

Evaluation of Avista's Income Based Payment Program and Balance Management Arrangement Program Pilot Interim Evaluation Report

Submitted by Evergreen Economics

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I Executive Summary

In August 2018, Avista hired Evergreen Economics to evaluate a pilot program that has as its primary objective the easing of energy burden and reducing arrearages of low-income customers. The pilot program is comprised of two components: the Income Based Payment Program (IBPP) and the Balance Management Arrangement (BMA).

The IBPP targets customers with the lowest incomes (10 percent to 50 percent of the Federal Poverty Level, or FPL) to alleviate the burden of energy costs by reducing a customer's bill to 6 percent of their income. The IBPP fixed percentage discount is designed to address the affordability of energy while also keeping customers mindful of their energy use.

IBPP customers who had arrearages at the time of enrollment were also offered the opportunity to participate in the BMA component. BMA is a one-time benefit designed to assist eligible low-income participants by reducing arrearages and rewarding regular payment behavior for those customers who have arrearages or a balance they cannot pay at the time of IBPP enrollment. Customers can have 90 percent of their arrearages covered if they consistently pay 10 percent of their arrearages over the year of the pilot.

For this interim report, we present findings from three research activities shown below that reflect upon recruitment and the first seven months of pilot implementation.

Research Activities



Interviews with recruitment agencies and Avista staff



A review of participant and non-participant data



A mail and phone survey with participants who were dropped from the pilot after a missed payment

Interim findings will help guide the remaining research evaluation activities, which include conducting a statistical analysis of the effect the pilot is having on reducing arrearages and missed bill payments. We will also conduct a survey with pilot participants after a full year of participation to gather their feedback on the program.

Thus far, the research has shown that:

Recruitment is effective once contact has been made with a customer. Reaching
eligible customers has presented challenges, even for community based agencies,
due to customers having inconsistent phone availability and moving somewhat
frequently.



- The recruitment process is done manually and requires a significant amount of effort from both Avista and agency staff, on top of their existing tasks. There is a perception among recruitment and implementation staff that the cost to automate these manual processes would be high and possibly not worth the effort.
- The BMA offering is difficult to explain, but customers seem to understand it after they see how it is presented on their first few bills.
- Customers value the pilot, though agencies and Avista staff often need to explain the benefits before customers are willing to participate. Some households are initially skeptical that the monthly benefit will meet or exceed the one time annual credit that they are used to receiving.
- Customers have become accustomed to certain bill payment strategies. Some customers have adapted to knowing there will be a few months where the one time credit will mean they no longer have to pay a bill for a number of months, and some customers have adapted to understanding how to avoid payment until right before a disconnection occurs. To some of these customers, the pilot means they have to rethink their bill payment strategies and get used to making monthly payments.
- Thus far, disconnection rates have decreased, indicating that the pilot is helping participants pay their bills on time.



2 Introduction

On October 1, 2018, Avista launched a one-year pilot program (pilot) that included two programs: the Income Based Payment Program (IBPP) and the Balance Management Arrangement (BMA), with BMA participants a subset of customers enrolled in the IBPP. This report presents interim findings from the first seven months of the pilot. A brief description of each pilot component is included in Table 1.

Table 1: Pilot Offerings

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	Program Goal	Offering	Qualification Requirements	
ІВРР	Reduce rate of disconnections and/or arrearages while keeping customers mindful of their electricity usage	 Average benefit of \$1,050/participant¹ Fixed percentage discount that reduces monthly bill to approximately 6 percent of income taking prior year's usage into account 	 Electric residential customer (no dual service customers) or co-tenant² Household income 10%³ to 50% of federal poverty level After qualification, customer can choose between a one-time LIHEAP/LIRAP Heat grant, and pilot participation Qualified customers may not receive LIRAP Heat or LIHEAP while accepting the monthly reduction. They are also not able to be involved in Comfort Level Billing 	
ВМА	For customers: Encourage stable payment behavior Reduce burden of arrearages For Avista: Reduce disconnection and reconnection expenses Reduce bad debt carried	 90% of arrearages are amortized over 12 months; if the customer pays 10% of the arrearages over the 12-month period, 90% of the arrears are forgiven. Annual benefit not to exceed \$350 Customer can also seek emergency assistance which should cover the amount billed 	 Enrolled in IBPP Terminated after two missed payments (four total call attempts given, two after first missed payment, and two after the second missed payment) 	

¹ This will be updated in the final report after a full year of the pilot.

² If the co-tenant were removed from the account during the pilot, the discount would remain on the original account.

³ This was lowered to 6 percent during the course of recruitment.



