



Marketing, Regulatory and Legislative Subcommittee Meeting

Friday, June 12, 2026
10:00 am

In Person:

Altamont Conference Room
Ava Community Energy
1999 Harrison Street, Suite 2300
Oakland, CA 94612

Zoom:

<https://avaenergy-org.zoom.us/j/88008124818>

Or join by phone:

+Dial (for higher quality, dial a number based on your current location):

US: +1 669 444 9171 or +1 669 900 6833 or +1 346 248 7799 or +1 719 359 4580 or
+1 253 205 0468 or +1 253 215 8782 or +1 309 205 3325

Webinar ID: 880 0812 4818

Meetings are accessible to people with disabilities. Individuals who need special assistance or a disability-related modification or accommodation to participate in this meeting, or who have a disability and wish to request an alternative format for the meeting materials, should contact the Clerk of the Board at least 2 working days before the meeting at (510) 707-1764 or cob@avaenergy.org.

If you have anything that you wish to be distributed to the Marketing, Regulatory and Legislative Subcommittee, please email it to the clerk by 5:00 pm the day prior to the meeting.

1. Welcome & Roll Call

2. Public Comment

This item is reserved for persons wishing to address the MRL Subcommittee on any Ava-related matters that are not otherwise on this meeting agenda. Public comments on matters listed on the agenda shall be heard at the time the matter is called. As with all public comment, members of the public who wish to address the Board are customarily limited to three minutes per speaker. The MRL Chair may increase or decrease the time allotted to each speaker.

- 3. Approval of Minutes from April 10, 2026 (Action Item)**
- 4. Power Content Label Overview (Informational Item)**
Review of changes to the 2025 Power Content Label template.
- 5. Legislative Update (Informational Item)**
Mid-session California legislative update.
- 6. Health-e Communities Update (Informational Item)**
Update on the results of the Health-e Communities Pilot.
- 7. Committee Member and Staff Announcements including requests to place items on future Board Agendas**
- 8. Adjourn**

The next Marketing, Regulatory and Legislative Subcommittee meeting will be held on Friday, September 18, 2026 at 10am.

Altamont Conference Room
Ava Community Energy
1999 Harrison Street, Suite 2300
Oakland, CA 94612



Draft Minutes

**Marketing, Regulatory and Legislative Subcommittee
Meeting**

Friday, April 10, 2026
3:00 pm

In Person:

Altamont Conference Room
Ava Community Energy
1999 Harrison Street, Suite 2300
Oakland, CA 94612

Or from the following locations:

- 1249 Marin Avenue, Albany, CA 94706

Zoom:

<https://avaenergy-org.zoom.us/j/88008124818>

Or join by phone:

+Dial (for higher quality, dial a number based on your current location):

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If you have anything that you wish to be distributed to the Marketing, Regulatory and Legislative Subcommittee, please email it to the clerk by 5:00 pm the day prior to the meeting.

1. (0:00) Welcome & Roll Call

Present: Directors: Lopez (Albany), Nygard (Tracy), and Chair Tregub (Berkeley).

Absent: Directors: Diallo (Lathrop) and Barrientos (Livermore).

2. (0:42) Public Comment

This item is reserved for persons wishing to address the MRL Subcommittee on any Ava-related matters that are not otherwise on this meeting agenda. Public comments on

matters listed on the agenda shall be heard at the time the matter is called. As with all public comment, members of the public who wish to address the Board are customarily limited to three minutes per speaker. The MRL Chair may increase or decrease the time allotted to each speaker.

There were no speakers for public comment.

3. (1:15) Approval of Minutes from March 6, 2026 (Action Item)

Director Nygard (Tracy) motioned to approve the minutes. Director Lopez (Albany) seconded the motion, which passed 3/0/0/0/2.

Yes: Lopez (Albany), Nygard (Tracy), and Chair Tregub (Berkeley).

No: None.

Abstain: None.

Recuse: None.

Not Present: Diallo (Lathrop) and Barrientos (Livermore).

There were no speakers for public comment.

4. (2:14) 2026 Policy Platform Update (Informational Item)

Reup of policy platform for 2026.

Sam Sadle reviewed annual updates to the legislative platform, including clarifying language, elevating autonomy to a standalone objective, and renaming the legislative program to better align with industry standards.

There were no speakers for public comment.

There was no discussion by the subcommittee members.

5. (4:12) 2026 Legislative Positions (Informational Item)

Consideration of 2026 proposed legislative positions.

Sam Sadle, Kendall Downie, and Dominic Faria provided an update on Ava's legislative advocacy efforts, outlining recommended positions on eight California energy bills. They reviewed Ava's positions on specific bills and sought feedback before bringing the recommendations to the board for formal consideration.

There were no speakers for public comment.

Selection of topics discussed by subcommittee members:

- Proposed amendments to SB 868, including requiring battery storage to be paired with plug-in (balcony) solar systems
- CalCCA's opposition to AB 2383 and concerns regarding CPUC oversight of CCA contracts and local autonomy
- Data center legislation and the need for greater transparency and oversight of large energy loads

- Potential impacts of declining solar incentives and the importance of maintaining support for distributed energy resources
- Equity and accessibility considerations for renters participating in balcony solar and battery storage programs
- Ava's Smart Home Battery Program and its role in encouraging solar-plus-storage adoption
- Tradeoffs between streamlining heat pump permitting (SB 222) and preserving local control over permitting processes
- Perspectives from member cities on permitting challenges, electrification efforts, and the benefits of statewide standardization for smaller jurisdictions

6. (52:47) Committee Member and Staff Announcements including requests to place items on future Board Agendas

There were no committee member or staff announcements.

7. Adjourned at 4:08pm.

The next Marketing, Regulatory and Legislative Subcommittee meeting will be held on Friday, June 12, 2026 at 10am.

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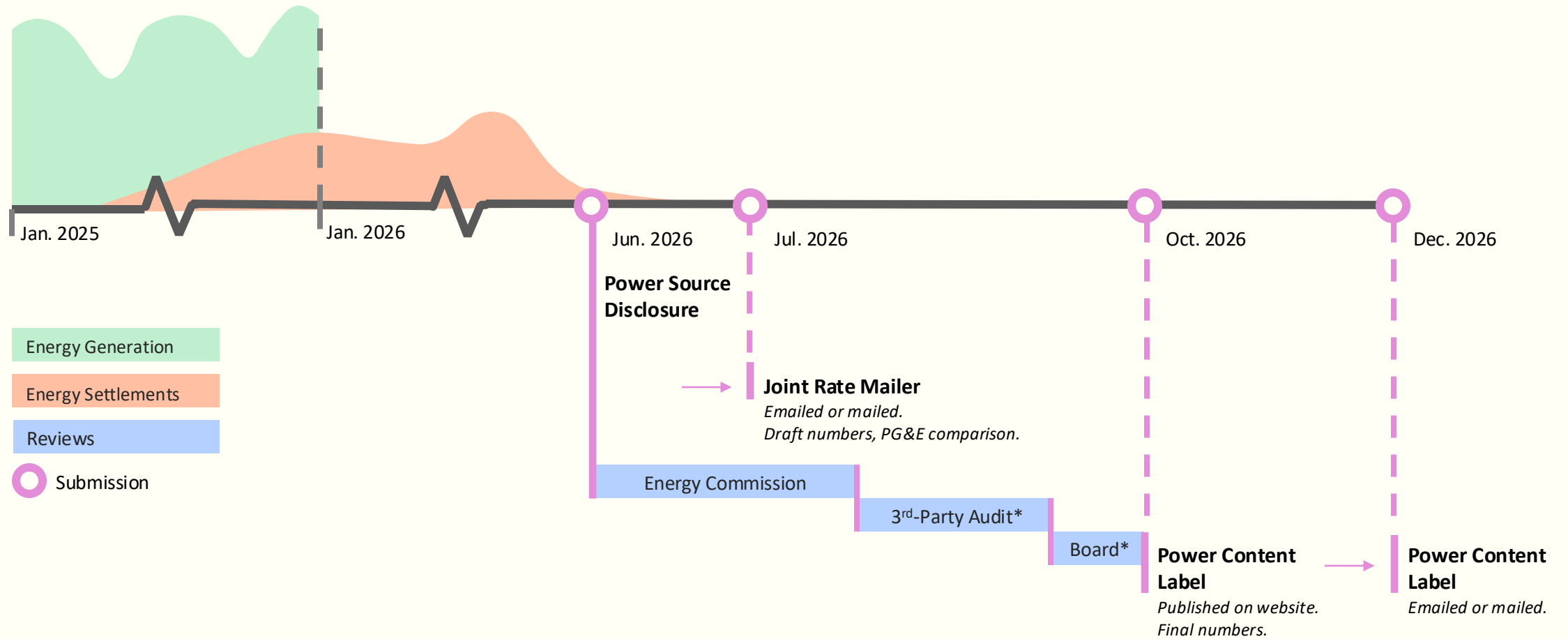
Minutes written by Raïssa Ngoma.

2025 Power Content Label Updates

June 12, 2026



What is the Power Content Label Reporting Process?



*CCR 20.2.5.5, §1394 –
 Public agencies may either engage an auditor or submit an attestation.
 → Board voted to engage auditor starting in 2023, so no attestation needed.






What is the Power Content Label?

→ A “nutrition label” for electricity.

- Published annually, based on the Power Source Disclosure Report for the prior calendar year’s electricity generation from owned or contracted-for resources.
- Provides a detailed breakdown of the sources of energy used to provide electricity.

Submission is reviewed and approved by the California Energy Commission.

