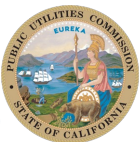


San Joaquin Valley Affordable Energy Pilot Program

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Alyssa Cheung, CPUC



California Public
Utilities Commission

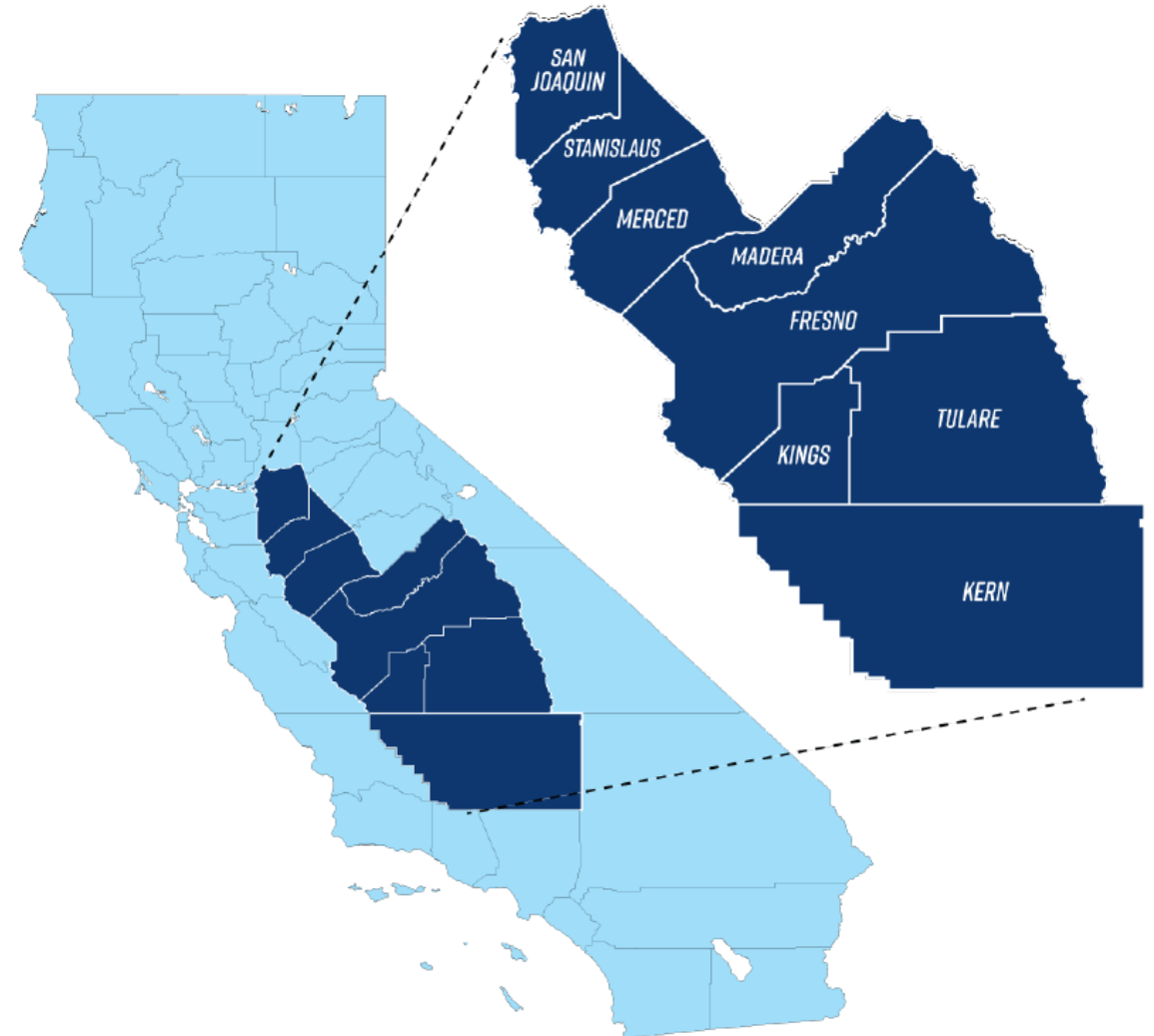
Agenda

1. Program Background
2. Pilot Components
3. Pilot Progress
4. Lessons Learned Thus Far
5. Next Steps



Background

- AB 2672 (Perea, 2013) added Section 783.5 to Public Utilities (PU) Code. Directs CPUC to
 - 1. Identify San Joaquin Valley Disadvantaged Communities (SJV DAC)
 - 2. Find ways to increase access to affordable energy in a cost-effective manner
 - 3. Assess economic feasibility of options
- Proceeding (R.15-03-010) opened on March 26, 2015

