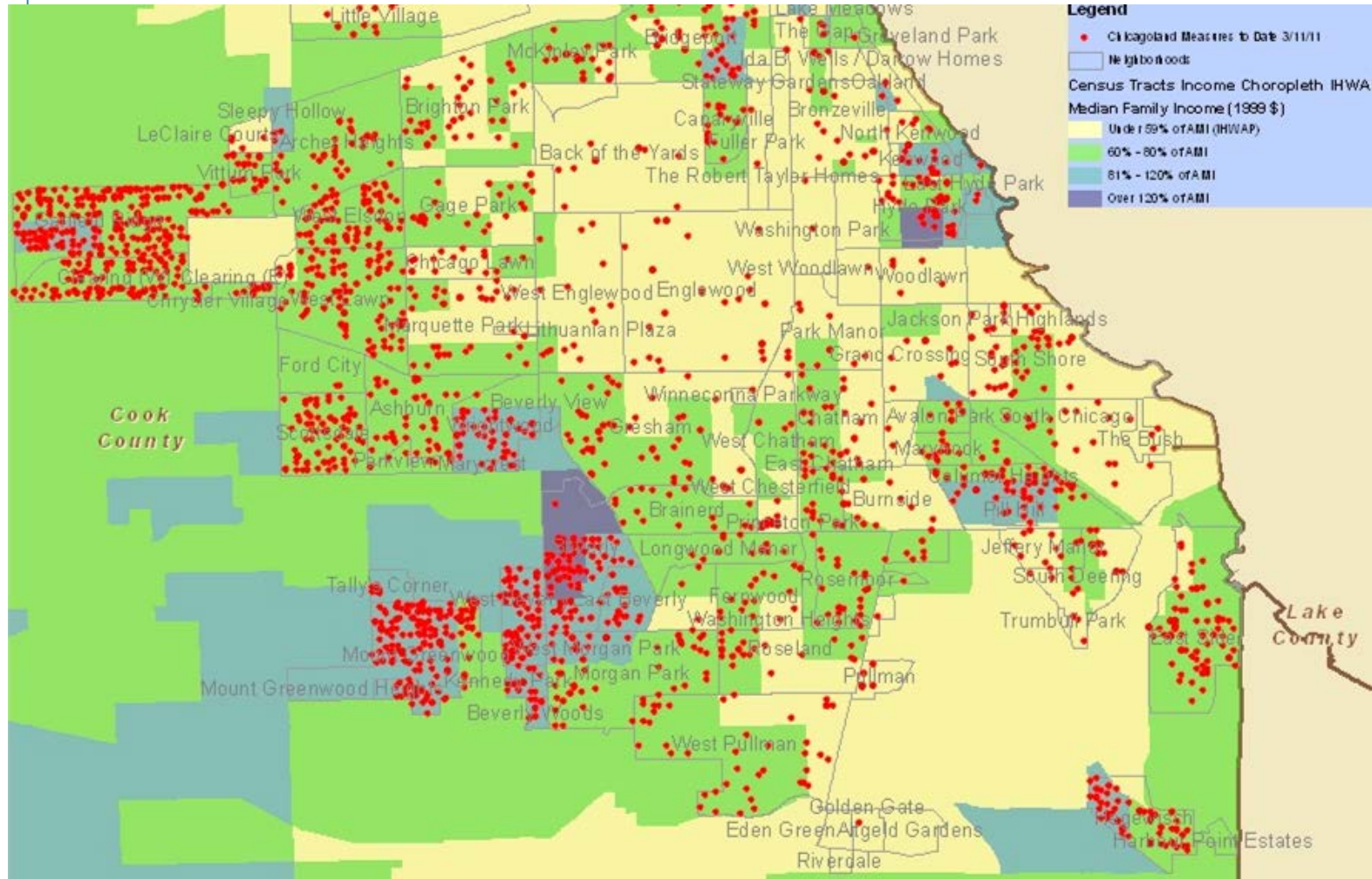


DELTAALUMIN

Helping you make smarter decisions about energy use.



Our unique problem with low-income energy use



Low-income customers differentially take advantage of utility incentive programs, and sometimes have to take subsidies to stay current on their bills and avoid shutoffs. These compound, making the problem worse.

