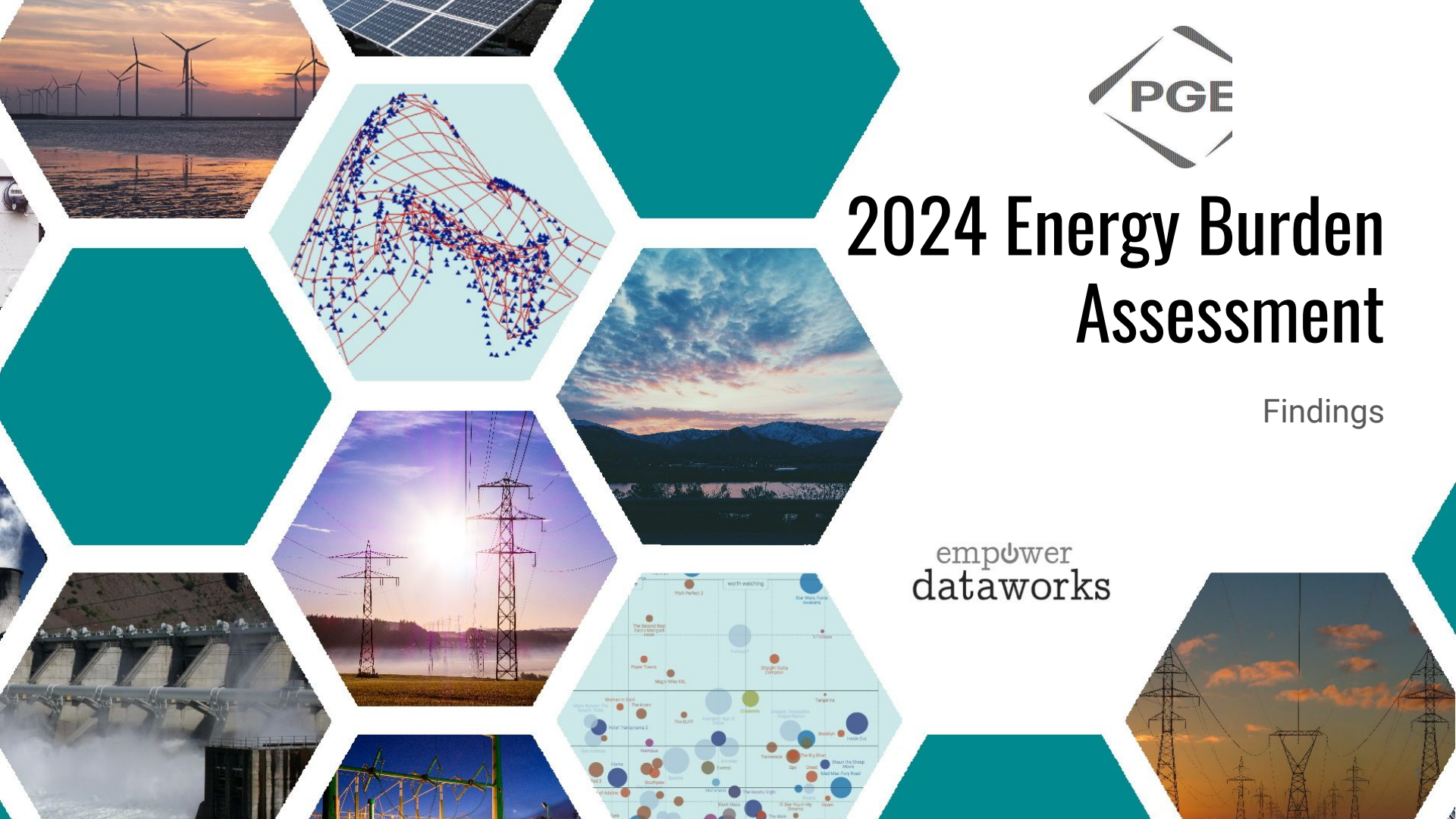




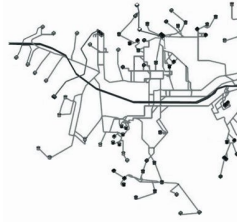
# 2024 Energy Burden Assessment

Findings

empower  
dataworks



# What is an Energy Burden Assessment?



**Data analysis (not a survey)** that uses utility and third-party customer data.



Primary purpose is to estimate the energy assistance need based on customer-level geographic, demographic and building data.



