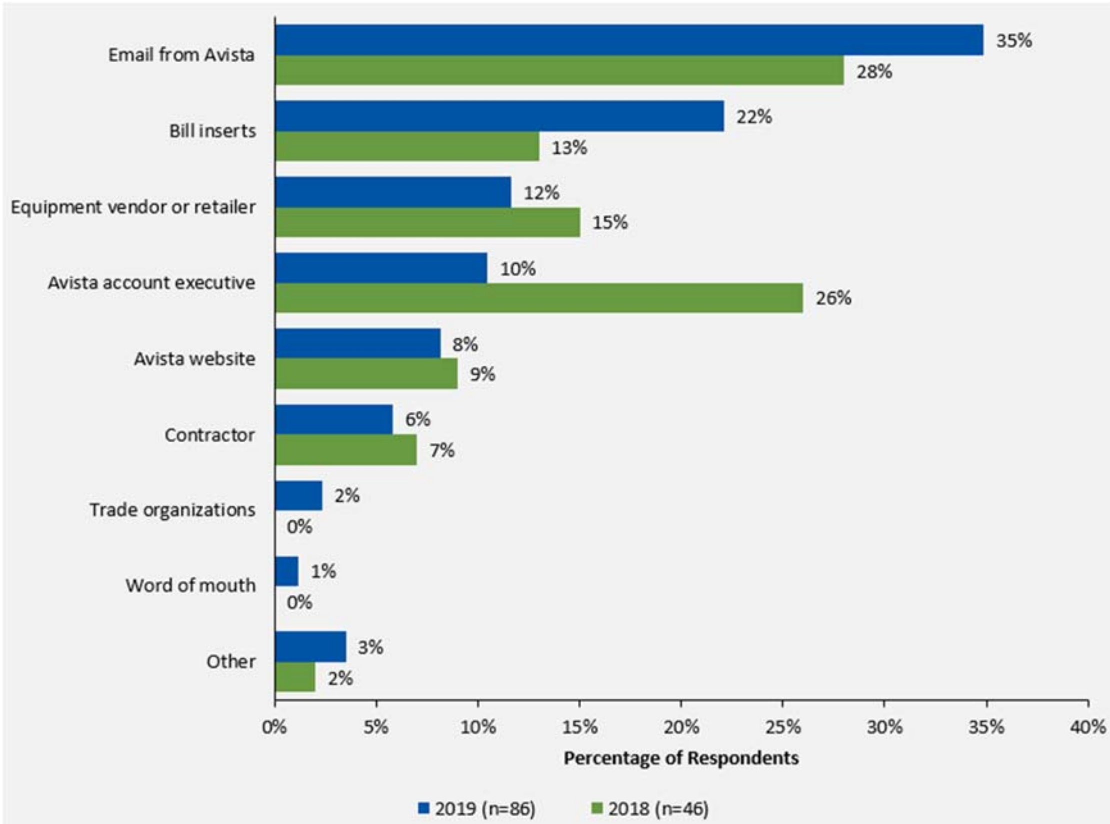
Figure 11. How Participants First Learned of Program



Source: Prescriptive survey questions C2 and C3: "How did you first hear about the program?"
Percentages may not total 100% due to rounding.

Respondents most likely reported that Avista's best way to inform them of rebate programs was by an email from Avista (35%) or through a bill insert (22%). While lighting and non-lighting participants reported an email from Avista as the top channel, the next most-preferred channels differed by program. Lighting participants chose bill inserts as their second most-preferred channel (24%; n=70), though non-lighting participants chose equipment vendors or retailers (25%; n=16) and Avista account managers (25%; n=16). Figure 12 shows the distribution of preferred methods across all respondents in PY 2019 and PY 2018.

Figure 12. How Participants Preferred to Learn of Programs and Offers

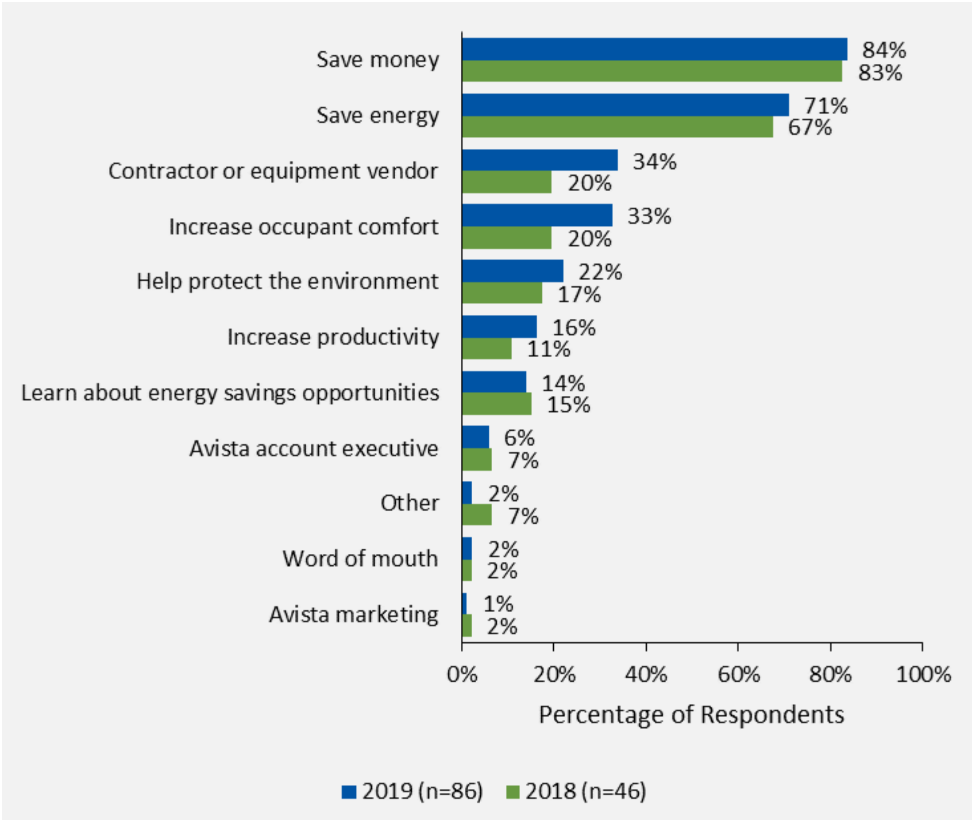


Source: Prescriptive survey question C3: "What is the best way for Avista to inform commercial customers like you about their rebates and incentives for energy efficiency improvements?"

Participation Motivations and Benefits

In PY 2019, respondents most commonly cited saving money and saving energy as participation motivations—the same as in PY 2018. As shown in Figure 13, however, more PY 2019 respondents than PY 2018 respondents reported being motivated by contractors or vendors, or they sought increased occupant comfort.

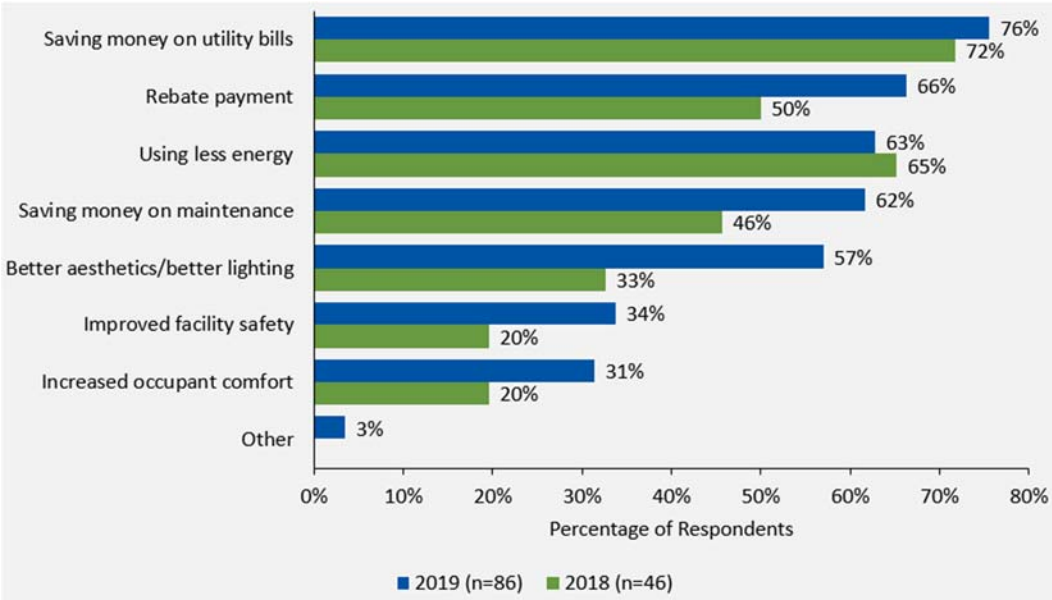
Figure 13. Prescriptive Participant Motivation



Source: Prescriptive survey question C4: "What motivated you to participate in the program?" Multiple responses accepted.

As shown in Figure 14.PY 2019 participants' main reported benefits closely reflected their motivations, with saving money on utility bills, receiving a rebate, using less energy, and saving money on maintenance as the top benefits reported. Although only about 33% reported improving occupant comfort as a motivation, and only 31% reported it as a benefit, 57% reported improved lighting as a benefit (including 69% of commercial lighting participants), and 34% reported improved facility safety as a benefit (including 36% of commercial lighting participants). Overall, PY 2019 respondents were about equally likely to report saving money on utility bills and using less energy as participation benefits, but they were more likely to cite all other benefits than PY 2018 respondents.

Figure 14. Prescriptive Participation Benefits



Source: Prescriptive survey question C5: "What would you say are the main benefits your company has experienced as a result of participation?" Multiple responses accepted.

Customer Experience

Program Delivery

Although over one-half of PY 2019 respondents reported a contractor or vendor (65%, n=55) or an Avista account executive (19%) as involved in a project's design or implementation, a majority of respondents (56%) took the lead on their own applications (a decrease from PY 2018, when 68% [n=38] of respondents took the lead in preparing their own applications.)

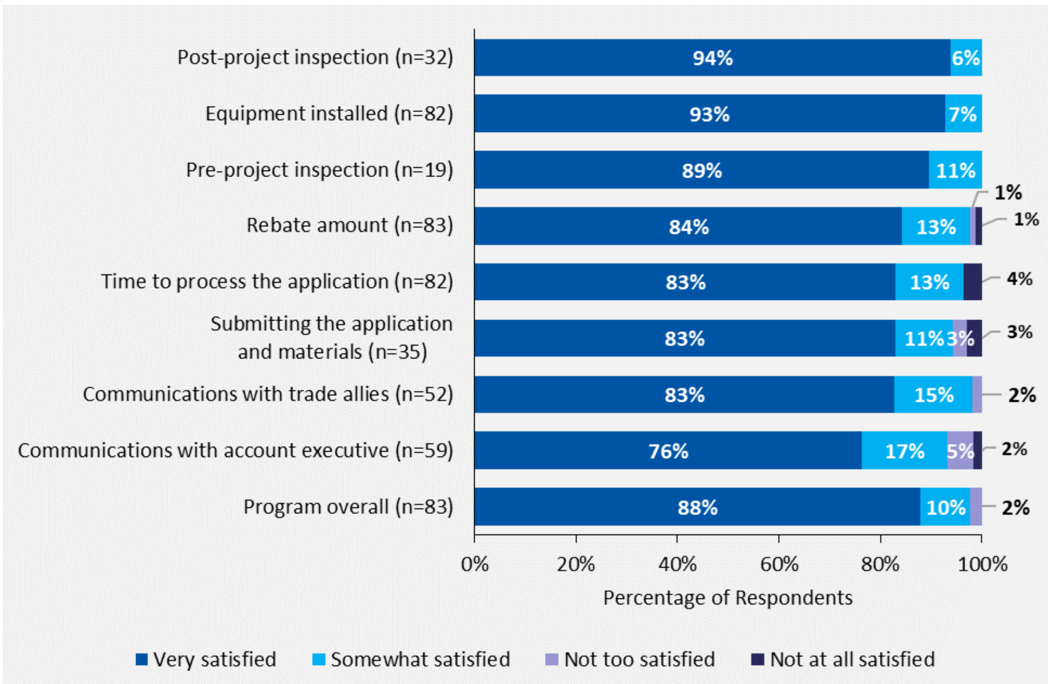
Most PY 2019 respondents (78%; n=48) also received their rebate checks directly, rather than as instant discounts from a contractor or vendor. This also represents, however, a decrease from PY 2018, when 89% received their checks directly. This change likely occurred due to an increased number of lighting survey respondents in PY 2019 than in PY 2018, rather than from a change in the rebate delivery method. Of the 22% of PY 2019 respondents not receiving an instant discount, two said they chose the instant discount as it was easier for them, allowing them to complete projects with less cash outlay. One respondent said the contractor wrote the contract, including an instant discount. Others did not respond.