2024 POWER CONTENT LABEL			
Ava Community Energy			
	Bright Choice	Renewable 100	CA Utility Average
Greenhouse Gas Emissions Intensity (lbs of CO ₂ e emitted per megawatt hour)	221	0	359
Electricity Sources ■ Renewables and Zero-Carbon Resources ■ Fossil Fuels and Unspecified Power			
RPS Eligible Renewables	62%	100%	45%
Biomass & Biogas	10%	0%	2%
Geothermal	1%	0%	5%
Eligible Hydroelectric	2%	0%	2%
Solar	18%	77%	23%
Wind	31%	23%	14%
Large Hydroelectric	34%	0%	10%
Nuclear	0%	0%	11%
Emerging Technologies	0%	0%	0%
Other	0%	0%	0%
Natural Gas	0%	0%	10%
Coal & Petroleum	0%	0%	2%
Unspecified Power (primarily fossil fuels)	4%	0%	22%
Total	100%	100%	100%



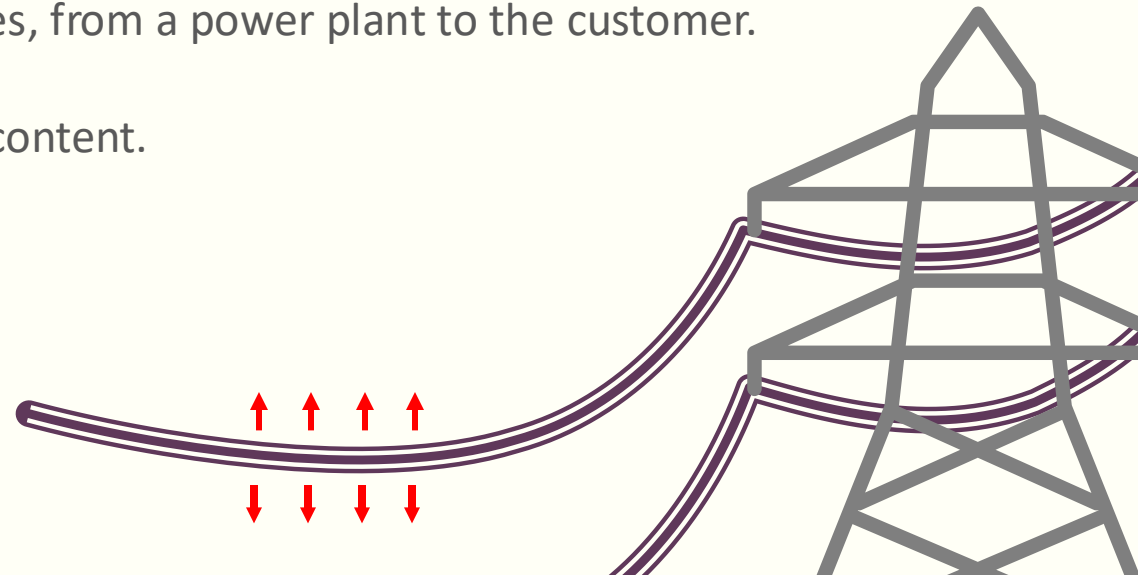
Line Losses

→ Account for energy dissipating over transmission and distribution lines.

- California Code of Regulations, 20.2.5.5 (July 2025)
 - §1392 (a.8.A) – “A retail supplier’s transmission and distribution losses shall be determined by applying a loss factor to each specified resource and to unspecified power.”
 - §1393 (b.2.B) – “retail suppliers shall report transmission and distribution losses associated with each procurement.”
- This change will capture the emissions associated with the fraction of electrons that escapes as heat into the environment as they travel across power lines, from a power plant to the customer.

Effective for 2026 submission for **Calendar Year 2025** power content.

Line losses **will** impact Power Content Label.

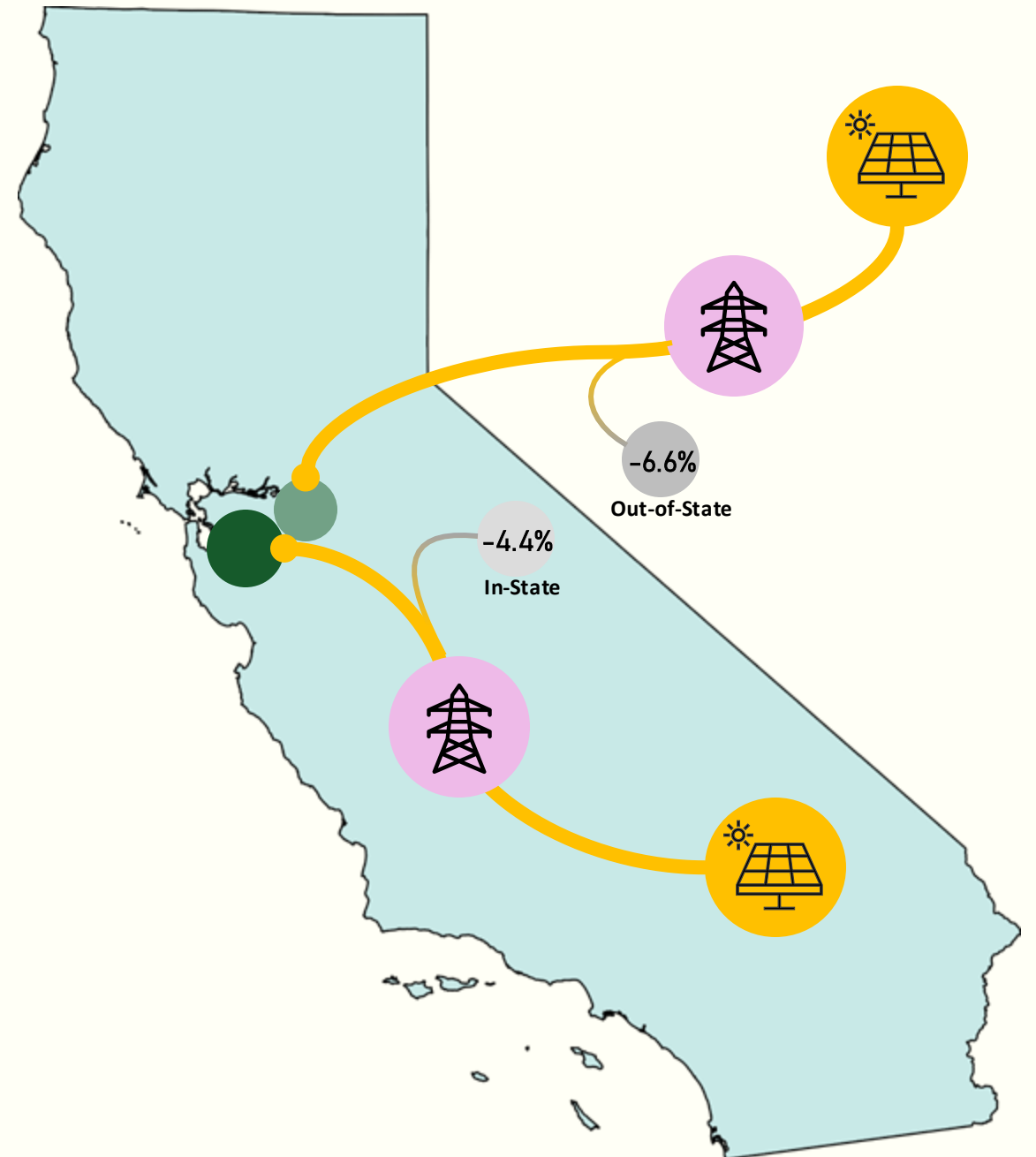


2025 Changes to Power Source Disclosure Report

Line Losses

→ Varies by resource location.

- Losses are assigned to each specified resource by location (in-state or out-of-state.)
- Additional specified procurement can cover some losses...
 - ...but said procurement is also subject to line losses.

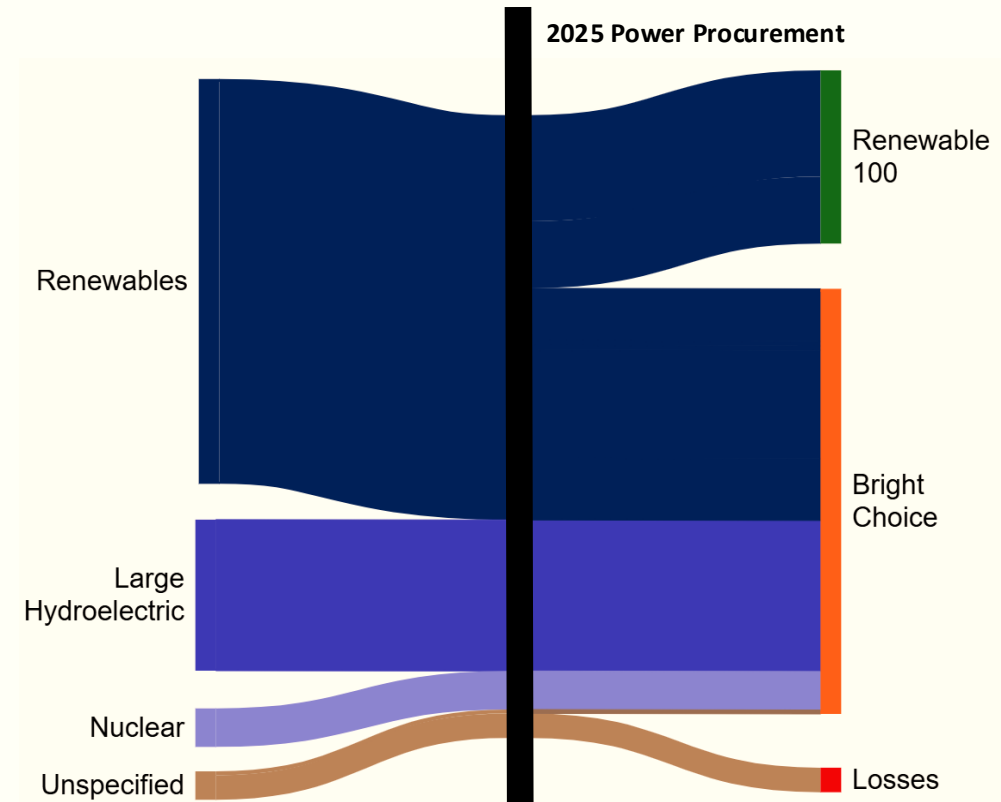


2025 Changes to Power Content Label

Line Losses

→ increased 'Unspecified Power' and reduced RE/CF in total loss-adjusted load.

2025 Summary Power Content Label	Bright Choice	Renewable 100	Total Retail Sales	Total Loss-Adjusted Load
GHG Emissions Intensity	194	0	134	168
<i>Biomass & Biogas</i>	12%	0%	9%	8%
<i>Geothermal</i>	1%	0%	1%	1%
<i>Eligible Hydroelectric</i>	1%	0%	1%	1%
<i>Solar</i>	25%	61%	36%	34%
<i>Wind</i>	15%	39%	21%	20%
Total Renewables	54%	100%	68%	64%
Large Hydroelectric	36%	0%	25%	24%
Nuclear	9%	0%	6%	7%
Unspecified Power	1%	0%	1%	5%



2026 California Legislative Session: Mid-Session Review

Sam Sadle, Kendall Downie, Dominic Faria – June 12, 2026



2026 California Legislative Timeline

January 5: Legislature reconvenes 10: Governor submits budget	February 20: Bill introduction deadline	March	April 24: Policy cmtes move fiscal bills to fiscal cmtes (1st chamber)
May 1: Policy cmtes move non-fiscal bills to floor (1st chamber) 29: Last day for bills to be passed by 1st house	June 15: Budget bill must be passed	July 2: Policy cmtes move bills to fiscal cmtes or floor (2nd chamber)	August 14: Fiscal cmtes move bills to floor (2nd chamber) 31: Last day for each chamber to pass bills
September 30: Last day for Governor to sign/veto bills	October	November	December

CalCCA-Sponsored Bills

Support:

AB 1761 (Rogers)

Power Charge Indifference Adjustment (PCIA) data and input transparency

SB 1138 (Padilla)

Resource Adequacy (RA) transactability

CalCCA-Sponsored Bills

Power Charge Indifference Adjustment (PCIA) Data Transparency

AB 1761 Electricity: calculation methodology: data disclosures (Rogers):

- Official summary: *This bill would require the commission [CPUC] to ensure that all data relied on in any decision or ruling, or in any proposal or analysis provided by an electrical corporation, the commission's staff, or any other party, for the determination or application of a calculation methodology for any charge imposed on customers of a load-serving entity to recover the cost of contracts or resources owned by an electrical corporation or any value derived from that calculation is made available to load-serving entities and ratepayer advocates on behalf of customers. The bill would require that data to meet specified requirements, including that it is made through a public disclosure, except for market-sensitive data, as provided.*