There is a better way: customers that are more aware of their energy costs and given contextual messaging to make changes reduce their usage by 15% to 25% and reducing arrears.

This awareness can lead to purchasing behavior changes that improve efficiency, permanently reducing bills for customers that are least able to pay them.

Better use of program funds leads to **reduced costs** for all ratepayers and fewer expenses for utilities.

Furnace and boiler installations and their incentives (red dots) in the Peoples Gas Natural Gas Energy Efficiency Program were not implemented by low-income customers in the tan census tracts in 2011. This was found to be due to both education and economic realities.

DeltaLumin helps people make better decisions about their energy use enabled by advances in smart grid technology.

DeltaLumin is a software-driven product focused on **low-moderate income utility customers**. It utilizes data made available by the smart grid to serve personal information about current and past spending to **change customer behavior**, working with what motivates them to **keep up to date with their bills, use energy more wisely, make energy-smart purchasing decisions, and reward them for action**.



LESLEY

“One month I’d pay the whole bill at once, and another I’d pay weekly. I’d set it up to match my work—depending on my payment cycles with the employer.”





ROBERT

“It wouldn’t just be dad having a rant. I can share with my family and have real data to talk about... We can look and see what we are doing and make decisions as a family.”

LAVERNE

“We’re only two people. We know where the money is going.”

MIKE

“I know my three killers are the fridge, the freezer, and the boiler. I can’t afford to upgrade now.”





ALICE

“I was so happy to see this little boy jumping around, playing and wearing my granddaughter’s shoes.”

How might we...

- Illuminate energy use and engage people by putting it into *their* context.
- Provide flexibility and connect payment to energy awareness.
- Identify problem areas and help people set goals to fix them.
- Enable people to give back to communities and people they care about.


```
graph TD; A((Illuminate)) --> B((Set Goals)); A --> C((Give Back)); A --> D((Flexibility));
```