Comparing the need to actual program performance gives us an **actionable** path to improving our energy assistance programs

# *Energy Burden*

# Definitions

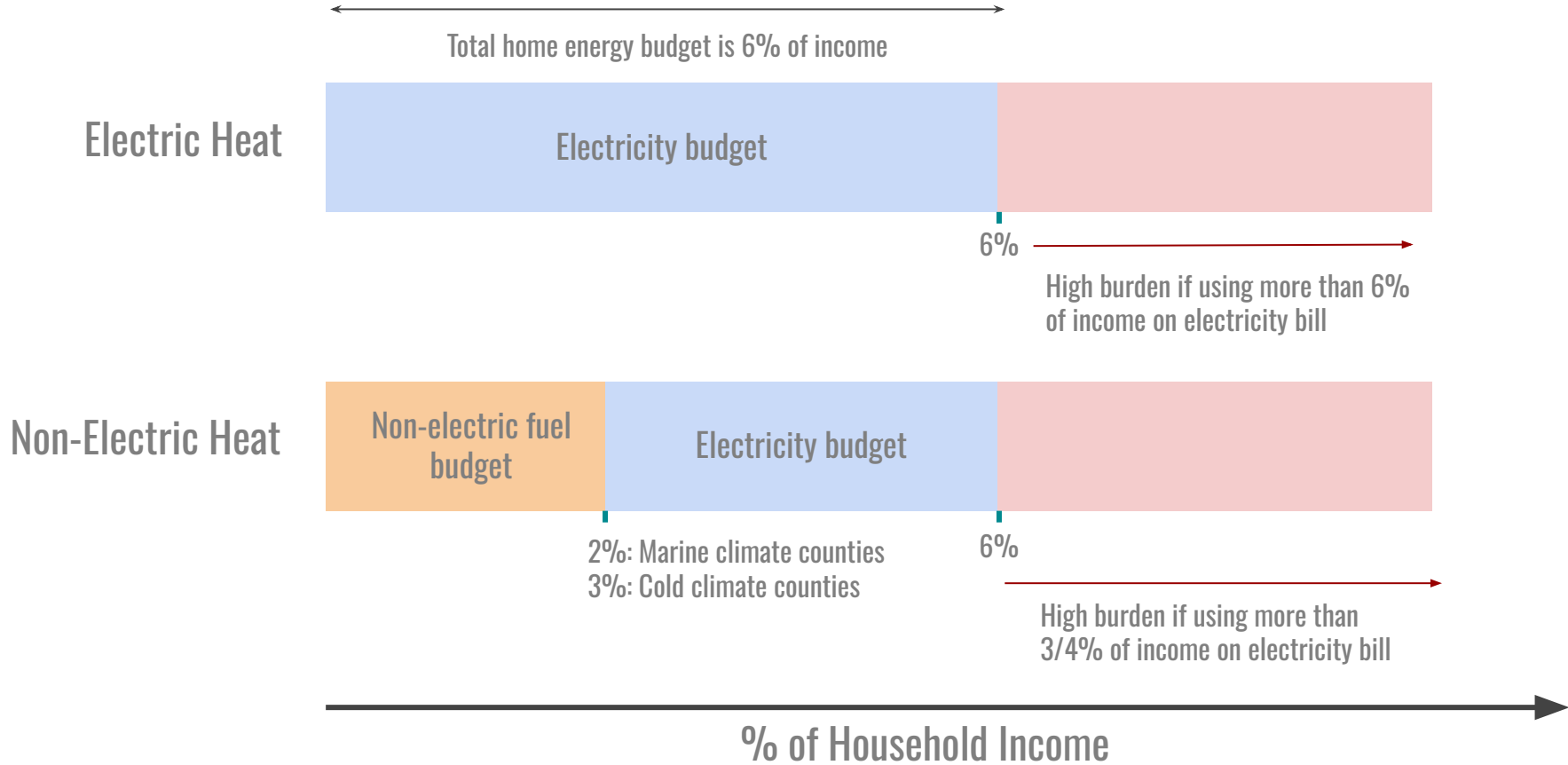
## Low-income:

Households earning under 60% of the state median income (SMI)

Household Unit Size	Annual Gross Income
1	\$33,427
2	\$43,712
3	\$53,997
4	\$64,282
5	\$74,567
6	\$84,852