(Emphasis added)

Support:



Oppose:



Process:

- Passed Assembly 61-8-11
- Next step: Senate Energy Committee date TBD

CalCCA-Sponsored Bills

Resource Adequacy (RA) Transactability

SB 1138 Load-serving entities: resource adequacy requirements (Padilla):

- Official summary: *This bill would require the commission to permit a load-serving entity to demonstrate compliance with resource adequacy requirements by selling to, or otherwise making transactions with, another load-serving entity to meet not more than 25% of its compliance obligation, on a short-term basis, and to permit those transactions to be denominated in the same unit of time used to denominate resource adequacy compliance requirements.*

(Emphasis added)

Support:



Oppose:

(None registered)

Process:

- Passed Senate 31-0-9
- Passed Assembly Energy Committee
- Next Step: Assembly Appropriations Committee

Ava positions

Support:

SB 222 (Wiener)

Streamlines permitting for residential heat pump water heaters and HVAC systems

SB 1168 (McNerney)

Establishes new surcharges on natural gas use by data centers

AB 2266 (Schultz)

Standardizes RA valuation across multiple procurement programs

SB 913 (Becker)

Allows aggregated DERs to serve as RA capacity

Support If Amended:

SB 868 (Wiener)

Sets rules for "plug in" solar system

SB 913 (Becker)

Allows aggregated DERs to serve as RA capacity

AB 1577 (Bauer-Kahan)

Requires monthly data center energy use reporting

~~AB 1975 (Schultz)~~

~~Establishes "grid utilization" metric and associated incentives~~

~~AB 2389 (Irwin)~~

~~Extends property tax exemption for customer solar~~

California Large Load Legislative Update

Managing data center growth

Shifting sands in 2026: From *"Should California encourage large load development?"* to *"Under what conditions should large load be served?"* From CPUC-led to a core Legislative priority.

Large Load Legislative Questions

Cost Responsibility &
Ratepayer Protection

Reliability & Clean
Energy Requirements

Environmental &
Community Impacts

Transparency & Data
Collection

Legislative Vehicles: Now Down to Three "Classifications"

Cost Causation
Ratepayer Protections
[SB 886](#) and [AB 2383](#)

Reliability Protections:
Reflected in all proposed
large-load tariffs

Transparency
[AB 1577](#)

California Budget

- **Schedule:** State Legislature has until June 15 to adopt a budget. The Governor then has 12 days to sign it.
- **Next steps in negotiations:** Three party negotiations ongoing. Governor's office released its "May revise" and the Senate and Assembly budget committees have released their respective plans.
- **Notable line items:**
 - **Greenhouse Gas Reduction Fund (GGRF)** spending plan
 - **EV incentive program for first-time buyers** — \$200 million point-of-sale rebates for light-duty ZEVs
 - **Climate Bond (Proposition 4) 2026-2027 spending plan** — \$322 million for the California Transmission Accelerator Revolving Fund created by SB 254
 - **Demand Side Grid Support Program (DSGS)**
 - Trailer Bill 1: Shift remaining funding (~\$22 million) from the Distributed Electricity Backup Assets (DEBA) program to DSGS
 - Trailer Bill 2: Return unspent California School Healthy Air, Plumbing, and Efficiency (CalSHAPE) program funding to the IOUs and transition DSGS participants to the Emergency Load Reduction Program (ELRP), or a similar IOU-run program, for 2027 and 2028

What comes next? Legislative session

First house

Complete

Second house

- **July 2:** Second house policy committee deadline
- **August 14:** Second house Appropriations suspense deadline
- **Aug 31:** Second house floor passage deadline
- **September 30:** Veto/signature deadline

Budget

- ~~**May 14:** Governor's budget revise~~
- **June 15:** Budget deadline
- **May to August:** Budget trailer and cleanup hearings

Appendix

Support

Heat Pump Water Heater and HVAC Streamlining

SB 222 Residential heat pump systems: water heaters and HVAC: installations (Wiener - Coauthors: Allen, Becker, and Stern):

- Standardizes and streamlines local permitting for residential heat pump water heaters and heat pump HVAC systems, including by requiring an option for asynchronous inspections and online automated permitting. The bill would support the State's target of installing six million heat pump systems by 2030, an objective the State is currently set to miss by roughly two million units.
- In 2025, Ava supported SB 282 (Wiener) which was largely the same language.

Support:



Oppose:



Process:

- Passed Senate
- Next step: 6/24 Assembly Housing Committee

Support (*no longer "if Amended"*)

Distributed Energy Resources for Resource Adequacy

SB 913 Resource adequacy: aggregated distributed capacity resources (Becker):

- Requires the PUC to enhance pathways for aggregated distributed energy resources to qualify as resource adequacy capacity and to allow load-serving entities to include those resources in resource adequacy compliance and procurement. Also requires coordination with state agencies and the ISO to update market participation frameworks to support aggregated distributed capacity resources.

Amendments implemented: Bill now allows aggregated DERs as RA capacity while preserving CCA procurement flexibility and avoiding any implicit DER procurement mandate.

Support:



Oppose:



Process:

- Passed Senate
- Next Step: 6/24 Assembly Energy Committee

Support

Data Center Rate Structure Study

SB 1168 Data centers: natural gas and electricity: surcharges (McNerney - Coauthor Pérez):

- Originally, the bill imposed an annually set surcharges on electricity and natural gas consumed by data centers, including energy used to generate power for them.
- It originally required those funds to be used to offset CARE/FERA costs. It was later amended to offset wildfire-related costs currently embedded in customer rates.
- It was eventually amended down to a study bill requiring the PUC to do a study to assess opportunities for rate structures to ensure data centers pay their fair share of infrastructure costs and identify ways to increase data center usage of non-polluting resources.

Support:



Oppose:



Process:

- Passed Senate
- Next step: 6/24 Assembly Energy Committee

Support

Consistent Methodology for RA Valuation

AB 2266 Electricity: load-serving entities (Schultz):

- Requires the use of a consistent method across regulatory proceedings for calculating how much reliability value different energy resources provide, so that short-term, mid-term, and long-term procurement programs all count resources the same way.
- Requires the PUC to consolidate specified compliance reporting requirements and to provide additional reporting on the use of backstop procurement authority.
- CalCCA is requesting amendments regarding timing and considerations required of the PUC when creating the new methodology.

Support:



Support if Amended:



Oppose:

(None registered)

Process:

- Passed Assembly
- Next step: 6/16 Senate Energy Committee

The logo for Ava Community Energy, featuring the word "Ava" in white on an orange rectangular background, with "Community Energy" in smaller white text to its right.



Support if Amended

Portable (or "Plug In") Solar Streamlining

SB 868 Electricity: portable solar generation devices (Wiener - Coauthors: Arreguín, Becker, McNerney, Connolly, and Ward):

- Exempts portable solar generation devices from interconnection requirements and prohibits IOUs and POUUs from imposing fees or other related requirements. Authorizes utilities to require basic notification of device installation through a simple registration process, as specified.

Proposed amendments: Require storage pairing and modern inverter standards for plug-in solar while maintaining basic oversight to protect grid reliability and mitigate cost impacts.

Support:

Support if Amended:

Oppose:

Process:



- Passed Senate
- Passed Assembly Energy Committee
- Next Step: Assembly Appropriations Committee



Support if Amended

Data Center Energy and Water Use Reporting

AB 1577 Data Centers: reporting (Bauer-Kahan):

- Requires the Energy Commission to establish a process for data center owners to submit monthly reports on energy and water usage, including specified operational metrics. Would also require the CEC to publish aggregated data and incorporate data center load trends into future energy policy reports, and would require similar information to be provided to local agencies for planning and environmental review purposes, while protecting confidential customer information.

Proposed Amendments: Align reporting timelines with IOU-to-CCA data flows and prevent penalties for delays outside LSE control to ensure feasible implementation.

Support:



Support if Amended:



Process:

- Passed Assembly
- Next step: Senate Energy Committee (presumably)

Support if Amended

Grid Utilization Metric and Associated Rules

AB 1975 Electrical corporations: grid utilization metric (Schultz):

- Requires the PUC to establish a grid utilization metric to measure electrical load as a percentage of system capacity; requires IOUs to publicly report on that metric; sets increasing minimum utilization targets; and establishes performance-based incentives or disincentives, while requiring utilities to propose programs to meet those targets.

Proposed amendments: Ensure CCAs can participate in and benefit from grid utilization programs while preventing IOU-only implementation.

Support:



Support if Amended:



Oppose:



Process:

No longer moving forward – died in Assembly Appropriations Committee

Support if Amended

Rooftop Solar Installation Tax Exemption

AB 2389 (Property taxation: active solar energy systems: customer sited: extension (Irwin - *Principal coauthor: McNerney, Coauthor: Blakespear*):

- Extends the property tax exclusion for certain customer-sited solar energy systems, including systems up to 2 megawatts and those located on public entity property, through January 2032.

Proposed amendments: Require new solar systems to include battery storage to qualify for the exemption, while preserving eligibility for existing and resilience-focused projects.

Support:



Support if Amended:



Oppose:



Process:

No longer moving forward – died in Assembly Appropriations Committee

Full Universe of Ava Monitored Bills

AB 13	Ransom (D)	PUC membership and reporting
AB 34	Patterson (R)	Extends the authority of POU's to count large hydro towards RPS
AB 61	Pacheco (D)	Require PAO to analyze ratepayer impacts of mandated programs
AB 705	Boerner (D)	Creates independent PUC audit office
AB 706	Aguiar-Curry (D)	Fire fuel reduction procurement program
AB 710	Irwin (D)	POU dynamic pricing and advanced metering mandate
AB 942	Calderon (D)	Changes climate credit
AB 1020	Schiavo (D)	Requires IOUs to report taxpayer funding
AB 1156	Wicks (D)	Updates farmland solar-use easement statute
AB 1577	Bauer-Kahan (D)	Data center monthly reporting
AB 1738	Carillo (D)	Requires local governments to offer remote inspections
AB 1761	Rogers (D)	PCIA data transparency
AB 1787	Schultz (D)	Require IOUs to offer a dynamic tariff if smart meter infrastructure is in place
AB 1813	Ward (D)	Require CEC evaluation of renewable energy programs
AB 1975	Schultz (D)	Grid utilization metric
AB 2111	Papan (D)	Transmission planning alignment with affordability and FERC Order 1920