Illuminate

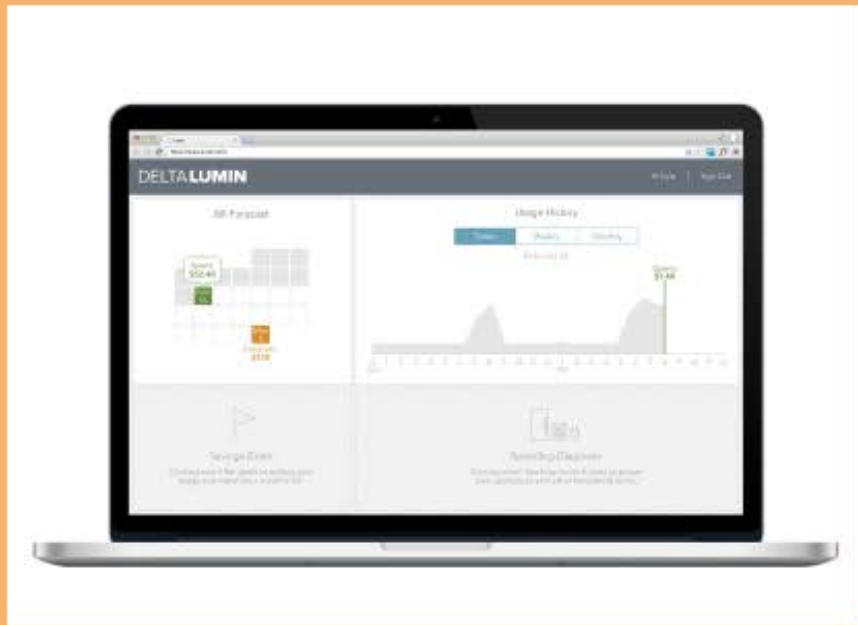
Set Goals

Give Back

Flexibility

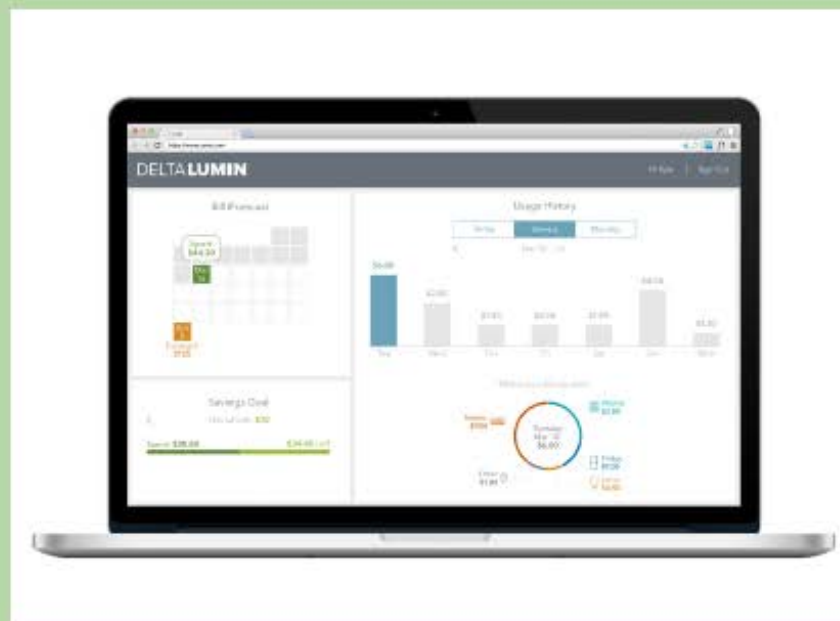
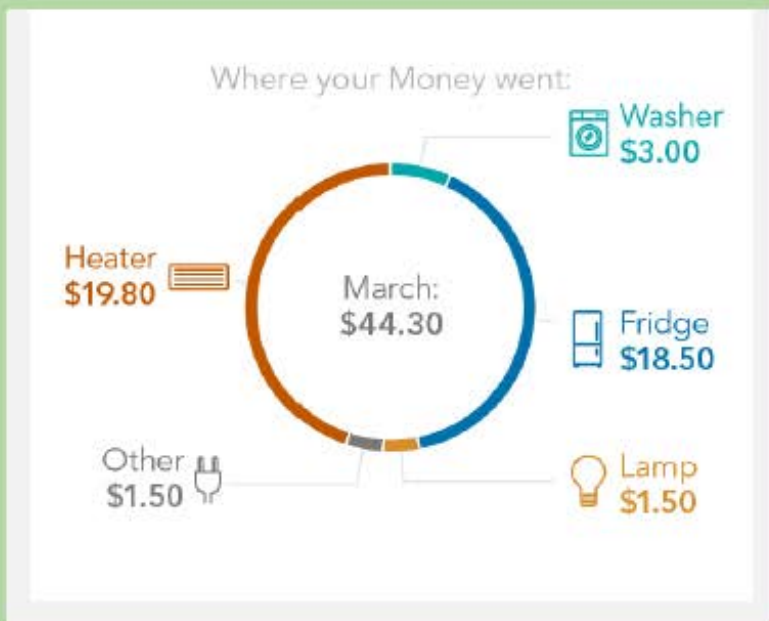
Bill Forecast & Use

Participants get updates on what they've spent and a mid-month projection—in dollars—of where they are headed for their next bill based on what they've used so far. The dashboard illuminates the household's real-time use.



Spending Diagnosis

This tool illuminates just how much energy that a person's stuff is using/how much it costs to use this stuff—putting their bill into the context of their lives. This helps people to gain understanding of how they are using energy.



Goal Setting

Participants set up a guided goal to lower their monthly bill. They receive regular updates to gauge progress and feedback towards small achievable goals, helping them to understand the impact and control they can have through behavior change.



New This Month

Set a goal

Your electric bill is usually around \$50.00 this time of year (based on last year's bills). Your May goal is to **spend below \$40.00**. Remember, you'll get money when you save money!

Accept Goal

Savings Goal

< This Month: **\$70**

Spent: **\$35.60** **\$34.40** Left

Rewards, Rebates & Giving Back

When participants meet their goals they receive a money reward. They then have a choice to receive a rebate or share this reward to a local charity in their neighborhood.

