

# From Propane to Progress

Clean Energy Pilots to Address Air Quality and Energy Equity in Disadvantaged Communities



**2025 International Energy  
Program Evaluation  
Conference**

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# Pilot Program Offered: Where and Why?

## Disadvantaged Communities with Higher Reliance on Wood and Propane

- A census tract in the top 25% of communities **experiencing pollution burden**
- Based on CalEnviroScreen, a tool that maps communities most affected by pollution
- Includes 11 federally-recognized tribal territories that have **higher reliance on propane and wood** than other households



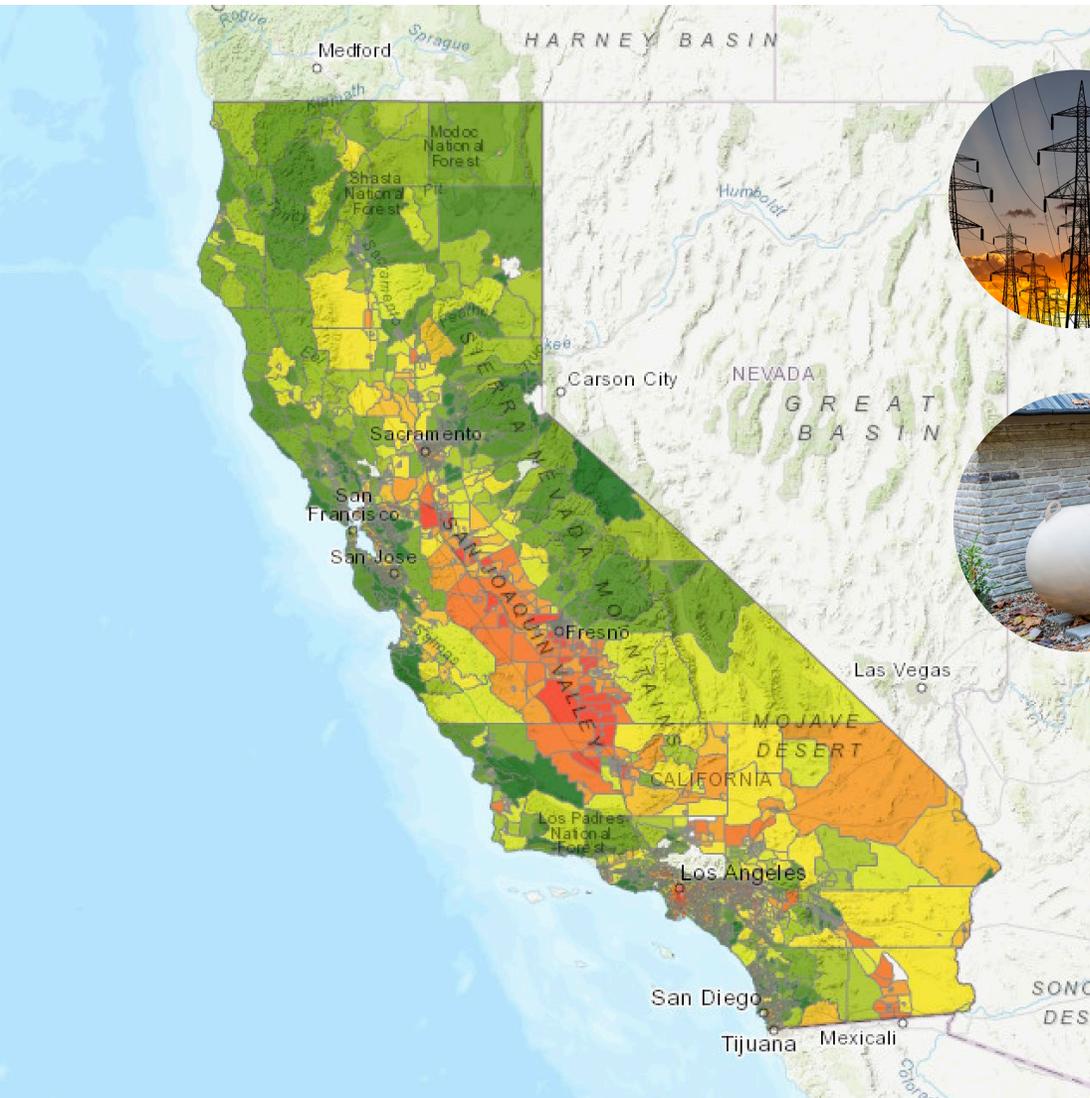
# Focus on Lack of Access to Natural Gas



AB 2672

**D.18-12-015:** The CPUC directed three IOUs serving the San Joaquin Valley to implement a pilot to provide access to affordable, clean energy to selected communities that lack access to natural gas and rely on propane and wood.