Full Universe of Bills

AB 2175	Garcia (D)	Removes advanced electricity storage from smart grid deployment objectives
AB 2181	Petrie-Norris (D)	Requires PUC commission diversity
AB 2182	Irwin (D)	Creates IOU run industrial decarbonization program
AB 2234	Papan (D)	CEQA exemptions for geothermal exploratory projects
AB 2266	Schultz (D)	RA valuation standardization
AB 2313	Berman (D)	Require gas corporations to offer electrification incentives
AB 2369	Rogers (D)	Enables partial RA, allowing energy-only resources earn RA value
AB 2383	Zbur (D)	Require creation of a large load customer class and rate schedule
AB 2463	Petrie-Norris (D)	Require PUC to study IOU return on equity
AB 2464	Wicks (D)	Require PUC to study clean firm's role in 2045 goal
AB 2493	Petrie-Norris (D)	Require IOUs to have an interconnection auditor
AB 2516	Petrie-Norris (D)	California Grid Manufacturing Initiative
AB 2518	Sharp-Collins (D)	Requires SDG&E to prioritize and fast-track affordable housing energization.
AB 2589	Irwin (D)	Requires PUC to analyze OBBBA and adjust rates to reflect impacts
AB 2612	Schultz (D)	Building standards for plug-in solar systems
AB 2647	Calderon (D)	Bans new nuclear power plants without fuel reprocessing capacity or adv tech

Full Universe of Bills

AB 2700	Gallagher (R)	Requires a report to reduce electricity rates by at least 30%
AB 2748	Quirk-Silva (D)	Revert EV regulations to 2022 state building code for BMR housing
SB 222	Weiner (D)	Heat pump water heater and HVAC system permitting streamlining
SB 327	McNerney (D)	Prohibits IOUs from using ratepayer funds for advocacy activities related to municipalization
SB 332	Wahab (D)	Study breaking up IOUs
SB 453	Stern (D)	Microgrid incentive program
SB 742	Perez (D)	IOUs to remove unused transmission facilities
SB 842	Stern (D)	Report on firm zero-carbon resources
SB 868	Wiener (D)	Plug-in solar interconnection exemption
SB 886	Padilla (D)	Large load cost shift prevention
SB 887	Padilla (D)	Large load CEQA application
SB 905	Becker (D)	Utility Cost and Performance Reform
SB 913	Becker (D)	Resource Adequacy for aggregated distributed capacity resources
SB 924	Hurtado (D)	PUC to consider affordability when looking at home weatherization
SB 925	McNerney (D)	Requires state strategy and permitting framework to advance fusion

Full Universe of Bills

SB 943	Becker (D)	Industrial billing and NBC/TAC reform
SB 1138	Padilla (D)	RA transactability
SB 1158	Stern (D)	Adds status of utility transmission upgrades and electrical grid infrastructure to Reliability Planning Assessment
SB 1167	Blakespear (D)	Clarifies ebike definition and bans advertising of non-eligible bikes
SB 1168	McNerney (D)	Data center tariff study
SB 1233	Allen (D)	Requires enhanced justification of CPUC findings tied to utility returns
SB 1245	Stern (D)	Intent of legislature to address cost containment of renewable integration into grid
SB 1295	Stern (D)	Requires IOUs to evaluate distributed storage and nonwire alternatives and authorizes them to own distributed storage assets
Budget Trailer	Dept of Finance	Reallocates outstanding funding from the Distributed Energy Backup Assets (DEBA) program to the Demand Side Grid Support (DSGS) program
Budget Trailer	Dept of Finance	Transitions 2026 DSGS participants to the Emergency Load Reduction Program (ELRP) or an equivalent CPUC load reduction program.



Staff Report Item 6

To:	Ava Community Energy Authority
From:	Dan Bertoldi, Electrification Program Manager
Subject:	Update on the results of the Health-e Communities Pilot (Informational Item)
Date:	June 12, 2026

Summary/Recommendation

It is recommended that the Marketing, Regulatory, and Legislative Committee receive a presentation on the results of the Health-e Communities pilot. This is an information item and no action is required.

Analysis and Context

Executive Summary

The Health-e Communities pilot ("Pilot") was a kitchen stove electrification pilot program targeting low-income customers that measured indoor air pollution impacts of removing gas stoves. The Pilot used a "direct installation" program delivery model, which means Ava covered all costs associated with the installation (equipment and labor) with no cost to the customer. Ava also coordinated the temporary installation of indoor air quality monitoring. Indoor air quality monitoring was conducted before and after each installation of an all-electric induction stove to measure indoor air pollution levels within the participant's living space.

Applications for the Pilot ran for approximately one year, from October 2024 to September 2025. Marketing efforts included direct outreach to approximately 56,000 income-qualified Ava customers via email to meet the goal of installing 200 electric induction stoves. Of that goal, 162 projects were successfully completed with an average cost of over \$7,000 per project. Despite the low conversion rate from marketing efforts, overall customer satisfaction remained high for

those who did participate, even with longer than anticipated project completion timelines averaging 90 days.

At the end of the Pilot, staff concluded that it did not demonstrate a delivery model that is scalable, given the low conversion rate and the high costs resulting from equipment cost, administration costs and long installation timelines. Although the air quality study on the impact of removing gas stoves shows promising results for reductions in a key pollutant - nitrogen dioxide (NO₂), which is known to cause negative health effects - more research is needed to understand the impacts of this change. Further understanding would require expansion of the health-focused scope to accommodate additional research, resulting in significant additional resource requirements, logistical complexity, and customer burden for each project, further hindering scalability.

During the Pilot, staff identified key barriers to electrification projects that go beyond stove electrification, which are further detailed in this report. Staff will take the learnings from the Pilot and apply it to future planning for program development.

Background and Introduction

At its November 2022 meeting, the Board of Directors directed staff to develop a program proposal to deploy home electrification, specifically induction technology, to Ava customers with a focus on human health. In October 2023, Ava secured a grant totaling \$164,000 from the US Energy Foundation to support indoor air quality research efforts to support the Health-e Communities pilot. In February 2024, Ava executed an agreement with Berkeley Air Monitoring Group to provide indoor air quality monitoring services.

At its April 2024 meeting, the Ava Board of Directors approved staff's recommendation to adopt a resolution authorizing the CEO to execute a contract with Franklin Energy. On July 10, 2024, Ava and Franklin Energy entered into an agreement with a not to exceed amount of \$1.5 million to implement the Pilot, with a term ending on December 31, 2025. On October 1, 2025, Ava officially launched the Health-e Communities pilot and outreach campaign, with Ava leading marketing efforts for outreach and recruitment.

The Pilot set out to achieve the following objectives:

- Complete up to 200 induction stove retrofit projects
- Develop and refine effective program recruitment and enrollment tactics for a direct installation program
- Gain insights into direct install program management strategies for electrification
- Solicit Pilot feedback from all participants
- Conduct analysis of indoor air pollutant concentrations and impacts of cooking electrification for all participants
- Inform on larger programmatic effort linking electrification and health

Approach

Customer eligibility for the Pilot was limited to income-qualified Ava customers. To qualify, customers had to be enrolled in either the California Alternative Rates for Energy (CARE) or Family Electric Rate Assistance (FERA) programs – or reside in a home that is designated as affordable housing. Both homeowners and tenants were eligible to apply, but property owner permission was required for tenant-occupied homes. Additionally, single-family homes or multifamily buildings with 4 units or less were eligible.

The Pilot's outreach campaign focused on customers living in areas with the highest asthma rates. Staff utilized the State's [CalEnviroScreen 4.0](#) to identify the target segments and, using Ava's customer data, identified CARE and FERA customers living within those target areas. In total, Ava reached out directly to approximately 56,000 residences between four to five times each to let them know about the Pilot. Marketing materials were provided in both English and Spanish.

Once a customer applied and was deemed eligible to participate, Franklin Energy provided in-home site assessments to determine the project's eligibility and install the air quality monitor for projects that were eligible. After at least one week of air quality monitoring, a contractor would install the induction unit and remove the gas unit. Franklin Energy returned to the home after another week of monitoring to retrieve the monitor and conduct an exit survey.

The air quality study component of the Pilot consisted of measuring four pollutants in the kitchen: nitrogen dioxide (NO₂), fine particulate matter (PM_{2.5}), carbon monoxide (CO), and carbon dioxide (CO₂). Indoor air quality monitors were placed in participant's kitchens for at least one week before and after each installation. Additionally, each participant was asked to fill out a questionnaire detailing their stove use habits and other factors that would affect study results. Participants were provided with a personalized indoor air quality report at the end of each successful monitoring period.

Results

Results across marketing and customer recruitment, direct installation, and air quality are listed below, with key pilot observations and lessons learned.

Marketing and Customer Recruitment

- Of the 56,000 customers reached through the pilot, less than 1% applied after four or five email attempts per customer (518 application submissions).
- Out of over 200K emails sent, the email open rate was 11%, while the click through rate was 0.66%. The application rate per email was 0.24%.
- 87% of application submissions met the basic customer eligibility criteria for a total of 451 eligible applicants.

Direct Installation Performance

- A total of 162 projects were successfully installed out of the goal of 200 (85% of the goal).

- On average, customer satisfaction was 9.9/10 out of 161 participants surveyed.
- Total applicant attrition rate (i.e. all applicants who applied that did not move forward) was 69%, with 356 of 518 applicants not moving forward.
- The eligible applicant attrition rate (i.e. eligible participant dropout, or number of customers who applied and were approved for an assessment) was 64%, with 289 of 451 projects dropping off for various reasons.
- The average installation took approximately 75 days to complete, from application approval to install.
- The average project completion took approximately 90 days, from application approval to final site visit and exit survey.
- The average cost per project for all labor, equipment, and administration was \$7,110.
- The customer benefit value was approximately \$5,000 on average for direct labor and equipment.

Air Quality Impacts

- Considerable reductions in nitrogen dioxide (NO₂) with most homes experiencing some level of NO₂ decrease.
 - The overall median concentration decreased by 70%, suggesting that large improvements were common across participants, not driven by a small number of outliers.
 - 98% of the study homes experienced a decrease in the number of minutes per day (median of 13 minutes/day to 0 minutes/day) that NO₂ concentrations exceeded 101 ppb, the US EPA threshold above which exposures are considered unhealthy for sensitive groups, including children.
- Reductions in carbon monoxide (CO) were moderate, showing an overall median CO concentration decreased by 17%.
- Carbon dioxide (CO₂) remained stable.
- Changes in particulate matter (PM_{2.5}) was variable, with a slight observed increase, although results were not statistically significant.

Key Pilot Observations

Staff summarized key observations to preserve learnings from the pilot.

Interest levels. Even with a high value offering (\$5,000 value to the customer), the Pilot faced lower than anticipated interest and high attrition for eligible customers that applied (64% attrition for eligible applicants). While specific reasons for participant drop out were often documented, some customers did not provide a reason. Additional market research could be useful to better understand why participants are not interested in a high value offering.

Timelines. The average project timeline of 90 days was largely attributed to logistical complexity, permitting timelines, and customer scheduling.

Project scoping. Almost half of projects required installation measures beyond “standard project”, meaning contractors had to provide other install services in support of the induction range installation, circuit run, and permit (i.e. tandem breakers, circuit sharing devices, etc.), resulting in higher program costs.

Electrical infrastructure and panel issues. A major contributing factor for the high attrition rate was existing electrical infrastructure issues. Nearly one quarter of homes that were assessed did not move forward because of either unsafe panels or panel capacity issues. Staff observed that electrification was not possible in the Pilot for range installation projects where the home had less than 100 amps of total panel capacity.