Program Satisfaction

The great majority of PY 2019 respondents were *somewhat satisfied* or *very satisfied* with all aspects of the Avista program, as shown in Figure 15. Lighting participants were most satisfied with application processing times, rebate amounts, and equipment installed (99% *very* and *somewhat satisfied* with each component), while non-lighting participants were most satisfied with equipment installed (100% *very* and *somewhat satisfied*; n=13) and with trade ally communications (100% *very satisfied*; n=7). The two

AirGuardian participants and the one Green Motors Rewind participant were *very satisfied* with all program aspects. Overall, PY 2019 respondents' likelihood to be at least *somewhat satisfied* with each program aspect proved consistent with PY 2018 results, within seven percentage points of the earlier responses. All PY 2018 respondents were *very satisfied* (82%) or *somewhat satisfied* (18%) with their Avista experience.

Figure 15. Satisfaction with Prescriptive Program Components



Source: Prescriptive survey questions H1: "In terms of the [PROGRAM], how satisfied were you with the following aspects? Please think about each item individually as you select your answer."

Two of the four respondents less than *somewhat satisfied* with account executive communications provided comments in that regard:

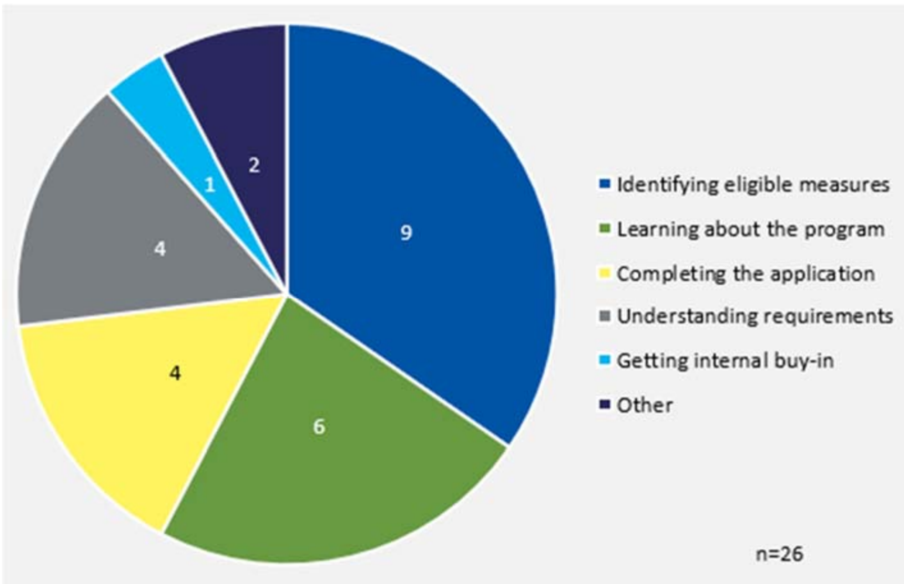
- One commercial HVAC respondent (also dissatisfied with submitting the application, the time required to process the application, the rebate, and the program overall) explained that the process took too long, involved a great deal of indecision in terms of what equipment qualified and what incentives were available, and, in the end, provided an incentive equivalent to 1.5% of the project's total cost. This respondent did not engage with a contractor or vendor.
- A second respondent (commercial lighting) expressed dissatisfaction with their account executive as the account executive initially said the project would not qualify for incentives.

A third respondent (commercial lighting) was *very satisfied* with individual program aspects, but was *not too satisfied* with the program overall. This respondent commented, "The program should cover conversion of lower-wattage, high energy-usage lighting. This rebate was for external lighting, yet at the same location, there are 58 metal halide fixtures that are 150 watts, available for conversion to 45-watt LEDs. The current rebate plan does not cover conversion of fixtures having this lower wattage."

Program Challenges and Successes

Only 26 of 86 respondents (30%) reported challenges in program participation, down from 52% (n=46) in PY 2018. As shown in Figure 16, respondents most commonly cited challenges in understanding what measures were eligible. Lighting participants typically reported this, further commenting that using the DesignLights Consortium's (DLC) list or ENERGY STAR©-certified product lists proved difficult. Six respondents felt the program should be marketed more, with some adding that they only learned of the program from their contractor or vendor, rather than directly from Avista.

Figure 16. Participation Challenges



Source: Prescriptive survey question H9: "What do so see as the biggest challenges to participating in Avista's program?"

Despite these issues, 29 respondents called out several program aspects that they viewed as working well. As shown in Table 9, respondents cited aspects related to the program process, including the ease of completing the application and fast and informative communication.

Table 9. Aspects of Avista Prescriptive Programs Working Well

Program Aspects	Number of Respondents
Application process and customer support	13
Better lighting for participants	11
Energy and cost savings for participants	10
Avista account executive communication	7
Rebate amount	7
Fast rebate	5
Reduced maintenance	2
Working with local trade allies	1
Other	1

Source: Prescriptive survey question H11: "What would you say is working particularly well with Avista's program?" (Multiple responses allowed; n=47)

As shown in Table 10, 19 participants provided recommendations for program improvements.

Table 10. Suggestions to Improve Avista Prescriptive Programs

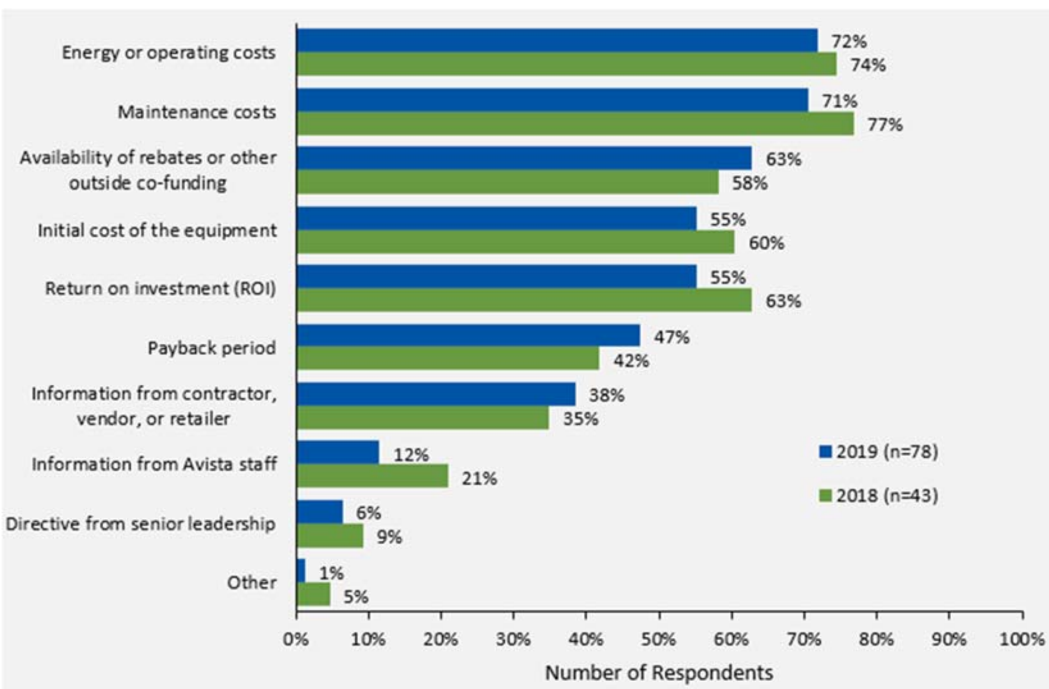
Suggestion	Number of Respondents
Expand eligible measures	6
Improve marketing	6
Make it easier to identify qualifying measures	3
Clarify requirements for eligibility, and/or outcome if post-inspection savings are low	2
Allow for more direct communication with Avista	1
Have not received rebate	1

Source: Prescriptive survey question H10: "What recommendations, if any, would you make to improve the program?" (Multiple responses allowed; n=19)

Energy Efficiency Attitudes and Behaviors

Nearly all (98%; n=80) PY 2019 respondents considered energy efficiency either *somewhat* or *very important* to their organization when making capital upgrades or improvements. As shown in Figure 17.respondents cited energy or operating costs (72%) and maintenance costs (71%) as the most important criteria in their decisions to undertake energy efficiency improvements. PY 2019 participants reported priorities similar to those of PY 2018 respondents when deciding to make energy efficiency improvements, and priorities remained similar across programs.

Figure 17. Important Criteria for Making Energy Efficiency Improvements



Source: Prescriptive survey question K2: "Which of the following criteria are important in deciding whether your company makes energy efficiency improvements?" Multiple responses allowed.

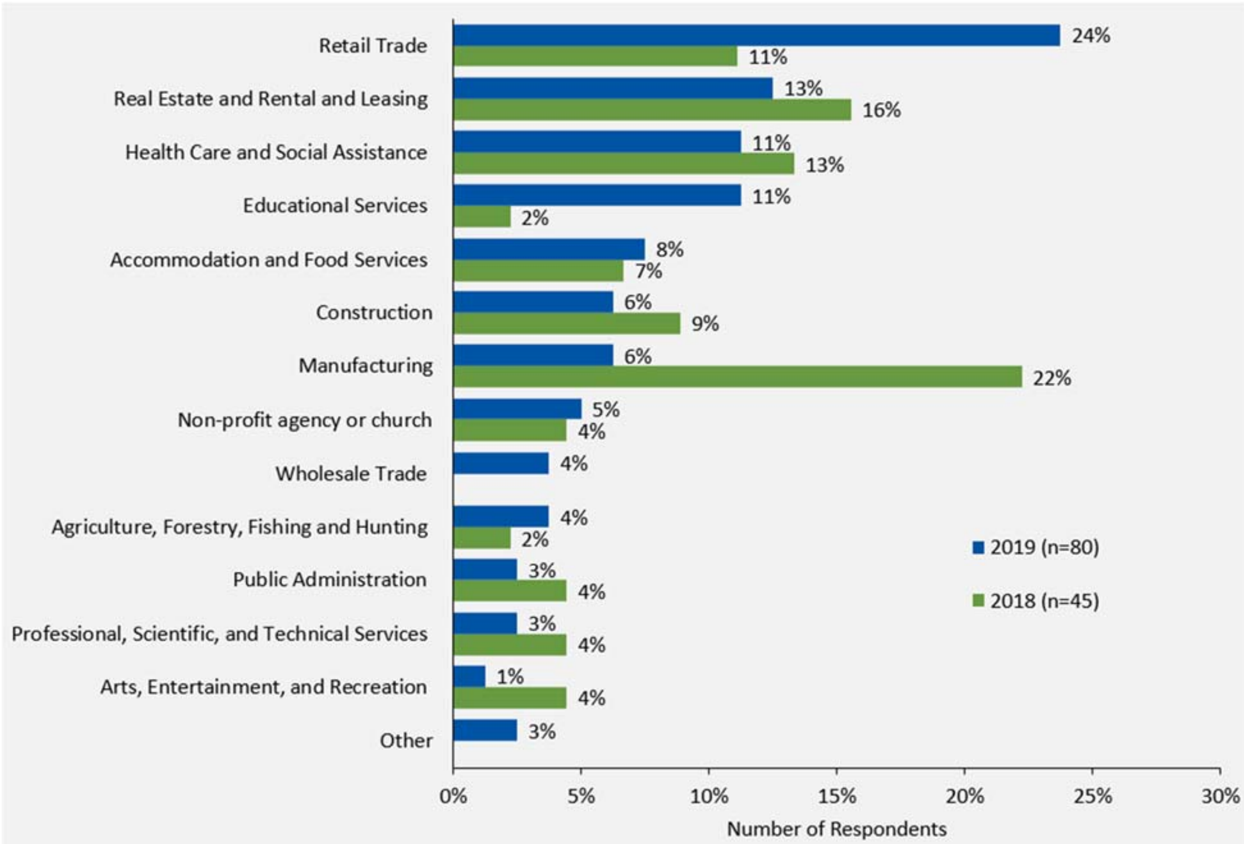
Nine respondents suggested other energy-savings programs that Avista could offer (though Avista already offers some of these items):