The research issues for the broader evaluation included:

- Whether the pilot has significantly different impacts on participant disconnection rates compared to the existing Low Income Rate Assistance Program (LIRAP) Heat and/or the Low Income Home Energy Assistance Program (LIHEAP);
- The impact of the IBPP and/or BMA on participants' energy burden compared to LIRAP Heat and/or LIHEAP;
- Participant reactions to the pilot and the reasons customers selected the IBPP instead of a grant through the existing program;
- Process elements, including whether the process to qualify customers for the pilot is more or less resource intensive compared to the existing programs;
- The effectiveness of engagement methods; and
- Actual customer benefits compared to pilot expectations.

We conducted interviews with recruitment agencies and Avista staff, a review of participant and non-participant data, and a mail and phone survey with participants who have since been dropped from the program. Through these research activities, we are able to draw interim findings on the following topics:

- Pilot recruitment
- Participant demographics
- Pre-pilot participant assistance
- Participant usage patterns
- Arrearages
- Pilot expansion

Additional research activities to be conducted during the remainder of the evaluation will include conducting a statistical analysis of the effect the pilot is having on reducing arrearages and missed bill payments. We will also conduct a survey with pilot participants after a full year of participation to gather their feedback on the program.



3 Methodology

In this section, we share the methods used to conduct the three research activities that informed the findings in this interim report:

- Phone interviews with recruitment agencies and Avista staff;
- A review of participant and non-participant data; and
- A mail and phone survey with 7 participants who were dropped after missed payments.

Staff Interviews

In June 2018, Evergreen Economics conducted a total of four interviews with eight staff members at Avista, Spokane Neighborhood Action Partners (SNAP), and Rural Resources. In all but one interview, multiple staff members were present. Each interview lasted close to 45 minutes and covered the following topics: recruitment, LIRAP Heat/LIHEAP comparisons, and pilot progress. The interview guide for these discussions can be found in Appendix B.

Data Review

To conduct our analysis, we received various datasets from Avista. These datasets included payment history and source (paid by customer, LIRAP Heat, LIHEAP, emergency payment), disconnection history, and demographic data for all participants, BMA payment history for BMA participants, and billing and usage data for participants and a group of non-participants. For non-participant data, we requested data for customers that are receiving assistance through participation in LIRAP Heat or LIHEAP. Customers in this LIRAP/LIHEAP group have a higher potential for serving as an appropriate comparison group with the pilot participants, as the eligibility requirements are similar for these programs. This comparison group will be utilized to calculate pilot impact on energy consumption, energy burden, arrearages, and disconnects.

To ensure the quality of our analysis, we took several data cleaning steps including removing billing records that appeared to be duplicates and removing payments and bills that were subsequently cancelled. For much of our usage analysis, we focus on customers (both participant and non-participant) that had sufficient numbers of observations in summer, winter and shoulder seasons.

With the combined data on billing, payment, payment source, and disconnections, we were able to create a complete list of relevant events for each participant. Payments that appeared to come from LIHEAP, LIRAP Heat, or PSW (emergency payments) were attributed to those programs while all other payments were attributed to the account owner. We were provided demographic data at the individual level from both SNAP and



Rural Resources. The exact structure of these datasets was not the same, so demographic analysis was only conducted on fields in both datasets.

Mail and Phone Survey

In May 2018, Evergreen sent a pre-notice letter followed by a mail survey to a total of 16 pilot participants who were dropped from the program after missing a payment. If we did not get a response from customers via mail, we followed up via phone. We were able to complete surveys via mail or by phone with a total of 7 of the 16 dropped pilot participants.



4 Interim Findings

A total of 165⁴ Avista customers ultimately enrolled in the IBPP/BMA pilot. Fifty-seven percent of participants only participated in IBPP, with the remaining 43 percent participating in both IBPP and BMA. This section includes interim findings on pilot participation across the following subjects:

- Pilot Recruitment
- Prior Assistance
- Usage
- Demographics
- Arrearages and Disconnections
- Expansion

4.1 Pilot Recruitment

Avista partnered with two organizations to recruit existing customers into the IBPP portion of the pilot, and Avista CARES staff were responsible for following up with qualified IBPP participants to see if they were also interested in participating in BMA. In this section, we describe recruitment by each program element (IBPP and BMA).

4.1.1 IBPP Recruitment

The two agencies leveraged their client databases to recruit customers into the IBPP pilot include:

- **Spokane Neighborhood Action Partners (SNAP):** SNAP is a community action agency with 140 employees that covers three core activities. One of these core activities is focused on energy related needs, and recruitment for this pilot was implemented under that activity of the agency. (Snapwa.org)
- **Rural Resources:** Energy-related work (including LIHEAP and LIRAP Heat) comprises close to 25 percent of the activities performed by Rural Resources. The organization works with populations located in more rural regions of Washington. (Ruralresources.org)

The original target for the IBPP/BMA pilot was 300 participants; however, both agencies reported challenges in recruiting customers. Because of this, original outreach, which focused on households between 10 percent and 50 percent of the FPL, was expanded to include customers at (and above) 6 percent of the FPL. This widened the recruitment pool

⁴ We received usage data for 165 customers, but demographic data for 170 customers from recruitment agencies. Since usage data were required to determine participation in BMA, we refer to 165 participants.



to 90 customers from Rural Resources and 625 customers from SNAP (Table 2). A total of 170 customers were enrolled into IBPP by these agencies.