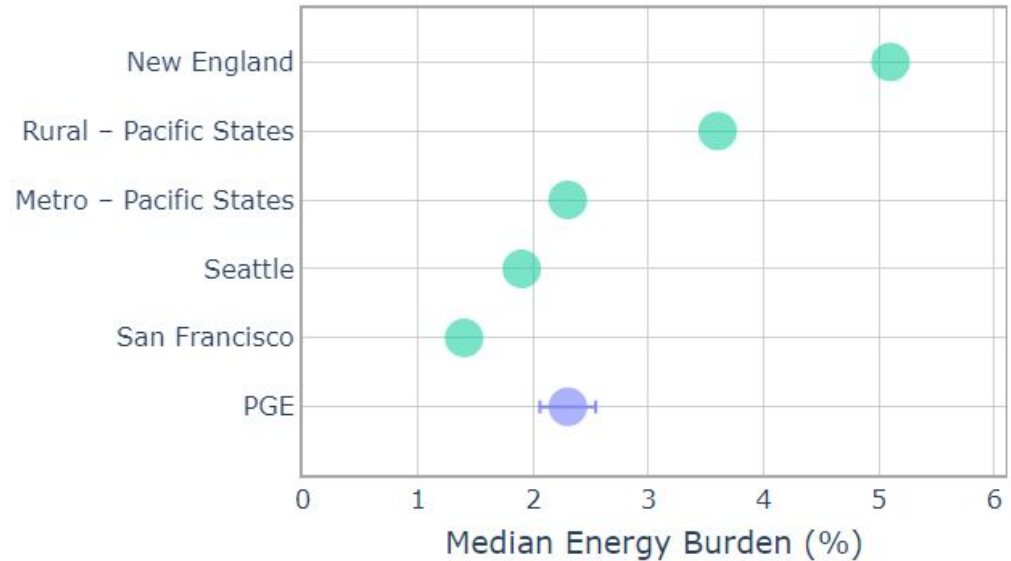
*\*Most data is reported for the 2023 calendar year. Bills and energy burden are projected for 2024 using 2024 rates and 2023 energy usage. 2024 household incomes are estimated to be 7% over 2023 incomes on average (equal to state median income increase)*

# High burden thresholds for multiple fuels



# Insights: Energy Burden

- Median energy burden is comparable to other metropolitan areas in the Pacific Northwest.
- Rates are relatively high for the region but households in most of the service area have higher incomes than the state median



# Insights: Energy Burden

Number of Occupied  
Households

**~800,000**

Low Income Households  
Under 60% SMI:

**~190k ± 10%**

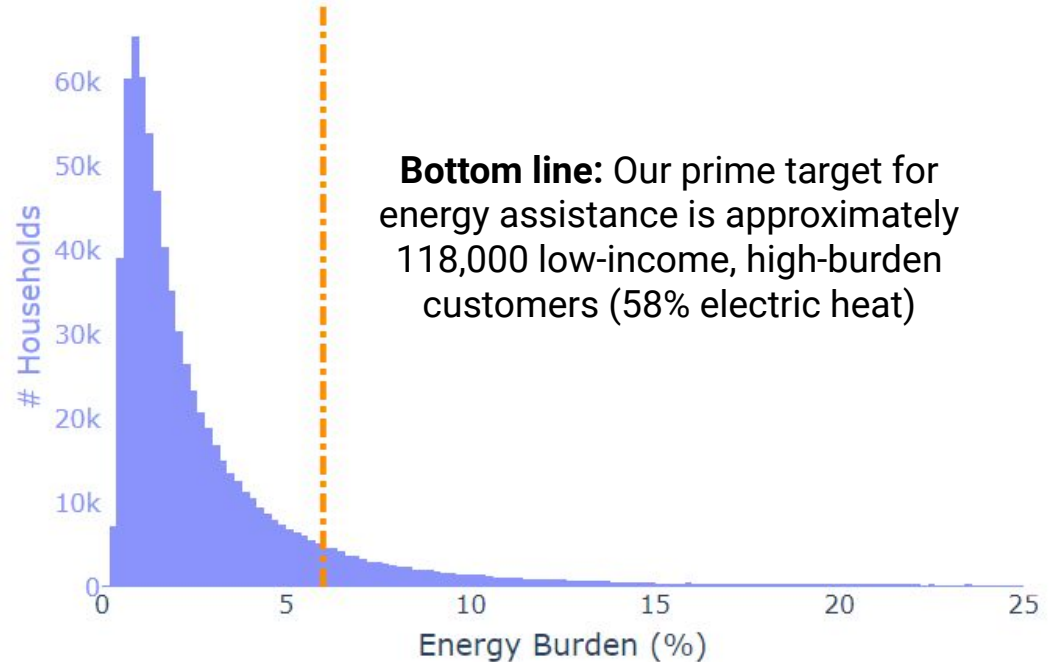
High Burden Households\*

**~140,000 (all)**

**~118,000 (LI)**

Median Electricity Burden  
of high-burden  
households

**~8.3%**



\*Energy bills and burden are calculated without factoring in any forms of energy assistance

# Insights: High-level Assistance Gap

Low-Income, High Burden  
Households  
**~118,000**



Income-eligible only



2024 Projection not including additional  
program participation:  
LIHEAP + OEAP + third party funding: \$25M  
IQBD: \$43M

- At program maturity (year 5+), best practice is to target at least 60-70% of the need available as program funding - with additional projected participation, IQBD should hit this target in 2025. Once this target is reached, participation usually slows down and focus shifts to program optimization and targeted outreach.