Air quality impacts. With the significant reduction in NO₂ observed in the Pilot and given the latest research linking NO₂ to pediatric asthma, a positive health outcome is likely attributable to stove electrification. However, more research is needed to understand the true impacts of human exposure to gas stoves.

Key Lessons Learned

Staff summarized lessons learned and will apply these key lessons for further program planning and execution.

One key learning focuses on permitting for a 240V circuit run/range installation, which was highly variable across permitting agencies in terms of requirements and timelines. Ample buffer time should be included in projected project timelines to allow for permit timeline flexibility, sometimes up to 4 weeks.

Related to permitting are learnings related to existing electrical infrastructure. Issues including panel capacity and unsafe electrical/panel conditions were common and should be considered when planning for attrition and delays, especially when targeting hard to reach communities. Adding a panel replacement measure would substantially decrease attrition, but at a high cost. Additionally, when permits are required, there should be consideration that additional code compliance issues - unrelated to the scope of the program - could be uncovered at homes/sites by the inspecting agency, which could then trigger project delays and increased costs.

One possible way to avoid permitting, electrical capacity, and equipment eligibility holdups is to consider virtual in-home assessments at the beginning stages of each project. This could reveal unsafe or insufficient panels, ineligible equipment, or other factors that would prevent a project from moving forward and reduce the amount of staff time on projects that are ineligible. Other program offerings available to Ava customers, such as the State’s Equitable Building Decarbonization program, may fill the need for a direct installation approach for induction stoves. These programs couple induction stove installation with other electrification measures like heat pump HVAC and water heater installation, and provide a greater impact for decarbonization, while streamlining administration.

Conclusion

The Health-e Communities pilot model did not demonstrate a scalable, cost-effective model that could serve a broad segment of Ava's customers. Adding further complexity with more invasive health-based research methods would further impair the viability of a large-scale program. Staff plans to take the learnings and data gathered in this pilot and apply it to future program planning efforts.

Staff is in the process of documenting and formalizing the results of the Pilot in a final report. The report can be used by other program administrators and industry professionals interested in direct install induction program implementation.

Financial Impact

As part of the annual budget adoption process for FY 2023-24 and FY 2024-25, the Board of Directors approved a total allocation of \$10 million for an induction stove program in the Local Development fund.

At its April 2024 meeting, the Board of Directors authorized the use of \$1.5 million from the Local Development fund to pay Franklin Energy Services to provide induction stove installation services to support the Health-e Communities pilot. A total of \$1,152,179 of Local Development funds was spent on Franklin's implementation services over the term of the pilot. Air quality monitoring services, provided by Berkeley Air Monitoring Group, were covered by the US Energy Foundation, which cost a total of \$119,523.

With the closing of the pilot, the remaining \$8.85M funds will be reallocated within the Local Development fund for future programs.

Attachments

- A. Presentation

Health-e Communities
Pilot Results



Health-e Communities Pilot Approach



- The Pilot offered induction stove installation for income qualified customers and measured air quality impacts
- Pilot objectives:
 - a. Measure indoor air pollution impacts for each stove installation
 - b. Test how to build a viable and scalable program using a direct installation delivery model for installing building electrification measures
 - c. Gain insights into electrification program delivery through data collection (e.g. panel capacities, customer interest, etc.)
 - d. Determine viability to scale pilot to a larger program
- The Pilot ran from Oct. 2024 – Sep. 2025
- The total cost of the Pilot was \$1.25 million for both implementation and air quality monitoring
- The Pilot required a high level of effort from Ava and vendors to deliver results (6 organizations and 2 Ava staff)

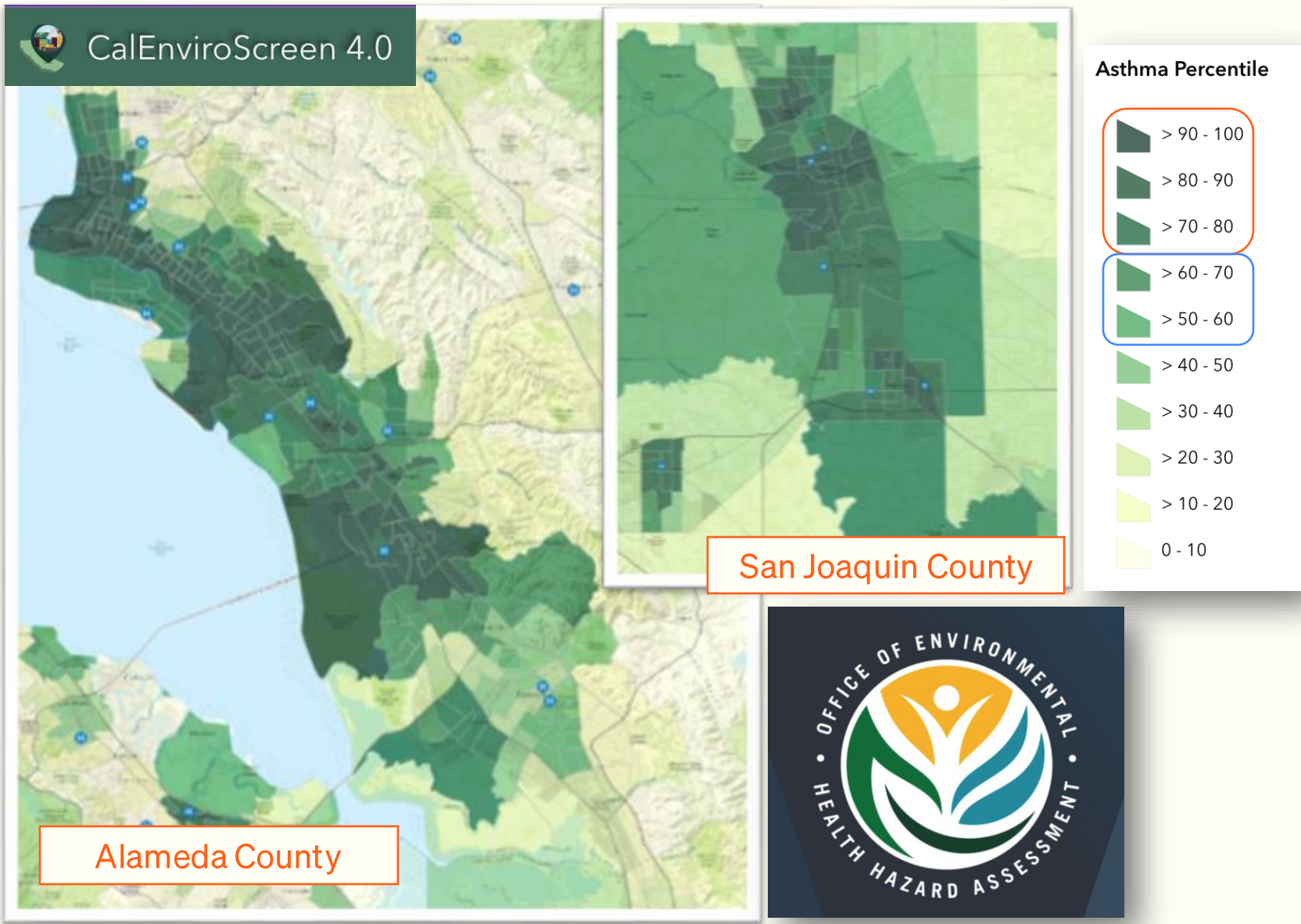


Pilot Results Summary

- 162 units installed across 15 jurisdictions
- Significant learnings were gained:
 - **Indoor air pollution impacts:** Promising results for reduction in nitrogen dioxide (NO₂) - known to impact human health; variable impacts to other indoor air pollutants
 - **Project timelines:** 90 days to project completion, permitting on widely variable timelines across jurisdictions, permit timelines varied from 0 - 65 days
 - **Panel and Electrical Insights:** 22% of assessed homes were ineligible due to unsafe electrical conditions or insufficient panel capacity
 - **Project Costs:** \$5K per installation, \$7K per project including administration.
 - **Customer interest:** 0.24% application rate; 35% of applicants cancelled due to lack of interest or were non-responsive
- The Health-e Communities pilot did not demonstrate a delivery model that is scalable given low uptake rate and high costs



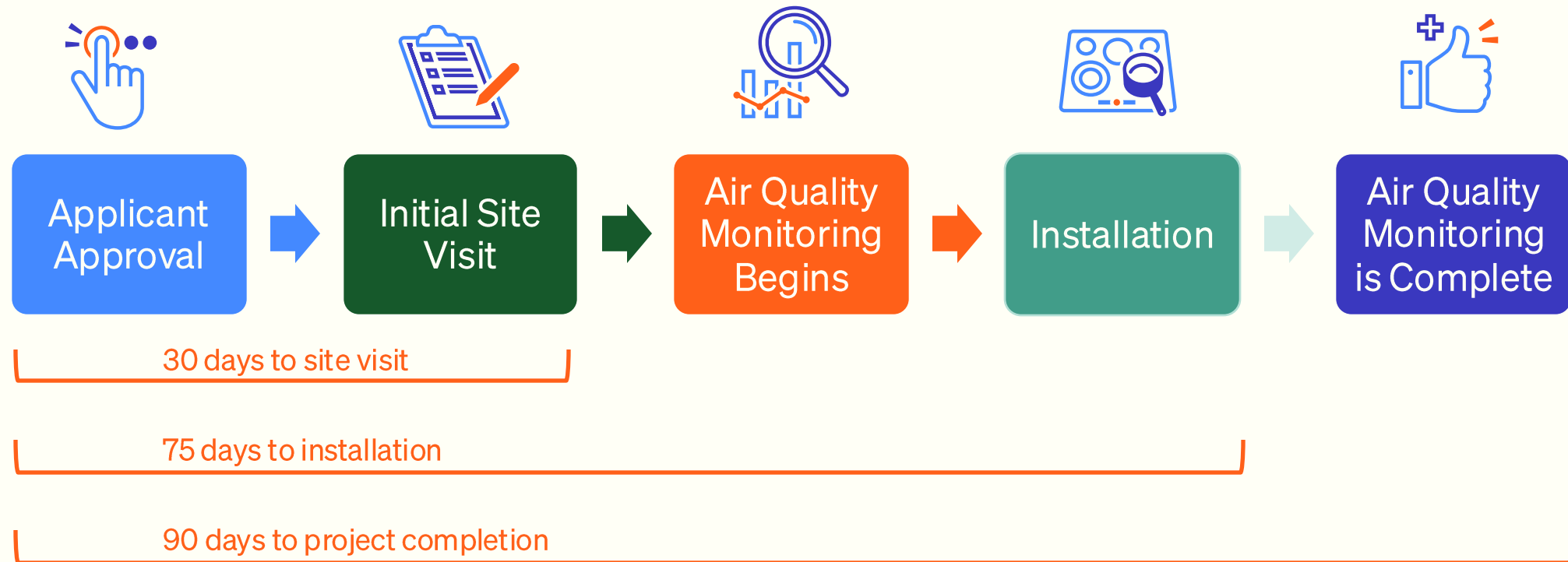
Marketing and Recruitment



Staff used the following criteria for targeted email outreach:

1. Active Ava customers
2. Verified enrollment in CARE or FERA programs
3. Located in areas with the highest asthma rates
 - Utilized the CalEnviroScreen 4.0 Asthma indicator
 - Began in areas in the 75th + percentile
 - Expanded outreach to 50 – 75th percentile
 - 56k (47% of CARE accounts) were emailed

Pilot Process and Average Project Timeline



Permitting Timelines

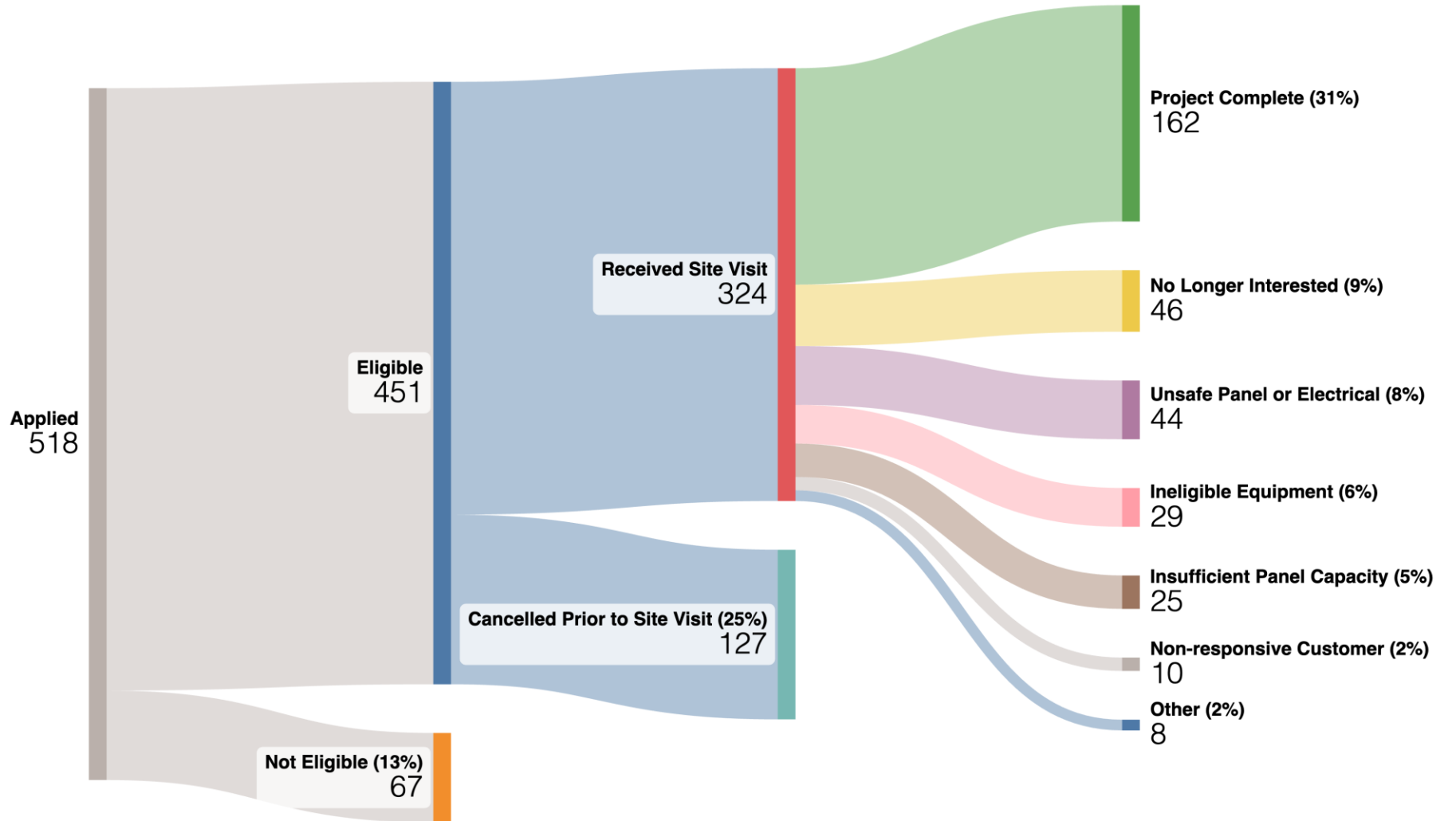
Jurisdiction	Avg Days to Approve Permit	Median	No. of Installs	Min	Max
Berkeley	31	29	10	7	58
Albany	30	30	1	30	30
Newark	29	29	1	29	29
San Leandro	27	29	12	3	65
Pleasanton	22	22	1	22	22
Union City	14	15	3	0	26
Emeryville	9	9	1	9	9
Lathrop	9	9	1	9	9
Uninc. Alameda Co.	9	6	3	6	15
Hayward	8	6	16	0	30
Stockton	6	3	33	1	20
Fremont	3	0	17	0	28
Tracy	1	1	3	1	1
Oakland	1	0	58	0	20

Highlights

- High degree of variability between jurisdictions
- Most projects required electrical permits for 240V circuit runs
- Average project permitting wait times was 8 days
- Reasons for permitting variation:
 - Permit center backlogs
 - Jurisdiction-specific requirements requiring more time and coordination
 - Inspector availability

Applicant Attrition Breakdown

- 212k emails sent to 56k accounts (47% of CARE customers)
- 0.24% application rate
- 69% attrition for all applicants



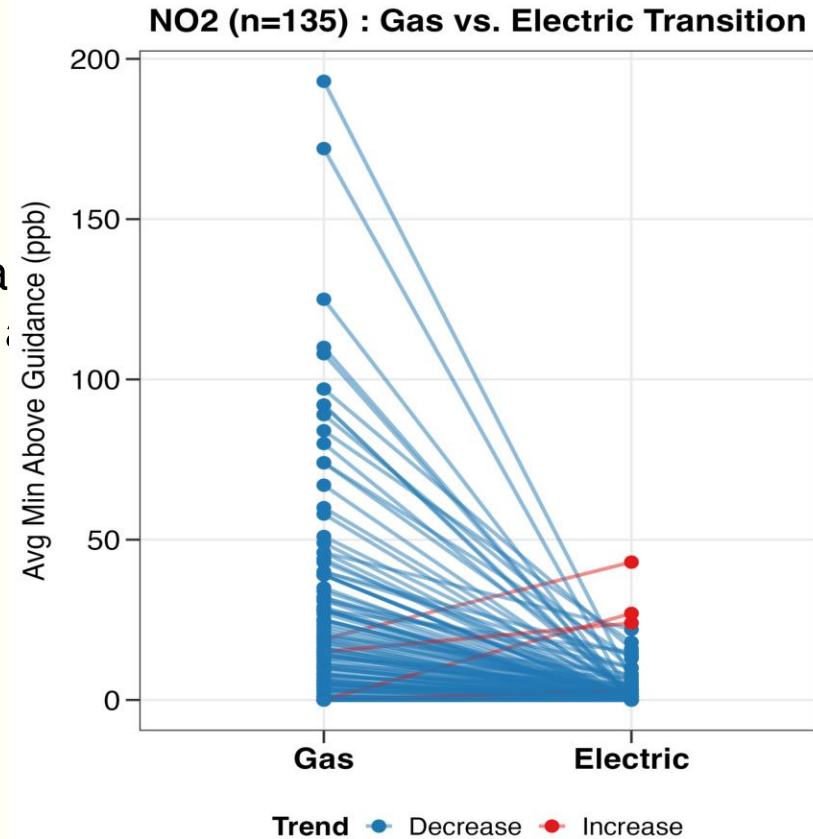
Air Quality Results

Significant and consistent reductions in nitrogen dioxide (NO₂)

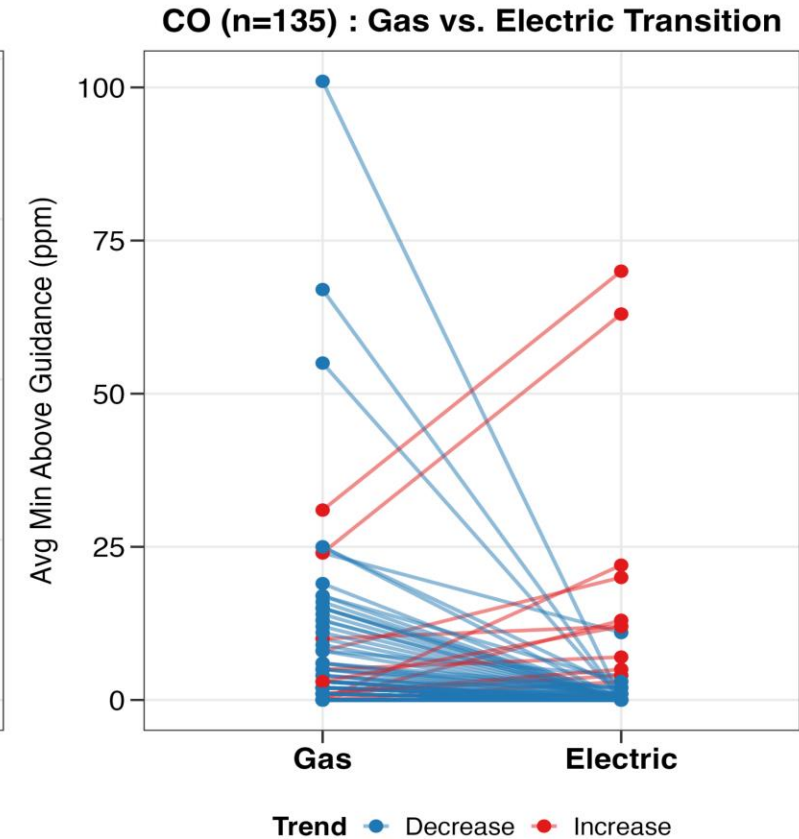
- The median NO₂ concentration decreased by 70%, indicating that a typical household experienced a substantial reduction.
- Median minutes above EPA threshold declined from 13 to 0 minutes per day (P<0.0001)

Reductions in carbon monoxide (CO) were moderate

- Median CO concentrations decreasing by 17%
- Median minutes above EPA threshold declined from 1 min/day to 0 min/day (p < 0.0001)



Average minutes per day with NO₂ concentrations exceeding the 101-ppb threshold.



Average minutes per day with CO concentrations exceeding the 9.5 ppm threshold

Next Steps

- Staff will apply learnings from the Pilot to future program planning and design efforts
 - Better understanding of electrical constraints across building stock in Ava's service area
 - Insights into electrification project costs, permitting constraints, and project timelines for better contractor coordination
 - Program offerings that gain more customer interest and program participation
- Remaining budget (~\$8.5MM) can be reinvested into future building electrification programs (e.g. potential heat pump water heater or heat pump HVAC programs)
- Berkeley Air Monitoring Group continues to advance health-focused research on air quality and stove electrification under a CEC grant, in coordination with the Equitable Building Decarbonization Program



Thank you!