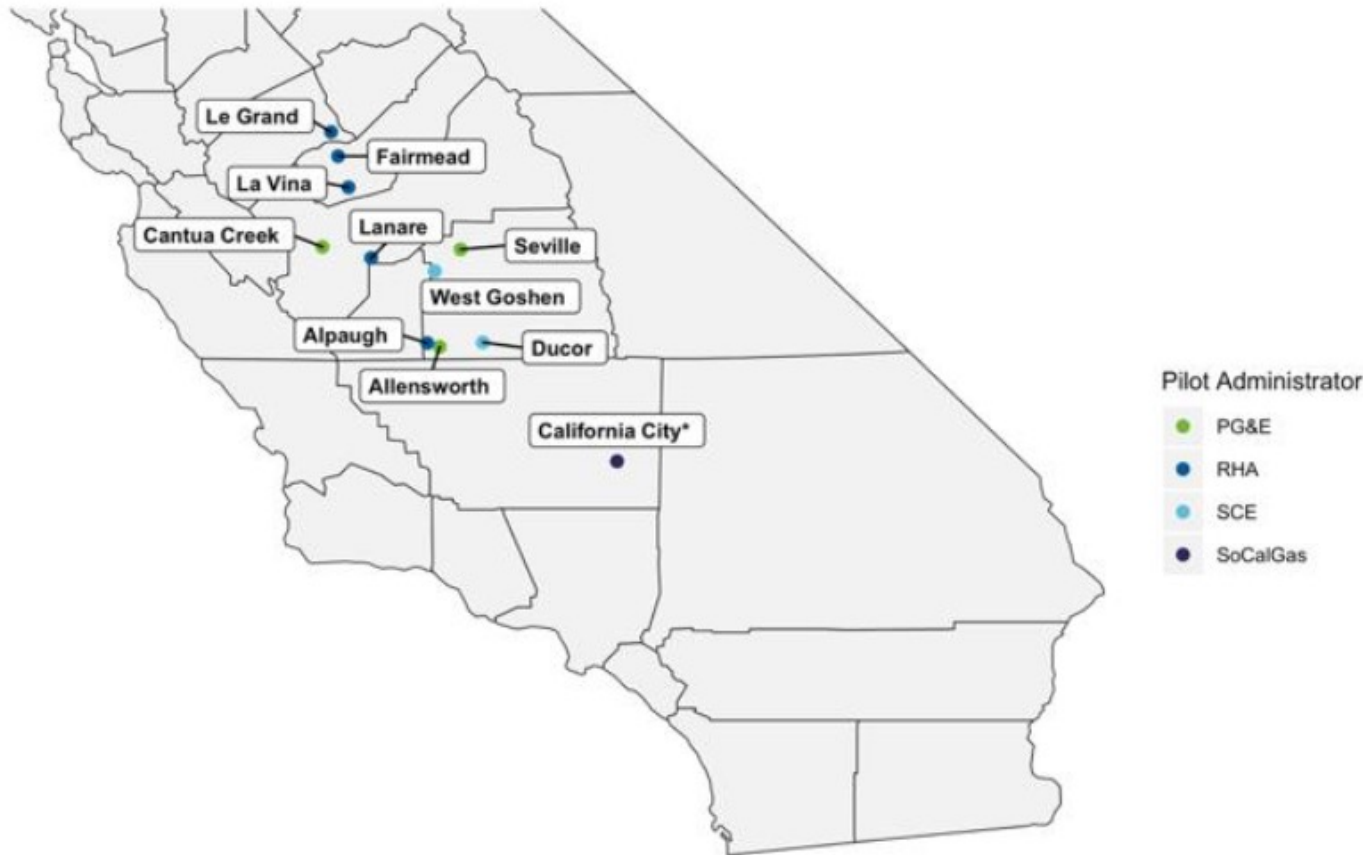


Background

- Phase 1 (*complete*): Adopts methodology for identifying SJV DAC communities and approves a list of 178 communities.
- Phase 2 (*underway*):
 - Track A: Authorizes implementation of pilots to explore ways to provide cleaner and affordable energy.
 - Track B: Defines data gathering needs and creates a plan for collecting this data to inform a future economic feasibility study of expanding energy options for all 178 communities.
- Phase 3 (*not yet started*): Will assess cost-effectiveness and economic feasibility of options, and whether to extend to remaining pilot communities.