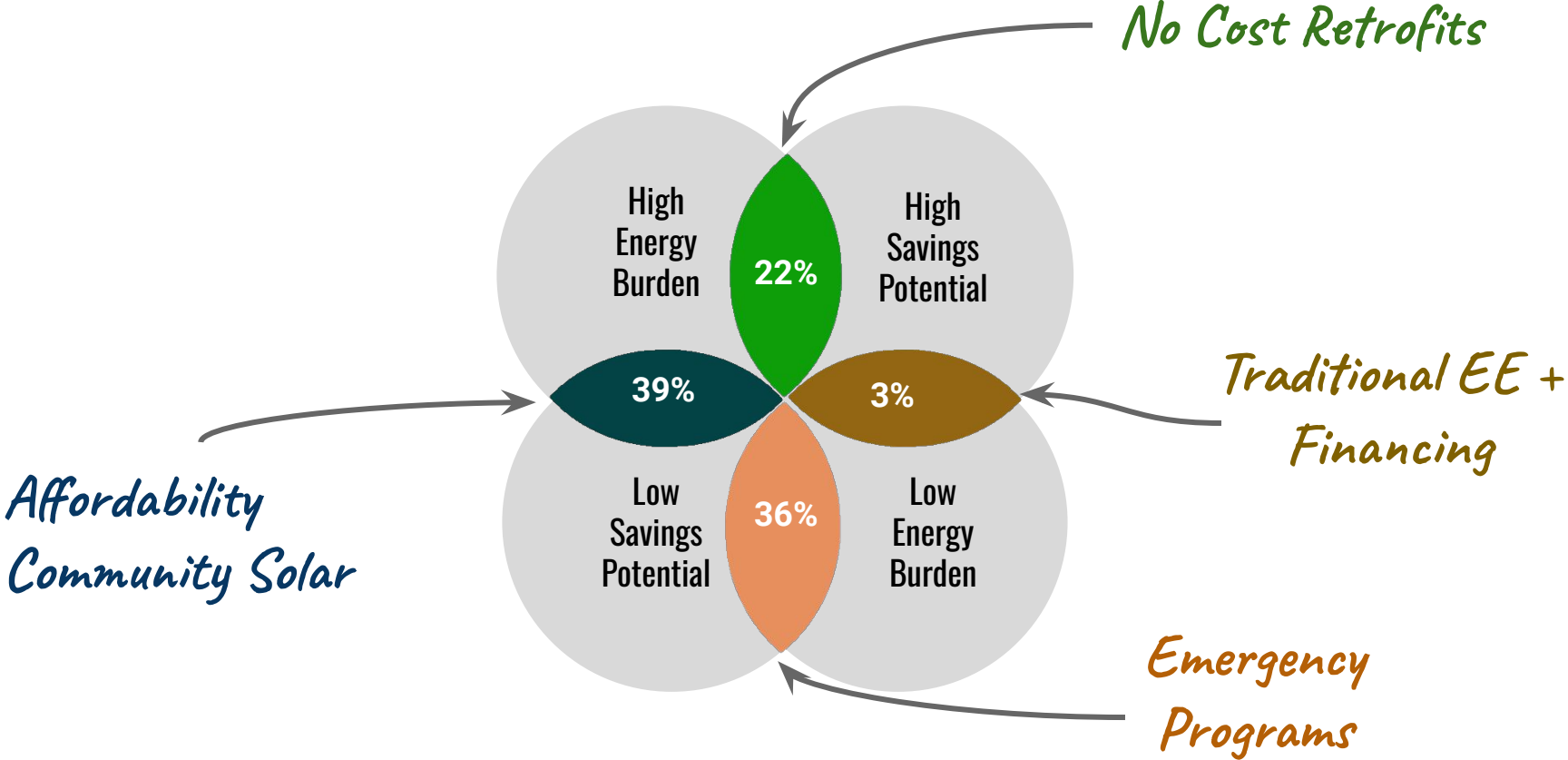
**Recommendation:** Track total energy assistance funding as a percent of energy assistance need as an annual metric



# Insights: **Additional Investments in Customer Bill Reductions**

- In 2023, PGE invested approximately \$6M in low-income energy efficiency pilots and programs in collaboration with ETO
  - 2023 participation: ~50 for rooftop LI solar; 448 for Community Partner Funding; 274 for Savings Within Reach
- An additional \$14M is collected through the public purpose charge and used for low-income weatherization through OHCS (few hundred homes per year)
- Currently, these programs reach less than 1% of the eligible population - PGE is setting up the infrastructure that will allow these initiatives to scale in the future, including combining PGE programs with federal and state funding (est. \$160M/year from 2025-2029).
- Low-income weatherization is not always cost-effective and there is a limit to how much household energy use can be reduced, but because IQBD was designed as a bill discount, spending on energy efficiency directly reduces IQBD discounts for program participants