Table 2: Income Based Payment Program

Organization	Target	Eligible Customers ⁵	Customers Recruited
SNAP	225	625	134
Rural Resources	75	90	36

To inform customers of the total benefit they would receive, the agencies utilized a calculator that takes into account a number of factors to determine the benefit amount (which averages slightly over \$1,000). The factors that go into the calculation include excess burden, income to calculate the maximum energy burden, monthly discount amount, and the annual electric bill.⁶

The agencies reported the following barriers to recruitment:

- The targeted population is mobile and phones may be shut off, making it challenging for community agencies to reach eligible customers. When agencies were able to reach customers, "most of the people [Rural Resources] got a hold of were interested."
- A small number of customers initially preferred the single annual payment they were receiving before, and had to be convinced that the IBPP benefit was greater over time. "They loved it later."
- Timing of recruitment is not ideal. According to one agency staff interviewee, recruitment did not occur in the heating season, when customers are more concerned with their bill amount. They suggested that a rolling recruitment period may be beneficial in the future. A Rural Resources staff member noted that they are already busy in the "recruitment seasons" as recruitment for the pilot aligns with recruitment for LIRAP Heat/LIHEAP. During this time, LIRAP Heat/LIHEAP enrollment is limited not by funding, but by staff availability to process applications.
- Particularly among rural customers, there was a there was a lower percentage of customers with electric heating, which was a requirement for participation.

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⁵ Customers were eligible if they were between 10 to 50 percent of the federal poverty level and had received grants in the past. If customers have an energy assistance credit on their account, customers are not candidates if their energy assistance credit is greater than their annual energy burden.

⁶ For a customer that does not reside in the home for a year or more, a surrogate amount is used for the calculation of their annual electric bill.



The agencies also noted parts of the recruitment process that went well, including:

- Communication with Avista; and
- The recruitment extension period, which allowed more people who had heard of the program by word of mouth to be served.

4.1.2 BMA Recruitment

CARES staff at Avista recruit qualified potential IBPP enrollees to participate in the BMA. CARES staff receive data from the agencies via a secure site, and reach out to all IBPP enrolled customers who also have arrearages or an unpaid balance. This task is performed by CARES staff because they have the most up-to-date information on arrearages. CARES staff attempt to reach each customer three times by phone and at least once by mail.

CARES staff were able to recruit over 70 IBPP participants to also participate in the BMA pilot, but they faced a number of challenges:

- The recruitment process is very manual, and thus time consuming. Multiple staff suggested that it would take a large amount of effort to make the process more automated.
- Agencies are unable to access the most current arrearages data, meaning Avista cannot leverage agency help with customer recruitment into BMA.
- **In the long term, there is a risk of misaligned incentives.** One agency expressed that by advertising BMA to customers without arrearages, they may unintentionally encourage them to stop paying bills with hopes of future participation in BMA.
- Customers were difficult to contact. Even after being contacted by an agency, customers were not always responsive to Avista's outreach. This may in part be due to a lack of trust with Avista, compared to community agencies, though one goal of this pilot is to make customers more comfortable coming to Avista for help. One staff member from SNAP reported that "there is a natural fear of people in poverty talking with their utility. They feel like there is a big power differential and they don't feel as comfortable talking to them on their own." CARES staff had suggested that agencies include them in initial outreach calls, but this idea did not gain traction at the agency level.
- When able to reach customers, the program is challenging to explain, though customers often understood the benefit and process once they saw their first few bills. Describing the program in percentages terms can make the program hard to conceptualize from the perspective of a possible participant. This generally changes once customers see how the assistance payment looks on a bill. As one interview stated, "After the third month of bills, we got a lot less phone calls."



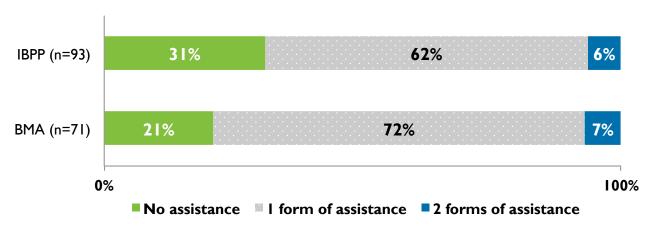
• The timing of the first BMA payment confused customers. Between recruitment and the time that the 90 percent payment showed up on their bill, there was one bill that appeared with no reduction, causing confused customers to call Avista.