# Key differences in implementation



PG&E/RHA served all-electric homes



SCE **did not** allow all-electric homes to participate

SoCalGas installed gas measures

# What the program offered



## What were the impacts?

- To energy bills?
- To energy usage?
- To home comfort?
- To GHGs?

# Key differences in implementation



	Natural Gas	Electric		
Program Administrator	SoCalGas	PG&E	RHA	SCE
Eligibility Criteria	Homes without natural gas Use Propane & Wood	Homes without natural gas Use Propane & Wood <b>OR</b> All-Electric homes		Homes without natural gas Use Propane & Wood
# Communities	1	3	5	3
# Potential homes	235	316	922	449
# Treated homes	83	158	451	135
Average cost per home	\$9,156	\$23,862	\$20,983	\$27,561
Infrastructure	Gas house line extension	Electrical panel upgrades		
Bill Protection	\$160 credit per yr. for 3 yrs.	20% monthly discount for 5 yrs. & 10-20% discount next 5 yrs.		

# Energy Usage



## Propane and wood usage decreased



## Electricity usage increased



SCE customers saw 25% increase in electricity usage



PG&E/RHA customers saw 10% increase in electricity usage

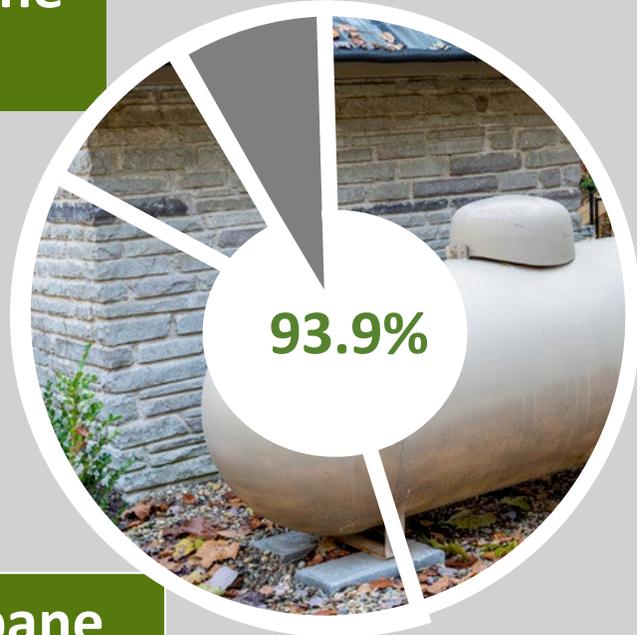
# Bulk Fuel Disaggregation



## Pre-Period

Propane range

Electric dryer



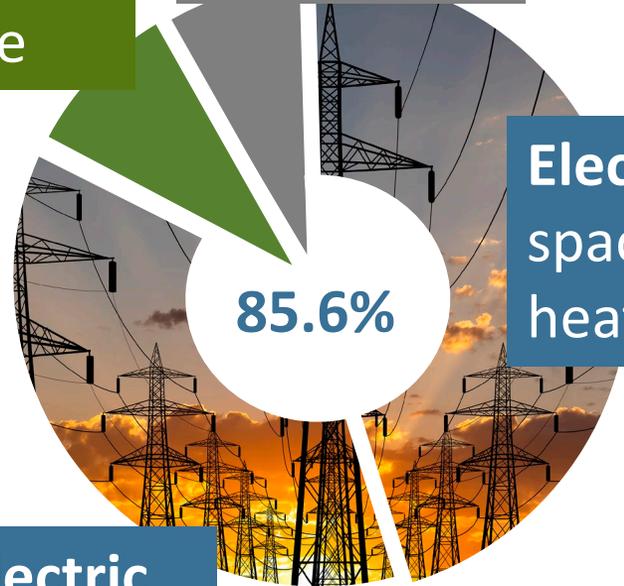
Propane space heating

Propane water heating

## Post Period

Propane range

Electric dryer



Electric space heating

Electric water heating

$$85.6\% / 93.9\% = 91.2\%$$

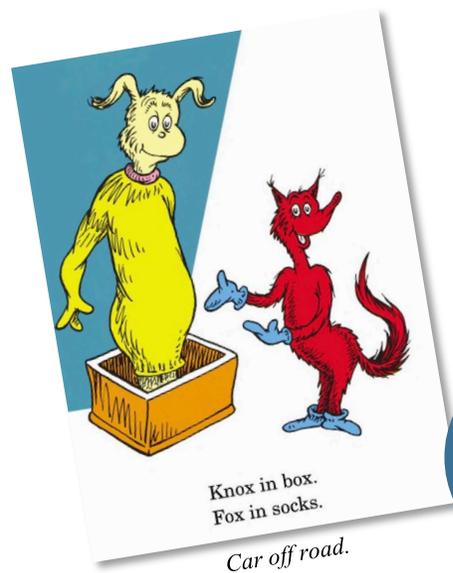
Self reported consumption of 568 gallons \* .912 =