# Program Potential



***IQBD***

# Discount Tier Analysis

**Recommendation:** Assess the feasibility and benefit vs. cost of enhanced discounts for lower income tiers

Example: Increase discounts to 90% & 70% or combine into one tier at 75% discount

Estimated budget impact at current enrollment (Q1 24):  
90%: ~\$5.1M (+12%)  
70%: ~\$4.6M (11%)

Example: Enhance discount for this group who is under the federal poverty level to 50% discount

Estimated budget impact at current enrollment (Q1 24): ~\$11M (+26%)

Income tier	Discount Level	Average need of high-burden households as a percent of bill
0-5% SMI	60%	90%
6-15% SMI	40%	67%
16-30% SMI	25%	45%
31-45% SMI	20%	23%
46-60% SMI	15%	16%

Current discount rates are suitable

# Diversity of Service Territory

## **Challenge:**

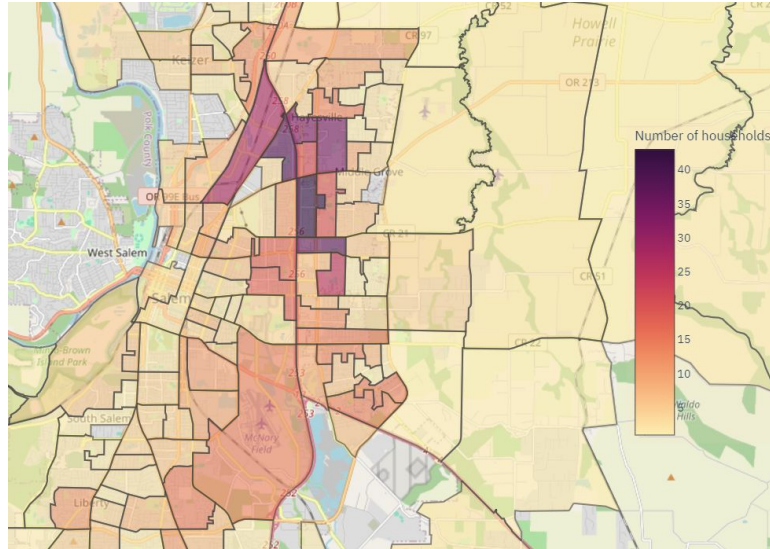
PGE's service territory has a myriad of cultures and ethnicities, a variety of economic backgrounds, urban and rural households and more. PGE cannot feasibly become an expert in outreach to every community within its service area.

## **Recommendation:**

*Program Navigator Fund:* Incentivize local community-based organizations (CBOs) to refer and support customers in applying for the program. These CBOs would serve as the "Program Navigators" would be CBOs that register with PGE and would be compensated per successful customer application. Program Navigators would be trained to refer customers to other programs (e.g. LIHEAP, Energy Trust, etc.) in addition to IQBD and assist with the application process.

Pilot estimates: \$200k fund, \$75 per successful application. Program/pilot may be coordinated jointly with NW Natural.

# Arrearages and IQBD



Approximately 4,000 disconnected households in 2023 were likely eligible for energy assistance but didn't participate

80% of disconnected households have arrears less than \$500

# Arrearage Relief

## **Challenge:**

Some customers do not address arrearages until an actual disconnection happens.