4.2 Prior Assistance

To get a sense of how the program participants leveraged assistance to pay their bills *before* the pilot, we reviewed past assistance participation data covering an average of 15 months per household. The majority of participants utilized only one out of three forms of assistance that we reviewed: LIRAP Heat, LIHEAP, or an emergency payment (Figure 1). Over 20 percent of participants did not use any form of assistance.

This is an important consideration when creating a comparison group. The comparison group is being built from non-pilot participants who have utilized LIHEAP, LIRAP Heat, or an emergency payment in the past and will exclude those without any previous assistance. One other major difference between the comparison group and the participants is the requirement for documentation. For federal funds, customers must present proof of citizenship or qualified immigrant status, whereas an undocumented customer could participate in the pilot. We believe this approach for finding a comparison is still the most accurate, given data availability.

Figure 1: Total Forms of Assistance Utilized per Person (over an average of 15 months before pilot participation)



The most common form of assistance was LIRAP Heat, followed by LIHEAP (Figure 2).



50% 40% 40% 30% ■BMA (n=71) 20% 21% ■ IBPP (n=93) 10% 0% **LIHEAP LIRAP Emergency** % with no **Payment** previous assistance

Figure 2: Percent of Participants Who Used Other Form of Assistance

4.3 Usage

On average, among pilot participants, those only participating in IBPP have higher usage peaks and lower usage valleys (Figure 3), meaning they likely have higher seasonal bill swings. They also have higher bills on average, with the average bill being \$91.14 among those in the IPBB program only, and \$65.64 among those enrolled in BMA. These differences may also be due to differences in home size or number of residents, but we are unable to confirm this by tying usage data to the demographic data.



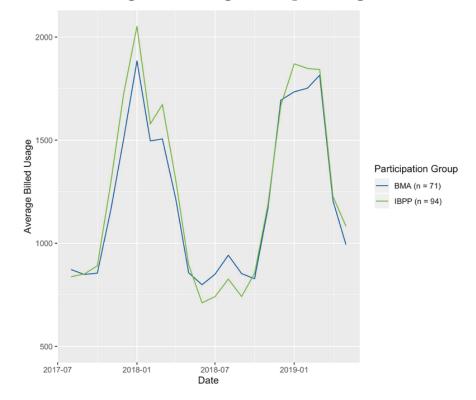


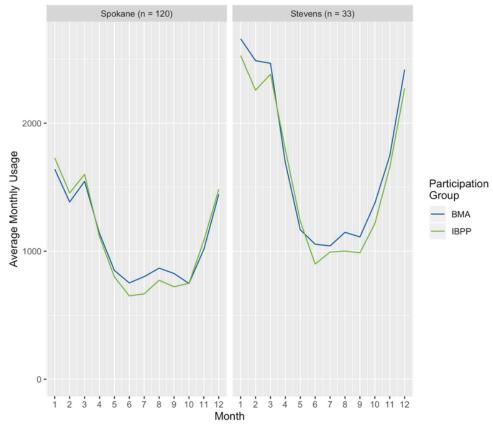
Figure 3: Average Participant Usage

Another way of looking at usage is by which month usage was the highest among participants. For both IBPP and IBPP/BMA participants, the month that resulted in the highest usage was January (61% each).

Usage differs across the two main counties in which the participants live (Spokane and Stevens Counties). These differences are not explained by significant weather variation between the two counties and may instead be related to building characteristics or usage patterns (Figure 4).



Figure 4: Variation in Annual Usage in Selected Counties





4.4 Demographics

In this section, we share demographic data to help understand the types of customers who are being recruited and are then enrolling in the pilot.⁷

The households that enrolled in the pilot range in household size as shown in Figure 5. This includes a small portion of customers that have since been removed from the pilot (mostly due to missed payments). Thirty-seven percent of households have no children, while 9 percent have four or more children.

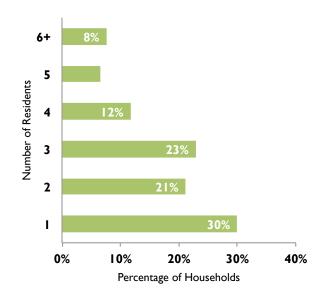


Figure 5: Number of People in Household

The proportion of participant households with an elderly member is much lower compared to the broader population, which is to be expected, as the program targets customers with *some* income, and older customers are more likely to be retired. Ten percent of the participant population has a resident that is 60 or older, and in Spokane and Stevens Counties, the number of households with someone 60 or older is 42.9 percent and 32.9 percent, respectively.⁸

There is a high percentage (44%) of households have at least one resident with a disability (defined by the recruitment agencies).

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⁷ Note that the data presented here include 12 customers who eventually were dropped from the pilot due to unpaid bills. We chose to keep them in for our analysis to better understand the characteristics of the customers that originally enrolled in the pilot.

⁸ According to the 2010 Community Housing Survey.