- Incentives for air conditioners (two responses)
- Energy management systems (two responses)
- HVAC upgrades (two responses)
- Special technologies, such as parking lot heating and Nano windows (two responses)
- Lighting and HVAC controls (one response)
- Energy audit (one response)
- Streetlights (one response)

Survey Respondent Profiles

Most PY 2019 survey respondents' reported natural gas as their primary heating fuel (70%; n=76); 83% owned their facilities. Facility sizes ranged from 1,000 square feet to one million square feet, with an average of 93,215 square feet (n=60). Employee numbers ranged from one to 3,000, with an average of 120 employees (n=34). Figure 18 shows respondents' organization types, compared to the PY 2018 Prescriptive survey sample. Respondents were similarly distributed, except PY 2019 had almost twice as many retail establishments than PY 2018, while PY 2018 had three times as many manufacturing facilities than PY 2019.

Figure 18. PY 2019 and PY 2018 Prescriptive Survey Sample Organization Types



Source: Prescriptive survey question L1: "What is the primary industry of your organization?"

Nonresidential Conclusions and Recommendations

Conclusions and recommendations for the Nonresidential programs are presented in this section.

Nonresidential Conclusions

- **Almost two-thirds of Nonresidential survey respondents participated in past business energy efficiency programs.** Most Site Specific (17 of 21) survey respondents previously participated in an Avista business energy efficiency program, compared with 56% of prescriptive respondents (42 of 75).
- **Contractors and equipment vendors were more engaged with participation drivers in PY 2019.**
  - In contrast with PY 2018 respondents, more PY 2019 respondents reported first learning about the Prescriptive program from a contractor (for an 8% increase) or an equipment vendor (a 4% increase).
  - PY 2019 respondents were more likely to designate their contractor or vendor as a motivating factor in PY 2019, increasing to 34% from 20% the previous year.
- **Participant motivations differed by program.**

  - Site Specific program participants identified saving money and using less energy as the top benefits from program participation, consistent with PY 2018 results.
  - PY 2019 Prescriptive survey respondents identified saving money and receiving a rebate as the top benefits (n=86; 76% and 66%, respectively), while, in PY 2018, Prescriptive survey respondents identified saving money and using less energy as the top benefits (n=46; 72% and 65%, respectively).
- **Though participants were highly satisfied with the program, a small number indicated some dissatisfaction.**
  - All Site Specific survey respondents (n=19) and 98% (n=83) of Prescriptive survey respondents expressed satisfaction with the program overall. In PY 2019, this satisfaction increased for Prescriptive survey respondents over PY 2018 respondents (98% and 91%, respectively).
  - Site Specific respondents expressed satisfaction with all program components, except for the equipment installed; one of 19 was *not too satisfied* with this component as the customer "chose a weak vendor." Except for communication with contractors and vendors, PY 2019 respondents provided a higher number of *very satisfied* responses than in PY 2018.
  - Prescriptive survey respondents were highly satisfied with the pre- and post-project inspection and the equipment installed. Several survey respondents, however, provided reasons for dissatisfaction with the program and some of its components. One respondent stated that the overall process took too long and did not provide them with a high-enough incentive. Another said their account executive originally told them their project would not qualify for incentives, and a third respondent said the program should cover the conversion of lower-wattage, high energy-usage lighting.
- **Site Specific survey respondents said the program succeeded due to Avista staff (6 of 11) while Prescriptive survey respondents cited the program application process and customer support (28%; n=47).**
  - Site Specific program participants also cited energy and cost savings (3 of 11); and reported effective projects, easy processes, and multiple benefits (one response each) worked well.
  - Prescriptive survey respondents also cited better lighting (23%) and energy and cost savings (21%) as program elements that worked particularly well.
- **Participation challenges differed by program.**
  - For the Site Specific program, the top participation challenge was lack of program awareness. This differed from PY 2018's top challenge of determining rebate eligibility.
  - Prescriptive survey respondents listed their top challenges as identifying eligible measures and learning about the program. Lighting participants said using the DLC list or the ENERGY STAR-certified products list proved difficult.
- **Avista's rebate played an important role in the decision to complete the energy efficiency project.** All Site Specific and all but two Prescriptive survey respondents said Avista's rebate proved important in their decision to complete the project.

- Site Specific respondents identified availability of rebates and/or other co-funding as the most important criteria for making energy efficiency improvements (14 of 18), followed by energy or operating costs (12 of 18), and the return on investment (12 of 18).
- Prescriptive survey respondents identified energy or operating costs as the most important criteria (72%; n=43).

Nonresidential Recommendations

Nonresidential Recommendation 1: Per some survey respondents, determining rebate eligibility proved challenging. Lighting survey participants specifically said using the DLC list or the ENERGY STAR-certified product list posed difficulties. Consider conducting an internal review of eligibility requirements and messaging to determine additional educational materials that could be created for and provided to customers. For example, a frequently asked questions pamphlet could be developed to answer common questions regarding eligibility, or a customer newsletter could provide information about determining eligibility.

Multifamily Programs

This section focuses on two Multifamily programs: Multifamily Direct Install (MFDI) and Multifamily Market Transformation (MFMT). The MFDI program provides energy efficiency measures through a direct-install phase and an optional supplemental phase, while the MFMT program provides incentives for natural gas space and water heating equipment in new multifamily developments.

Multifamily Direct Install Program Findings

The MFDI program consists of a direct-install phase that includes energy efficiency measures (such as faucet aerators, kitchen aerators, LEDs, Tier I smart power strips, and VendingMisers).[1] An optional supplemental lighting phase follows, in which SBW Consulting offers lighting upgrades in facilities' common areas. Various lighting contractors perform an audit and provide SBW with the best lighting retrofit options.

For a process evaluation of the MFDI program, Cadmus conducted stakeholder interviews with Avista program and implementer staff, in addition to two sets of phone interviews with multifamily property managers who participated in the pilot in PY 2018 and in the program in PY 2019.

Stakeholder Interviews

In January 2019, Cadmus interviewed Avista and program implementer staff about the MFDI program, as Cadmus did in April 2018, when the program was still a pilot. The 2018 DSM Business Plan specified that the program implementer would recruit MFDI pilot participants through door-to-door visits, drawing upon a list of complexes and property owners provided by Avista. Since the pilot, however, maintaining and developing the candidate list primarily has become the implementer's responsibility. The implementer noted that, due to the pilot's success, word-of-mouth and referrals effectively generated participation in PY 2019, and Avista has been helpful in confirming whether properties fall within Avista's service territory.

The program implementer and Avista reported high satisfaction levels for direct-install measures among tenants and building mangers. Though the implementer reported that participants occasionally requested measure removal (due to water pressure differences with aerators and faucets),[2] this did not occur frequently.

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1 Devices that can be installed on beverage vending machines that use a motion sensor to determine when the machine should be powered on and off. The device measures ambient room temperatures every few hours to determine how much power to utilize.

2 In other similar direct-install programs, water-saving measures experience lower installation rates than other measures for these same reasons.

Following the pilot's initial, direct-install phase, Avista and the implementer initiated a supplemental lighting phase, during which installers, subcontracted by the implementer, revisited multifamily properties to install additional common area lighting for property managers expressing interest. While completing direct-install measure installations, the implementer identified and reviewed opportunities for common area lighting with Avista and the pilot participant, all subject to Avista's approval. If approved by Avista, a subcontractor later returned to the property to install the lighting.

The PY 2019 program followed this same structure as the PY 2018 pilot, but, in PY 2019, the implementer attempted to integrate the supplemental lighting phase more effectively with the program's direct-install portion. Previously, confusion occurred, with extended delays between the primary direct-install and the supplemental lighting phases. Currently, lighting audits and installations are scheduled closer to the initial, direct-install phase to help mitigate these issues, though one PY 2019 participant reported an extended delay between these phases.

In PY 2018, the implementer faced challenges in managing large data amounts required to refine *ex ante* energy-savings and demand-reduction estimates for the direct-install measures. Although the pilot achieved its initial participation and natural gas savings targets, it did not meet its electricity savings targets.[3] In PY 2019, however, the program surpassed its goals midway through the year, encouraging the implementer to increase its electricity and natural gas targets for 2020.

Throughout the MFDI Pilot, Avista and the implementer met weekly to discuss the pilot's progress and its delivery issues. During PY 2019, the frequency decreased to monthly meetings, given the program ran so smoothly, and both were highly satisfied with their working relationship. The implementer noted strong communication and a sense of partnership, allowing for improvements while ensuring the program's cost-effectiveness. Avista considered the partnership exceptionally collaborative.

Participant Interviews

In March 2019, Cadmus interviewed five multifamily property managers who participated in the MFDI program, seeking to ascertain their awareness of, motivation to participate in, and satisfaction with the program, in addition to identifying participation barriers and the program's influence on other energy-saving behaviors. The five property managers had not participated in the original PY 2018 pilot. Participating multifamily residences could have the following measures installed:

- Faucet aerators
- Kitchen aerators
- LEDs (indoor)
- Tier I smart power strips

[3] Because of its status as a pilot, the MFDI pilot did not set formal energy-saving goals.

- Showerheads
- VendingMisers

Though the PY 2018 pilot also offered these measures, the implementer no longer offered the following in 2019: water heater temperature assessments; water heater blanket installs; water heater pipe wrap installs; shower valves with automatic temperature shut-offs; or smart plugs.

All five PY 2019 property managers installed faucet aerators, kitchen aerators, LEDs, and showerheads, but not VendingMisers or smart power strips.[4] The implementer reported VendingMisers had the lowest uptake of all measures in PY 2019. Avista and the implementer agreed that smart power strips also had very low uptake in PY 2019; the implementer reported that it often did not recommend this measure to participants as it generates little interest.

In PY 2018, similar interviews were conducted with 10 multifamily property managers who participated in the pilot.

Awareness and Motivation

All five property managers learned about the program from Avista (three) or the implementer (two). Three property managers said Avista or the implementer usually informed them of methods to save energy in their buildings, though one property manager learned about energy-saving opportunities through the residence's sister property, and one property manager reported hearing or learning little about energy-saving methods or opportunities. These results were similar to findings from PY 2018.