Dan Bertoldi

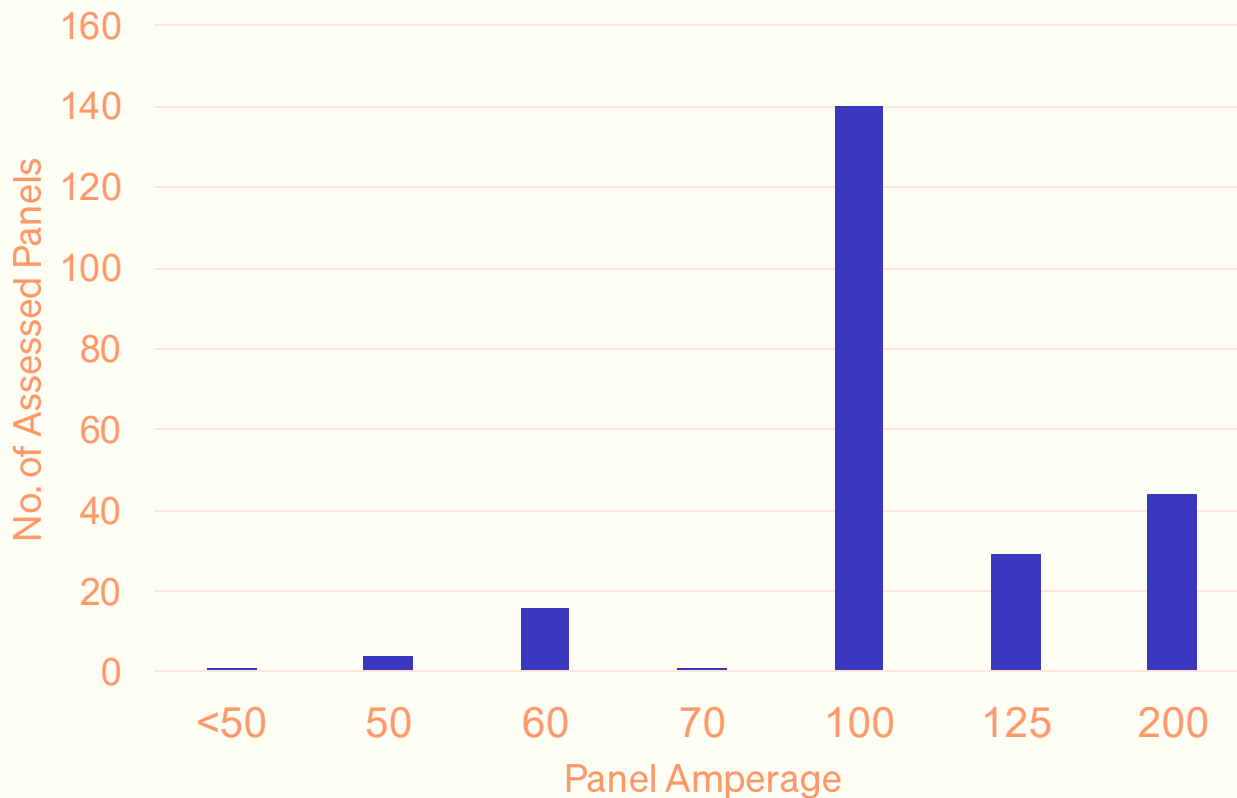
Electrification Program Manger

dbertoldi@avanenergy.org

Panel and Electrical Insights

Highlights

Panel Capacity Observations



- 22% of total assessed homes (324) were cancelled because of panel and/or electrical issues
 - 14% unsafe panel/electrical (44)
 - 8% panel capacity (25)
- All completed projects were at homes with 100 amps+
 - It was not feasible to electrify with less than a 100-amp panel
- Recalled/unsafe panel brands include Zinsko, Stab-Lok, Sylvania, and Federal Pacific
- We also encountered melted breakers, pest infestations in panel box, missing panel enclosures, etc.

Pilot Interest by Jurisdiction

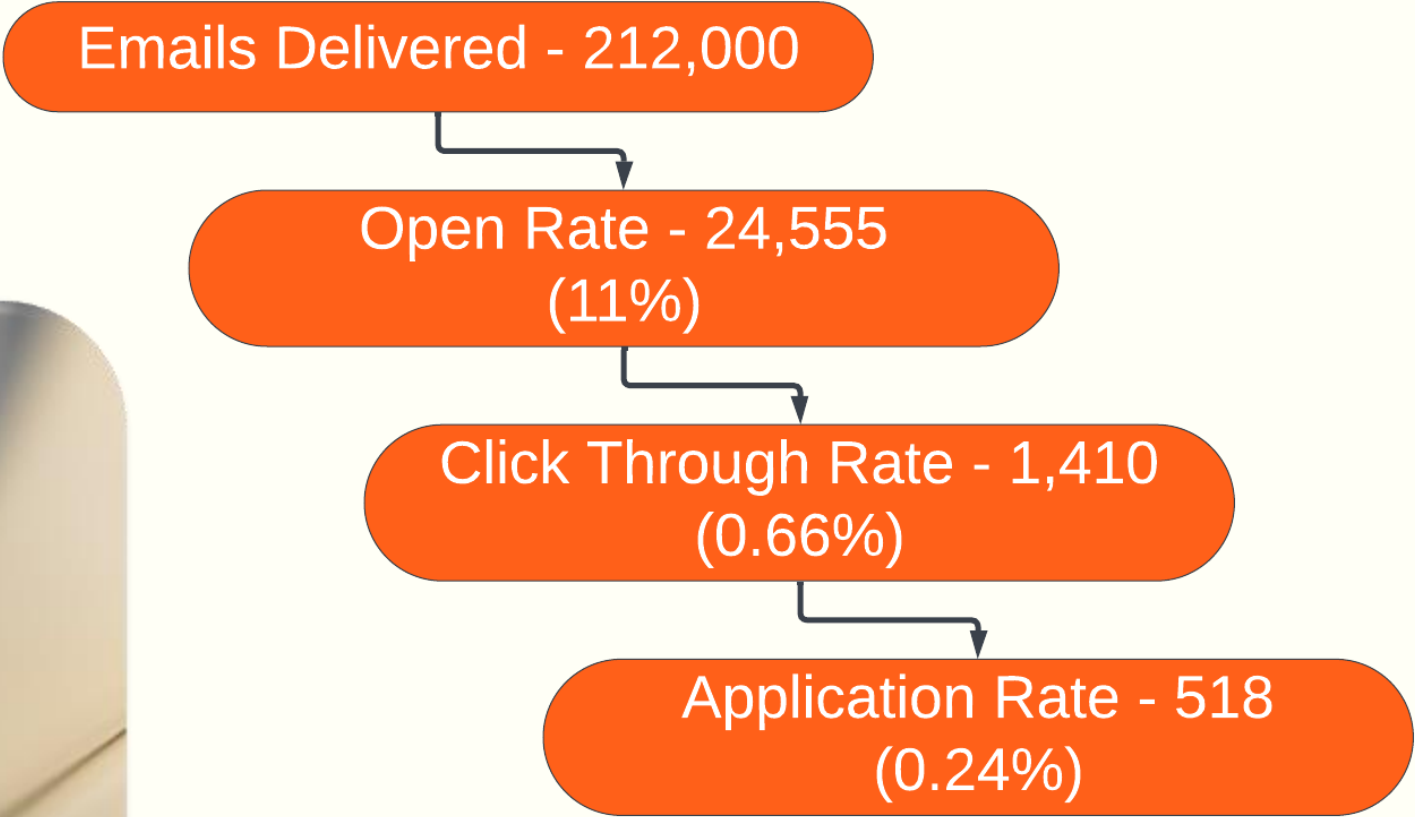
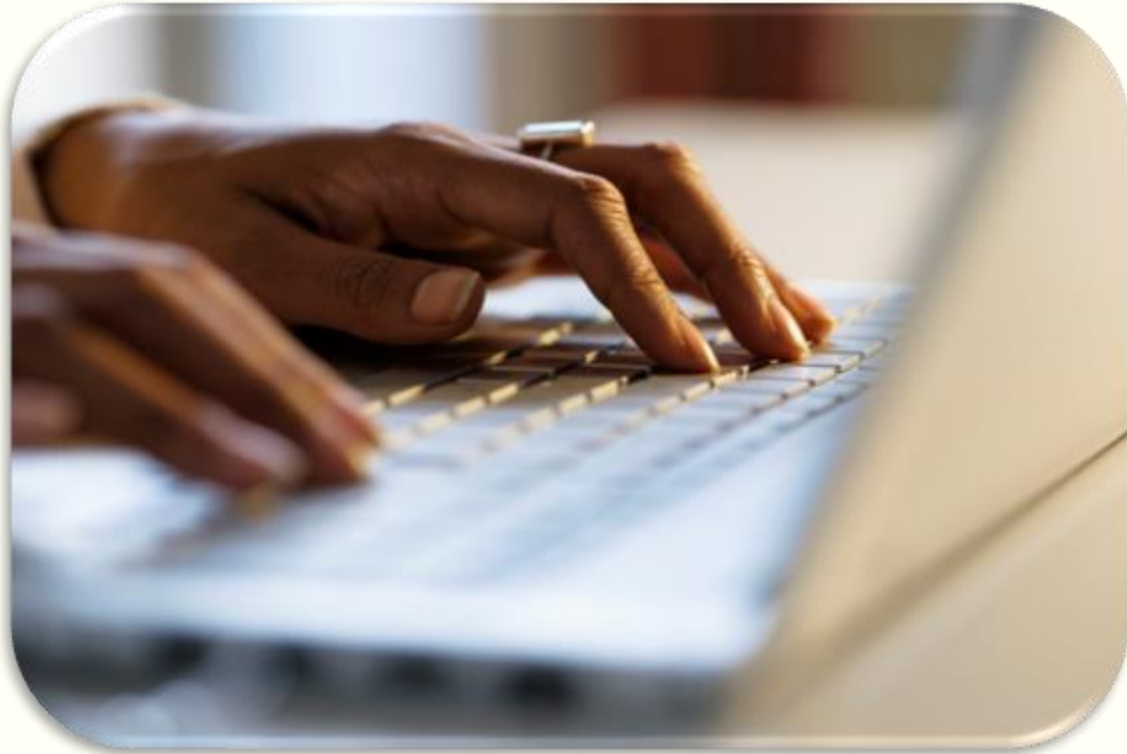
Jurisdiction	Approved Applications	Completed Installs	% Completed Projects by City
OAKLAND	156	58	35%
STOCKTON*	115	33	20%
FREMONT	29	17	10%
HAYWARD	36	14	9%
SAN LEANDRO	24	13	8%
BERKELEY	26	11	7%
UNINC ALAMEDA CO	21	5	3%
TRACY	17	3	2%
UNION CITY	7	3	2%
EMERYVILLE	3	1	1%
LATHROP*	7	1	1%
NEWARK	6	1	1%
ALBANY	2	1	1%
PLEASANTON	1	1	1%
DUBLIN	1	0	0%