In three quarters of the pilot households, all adults are considered income earners. In these homes, there are an average of 1.07 total adults, meaning that **most households in which all adults are income earners are single adult households**. With the exception of four households, half of the adults in the household earn an income.

4.5 Arrearages and Disconnections

One major goal of the pilot is to reduce the number of disconnections among low-income customers. Customers are disconnected after one unpaid bill, though generally the disconnection process can take up to three months to occur after a missed payment (Figure 6). For the Pilot, CARES staff calls all customers who have missed a payment to discuss the possibility of being terminated from the program. Upon the second missed payment, CARES staff will make two more call attempts.

Program implementers (both at Avista and those who recruited customers into the pilot) are aware that customers sometimes utilize this lag in order to delay payment until right before disconnection. This allows them to focus on other bills.

Figure 6: Avista Disconnection Process



Thus far, the pilot has greatly reduced the average number of disconnections on a monthly basis, per participant, as shown in Figure 7. For those enrolled in BMA (in addition to IBPP), they have had no removals since the pilot started. In the months that the pilot has been active thus far (October 2018 through May 2019), the average disconnections per participant per month has decreased dramatically from prior years among the IBPP participants (Figure 7). This aligns with what we heard from Avista CARES staff: "I don't know what the exact number is but we have a lot that are perfect—every month on time without fail—before that, they didn't generally do that."

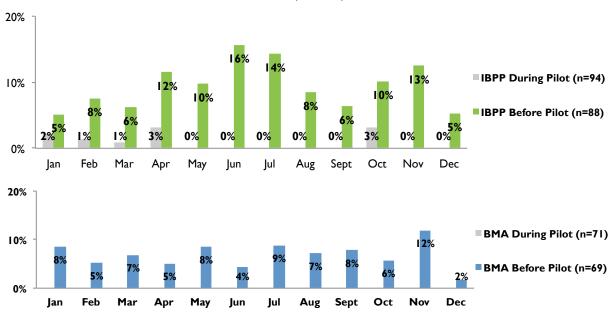
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⁹ Four customer IDs from the dropout group did not appear in data provided by Avista. None of the customer IDs appeared in the BMA data, leading us to assume that no BMA participants had dropped out of the program at the point of analysis.



Figure 7: Average Severances per Participant per Month, Before and During the Pilot (n=168)



Despite the reduced number of missed payments, we still saw a portion of participants get removed from the pilot due to missed payments. To better understand what events or circumstances lead customers to miss bills after enrollment in the pilot, we surveyed all customers who had had removals in the first five months of the pilot. The survey that was mailed to the 16 customers is shown in Appendix A.

Of the 16 customers who had been removed from the pilot, we were able to reach a total of seven customers either via mail survey or a phone call. Customers received \$50 for taking part in this research.

All survey respondents were originally enrolled in IBPP, and an additional four reported being in the BMA pilot as well, though this was not reflected in the data. This indicates these four customers may not be clear on which parts of the pilot they are involved in. In Figure 7, we show no removals for BMA participants.¹⁰

All seven respondents reported that they were removed from the program due to missing one or more monthly payments. Two respondents reported that they wish they had an opportunity to explain why they missed their bill(s) so that they could get back on the rate.

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¹⁰ Severance data were available for 13 of the 16 customers who were removed from the program. This may be due to differences in the timing of each set of data.



- "...There is no grievance program so I could explain my situation and possibly get back on."
- "Maybe give more chances on payments because sometimes things happen and funds are not available."

Two respondents explained why they missed their payments. The first respondent had double hand surgery and fell behind, and the second was laid off from their seasonal job. One of the recruitment agency staff also brought up job loss and noted that there is no way to adjust offerings as income adjusts throughout the pilot period. A third respondent did not give an explanation for missing a payment but noted that they were "moving back to Seattle, anyways."

Respondents were very happy with the program while they were active participants:

- They thought the program was clear. Four respondents reported the details being very clear, two thought they were somewhat clear, and only one thought the details were somewhat confusing.
- They knew whom to contact if they had questions. All but one respondent reported that they knew whom to contact if they had any questions regarding the details of the program.
- They noticed lower bills, and thus a lower energy burden. Overall, surveyed program participants expressed high levels of satisfaction while enrolled in the pilot program with all seven respondents noting that the reduced monthly bill helped lessen the burden of energy costs. One respondent went on to note, "I liked that we are still paying a bill, just at a lower rate."
- They recommended the program to friends and/or family. All but one respondent recommended the program to friends and family. This aligned with what we heard from one of the recruitment agencies that noted that enrollment in the pilot started to gain traction through word of mouth.

One respondent suggested a way in which they thought Avista could help them in terms of bill assistance. They suggested having the benefit help to create a flat payment amount across each month. This participant was likely unaware of Avista's Comfort Level Billing program.