Measure Satisfaction

All five property managers were *very satisfied* with the quality of energy-saving measures installed at their multifamily properties. Results were similar to those from PY 2018, in which eight of 10 interviewed participants were *very satisfied* with energy-saving measures. One PY 2019 participant did not have post-installation problems, aside from two faulty light bulbs that the implementer replaced the day after installation. Another property manager realized significant savings in his/her water bills, reporting that tenants also noticed savings in their electricity bills.

In terms of tenant satisfaction, all property managers reported that their tenants were *very satisfied* with the LEDs, as shown in Figure 19. One property manager reported a significant decrease in work orders after the LED installations. For showerheads, faucet aerators, and kitchen aerators, four property managers thought their tenants were *very satisfied,* and one thought they were *somewhat satisfied* with these measures.

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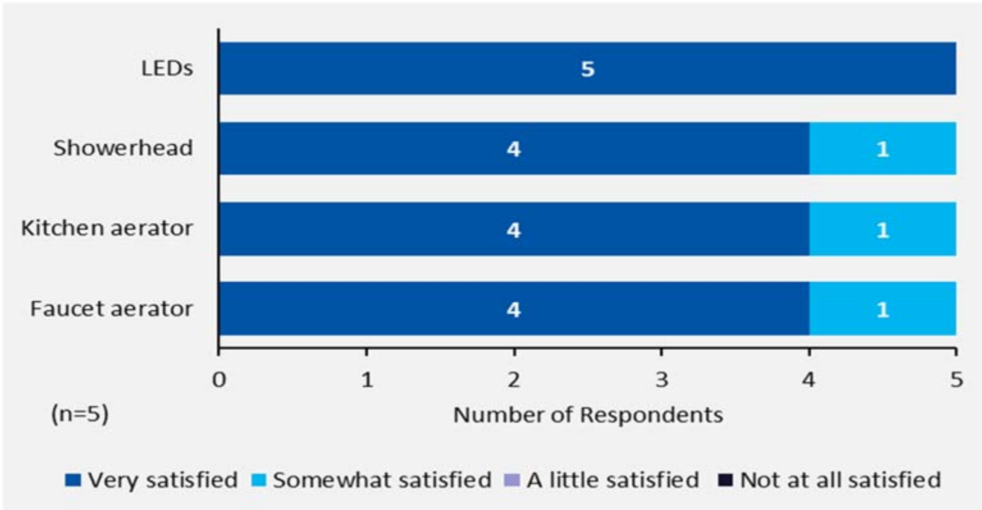
4 Cadmus interviewed 10 multifamily property managers in 2018 who participated in the initial pilot. Measure installations for 2018 were similar to 2019 for measures that were offered both years.

Figure 19. Satisfaction with Program Measures, PY 2019



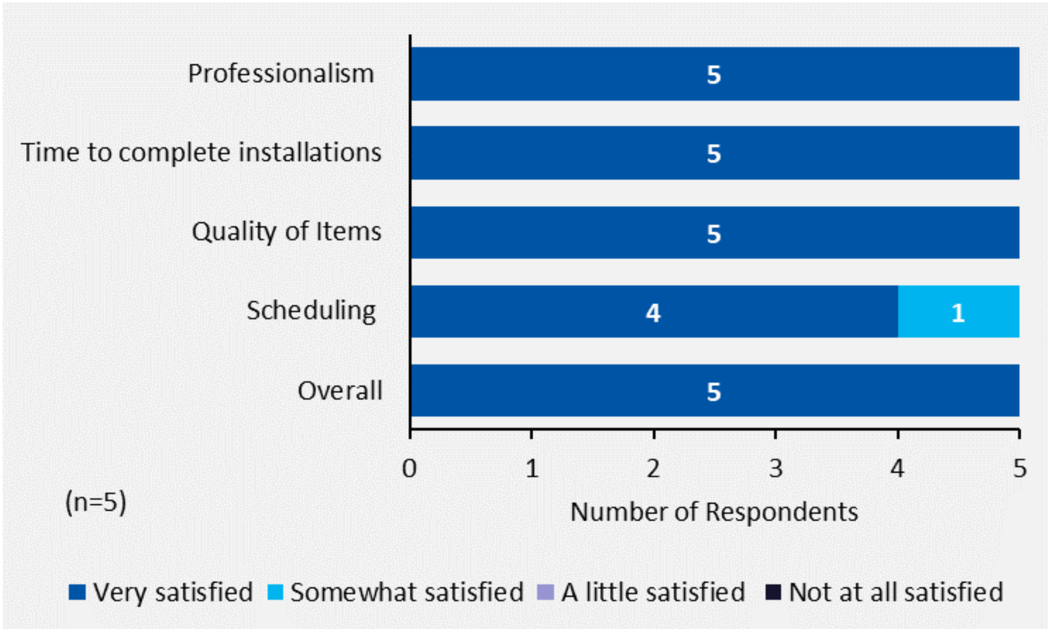
Source: MFDI Program Participant Interview, Question B1:
"In your perspective (given your interactions with them), are your tenants very satisfied, somewhat satisfied, a little satisfied, or not at all satisfied with their new…?"

Of the five PY 2019 property managers, two participated in the supplemental lighting phase, both of whom were *very satisfied* with the new outdoor lighting. When asked about tenant feedback, one did not report tenant issues or complaints; the other reported that tenants provided positive feedback, such as feeling much safer around the complex at night.

Program Satisfaction

All five property managers were *very satisfied* with their MFDI program experiences overall, consistent with PY 2018 results. In addition, all but one property manager were *very satisfied* with every program element in PY 2019, as shown in Figure 20. The one property manager was *somewhat satisfied* with scheduling the installer.

Figure 20. Satisfaction Ratings with Program Elements and Overall, PY 2019



Source: MFDI Program Participant Interview, Question B3 and B9:
"Using the same scale as before, how satisfied were you with…"

The two property managers who received supplemental lighting also addressed questions about their satisfaction with the same program elements and with their overall experience around this program phase. Both property managers reported being *very satisfied* with the contractors' professionalism, the time required to complete the installations, and the quality of outdoor lighting. In terms of satisfaction with the scheduling process, one property manager was *very satisfied* while one was *not at all satisfied*. The latter property manager reported that, after initial program installations, months passed before the installer returned to install the outdoor lighting, and that the installer had shown up without warning. This property manager recommended increased communication from the installer.

Participation Barriers

No property managers interviewed in PY 2018 or PY 2019 reported barriers to pilot/program participation. For the program's supplemental lighting portion, one property manager in PY 2019 reported difficulties in scheduling the assessment and installation appointment, though eventually the installer completed the outdoor lighting. Two other PY 2019 property managers were eager to participate, but they either had not heard back from the implementer's subcontractor regarding the audit, or they had the audit completed, but never receive further communication from the installer. Both reported reaching out to the implementer, but not hearing back; both recommended enhanced communication.

Avista and the implementer did not observe significant barriers for multifamily property managers or tenants to participate in the MFDI program. For the PY 2018 pilot, Avista directly targeted potential property managers to prescreen them. Avista and the implementer noted that property managers encountered challenges in finding the time and resources to accompany the installer to the complex.

The implementer reported mitigating this by managing the properties' scheduling pipeline and by remaining flexible with property managers' availability to accompany the installer.

Program Influence

Cadmus asked property managers if they took energy-saving actions after participating in the MFDI program, and, if so, how important the program was in influencing that behavior. In PY 2019, two of the five property managers installed additional energy-saving items. One reported that the program was *somewhat important* in influencing this decision;[5] the other property manager would have installed the measures anyway and considered the program's influence as *not at all important*. Two respondents were *somewhat likely* to seek out energy efficiency measures, while another two said they were *a little likely* to do so. The fifth was *not too likely* as he/she could not afford to install additional energy-saving measures.

In PY 2018, three of 10 property managers installed additional energy-saving items and said the pilot was *very important* in influencing their actions, with all stating they were only *a little likely* to pursue energy-saving actions in the pilot's absence.[6] The other seven property managers had not taken additional energy-saving actions, but said they were *very likely* to seek out energy-saving items.

Successes

In PY 2018 and PY 2019, the program ran smoothly. Cadmus identified four success areas for the MFDI program through interviews with Avista, the implementer, and participating property managers:

- **Surpassing savings goals** midway through PY 2019 allowed the development of increased goals for 2020.
- **High customer interest**, generated through positive word-of-mouth and referrals, generated sufficient support for the program overall.
- **High property manager satisfaction** levels with direct-install measures and the supplemental lighting phase led to high program satisfaction levels and some spillover effects, in which property managers pursued other energy-saving opportunities.
- **Collaborative relationships** between Avista and the program implementer allowed the program to run smoothly in PY 2018 and PY 2019.

Challenges

Cadmus identified two minor challenges for the MFDI program:

- **Unclear supplemental lighting phase communication** may have affected participation and progress toward savings goals. Two property managers never heard back from the

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[5] Using the following scale: *not at all important*, *a little important*, *somewhat important*, *very important*.

[6] Using the following scale: *not at all likely*, *a little likely*, *somewhat likely*, *very likely*.

implementer's subcontractor regarding the supplemental lighting phase in PY 2019; this also occurred for two of 10 property managers in PY 2018. Although not necessarily dissatisfied with the delay, the property managers grew impatient, having received no further correspondence about a follow-up appointment at the time of Cadmus' interviews.

- **Low installation rates for VendingMisers and smart power strip measures.** Though the smart power strips remained eligible, they generated very low interest among property managers, leading the implementer not actively pursuing installation of this measure. Though the implementer still pursues VendingMisers, it does few installations. Per Avista and the implementer, both measures had the lowest uptake among the program's direct-install measures.

Multifamily Market Transformation Program Findings

The MFMT program provides incentives for natural gas space and water heating equipment in new multifamily developments. Cadmus conducted interviews with Avista staff and home builders as part of the MFMT program evaluation in PY 2019.

Avista Staff Interview

The program is marketed primarily through multifamily developers—a strategy that has succeeded. Avista also markets the program with Alaska Airlines, through magazines such as *Eco-Structure* and *The Architect*, and through pamphlets, direct mail, and email. The Idaho program remains on track to meet its year-end goals, while the Washington program will likely fall short of its goals. Avista staff does not expect significant changes for the remainder of the program year.

Avista staff emphasized that HVAC program trade allies, which help deliver the MFMT program, serve as a crucial group that Avista seeks to further involve in the program. Two main trade ally highlights appeared:

- ***Contractor Support:*** While Avista does not require contractor training on installing natural gas heat or various natural gas appliances (such as ranges, dryers, or fireplaces), staff reported regularly attending HVAC association meetings alongside contractors. Avista staff also reported seeing significant installation practice improvements due to increased communication and support between trade allies.
- ***Outreach methods:*** Avista staff said that working hand-in-hand with contractors has provided an effective means of estimating costs in project areas. As such, Avista provides contractors with resources similar to those building developers receive to help inform contractors about the program. Avista staff also noted the importance of the Trade Ally Network and the Trade Ally Module (now called the Trade Ally Connect) in reaching contractors. Through Avista uses this online portal, trade allies can log into the Trade Ally Network, create a profile, and become part of the network. Avista program managers believe that the Trade Ally Module, an online database of trade allies that Avista implemented in spring PY 2018, has been a very successful communication tool for engaging with contractors. Staff said this tool has been used to send mass emails about webinars and upcoming trainings. Following a recent upgrade, the Trade Ally

Module has become Trade Ally Connect, offering further avenues for improving communication with trade allies (such as project tracking the number of savings, projects, and incentives).