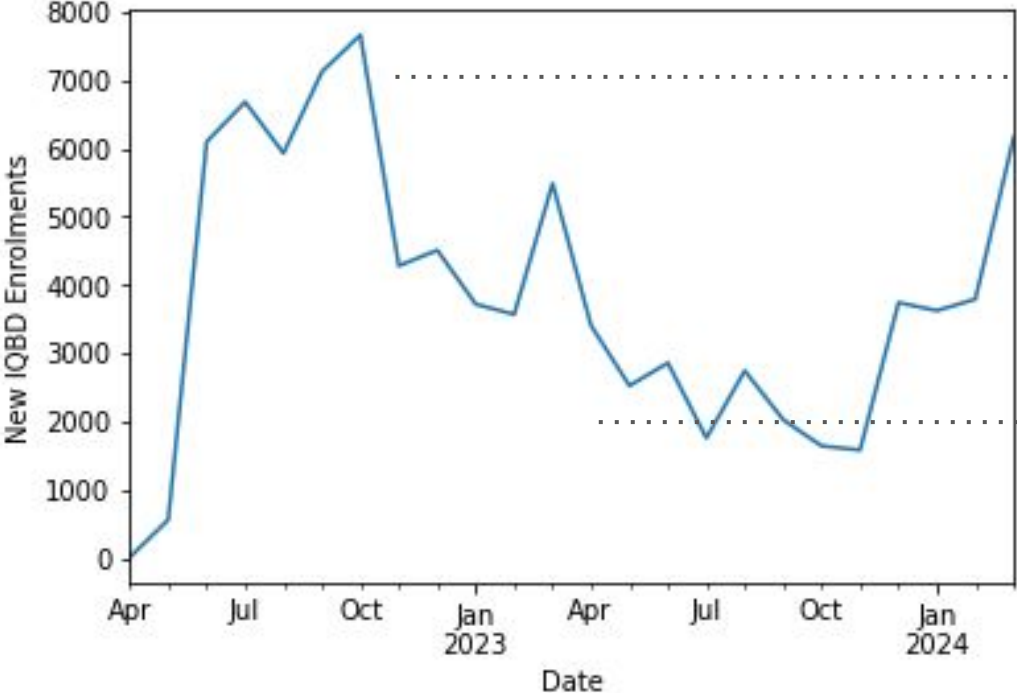
## **Recommendations:**

*Awareness of programs:* Ensure that all late payment and disconnect notifications include information about IQBD, payment plans and payment extensions. Enhance communication about IQBD to customers at risk of disconnection.

*Arrearage relief for program participants:* Assess the feasibility and benefit vs. cost of a capped budget arrearage relief program. For simplicity, the program could be made available to IQBD participants with arrears and apply the customer's bill discount percent retroactively for arrears up to a limit (e.g. X% discount on first \$1,000 of arrears).

*Pilot estimate:* \$1M arrearage relief fund can likely serve 3,000-4,000 IQBD arrears customers.

# Program Demand Cycle



5X difference in monthly enrolment between high and low seasons



# Managing the Demand Cycle

## **Challenge:**

Varying demand can strain program staff, overload customer service advisors and delay application processing.

## **Recommendations:**

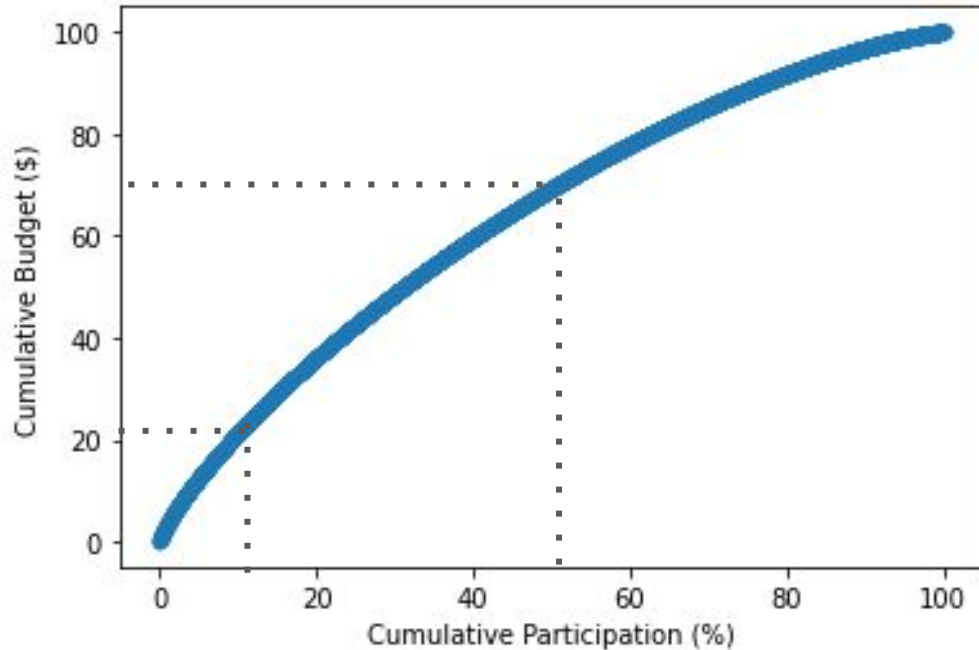
*Reduce need for reapplication:* Allow fixed income customers (34% of total) to reapply every 4-5 years instead of every two.

*Communication timing:* Biggest marketing pushes should be in September/October **before** high bill season. Include communication about projected winter bills including rate increases and energy efficiency tips to encourage customers to apply early.

*Rate increase timing:* Consider delaying annual rate increases to April of each year instead of January 1st to avoid bill shock from cold weather + rate increases.

*Energy Efficiency*

# Program utilization



Within each income/discount tier:

**Top 10% of participants by energy use** utilize 21-22% of budget. Their average energy use is more than 2x the overall average energy use.

**Top 50% of participants by energy use** utilize 69-70% of budget. Their average energy use is 40% more than the overall average energy use.

Top 5 users will receive \$6,000-\$12,000 in discounts in 2024

# Energy Efficiency Potential

## **Challenge:**

High energy users overutilize program funds while the root cause of their high energy burden remains unaddressed. There are 47,000 low-income customers who would potentially be good candidates for energy efficiency measures, but existing low-income EE programs serve relatively few households.