4.6 Pilot Expansion

While it is too soon to draw conclusions on the results of the pilot, we asked staff who have recruited for and implemented the pilot program about their thoughts on potential pilot expansion. They noted the following:

• It will be challenging to make recruitment less time intensive. Any automation may be time and budget intensive.



- Even post recruitment, Avista CARES spends a portion of staff time on monitoring and management. After recruitment, Avista CARES staff enrolls, monitors, and manages customers in the pilot. Between November 2018 and January 2019, CARES staff spent an average of 21.7 hours collectively per month on this work. Despite this, CARES staff reported that after recruitment, "It's easy we have it all set up," though they also added that the personal touch of following up with customers, and monitoring their payments, can be a burden. A few customers even complained about being called about past due bills when they were so much smaller than they had been in the past.
- There are certain segments of the population that this program helps to serve. IBPP is very helpful for those at the lowest income range. When compared to LIRAP Heat and LIHEAP, one agency staff member reported that this pilot would give a "bigger benefit to fewer people." Another noted that some of their customers could get a larger benefit from LIRAP Heat/LIHEAP compared to the pilot. There is also still a need to address the portion of the population with no income. One recruitment staff member reported that there were a few customers who were high users and thus benefited more from LIRAP Heat/LIHEAP over IBPP.
- The BMA portion of the program may unintentionally encourage customers to not pay their bill, knowing that Avista may eventually help them pay off their unpaid bills at a later date.
- The program does not currently allow for customers to report a change in income. We heard this both from customers in the dropped customer survey and from program staff. This would be beneficial for some customers but may cause others to miss payments.
- In the future, the IBPP recruitment may be better to do year round for the following reasons: It spreads recruitment across a period of time in which the agencies are already busy with LIRAP Heat and LIHEAP and would allow for customers to learn about the program via word of mouth, which often takes a longer period of time. BMA, unlike IBPP, is better served by once-a-year recruitment due to the funding schedule.

Many of these interim findings will be considered as Evergreen develops a survey geared towards all program participants. Implementation and recruitment staff are also interested in learning about the following from customers as we prepare to survey them:

- Was it easy for customers to read the bill and to identify discounts and payments?
- Is it easier to manage household budgets while participating in the pilot?
- Did the pilot help to improve communication with Avista? (i.e., were customers more comfortable reaching out to Avista when customers were unable to make a payment?)



- Do customers consciously wait to pay bills until they run close to the time of disconnection?
- How do those with the lowest incomes manage to pay their bills?



5 Comparison Group Development

To prepare for our final analysis comparing participant data to non-participant data, we have begun the process of developing a comparison group. This comparison group will be used to produce rigorous statistical estimates of the following:

- Pilot impact on energy costs
- Pilot impact on energy consumption
- Pilot impact on disconnects
- Pilot impact on arrearages
- Pilot impact on energy burden
- Pilot success at achieving goal of having energy costs at 6% of income

We did this by taking non-participant data from Avista electric customers who have utilized other bill assistance programs as described in Table 3. Seventy to 80 percent of pilot participants utilized at least one of these programs in the past 15 months.

Table 3: Electric Customers for Comparison Group

Program	Description		
Low Income Rate Assistance (LIRAP) Heat	Ratepayer funded heating assistance for customers below 150% of the \ensuremath{FPL}		
Low Income Home Energy Assistance Program (LIHEAP)	Once-a-year federally funded heating assistance		
Emergency Payment	One time payment assistance to cover a bill and avoid being disconnected		
Senior/Disabled	For customers in the 126% to 200% of FPL range. Includes payment arrangements, preferred due dates, and Comfort Level Billing, which evens out monthly payments.		

As a first step, we compared the usage from the entire comparison group to the participant group. Figure 8 shows how the average annual load shape of BMA and IBPP participants compared to the full comparison pool. The comparison population has a lower lower load shape which is brought down by numerous accounts that tend to have very little usage, especially when compared to participants. For much of our usage analysis, we focus on customers (both participant and non-participant) that had sufficient number observations in summer, winter and shoulder seasons. For our next step, we sought to refine the comparison population to confirm that it was still a usable control group when compared to the participant group.



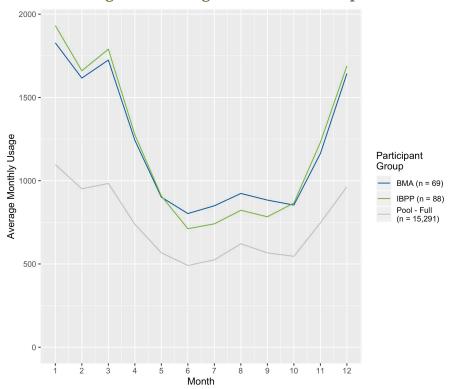


Figure 8: Average Annual Load Shape

To refine our comparison pool, we selected customers that had similar large-scale usage characteristics to the participants. To do this, we first calculated average annual load shapes for each customer and then determined the minimum, median, mean, and maximum usage within each load shape. The same calculation was then done for the full comparison pool. The selected comparison pool was defined as comparison group members whose minimum, median, mean, and maximum average monthly usage fell within the range of the same statistics for the participant population. From the full usable comparison population of 21,917 customers, 12,414 customers were selected to move forward in the comparison process. Figure 9 shows how the average annual load shape of this selected comparison population compares with program participants. Overall, the load shape for the select comparison group is much closer to that of the participants.