Attributable savings of 519 gallons

# Green House Gasses (CO<sub>2</sub>, NO<sub>x</sub>, SO<sub>x</sub>)

PG&E

SCE



... or 211 cars  
off of the road



... or 81 cars  
off of the road

# Bill Protection Offering & Bill Results



**Electric PAs:** 20% monthly discount for 5 yrs. & 10-20% discount next 5 yrs

**Gas PA:** \$160 credit per year over 3 years



**PG&E**

$$-\$657 + -\$7 + -\$125 = -\$539$$

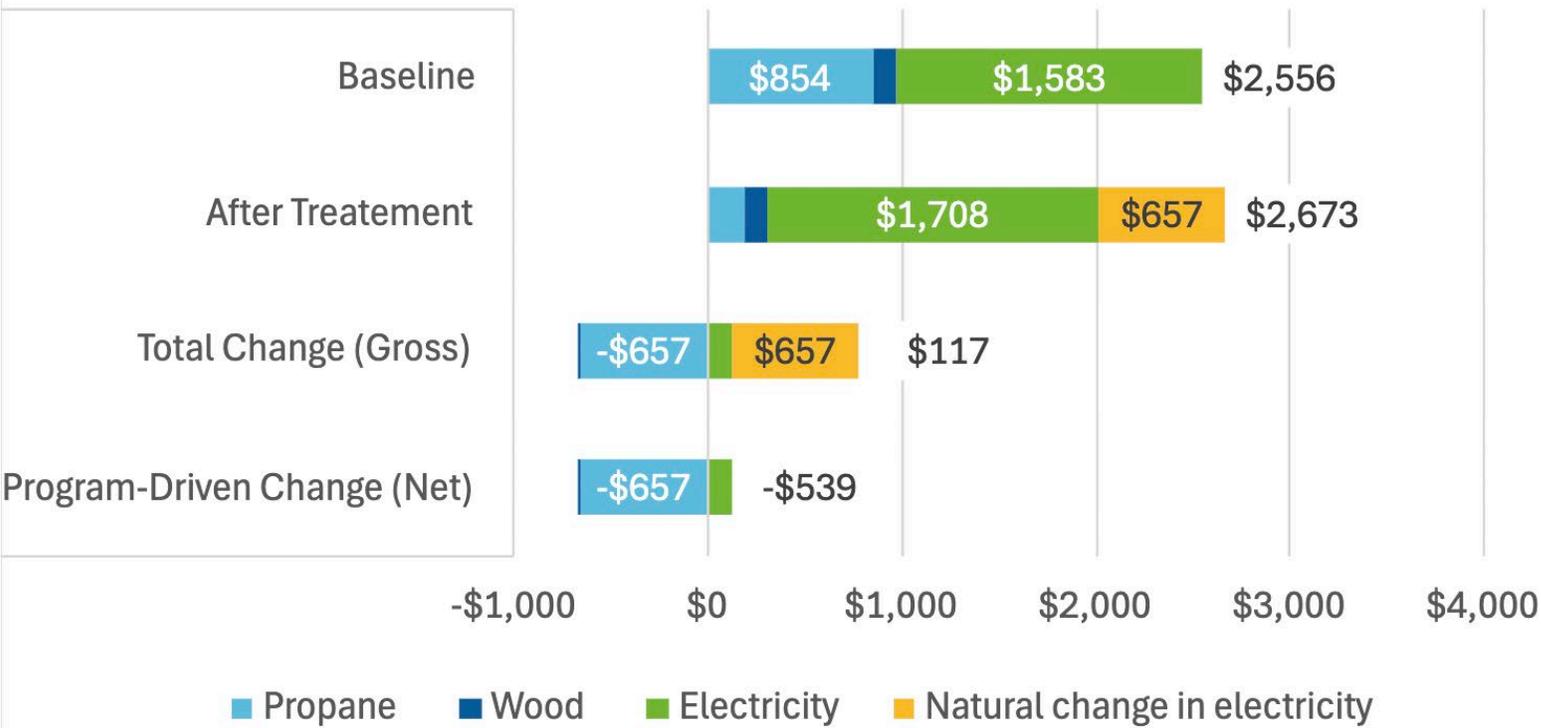
**SCE**

$$-\$924 + -\$28 + -\$316 = -\$1,268$$