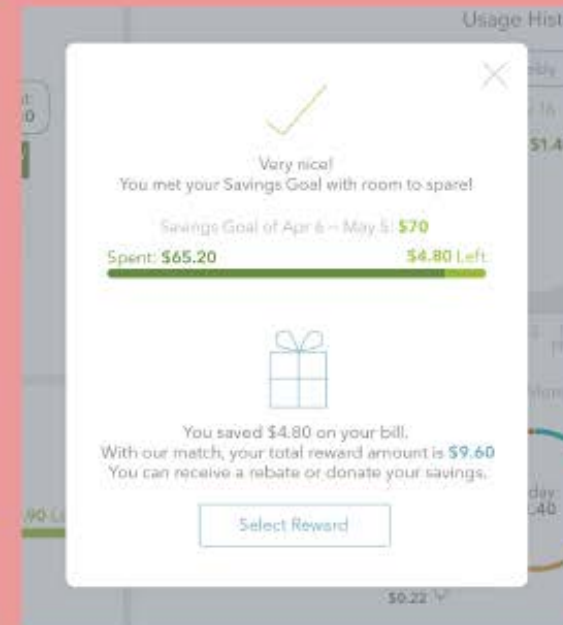
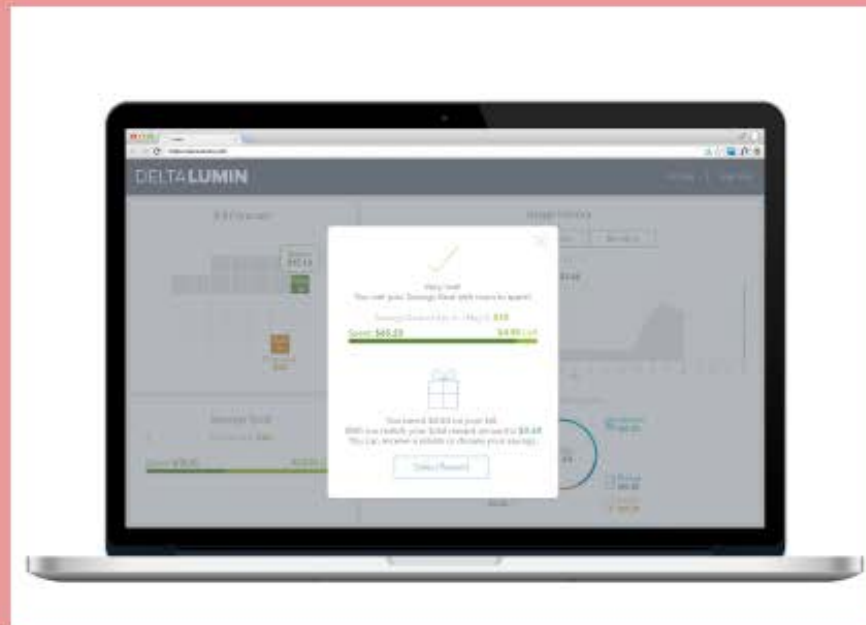
New This Month

Redeem your reward and accept your new goal

Your savings + your reward = \$9.60. Choose to receive a rebate or donate your money to a charity.

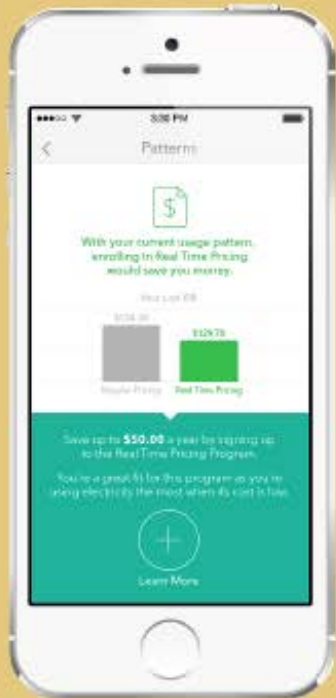
Set another goal: Your electric bill is usually around \$50.00 this time of year (based on last year's bills). Your May goal is to spend below \$40.00. Remember, you'll get money when you save money!