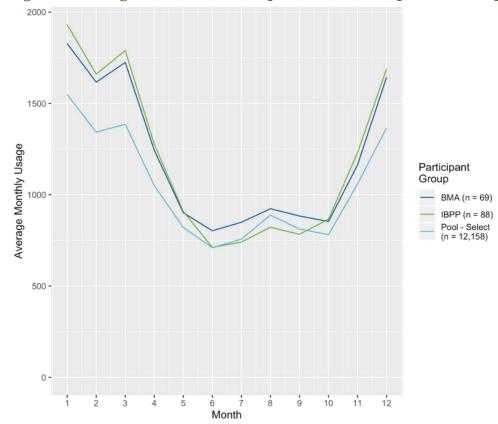


Figure 9: Average Annual Load Shape for Select Comparison Group

In the coming months, we will follow the steps outlined in Figure 10 create a final comparison group from the selected comparison pool. In summary, this process involves using estimated month-by-month consumption to find the comparison group members that consume energy most similarly to program participants.



Figure 10: Comparison Group Creation Process

- 1. For participants and non-participants, create estimated pre-period daily usage from monthly billing data by averaging usage across bill days.
- 2. Recalculate monthly usage for each calendar month (rather than each bill).
- 3. For each participant, compare monthly usage to all non-participants by calculating the sum of square error and absolute maximum error.
- 4. For each participant, select the non-participants with the lowest combined rank in sum of square error and absolute maximum error.
- 5. As a cross-validation step, compare the bill periodicity (when in the month bills typically occur) between participants and matching non-participants.



6 Interim Findings

Although the pilot has not yet run for a full year, we can begin to draw conclusions regarding a selection of the overarching research questions.

Is the process to qualify customers for the pilot more or less resource intensive compared to the existing program?

This process is very time intensive both for agency and Avista staff. For agency staff, IBPP recruitment aligned with the timing for recruitment into LIRAP Heat/LIHEAP, where it is already a struggle to meet demand. We also heard from multiple interviewees that the recruitment process is very manual and that to automate the process would be expensive and time consuming. For both agencies *and* Avista CARES staff, this pilot has required additional work on top of an already full schedule. For CARES staff, this continued beyond the recruitment phase with tracking and follow-up communication.

Additionally, we heard that a goal of this program is to create a better relationship between customers and Avista staff by making customers more comfortable contacting Avista when they are having trouble making a payment. Avista staff attempted to open the lines of communication by reaching out to pilot participants who were late with a payment, which sometimes backfired, causing customers to get frustrated that they were being bothered when their payments due were so much lower than they had been in the past. It remains to be seen if the pilot has been successful in making customers more comfortable reaching out to Avista staff.

How effective are engagement methods?

Pilot participants are receptive to the pilot offering(s) once agencies and Avista staff are able to contact them, but there is a challenge in getting customers to respond to outreach, both from the agency perspective and from Avista when recruiting for BMA.

One agency staff member reported that by expanding the recruitment window, they were able to recruit additional customers who had learned of the program pilot via word of mouth, suggesting that this could be a useful recruitment vehicle if the pilot is expanded to a full program.

Despite BMA being difficult to explain to customers, after a few bills, customers seem to understand how the program works. It would be beneficial for customers to hear about both elements of the pilot (IBPP and BMA) during initial agency contact, but there are barriers to having agencies recruit for BMA, including an inability to have the most recent data on arrearages (at this point, only Avista has that information) and the possibility of



unintentionally incentivizing a customer to miss payments in hopes that they can eventually participate in a BMA type of offering from Avista.

How are participants reacting to the pilot and why did customers select the IBPP instead of a grant through the existing program?

Avista and recruitment staff reported that customer calls with questions about the pilot slowed after the first couple months of participation, suggesting that confusion about the pilot may be subsiding. Early analysis indicates that customers are seeing reduced missed payments compared to prior years, and customers who were removed from the pilot reported being very happy with the pilot while they were enrolled.

For some customers, the total IBPP benefit is larger than what they could receive with past assistance options that they used, making participation an easier choice. A few customers reported to recruitment staff that they preferred the one-time credit since it meant they did not have to worry about their bills for a few months. IBPP also is open to more households compared to federally funded assistance programs, since it does not require the same documentation requirements.