## **Recommendations:**

First step towards integrating energy efficiency with IQBD is to identify and understand the high use participants.

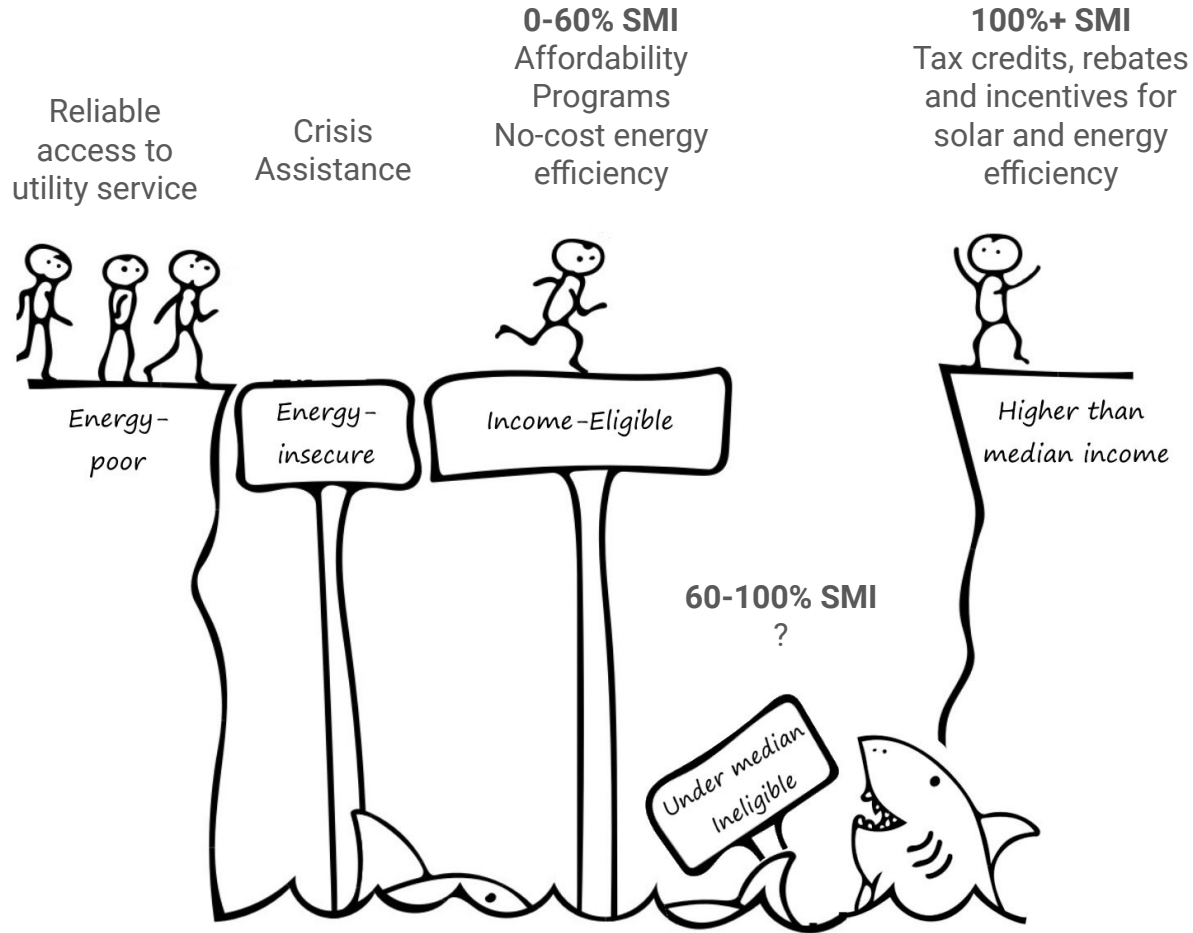
*Energy use diagnostic:* Develop a protocol for outbound customer service advisors to contact high-use households, perform a diagnostic of their hourly energy use, and collect data related to the drivers of high energy use. Estimated staff time: 15-20 minutes per successful outbound call.

*Energy audit program:* Establish a energy audit pilot program (through RFP) that focuses on the top 2,000 or so users in IQBD (\$1.5M approx. budget). Program should include walkthrough energy audit, ETO and EE credit referrals, direct install (LEDs, aerators). List of high priority homes should be provided to program implementer. This program can be designed to be cost-effective through realized savings in IQBD discounts.

*Coordination with energy efficiency providers:* Work with ETO and CAP agencies to target EE funds at low-income, high burden households.