Avista staff identified two challenges with the new program:

- ***Developer and design firm involvement:*** Difficulties sometimes arose in convincing developers to pay redesign fees or to take the time necessary to redesign an entire project with their hired design firms (for example, design/build groups, architects, or mechanical engineers). Converting an electric multifamily project to natural gas increased expenses and required more technical expertise, and Avista reported losing a few projects due to this. Avista recognized, however, that presenting developers with this opportunity early in the design phase can break down this barrier and increase participation.
- ***Conflicting incentives:*** The U.S. Department of Housing and Urban Development (HUD) provides developers with more funding for HUD low-income properties if those properties are all electric (rather than natural gas). Though Avista continues its efforts to work with HUD developers, it has encountered issues in addressing the conflict between MFMT program and HUD incentives at the local level.

Home Builder Interviews

In 2019, Cadmus conducted interviews with five participating home builders, assessing their reasons for and obstacles to participation as well as measuring their overall satisfaction and experience with the program. Of those interviewed, four home builders participated in the program in Washington and one participated in Idaho. All five were *very satisfied* with their overall program experience.[7]

Four builders said the program incentives served as their primary motivation for program participation, while one builder installed natural gas appliances due to their increased benefit for the environment and to provide a good product offering for prospective tenants. All five builders described their relationship with Avista as positive, with one builder citing the helpfulness of their program representative.

Cadmus asked builders how they would rate the ease of qualifying a new building for the program's incentive: three home builders found it *very easy* and one found it *somewhat easy*.[8] The latter builder considered it *not too easy* because, while the program itself was not too complicated, it had many moving parts that could make qualifying for incentives somewhat complex.

Additionally, Cadmus asked the builders about the program's impact on the way home builders design and construct buildings. One builder reported his/her firm primarily used electric heating in its developments before participating in the program, but it switched to natural gas to take advantage of

7 Using the following scale: *not at all satisfied*, *a little satisfied*, *somewhat satisfied*, *very satisfied*.

8 Using the following scale: *not at all easy*, *not too easy*, *somewhat easy*, *very easy*.

the incentive. The other four home builders already used natural gas as the primary heating fuel in most of their developments.

When asked how program participation affected business for their companies, four home builders indicated positive impacts due to incentives that helped finance the projects. Again, the last builder said he/she did not notice measurable impacts, but did note that tenants liked natural gas appliances and that installing these appliances set them apart from competitors that only installed electric heating appliances.

Multifamily Conclusions and Recommendations

Conclusions and recommendations for the Multifamily programs are presented in this section.

Multifamily Conclusions

- **Multifamily property managers and tenants participating in the MFDI program generally were *highly satisfied* with the program and the measures installed.**
  - Property managers expressed satisfaction with contractors' professionalism, item quality, time required to complete installations, and the scheduling process.
  - Tenants proved *highly satisfied* with the quality of outdoor LED lighting installed during the program's supplemental lighting phase.
- **Communication during the MFDI program's supplemental lighting phase could improve.**
  - Two of five multifamily property managers that Cadmus interviewed in PY 2019 had yet to hear from the implementer's subcontractor regarding the program's supplemental lighting phase.
  - Similar delays and communications lapses remained an issue from the PY 2018 pilot, when two of 10 interviewed managers noted these problems.
- **Home builders participating in the MFMT program highlighted positive benefits from the program helping their business.**
  - Four home builders that participated in the PY 2019 MFMT program cited specific participation benefits (such as incentives helping with project financing and increased tenant interest in natural gas appliances).

Multifamily Recommendations

Multifamily Recommendation 1: Improve the timeline and communication among parties between MDFI program's direct-install phase and supplemental lighting phase. Provide property managers with a point of contact to whom they can direct inquiries about the status of their outdoor lighting applications.

Multifamily Recommendation 2: Conduct an internal review of steps for qualifying new buildings for the MFMT program to determine whether the program can remove or streamline qualification steps and simplify the process for home builders. Consider developing a process flow map to outline the program steps, making it easier for builders to follow.

Multifamily Recommendation 3: Include language in MFMT program marketing and outreach to target participation benefits noted by builders (such as incentives that help with project financing and increased tenant interest in natural gas appliances).

Residential Programs

The HVAC, Shell, and Fuel Efficiency programs provide Residential households with prescriptive rebates for installing space heat, water heat, smart thermostats, storm and standard windows, and natural gas space and water heat.

Residential Program Findings

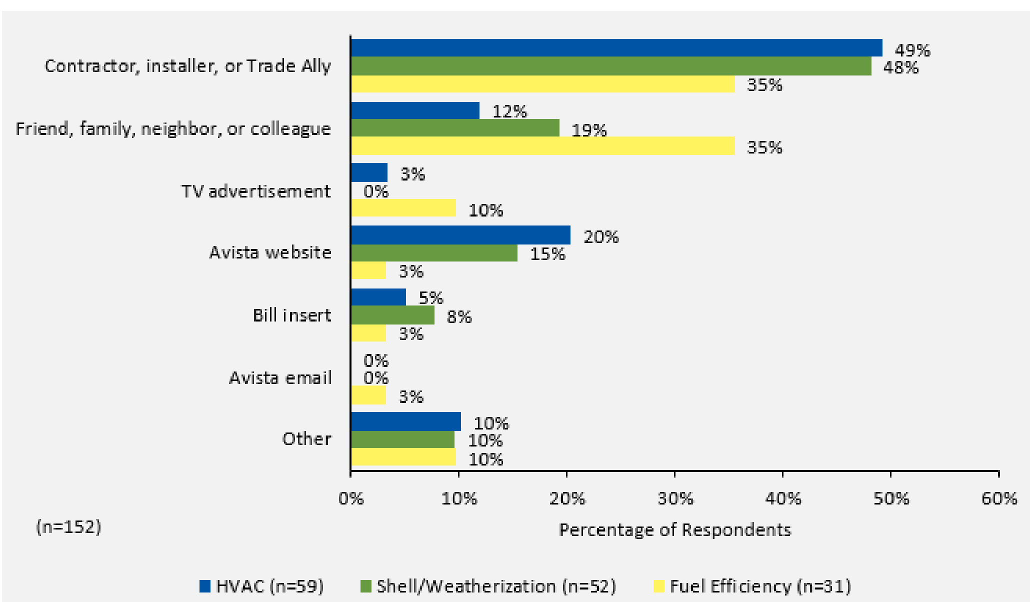
For the PY 2019 process evaluation, Cadmus conducted phone surveys with HVAC, Shell, and Fuel Efficiency program participants.

Cadmus completed 152 phone surveys with HVAC, Shell, and Fuel Efficiency program participants, in four waves of 38 completes. The following sections synthesize the results from all four survey waves (two waves per program year) and detail the findings (all program-specific findings have been synthesized from the four waves). All other findings are specific to results gathered in PY 2019 for waves three and four.

Customer Awareness

Cadmus asked survey respondents where they learned about the program in which they ultimately participated. In PY 2019, respondents most commonly learned about Avista programs through contractors (38%), followed by word-of-mouth (26%) and Avista's website (19%). Figure 21 shows program-specific results. While customers continued to learn about programs primarily through contractors, they did so less frequently than in PY 2018 (53%). Otherwise, respondents learned more frequently about the program through word-of-mouth (26% in PY 2019 compared to 14% in PY 2018) and Avista's website (19% in PY 2019 compared to 11% in PY 2018).

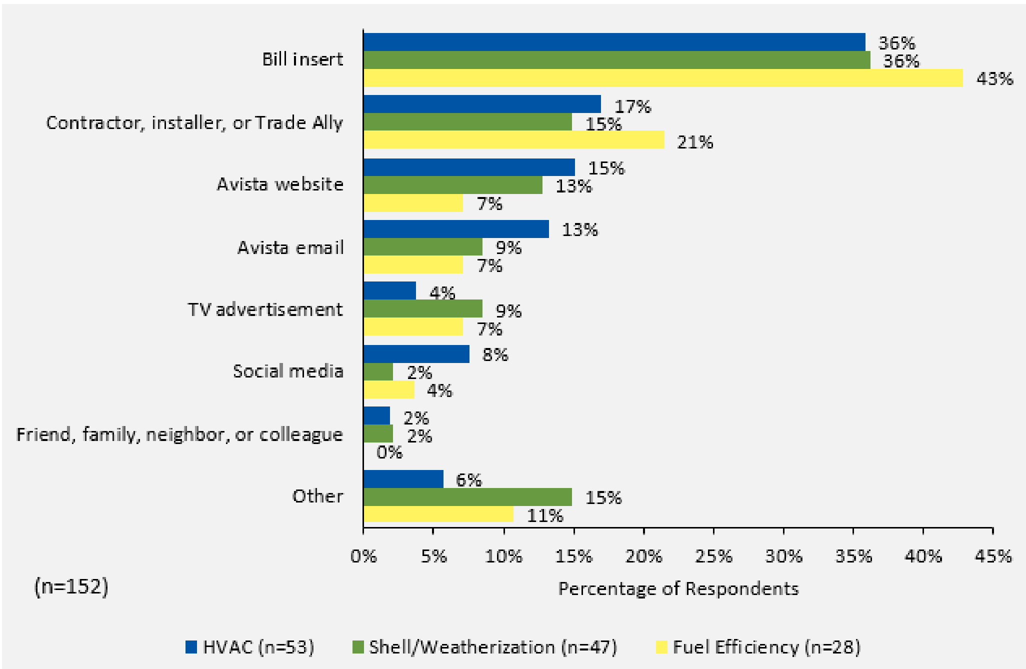
Figure 21. Awareness of Avista Energy Efficiency Programming, PY 2018 and PY 2019



Source: Residential Programs Participant Survey, Question B1: "How did you first hear about the [PROGRAM NAME] program?"

Cadmus also asked respondents how they preferred to learn about Avista's energy efficiency programs. Though most PY 2019 respondents preferred bill inserts (43%), they also cited Avista's website (21%) as an effective method for spreading information. A small portion of PY 2019 respondents preferred Avista's emails (10%) or contractors (9%). From PY 2018 to PY 2019, the Avista website saw the greatest increase as an information source (from 3% to 21%), while contractors experienced the biggest decrease (from 27% to 9%). Figure 22 shows program-specific results.

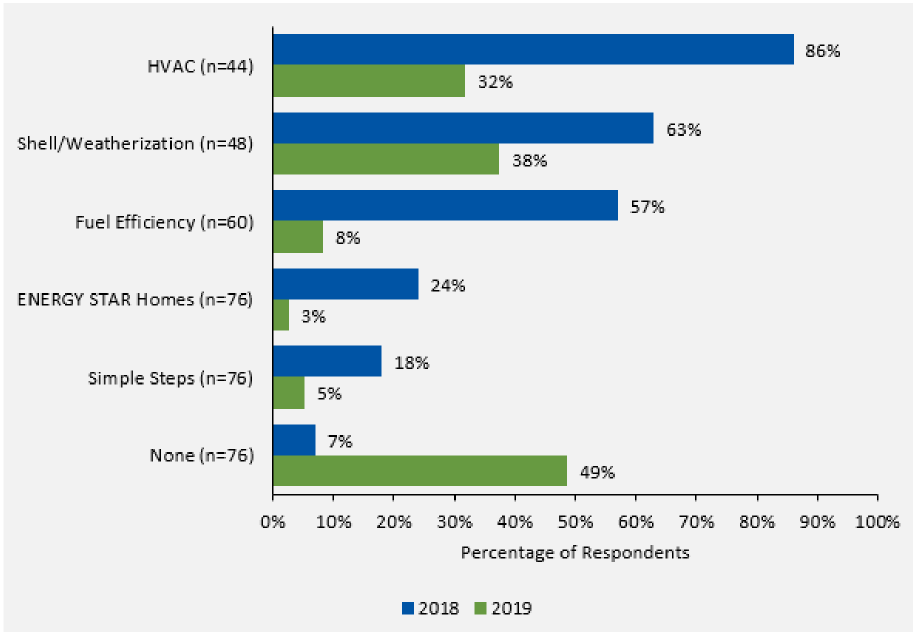
Figure 22. Preferred Method to Learn About Programming, PY 2018 and PY 2019



Source: Residential Programs Participant Survey, Question B2: "What is the best way for Avista to inform Residential customers like you about their energy efficiency improvement rebates?"