Compared to the broader population, the group of pilot participants includes households that are less likely to have residents over 60 years old. In close to 75 percent of participant households, all adults are income earners. Most households participating in the program consist of a single adult.

Has the pilot impacted disconnection rates compared to existing LIRAP Heat and/or LIHEAP?

Disconnection rates have lowered when we compare participants to their past disconnection rates, month to month. Once we finalize the comparison group, we can conclude if this is also the case when compared to non-participants who are current LIRAP Heat and/or LIHEAP beneficiaries.

What is the cause of households missing payments while enrolled in the pilot?

All six dropped pilot participants we heard from reported that they were unable to make a payment and were removed from the program. One responded that they had a seasonal job at the time of enrollment and was then laid off, causing their income to change. There is no mechanism in the pilot to update income information, which could work to the benefit of some participants and to the detriment of others. Another respondent had surgery, making it difficult for them to cover their bills.



The remaining questions will be answered during the remainder of the evaluation via the finalization of a comparison group, statistical analysis of billing data, and a survey of pilot participants:

- What are the actual customer benefits compared to pilot expectations?
- Has the pilot has significantly different impacts on participant disconnection rates compared to the existing LIRAP Heat and/or LIHEAP programs?
- What is the impact of the IBPP and/or BMA on participants' energy burden compared to the existing program?



Appendix A: Dropout Survey

Avista Bill Assistance Feedback Survey

First, how long have you lived at [address]?					
☐ Less than 6 months ☐ More than 6 months					
Avista has two programs that help to reduce bills or save money. Our records show that you were enrolled in one or both of these programs by the Spokane Neighborhood Action Partners (SNAP) or Rural Resources:					
Income-Based Payment Program Balance Management Arrangement Program					
Discounts your electricity bill to a lower amount based on your income. Reduces the amount you owe on past bills for each month that you pay on time going forward.					
Do you remember participating in either one of the programs described above? Yes No Don't know, please pass the survey to someone in your household who may remember these programs					
How did you hear about the bill assistance program? SNAP Resources Avista Other:					
Were the details of the program clear when they were explained to you?					
Very Somewhat Clear Confusing Confusing Confusing Clear Clear Clear Confusing Clear					
Did you know who to contact if you had questions about the program?					
Yes No Did not need to Don't know					
Would you recommend this program to a friend or family?					
Yes No Don't know					
What did you like about the program?					
What did you dislike about the program?					

^{*} Please complete both sides *



Avista Bill Assistance Feedback Survey

_	notice a change in your bill? Yes, it decreased Yes, it increased	□ No	☐ Don't kno	w
What d	o you think would make Avist	a's bill assista	nce better?	
Can you	ı share with us why you left th	e program?		
		_		
="	Who should we make out to Clearly write your name:	the \$50 check	c to?	
_	Where should we mail the	\$50 check?		
A	Street		City	Zip
	If we have additional quest	ions, what is	the best way for	us to contact you?
₩ □ Phone: () □ Email:				
	Please send this back to us envelope.	in the includ	ed self addressed	l stamped
have	a has hired Evergreen Economics to h questions about the validity of this st yould like clarification about the surve	tudy, please cont	act Avista CARES at	1.888.700.2757. If



Appendix B: Staff Interview Guide

Below is the guide used during interviews with staff from Avista, SNAP, and Rural Resources.

Outreach/Recruitment

Can you tell me a bit about the process for recruiting folks into the IBPP and BMA pilot?

How did you identify customers who should be also recruited into BMA?

What benefits do you think customers gain from participating in the pilot?

Who do you think was most responsive to the pilot offer?

Who do you think was not interested in the pilot? Why?

How did you track recruitment? Can you think of any ways you'd improve that next time?

During active recruitment, how much time did you spend (as a percentage of your week) on recruitment activities (identifying customers, calling customers, tracking data)? What part was the most time consuming?

How much time do you spend now, answering customer questions and following up with them?

LIRAP/LIHEAP comparisons

Can you tell me about your work/experience with LIRAP/LIHEAP?

If have experience with LIRAP/LIHEAP ask:

How do recruitment and the qualification process vary for the pilot compared to LIRAP/LIHEAP?

What advantages do you see with the pilot compared to LIRAP/LIHEAP?

What disadvantages do you see with the pilot compared to LIRAP/LIHEAP?

Pilot Progress

Given that the pilot has been going on for about 6 months now I want to ask you about how you think it's going.

What are the challenges from your perspective, implementing the pilot?

What are the successes you've seen, implementing the pilot?

Have you heard from customers about their experience? If so - what have you heard? (Probe on pros, cons of participation)

Is there anything in particular you are curious about from the customer perspective? Any questions we should be sure to ask them?

Is there anything you'd change if you were to run this pilot all over again?

Is there anything else we should discuss?

[Rural resources and SNAP only] Is there any other help you'd like to receive from Avista?