# *The Energy Assistance Hole*

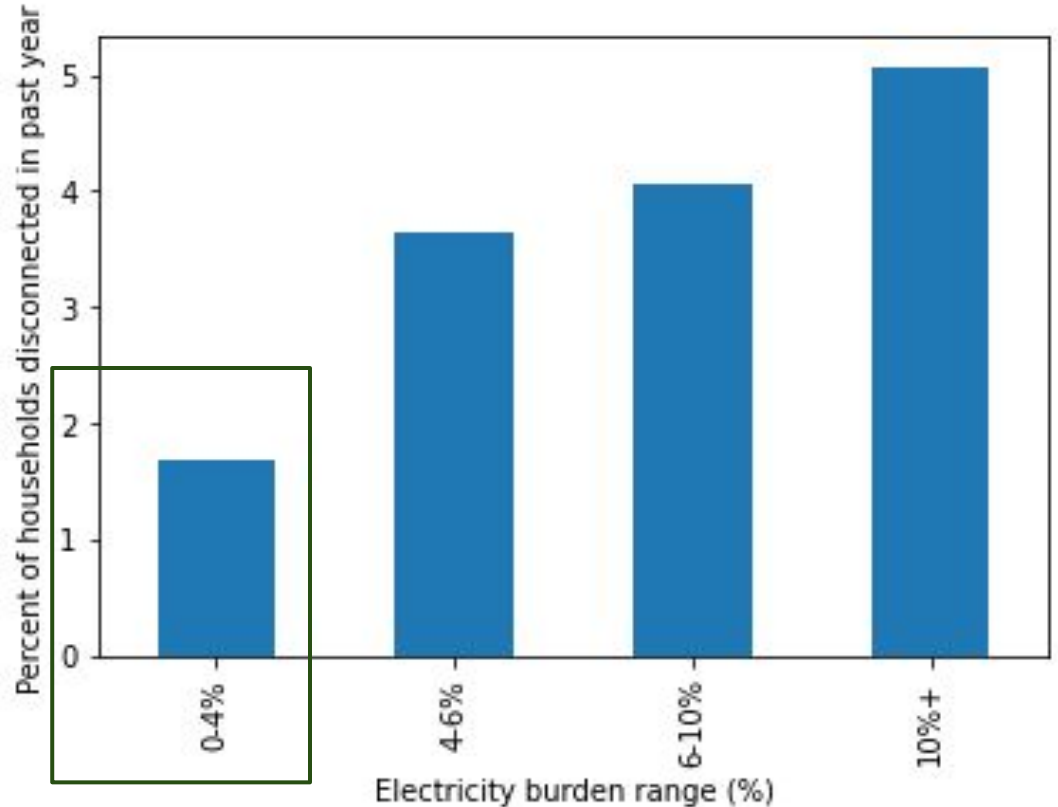
# The Energy Assistance Hole



# The Energy Assistance Hole

**~22k non-low-income households** with a high energy burden

**~9k non-low-income households** at risk of disconnection despite having a low energy burden



# Addressing high-burden, program-ineligible households

## **Challenge:**

There are households that are not eligible for existing programs but need assistance.

This includes households that:

- Are under the state median income, have a high energy burden, but are ineligible for assistance (~22,000 households)
- Constrain their energy use due to lack of affordability and lack of program access
- Are **A**sset **L**imited, **I**ncome **C**onstrained, **E**mployed
- Earn above the program income thresholds but under the Self Sufficiency Standard Income

## **Recommendations:**

Difficult to solve through PGE because most customers in this category would benefit most from energy efficiency.

- Option 1: Energy assistance path: Allocate a budget for customers in an additional income tier (60-100% SMI) - perhaps a fixed one-time grant - equivalent to one average winter bill (\$150-200)
- Option 2: Work with Oregon Energy Fund on expanding eligibility for their program and increase annual donation
- Option 3: Work on expanding access to the Oregon on-bill financing program for energy efficiency - perhaps through waived or reduced interest and fees for income-eligible households



# Main Takeaways - Energy Burden Assessment

- The IQBD program is operating effectively and is following energy assistance program best practices. There are no major recommended changes to the foundation of the program.
- In 2024, total energy assistance funding is expected to exceed 51% of the energy assistance need for PGE's customers and IQBD is growing quickly to fill that gap.
- Most recommendations in this assessment are auxiliary components that can be added to PGE's energy assistance portfolio to better improve bill affordability:
  - **Enrollment:** How to keep up the momentum of program enrollment as the IQBD program matures
  - **Arrearages:** How to best serve customers at risk of disconnection
  - **Energy Efficiency:** How can we leverage energy efficiency for sustained energy burden reduction
  - **Energy assistance hole:** How to best serve customers who have unaffordable bills but are ineligible for assistance programs
  - **Other:** How do we design more equitable rates, smooth the impact of rate increases, modulate the ups and downs of our programs and target assistance at customers who need it the most