Phase 2, Track A

Pilot Communities



- \$57.1 million allocated to pilots
- 11 pilot communities (~7,381 households)
- California City has electrification & gas extension
- 85% qualify for CARE
- \$31,000 average annual income
- 52% owner occupied; 37% renter-occupied

Pilot Overview (Electrification)

- Participants offered, at no cost: heat pump HVAC and water heaters, induction stoves, electric clothes drying and associated upgrades (e.g., rewiring, panel and service upsizing)
- Leverage other programs (SGIP, DAC-SASH, ESA, CSGT and DAC-GT)
- **Bill protection:** 20% SJV discount and 20% transitional community solar discount or CSGT or DAC-GT, for 10 years; five-year evaluation will determine if discount stays at 20% or drops to 10%
- **Tenant protection:** tenant and landlord must sign agreement protecting tenant from evictions, CEN is third-party signatory and enforces agreement. Violation will bar landlord from future participation in programs.
- Efforts to promote local workforce development

Pilot Structure

Table 1: Pilot Team

Role	Description	Organization		
Investor-Owned Utilities (IOUs)	Each IOU is a Pilot Administrator for pilots in their service territories.	SCE	SoCalGas	PG&E
Pilot Administrator (PA)	Organizations tasked with administering the pilots.	SCE	SoCalGas	PG&E RHA
Pilot Implementer (PI)	Manages home assessment and measure installation.	Proteus	Staples Energy	RHA
Community Energy Navigator Program Manager (CPM)	Responsible for initial outreach through application process with customers. Employs and manages Community Energy Navigators (CENs) and "Community" CENs, who are CENs who live in the targeted communities.	Self Help Enterprises (SHE)		

SoCalGas	California City
SCE	California City
	West Goshen
	Ducor
PG&E	Allensworth
	Cantua Creek
	Seville
RHA	Alpaugh
	Fairmead
	Lanare
	La Vina
	Le Grand

Tenant Protections

- An agreement signed by tenant, property owner, and Community Energy Navigator
- Starts on date of agreement's execution and continues 5 years after installation measures fully completed
- Limits rent increases to 3.6% per year (*unless increase is due to increases in property taxes, operating and maintenance costs, or amortizing costs of other improvements*)
- Evictions can only happen if tenant doesn't pay rent or violated the lease, tenant uses the property for illegal purposes, or the property owner (or family member) reoccupies the property
- Community Energy Navigator enforces the agreement
- So far, no major issues reported

Progress Thus Far

- A total of 1,626 homes deemed eligible for electrification
 - 941 (57.9% of eligible homes) submitted applications
 - 825 (87.7% of applicants) completed in-home assessments
 - 623 (75.5% of homes that received assessments) have received installations thus far
 - Equates to 38.3% all eligible homes
- Average cost per home has been around \$22,000
- 85% of homes did not exceed the \$5,000 remediation cap (~\$2k)
 - For homes exceeding the \$5k cap, costs averaged \$13,600 per home

Challenges and Lessons Learned:

Participation

Challenges:

- Residents wanted to see work completed on other homes in their community first; scattershot outreach and installation approach did not accommodate this
- Participants left program due to ongoing program delays or needing to move (ex: to follow work)
 - CEN needs to enroll new tenant, if they're willing, and start process all over
 - If participant moves after completed installation, cannot track them in impact evaluation due to no available pre-installation data
- Non-participants often didn't cite reasons; but those who did cited fears of increased electricity costs

Lessons Learned:

- Cost savings was the largest driver for participation
- Landlords motivated to participate to increase value of home

Challenges and Lessons Learned:

Leveraging other programs

Challenges:

- Multiple installations by different sets of contractors from different programs was logistically challenging and disruptive for customers (but likely necessary)
- People were skeptical that they could get everything “for free” across multiple programs; also lack of trust due to bad experiences with other programs

Lessons Learned:

- Insofar as possible, coordinate concurrent installations, but also set expectations that there will need to be multiple visits
- Train crews to perform multiple types of installations
- Back-end coordination between programs is key to maximizing efficiency
 - Ex: Coordination between program implementer and DAC-SASH program to collect home data during assessments

Challenges and Lessons Learned:

Installations

Challenges:

- Supply chain issues caused major delays, up to 6-8 months, for appliances, meter panels, exterior subpanels
- Obtaining permits caused major delays (especially California City)
- Labor shortages – hiring locally was also difficult
 - Inconsistent timing of installations made it hard to keep staff fully employed
 - Program Implementers struggled to hire new staff b/c shortage of qualified workers and increasing labor costs (up 30%) that are not supported in the pilot pricing contracts
 - Shortages in electricians, plumbers, and HVAC technicians
- Manufactured homes were main source of excessive costs (can be \$17-25k for remediation) – issues with permitting and extensive trenching for electrical work

Challenges and Lessons Learned:

Installations (cont'd)

Lessons Learned:

- Scattershot approach is inefficient and causes delays; community-by-community approach saves time and money, and encourages others to participate
- Service upgrades are costly and can be a barrier to future electrification
- Generally, \$5,000 for remediation was sufficient to serve the majority of homes
- However, manufactured homes may need more remediation funding

Preliminary Monthly Bill Impact Data (Electrification)