# Program Impacts on Energy Costs - PG&E



## Annual Energy Cost of Treated Homes

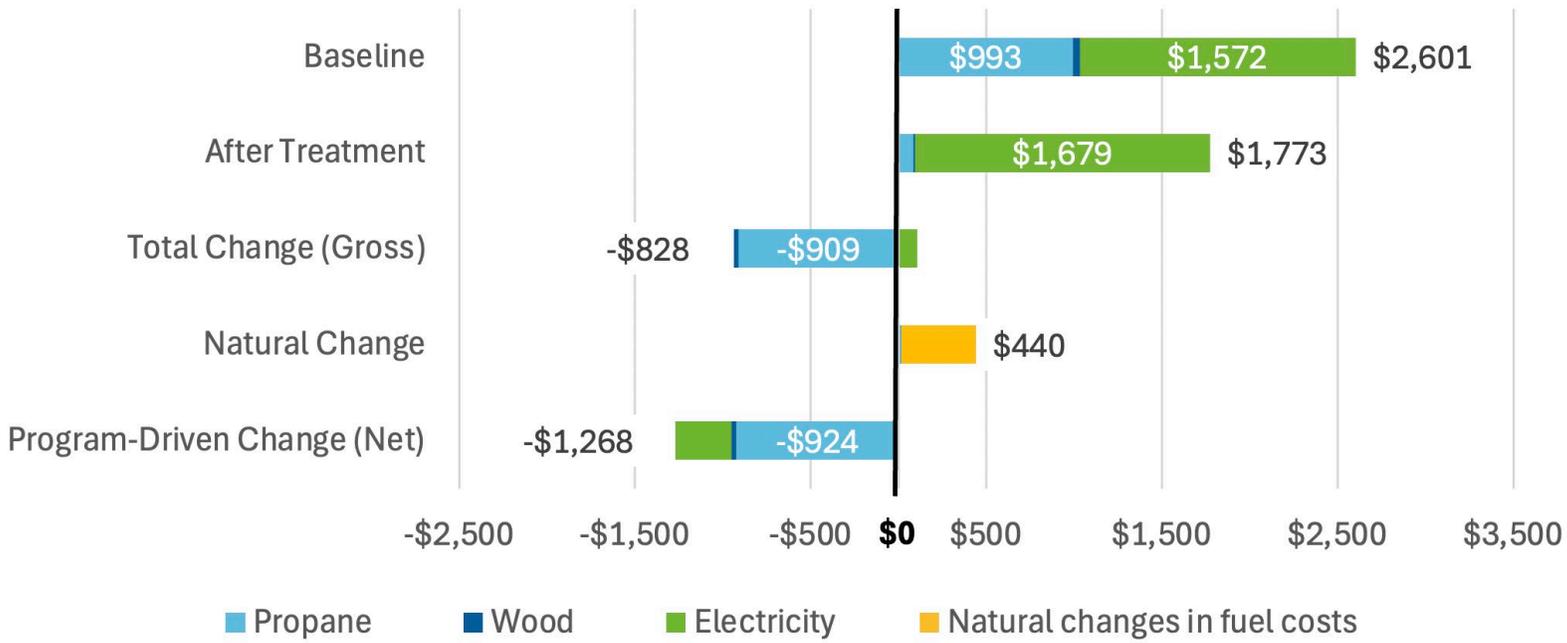


*Program driven change totals -\$539*

# Program Impacts on Energy Costs - SCE



## Annual Energy Cost of Treated Homes



*Bill credits (\$925) necessary to offset natural changes in electricity cost.*

*Otherwise decrease in energy costs would have increased by \$440*

# Non Energy Impacts (1/3)

**No significant impacts on health  
*severity*, draftiness,  
mold/mildew/fungus, noise or  