In PY 2019, 49% of respondents heard about at least one Avista energy efficiency program, other than the program in which they participated. Respondents most frequently reported hearing about the Shell program (38%), followed by the HVAC program (32%). As shown in Figure 23, survey respondents reported that New Homes and Simple Steps, Smart Savings—two programs administered by third-party implementers—achieved much lower awareness levels. As the surveys allowed multiple responses, they collected more responses in PY 2018 (139) than in PY 2019 (86), possibly exerting downward pressure on awareness results for PY 2019. Otherwise, it remains unclear why awareness of other programs might have fallen in PY 2019.

Figure 23. Awareness of Other Programs, by Program Year

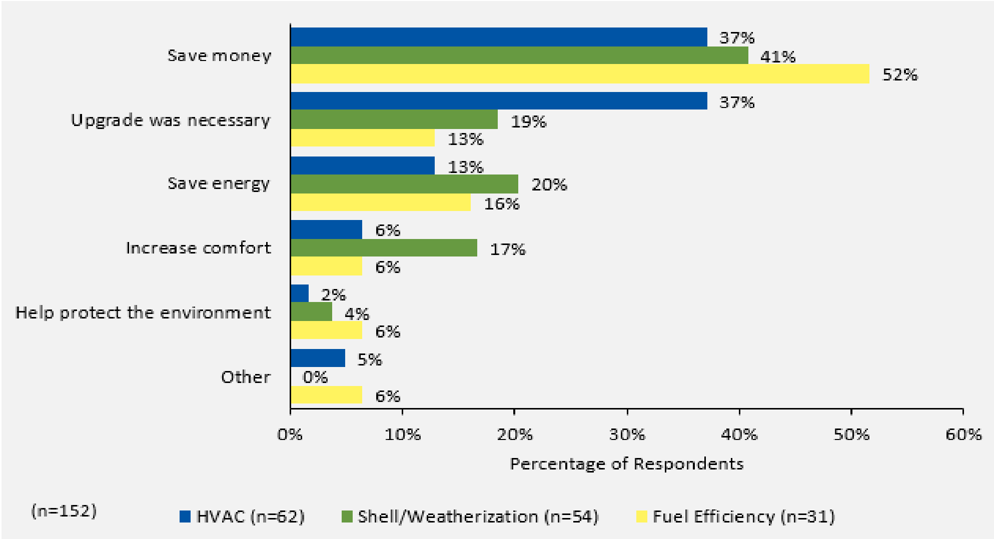


Source: Residential Programs Participant Survey, Question D1: "What other Avista energy efficiency programs have you heard of?" Multiple responses allowed.

Motivation and Program Benefits

In PY 2019, respondents participated in Avista's programs primarily to save money (25%), save energy (22%), and/or increase their homes' comfort (11%). Figure 24 shows program-specific results, with 37% of HVAC program respondents participating only because it was necessary (for example, existing furnaces or windows were broken); 19% of Shell and 13% of Fuel Efficiency respondents gave similar answers. From PY 2018 to PY 2019, necessary upgrades provided the largest motivation increase (from 20% to 31%), followed by saving energy (from 11% to 22%). Saving money realized the largest decrease in motivation (from 57% to 25%).

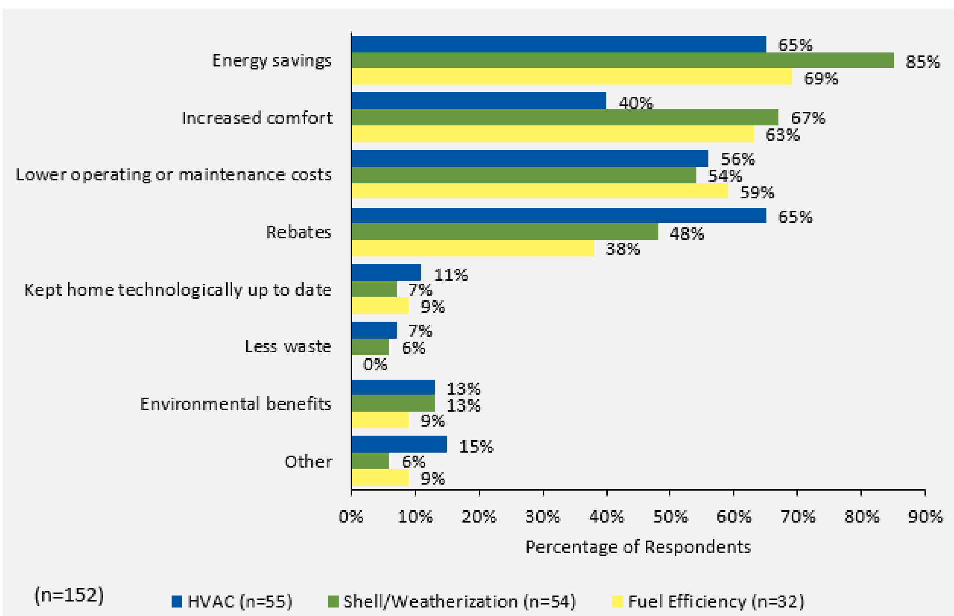
Figure 24. Motivation to Participate in Residential Programs, PY 2018 and PY 2019



Source: Residential Programs Participant Survey, Question B3: "What motivated you to participate in the [PROGRAM NAME] program?" Multiple responses allowed.

Cadmus asked respondents a multiple-response question about benefits they associated with Avista's Residential programs. In PY 2019, most cited lower operation/maintenance costs (38%), energy savings (34%), increased comfort (32%), and rebates (32%). Figure 25 shows program-specific results.

Figure 25. Benefits of Participation in Residential Programs, PY 2018 and PY 2019



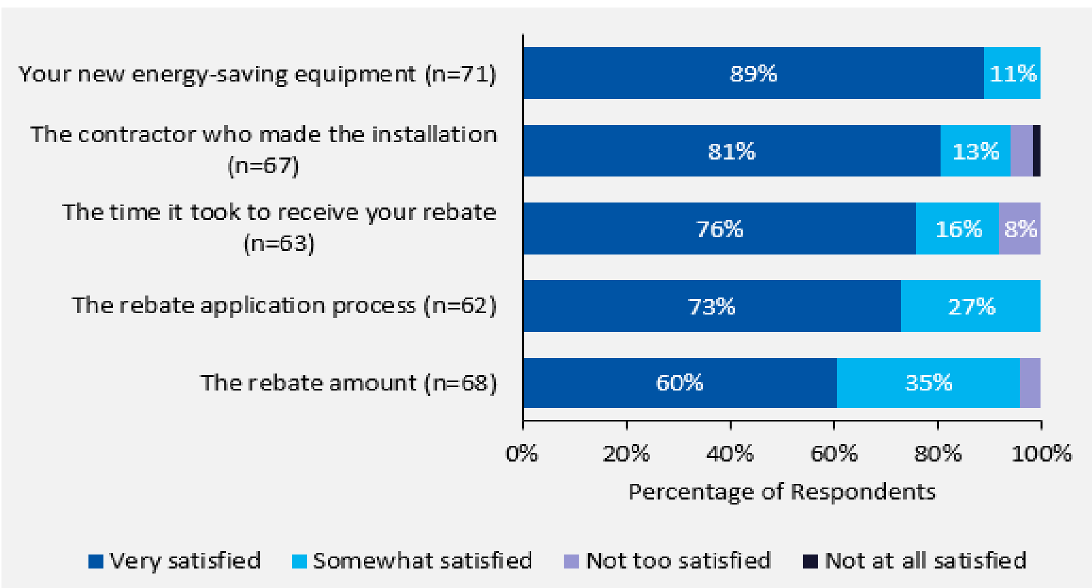
Source: Residential Programs Participant Survey, Question B5. "What benefits come to mind when thinking about your participation in the [PROGRAM NAME] program?" Multiple responses allowed.

Though a small portion of respondents preferred to keep up with technological trends and to produce less waste and better environmental outcomes, the largest increase in perceived application benefits from PY 2018 to PY 2019 occurred for environmental benefits (from 7% to 17%). The biggest decrease in perceived benefits occurred in energy savings (from 83% to 34%). Due to multiple responses, the PY 2018 survey collected more responses (248) than the PY 2019 survey (138), possibly exerting downward pressure on PY 2019 results. It remains unclear why awareness of other programs might have fallen in PY 2019.

Program Satisfaction

Cadmus asked survey respondents to indicate their satisfaction levels with various program elements associated with their rebate, new equipment, and installing contractor. Respondents' satisfaction levels ranged from 92% to 100%[9] with the five elements shown in Figure 26. Respondents were least often *very satisfied* with the rebate amount. Lower satisfaction with rebates—as customers self-reported via the survey—occurs commonly among prescriptive rebate programs; hence, Cadmus does not find this result unusual. From PY 2018 to PY 2019, however, the rebate amount received the largest increase in *very satisfied* responses (from 42% to 60%). The rebate application process experienced the largest decrease in *very satisfied* responses (from 85% to 73%).

Figure 26. Satisfaction with Residential Program Elements, PY 2019



Source: Residential Programs Participant Survey, Question C1: "How would you rate your overall experience with..."

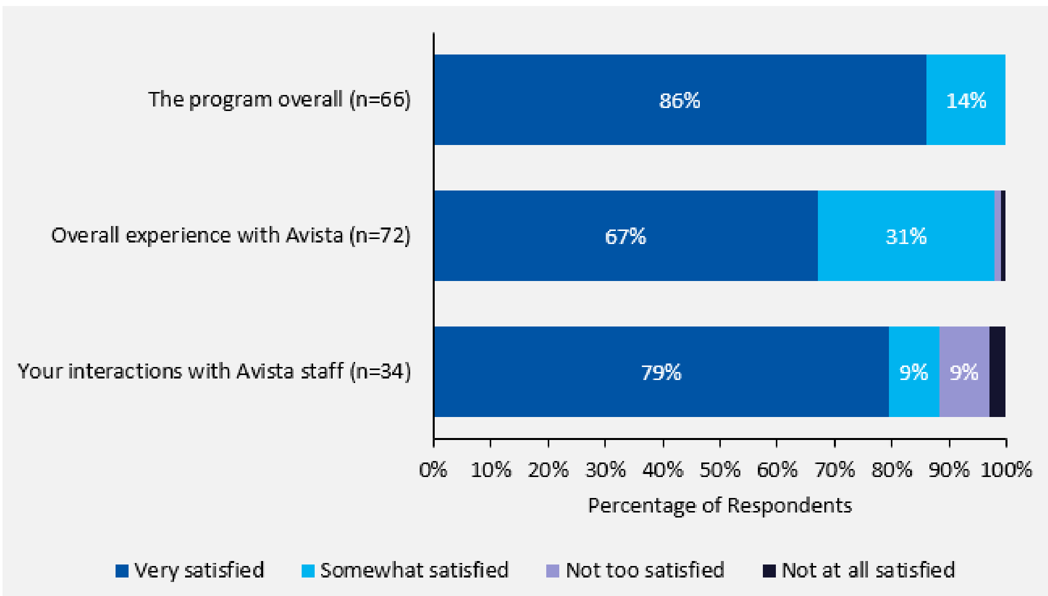
By year, Cadmus found detectable differences in rebate satisfaction: 29 of 69 participants from PY 2018 were *very satisfied* with the rebate amount (42%), in comparison to 41 of 68 participants from PY 2019 (60%). Additionally, 51 of 60 participants from PY 2018 were *very satisfied* with the rebate application

9 The combination of *very satisfied* and *somewhat satisfied* responses.

process (85%), in comparison to 45 of 62 participants from PY 2019 (73%). Cadmus found each of these differences statistically significant at 90% confidence. It remains unclear (beyond feedback that rebates were "too low") why the percentage of *very satisfied* respondents was higher for PY 2019 participants than for PY 2018 participants.