	SCE	PG&E
SJV and TCS discounts (total 36% off initial bill)	-\$86.74	-\$38.01
SJV Discount only (20%)	-\$41.25	\$0.46
No discounts	\$15.60	\$48.54

- Note: this is preliminary data, a formal evaluation and cost effectiveness assessment will be completed
- Averages across all communities, all months
- RHA: will resubmit data

Next steps: Wrap up Phase 2, Start Phase 3

Wrap up Phase 2:

- Installations complete by Q3 2023
- Each PA will conduct a Pilot Impact Evaluation (12 months)

Start Phase 3:

- Re-open existing proceeding or open a new proceeding (TBD)
- Start Economic Feasibility assessment

Questions?

alyssa.cheung@cpuc.ca.gov



Additional Reference Slides



Approved Pilot & Evaluation Budget

		<u>Total</u>	RHA	PG&E	SCE	SoCalGas
Implementation	Installations	\$53,914,558	\$24,887,014	\$9,355,835	\$14,654,909	\$5,016,800
	CEN	\$1,500,000	\$363,600	\$142,000	\$532,100	\$462,300
	Monterey Park Tract	\$250,000		\$250,000		
	Water Heater DR Program	\$200,000			\$200,000	
	Bill Protection*	\$886,500	\$504,000	\$158,000	\$224,500	\$112,000
	<u>Pilot Total</u>	\$56,412,557	\$25,754,614	\$9,655,835	\$15,411,008	\$5,591,100
Evaluation	Pilot Process Evaluation	\$250,000				
	Economic Feasibility Study	\$500,000				
	<u>Grand Total</u>	\$57,162,557				

Forecast of Treated Homes

	Total HH	HH without NG	Third-Party PA/PI	PG&E	SCE	SoCalGas
Allensworth	116	106		106		
Alpaugh	225	46	46			
Cal City	5,254	1,110			100	224
Cantua Creek	119	106		106		
Ducor	222	222			222	
Fairmead	401	253	253			
Lanare	150	17	17			
La Vina	165	84	84			
Le Grand	502	502	502			
Seville	104	104		104		
West Goshen	127	127			127	
<i>Monterey Park Tract (only CSI thermal)</i>				53		
Total per PA	7385	2677	902	369	449	224
Total, pilot communities (excluding Monterey Park Tract)			1,891			

Tenant protections

1. The term of the occupancy ends.
2. The tenant has failed to pay rent or other associated obligations.
3. The tenant has committed a material breach of the occupancy agreement.
4. The tenant has used the property for an illegal purpose.
5. The owner, or immediate member, re-occupies the property.

Bill Discounts Summary

Year 1-5 of Participation in the Pilot

Discount Provided	Amount Provided
CARE discount (if eligible)	36 percent (PG&E) or 32.5 percent (SCE)
FERA discount (if eligible)	18 percent
DAC-GT or CSGT discount (if eligible)	20 percent
SJV Pilots Bill Protection Discount	20 percent

Year 6-10 of Participation in the Pilot

Discount Provided	Amount Provided
CARE discount (if eligible)	36 percent (PG&E) or 32.5 percent (SCE)
FERA discount (if eligible)	18 percent
DAC-GT or CSGT discount (if eligible)	20 percent
SJV Pilots Bill Protection Discount	10 percent if evaluation finds no energy cost increase for any participating customer except statistical <u>outliers</u> ; ...or 20 percent if evaluation finds energy cost increases for any participating customer except statistical outliers

Budget Detail

Community	Cost Per Household	Base Pilot Cost per Community*	Pilot Households	Summary
Allensworth	\$31,029	\$3,289,097	106	PG&E Electrification, CSGT
Alpaugh*	\$34,225	\$1,574,332	46	3rd Party Electrification, CSGT, DAC-GT
California City (Gas)	\$22,396	\$5,016,800	224	Natural gas
California City (Electrification)	\$30,810	\$3,080,980	100	SCE Electrification, CSGT or DAC-GT
Cantua Creek	\$29,254	\$3,100,912	106	PG&E Electrification, CSGT
Ducor	\$32,003	\$7,104,643	222	SCE Electrification, CSGT or DAC-GT
Fairmead	\$27,217	\$6,885,853	253	3rd Party Electrification, CSGT, DAC-GT
Lanare*	\$38,172	\$648,921	17	3rd Party Electrification, CSGT, DAC-GT
Le Grand	\$26,378	\$13,241,656	502	3rd Party Electrification, CSGT, DAC-GT
La Vina	\$30,193	\$2,536,252	84	3rd Party Electrification, SASH
Seville	\$28,518	\$2,965,826	104	PG&E Electrification, CSGT
West Goshen	\$33,612	\$4,268,785	127	SCE Electrification, CSGT
Average/Total	\$28,405.11	\$53,714,057	1,891	