safety**



**Improved winter and summer  
comfort** (across all  
implementers)



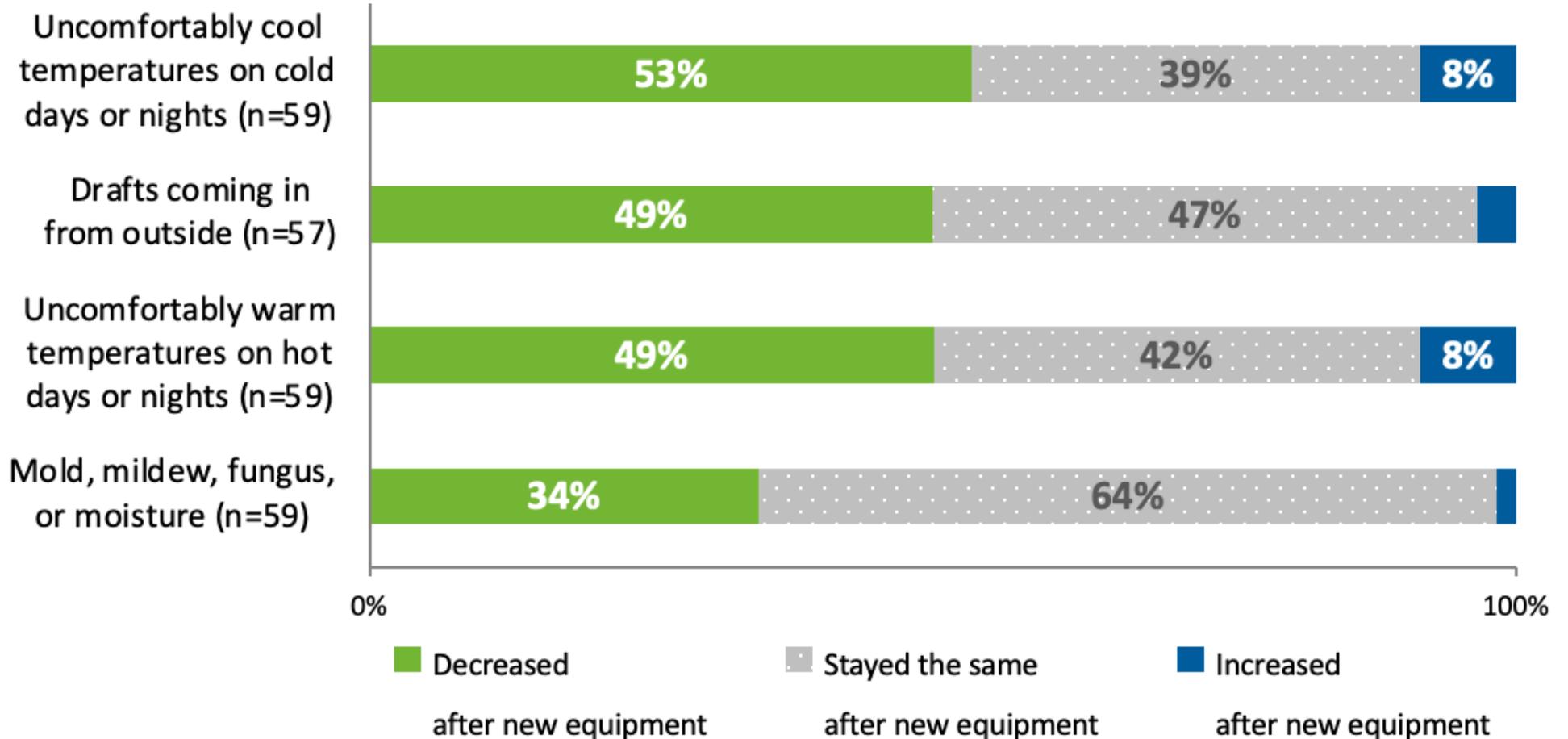
**Positive impacts on health** (sig for  
electric IOUs)

# Non Energy Impacts (1/3)



## PG&E/RHA Health, Comfort, and Safety

Before and After Equipment



# NEIs – Health is Less of a Problem



## Changes in Incidence of Poor Health for SCE Participants Compared to Opt-Outs and Participants

# Thanks to all involved



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