Respondents satisfaction levels ranged from 88% to 100%[10] with the three elements shown in Figure 27. From PY 2018 to PY 2019, the program overall showed the largest increase in *very satisfied* responses (from 74% to 86%), and interactions with Avista staff showed the largest decrease in *very satisfied* responses (from 87% to 79%).

Figure 27. Satisfaction with Avista and Residential Programs Overall, PY 2019



Source: Residential Programs Participant Survey, Question C1: "How would you rate your overall experience with..."

After asking respondents about their satisfaction with the programs and their elements, Cadmus solicited respondents' recommendations and feedback regarding possible program improvements. Across all survey waves, 43% of respondents (66 of 152) provided feedback, consisting mostly of the following recommendations:

- Increase rebates (29 of 66)
- Increase advertising (20 of 66)
- Simplify rebate applications (9 of 66)

10 The combination of *very satisfied* and *somewhat satisfied* responses.

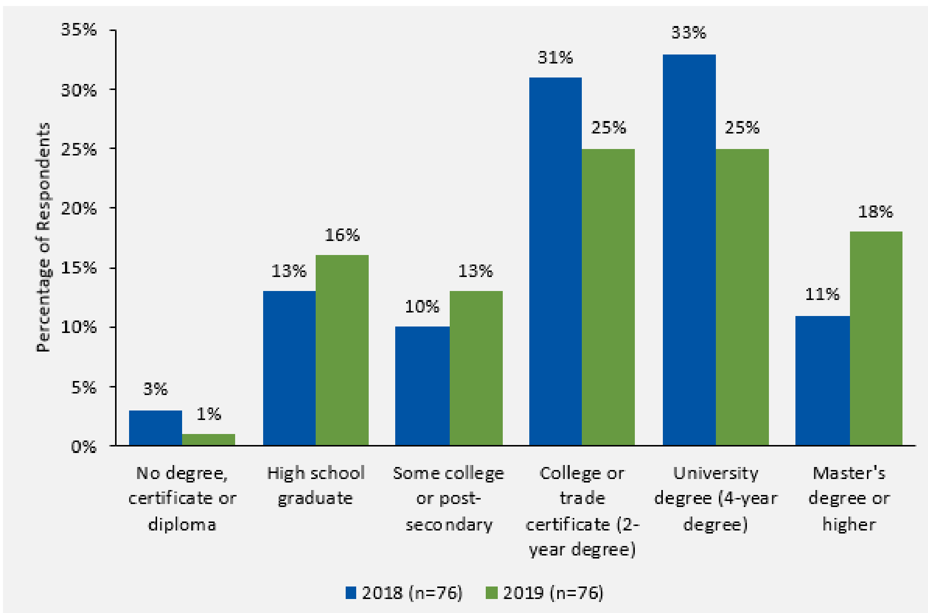
Energy Efficiency Behaviors

In PY 2018 or PY 2019, 25 of 147 survey respondents (17%) purchased and installed other high-efficiency equipment after participating in an Avista Residential program. Ten of those 25 respondents considered their program participation a *very important* influence on their purchasing decisions.

Survey Respondent Profile

As shown in Figure 28, most survey respondents in PY 2019 had a two-year, four-year, or master's degree (68%), similar to the 75% reporting in PY 2018.

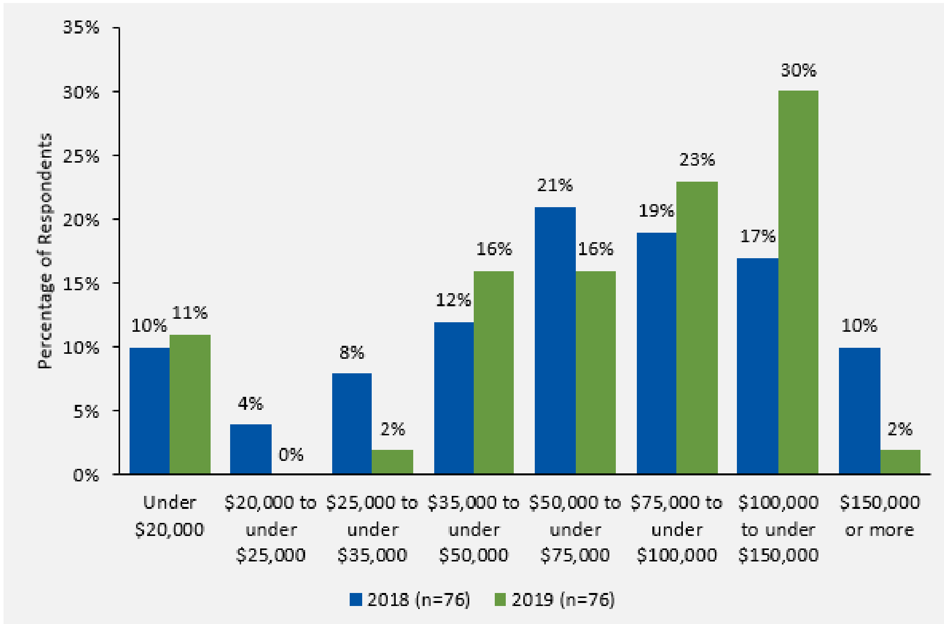
Figure 28. Residential Program Participant Education, by Program Year



Source: Residential Programs Participant Survey, Question F1: "What is the highest level of education that you have completed?"

In PY 2019, 71% of respondents earned at least $50,000 annually, as shown in Figure 29.

Figure 29. Residential Program Participant Income Ranges, by Program Year



Source: Residential Programs Participant Survey, Question F8: "Please tell me which of the following categories applies to your total household income for the year 2017."

In PY 2019, survey respondents reported an average household size of roughly 2.5 residents (n=73). Over 93% of respondents owned their homes (n=74), and over 89% had wireless Internet access (n=74).

Residential Conclusions and Recommendations

Conclusions and recommendations for the Residential programs are presented in this section.

Residential Recommendations

- **Residential program participants learned about Avista programs differently in PY 2019 than in PY 2018.**
  - While contractors remained the primary method through which customers learned about their program in PY 2019 (38%), this represented a decrease from the number in PY 2018 (53%). Word-of-mouth, however, increased in PY 2019 (26%) over PY 2018 (14%).
- **Residential programs maintained high satisfaction levels throughout PY 2018 and PY 2019.**
  - All respondents (n=152) were *very satisfied* or *somewhat satisfied* with programs in which they participated; 98% were *very satisfied* or *somewhat satisfied* with Avista's role in their experience.

Residential Conclusions

Residential Recommendation 1: Consider increasing outreach and marketing efforts through bill inserts and Avista's website. While word-of-mouth referrals from contractors/trade allies and friends/family/coworkers proved beneficial, survey respondents in PY 2019 (n=76) most frequently preferred learning about energy efficiency programs and opportunities through bill inserts (43%) and

Avista's website (21%). Using bill inserts and Avista's website to promote midstream and third-party programs (such as Simple Steps, Smart Savings) not only could cultivate more interest in these offerings; it could raise awareness of Avista's role in administering the programs, and it could improve data collection efforts where access to customer information is lacking or difficult to compile.

Third-Party Implementer Program

Simple Steps, Smart Savings is a midstream program that provides markdowns on specific items (such as LEDs, LED fixtures, showerheads, and clothes washers) through participating retailers. Avista administers the program, and CLEAResult implements it. As part of the implementation process, CLEAResult gathers all sales data from participating retailers, occasionally sends program staff to visit each retailer, and provides marketing materials as well as any other relevant program information.

Third-Party Program Findings

For the process evaluation of Simple Steps, Smart Savings, Cadmus conducted stakeholder interviews with Avista, implementer staff, and participating retailers.

Stakeholder Interviews

Avista staff reported delivering the Simple Steps, Smart Savings program, as described in the *PY19 Avista DSM Standard Operating Procedures Manual*. Avista staff said the program runs smoothly and CLEAResult (the program implementer) has been easy to work and communicate with.

Avista noted two program changes since PY18:

- ***Cost per kilowatt-hour:*** As of PY19, Avista pays the implementer $0.12 per kilowatt-hour to administer the program, up from $0.11 per kilowatt-hour in PY18.
- ***Rebate amounts:*** Avista staff said incentive levels have dropped since PY17 as prices for products have generally decreased. From PY18 to PY19, the only change to incentive levels consisted of maximum showerhead incentives increasing from $5 to $6, as shown in Table 11. At the beginning of Q3 PY19, however, maximum incentives for LED bulbs and LED fixtures decreased, while minimum incentives for showerheads increased. Overall, changes to the incentives per-unit have been slight, and Avista staff does not expect the changing incentive levels to decrease program participation.

Table 11. Simple Steps, Smart Savings Incentives Per Unit

Measure	Q1 PY17	Q1 PY18	Q1 PY19	Q3 PY19[a]
LED Bulb	$0.75 to $5	$0.50 to $5	$0.50 to $5	$0.50 to $3
LED Fixture	$1.50 to $20	$0.50 to $9	$0.50 to $9	$0.50 to $4
Showerhead	$5 to $15	$1 to $5	$1 to $6	$2 to $6
Clothes Washer	N/A	$10 to $25	$10 to $25	N/A

[a] This is the anticipated incentive range as of October 1, 2019.

Avista indicated two primary challenges for the Simple Steps, Smart Savings program:

- ***Program marketing:*** In PY19, Avista reported that implementers will design and display all program marketing materials in retail stores. Consequently, Avista staff cannot easily inform customers that discounted products are part of an Avista-sponsored program, which limits customer awareness.

- ***Insufficient measure-level data:*** While program data tracking systems satisfy all reporting requirements, the program's midstream nature prevents Avista from gathering sufficient customer information to evaluate customer feedback. Avista staff indicated that, in the future, they want to know more about customers to better tailor the program to meet their associated needs.

Cadmus also interviewed the implementer regarding program performance in PY 2019, with the interview providing several insights about the program:

- ***Program goals:*** Through July, the program remained on track to reach its electricity savings goal.
- ***Marketing and outreach:*** The implementer's field team handles placement of marketing materials in retail stores. Marketing's primary challenge is that it must be relatively generic; so the implementer can use it for multiple participating utilities. Although Avista noted challenges in informing customers that discounted products were part of an Avista program, marketing materials placed on qualifying products indicated discount amounts and identified Avista as a program sponsor.
- ***Customer experience:*** Due to generic branding, implementers find it difficult to collect customer feedback. The implementer maintains a customer-facing website, but that website does not generate much traffic. Utilities can promote the website to accrue more feedback, but they often choose not to, given it is a third-party website and does not look like an Avista-sponsored landing page.
- ***Participation:*** The implementer anticipated sales would decline as LED incentives reduced, but they actually encountered higher participation levels than expected.

In implementing the Simple Steps, Smart Savings program in PY19, the implementer's greatest challenge arose from uncertainty regarding the Energy Independence and Security Act, which made it difficult to plan the program in PY20 and beyond. Conversely, the implementer said the program's greatest success has been how streamlined the implementation process has become. The implementer continues to maintain good relationships with utility partners, manufacturers, and retailers, and the utilities find the program easy to sponsor, with current reporting systems making the program easy to maintain.