[Redeem/Accept](#)

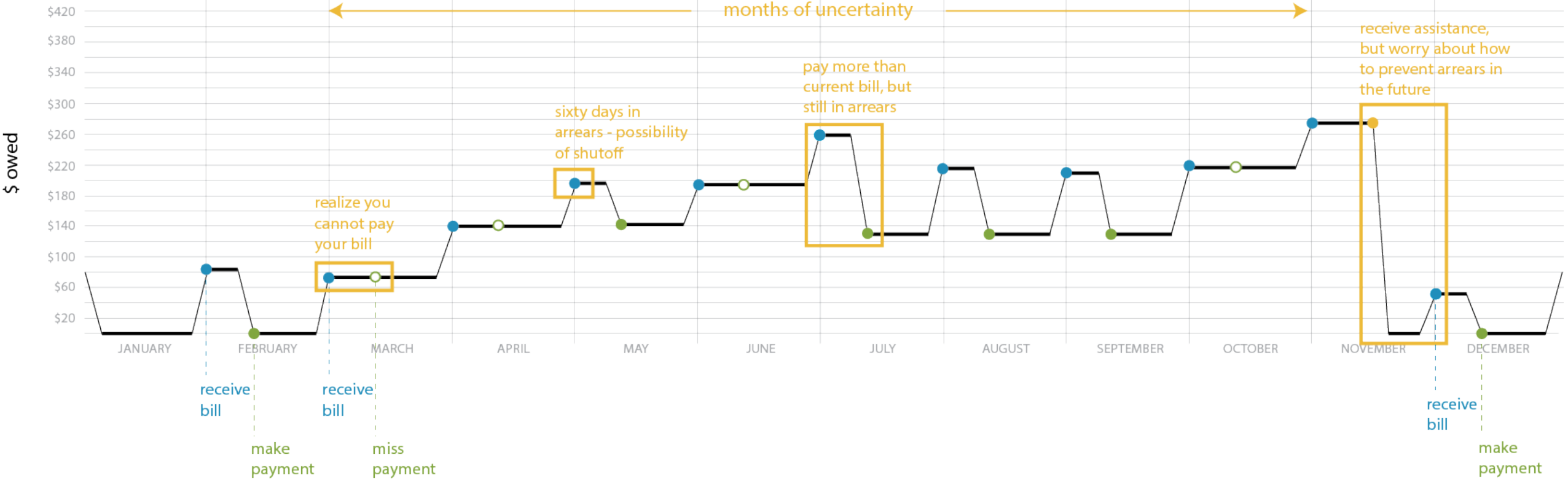


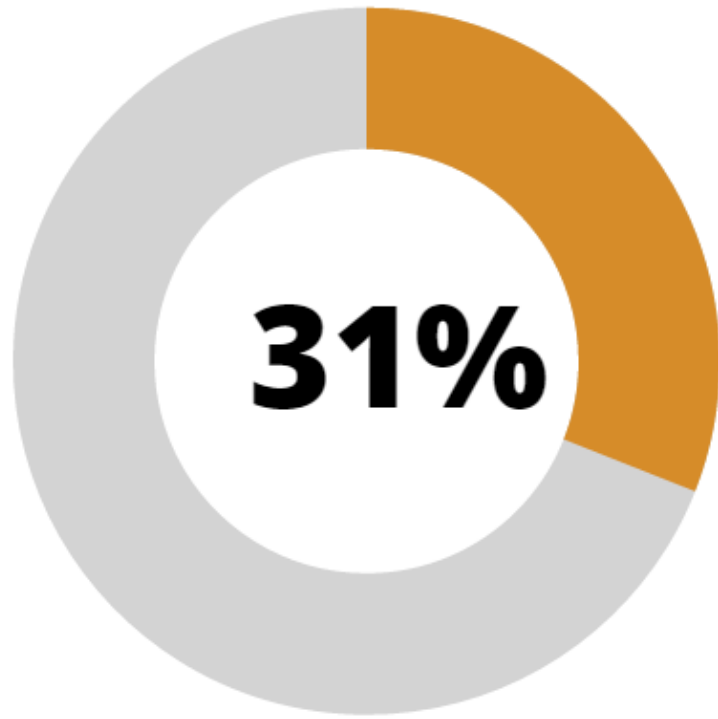
Personalized Program Match

Based on how individuals use energy, we'll connect them to existing programs they may already qualify for, but were not aware of, that could help you save more money.