*Pilot made available to these cities in May 2025

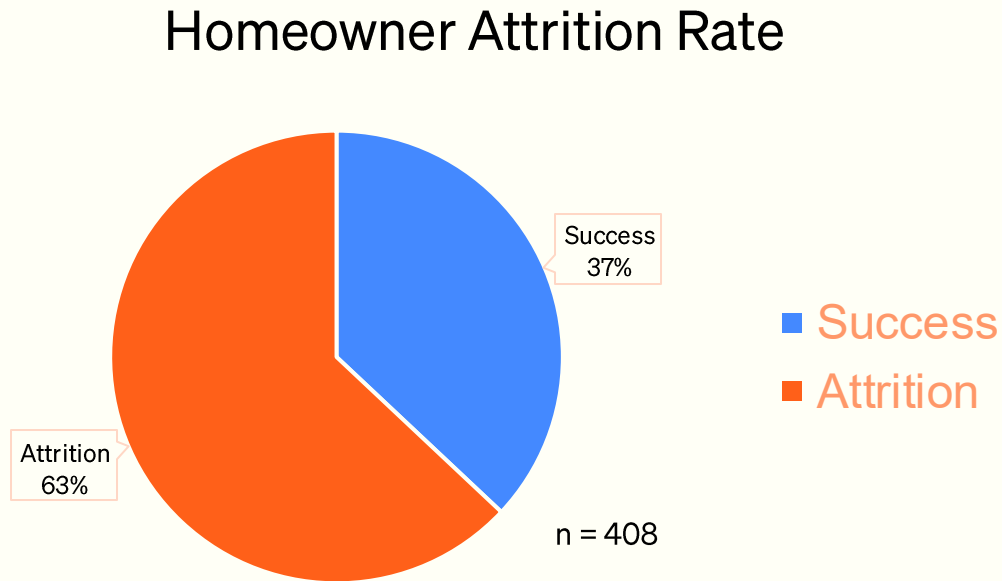
Highlights

- Stockton achieved 33 installs (20%) in just 4 months
- Stockton and Oakland account for more than half of installs – these cities had the highest CARE/FERA populations and highest concentration of asthma rates
- Staff was able to tap into the (designated) affordable housing market in Fremont with assistance from City staff

Outreach Email Statistics



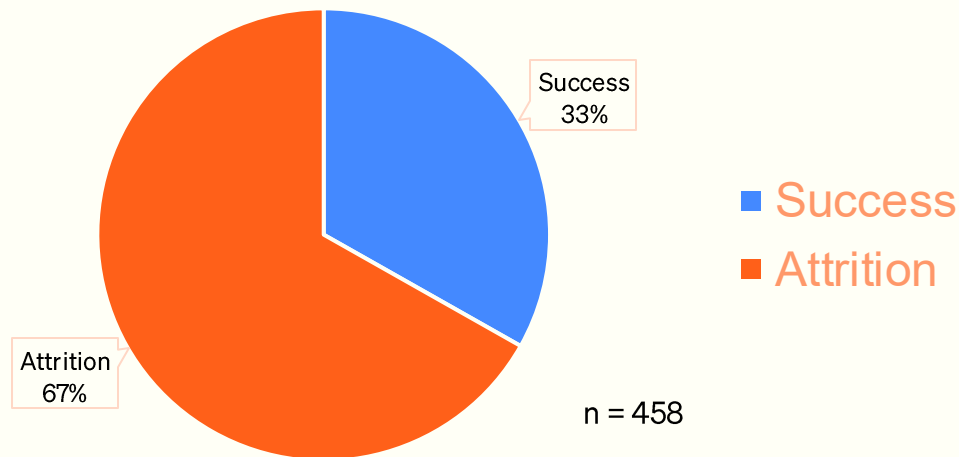
Attrition Rate Renters vs. Homeowners



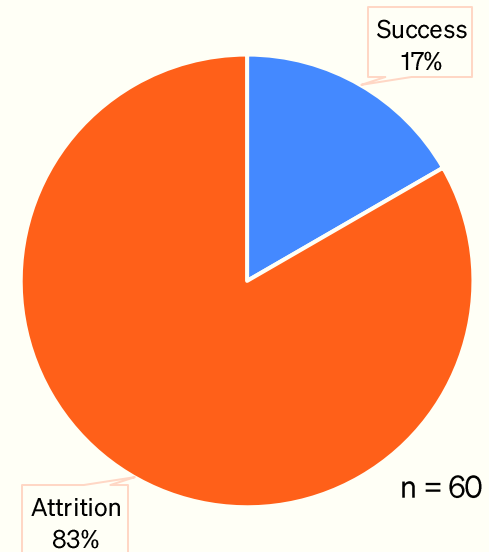
- Attrition was 90% for renters compared to 63% for homeowners.
- 26% of renting participants did not move forward because of panel or electrical issues, compared to 10% of homeowner participants

Attrition Rate Single Family vs. Multi-family

Single Family Attrition Rate



Multi-Family Attrition Rate



- Attrition was 83% for multi-family buildings compared to 67% for single-family homes.
- 27% of the multifamily homes observed didn't move forward because of panel or electrical issues, compared to 12% of homeowners

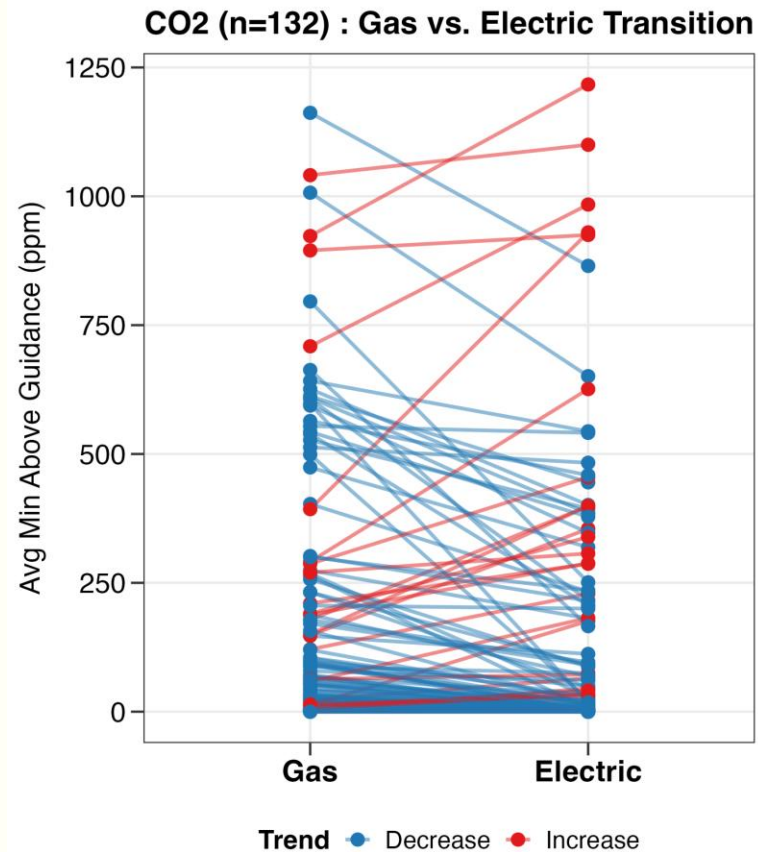
Air Quality Results

Carbon dioxide (CO₂) remained stable

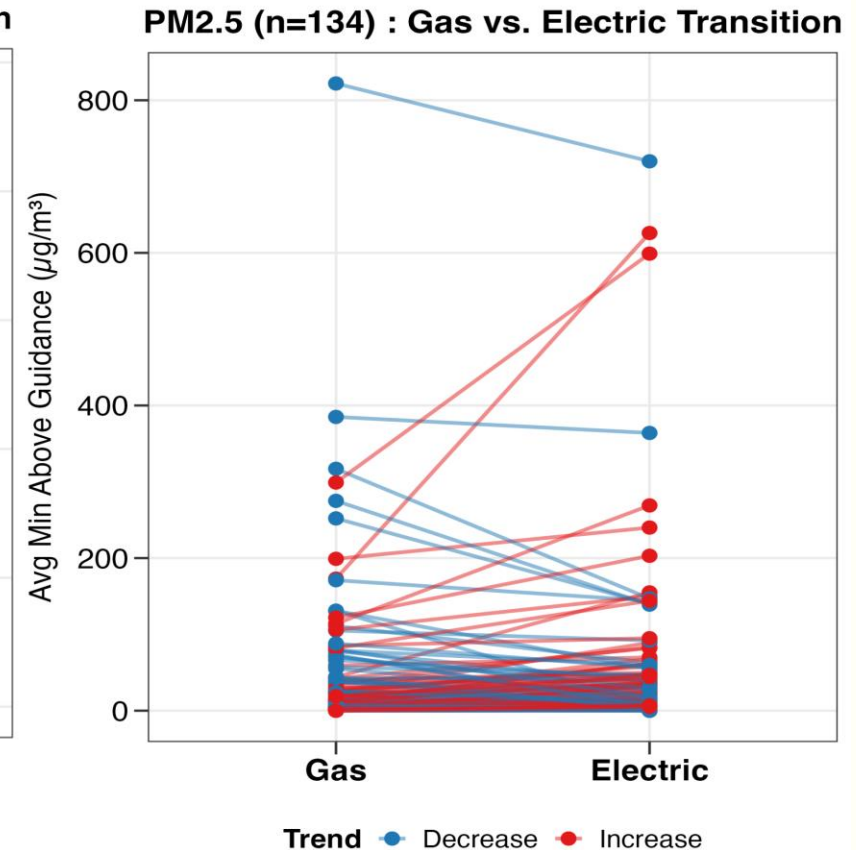
- Carbon dioxide concentrations remained largely stable following the stove transition. **Median CO₂ concentrations decreased slightly (4%),**

Particulate Matter (PM_{2.5})

- High variability, with PM_{2.5} being influenced by factors beyond stove fuel, including cooking practices, ventilation, and outdoor air infiltration.



Average minutes per day with CO₂ concentrations exceeding the 1100 ppm threshold (right).



Average minutes per day with PM_{2.5} concentrations exceeding the 35.5 µg/m³ threshold (right).

Direct Install Program Costs

	<u>Avg. Cost per Completed Project</u>	<u>Total Cost</u>
Direct Project Costs*	\$5,050	\$818,155
Admin ⁺	\$2,062	\$334,024
Total	\$7,112	\$1,152,179

*Includes costs for equipment, labor, assessments, and cookware

⁺Includes total admin costs program-wide

Key Observations: Site Conditions

- A major factor for the high attrition rate was existing electrical infrastructure.
 - Expect pre-existing site challenges for the targeted customer segment: uncovering electrical/panel issues and code violations was common.
 - A disproportionate number of renter and multifamily projects were cancelled because of electrical issues.
 - Stove electrification was not possible with less than 100 amps of total panel capacity.
 - Almost half of projects required installation measures beyond “standard project”, increasing the installed cost for those customers (i.e. required tandem breakers, circuit sharing devices, etc.)
- Virtual assessments may be a solution to reduce unnecessary site visits by uncovering electrical issues.
- Adding a panel replacement measure would substantially decrease attrition, but at a high cost. This would have the most impact on renters or customers who live in multifamily buildings.