Retailer Interviews

For its 2019 process evaluation, Cadmus conducted interviews with five participating retailers (a mixture of home improvement stores and hardware stores) to assess their reasons for and obstacles to participation and to gather information about the support they received from program staff. Cadmus also explored respondents' overall experience and satisfaction with the program. All five interviewed retailers offered markdowns on general purpose and fixture LEDs, three offered markdowns on showerheads, and one offered markdowns on clothes washers.

Cadmus asked retailers to rate the ease of the sales data submission process. All five considered the process either *very easy* (three) or *somewhat easy* (two). The two saying *somewhat easy* reported experiencing a small learning curve when first submitting data for the program, but program staff assisted them. Otherwise, none of the retailers encountered program participation barriers and, overall, were *very satisfied* with the program.

Further, Cadmus asked retailers about support they received from the implementer's field staff, which visited participating stores periodically to distribute marketing materials and to assist as needed. All five retailers were *very satisfied* with these visits and attested to a positive relationship with field staff.

Retailers received program-specific marketing materials (such as stickers and tags, which contained the program's name and communicated Avista's role in it, to place near LEDs, fixtures, and showerheads). The retailer providing markdowns on clothes washers also received specific marketing materials that identified a discount on the appliance as well as its increased efficiency. All five retailers were pleased with the marketing materials and did not provide suggestions for improvements.

Third-Party Program Conclusions and Recommendations

Conclusions and recommendations for the Simple Steps, Smart Savings program are presented in this section.

Conclusions

- **Some retailers experienced a slight learning curve when submitting Simple Steps, Smart Savings program data.**
    - Two participating retailers interviewed about the Simple Steps, Smart Savings program reported facing a small learning curve when first submitting data to the implementer. They found the process *somewhat easy* and were assisted by program staff.

Recommendations

Recommendation 1: Develop supplemental documentation or provide direct assistance to retailers who participate in the Simple Steps, Smart Savings program to help troubleshoot issues with the data submission process. Cadmus interviewed two retailers who experienced a small learning curve while submitting their program data to the implementer.

Low-Income Program

The Low-Income program consists of Community Action Program (CAP) agencies providing qualified customers with energy efficiency measures, drawn from an "Approved Measures List," at no cost. Avista receives a set funding portion for each state and reimburses CAPs for the measures' cost.

Low-Income Program Findings

For its process evaluation of the Low-Income program, Cadmus conducted stakeholder interviews with Avista staff and with CAP agencies participating in PY 2019.

Stakeholder Interviews

In September 2019, Cadmus interviewed Avista about its Low-Income program, and Avista confirmed that, in Washington and Idaho, it provided funding to CAP agencies, which ultimately became responsible for qualifying potential customers based on their income.

Avista made a few changes to its list of approved measures that received full reimbursement in PY 2019:

- ***Washington and Idaho:*** Added ENERGY STAR refrigerators and removed electric-to-natural gas conversion water heaters
- ***Washington only:*** Removed air source heat pumps
- ***Idaho only:*** Added ENERGY STAR-rated windows, attic and duct insulation, air source heat pump replacements, and heat pump water heaters

The qualified rebate lists include the remaining measures (shown in Table 12 for Washington and Table 13 for Idaho) receiving partial reimbursement equal to the value of their avoided cost of energy saved.

Table 12. Low-Income Program Qualified Rebate List for Washington

Measure Category	Measure Name	PY18 (Per Installation)	PY19 (Per Installation)
Electric Measures	Electric to Natural Gas Furnace and Water Heater Conversion	$586.78	$4,723.34
	Electric to Natural Gas Water Heater	N/A	$562.04
Natural Gas Measures	Tankless Natural Gas Water Heater (0.82 EF)	N/A	$573.00
	Natural Gas Boiler	N/A	$894.11

Table 13. Low-Income Program Qualified Rebate List for Idaho

Measure Category	Measure Name	PY18 (Per Installation)	PY19 (Per Installation)
Electric Measures	Duct Insulation	$0.81 per sq ft	N/A
	ENERGY STAR Refrigerators	$49.14	N/A
	Attic Insulation	$546.30	N/A
	Floor Insulation	$1.313.54	$2.36 per sq ft
	Electric Ductless Heat Pump	$3,822.37	$2,155.54
	Electric to Natural Gas Space and Water Heater	N/A	$4,582.35

Measure Category	Measure Name	PY18 (Per Installation)	PY19 (Per Installation)
	Electric to Natural Gas Water Heater	$1,331.07	$590.56
	Heat Pump Water Heater	$697.39	N/A
	Air-Source Heat Pump	$4,172.89	N/A
Natural Gas Measures	Air Infiltration	$146.33	$105.71
	ENERGY STAR Windows	$13.40 per sq ft	N/A
	Attic Insulation	$0.34 per sq ft	N/A
	Floor Insulation	$1.21 per sq ft	$1.19 per sq ft
	Duct Insulation	$6.70 per sq ft	N/A
	Wall Insulation	$1.04 per sq ft	$1.01 per sq ft
	Duct Sealing	$429.85	$173.67
	Tankless Natural Gas Water Heater	N/A	$573.00
	Natural Gas Boiler	N/A	$894.11

Successes

Avista staff reported four successes for the PY 2019 Low-Income program:

- ***CAP agency relationships:*** Avista staff emphasized an overall positive relationship with CAP agencies. Avista staff believed that, as the CAP agencies have such a well-established infrastructure to verify incomes, install measures, and market the program, this easily allowed discussions about potential changes or program improvements, as needed.
- ***Program flexibility:*** Avista staff reported that the CAP agencies appreciated their discretion to spend funds on either electric or natural gas efficiency measures. In addition, Avista said the CAP agencies appreciated the freedom to help residents best with the money available, rather than receiving a specific number of homes that they would be required to serve—a factor that Avista staff considered crucial to program success.
- ***Data tracking:*** Program data are tracked through the Customer Care and Billing system, which Avista respondents said meets the needs of its staff.
- ***Marketing:*** Even though most Low-Income program customers learned of the program through the CAP agencies, Avista staff conducts outreach, informing customers and developers about the program. For example, Avista may generate interest by informing customers of the program when they call the contact center about bill payments. Additionally, Avista cross-promotes the Low-Income program with other offerings, such as the Weatherization program.

Challenges

Avista staff reported a few minor challenges with the program in PY 2019:

- ***Source funding awareness:*** As program funding occurs after some measures have been installed, end-use customers often do not know that Avista funded their home improvements. Avista staff may place signs in customers' yards or send postcards that inform them that they received home improvements from Avista. Additionally, Avista said homeowners provided positive reactions when attending post-installation inspections and were able to tell customers about Avista's funding role.

- ***Funding year:*** As Avista administers the Low-Income program by calendar year, but obtains other funding sources by fiscal year, CAP agencies often concentrate on spending Avista funds at the year's close, making the program's pace appear slow during the year. Avista staff, however, thinks CAP agencies are forthright about this, and, if required to spend funds according to fixed or predetermined timelines, may not use the funding.
- ***Turnover:*** Avista staff expects turnover within CAP agencies and said new CAP staff require significant training.

Participant Interviews

In November 2019, Cadmus conducted interviews with five CAP agencies participating in the Low-Income program, all of which had participated in the program for at least three years.

To qualify their clients by income, CAP agencies use various strategies. Three reported that the Energy Assistance program referred most people to them, already identifying them as income-eligible. Often, if these clients faced weatherization issues, Avista referred them to the CAP agencies. The remaining two CAP agencies utilized the Department of Commerce low-income standard to income-qualify new clients.

In term of prioritizing people that qualify, three CAP agencies specifically prioritize more vulnerable populations (such as the elderly, families with children, those with disabilities, those with emergency status, Native Americans, and those with the lowest-income rates). Beyond that, all CAP agencies employ several of the following criteria (in no particular order) to prioritize the rest of their clients:

- High energy use
- Household size
- Geographic location
- Application date

The CAP agencies primarily secure contractors through normal bidding processes or, in one CAP agency's case, contractors utilized within the CAP agency itself. CAP agencies reported that determining and agreeing upon measures or improvements needed for a home often required a collaborative effort between contractors and CAP agencies, though responsibility fell upon the contractor to complete the installations. The CAP agencies did not provide contractors with additional incentives beyond project funding, but all reported positive relationships with the contractors.

In terms of addressing measures neither approved nor on the state's priority rebate list, all CAP agencies treat the whole home as much as possible, then use other available funding to create a blend of sources that covers as much remaining treatment as possible. All five CAP agencies said funding was almost always allocated to homes on an individual basis, depending on improvements needed and which sources covered what improvements. One CAP agency said that, with more funding, it could hire additional crews to treat more homes. In addition, one CAP agency noted difficulties in covering administrative costs with Avista supplying only 15% of the budget. All five CAP agencies ultimately considered Avista's funding sufficient and did not feel underbudgeted.

CAP agencies said the most-commonly installed measures included air/duct sealing, attic/floor/wall insulation, furnaces, and water heaters, while the least-commonly installed measures included appliances (such as refrigerators, heat pumps, windows, and doors).

Two of the five CAP agencies did not consider marketing and outreach as a priority. Typically, one had a robust waitlist of potential clients; another serviced as many homes as it could accommodate with the funding. Two respondents cited the Energy Assistance program as the program's primary marketing tool, while the final CAP agency relied on word-of-mouth, a website, and a monthly newsletter.

Successes

CAP agencies reported three major successes for the Low-Income program:

- ***Relationship with Avista:*** All five CAP agencies emphasized a positive relationship with Avista. Three CAP agencies cited collaboration and communication as a highlight of working with Avista staff. Two CAP agencies also reported that Avista staff were very helpful when issues arose and processed reimbursements very quickly.
- ***Positive customer feedback:*** All five CAP agencies reported that customer feedback was generally positive. Two CAP agencies specified that customers had been most satisfied with energy savings and the effects this had on their energy bills.
- ***Reliable data tracking systems:*** The CAP agencies did not report issues with their data tracking systems or with making their data available to Avista upon request.

Challenges

CAP agencies mentioned two challenges with the Low-Income program:

- ***Untreatable homes:*** Four of the five CAP agencies said the most common reason that customers did not qualify for the Low-Income program's home treatment arose when a house proved beyond repair due to plumbing or electrical system issues, a faulty roof, or hoarding. In such cases, treatment was deferred until the issues were resolved.
- ***Contractor availability:*** Three CAP agencies struggled to secure and retain contractors due to high competition rates and low volumes of trained professionals. High contractor turnover was problematic, given extended timelines for training new contractors. Three CAP agencies emphasized that, even though they were currently doing well, they would have difficulty in finding new contractors if their current contractors chose not to participate any longer. One CAP agency recommended Avista's assistance in incentivizing contractor participation, especially in rural areas. Another suggested developing and assisting with outreach at area high schools to promote trade schools.

Low-Income Conclusions and Recommendations

Low-Income Conclusions

- **CAP agencies and participating customers were highly satisfied with the Low-Income program.**

    - Avista and all five CAP agencies interviewed by Cadmus for PY 2019 emphasized positive, well-established relationships that were communicative and collaborative. Consequently, potential issues or changes that arose were easy to address.
    - All five CAP agencies reported that customers generally expressed positive feedback. Two CAP agencies said customers specifically had been satisfied with energy savings and with the program's effect on their energy bills.
- **The Low-Income program experienced high turnover among participating contractors.**
    - Three CAP agencies interviewed by Cadmus reported high turnover among contractors completing weatherization projects through the program—a problematic finding, given the contractors' low availability and highly competitive field.

Low-Income Recommendations

Low-Income Recommendation 1: Dedicate a small percentage of CAP agency funding to incentives (beyond each project's cost) for contractors that work on Low-Income program projects. Retaining contractors will prevent coverage losses and the need for CAP agencies to train new contractors, which, given training's time- and resource-intensive nature, can prove more costly than providing a small incentive to ensure contractors' loyalty to the CAPs and the program.