Low-Income Customer Experience Map





Feature Evaluation: Readability

Participants generally found DeltaLumin communication materials easier to understand than their conventional utility bills. With the introduction of each new feature, participants were asked to evaluate its understandability by answering the following question: "How much do you agree or disagree with the following statement: 'It is easy to understand my [feature].'" *Note: Participants responded to this question before discussing the new feature with a DeltaLumin staff member, with the exception of the Program Match feature, which, due to programmatic timeline constraints, was surveyed after group discussion.*

At the Pilot kick-off, **31% of participants reported that they agreed or strongly agreed that it is easy to understand their conventional utility bill.**

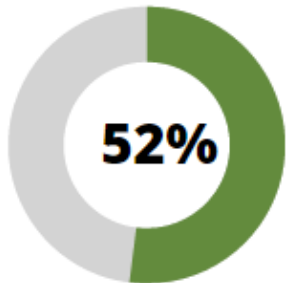
After the introduction of each feature:

- 52% of participants** agreed or strongly agreed that Spending Forecast was easy to understand,
- 60% of participants** agreed or strongly agreed that Appliance Diagnosis was easy to understand,
- 68% of participants** agreed or strongly agreed that Energy Spending Goal was easy to understand, and
- 85% of participants** agreed or strongly agreed that Program Match was easy to understand.

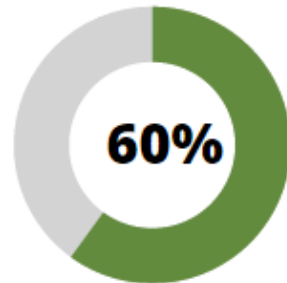
This widespread understanding of the feature set was encouraging. Next, we looked at how participants' comprehension translated into action or intention around energy-related behaviors and purchasing

decisions.

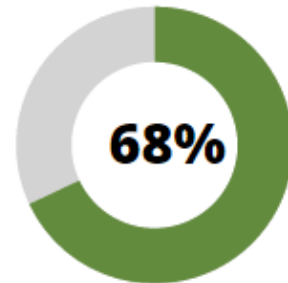
Spending Forecast



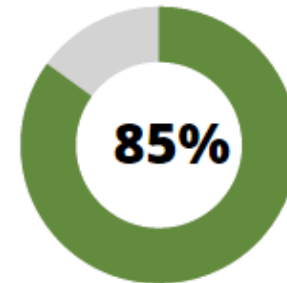
Appliance Diagnosis



Energy Spending Goal



Program Match

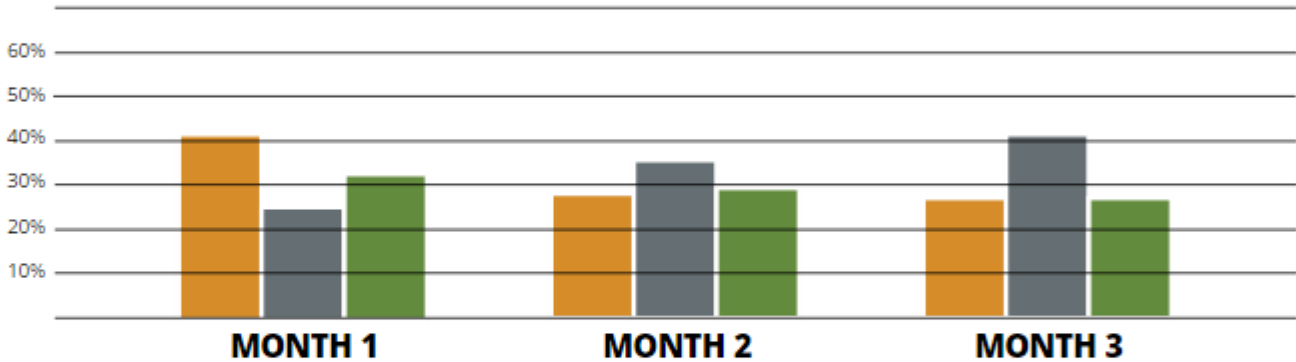


Actions Taken Intentions Reported

- Percent of Participants who Increased Actions
- Percent of Participants who Sustained Actions
- Percent of Participants who Decreased Actions



Conservation Actions



Efficiency Actions





Participants who received an update indicating they were likely to **overspend** for the month



Participants who received an update indicating they were **on track** for the month

We hypothesize that participants told they were likely to **overspend** will take more action than participants told they are **on track**.

Contact

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