WATER & POWER

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MONTEREY PARK TRACT:

Electrifying Homes in an Underserved Population

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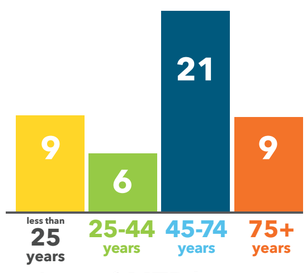
BACKGROUND

- Governor Newsom visited MPT on his first days in office looking to improve water quality
- In addition to drinking water improvements, air quality was a concern as well
- Homes at MPT do not have natural gas and were either all-electric or using a combination of electric and propane as energy sources
- The CPUC looked to the gas utility PG&E to provide an alternative to propane
- Of the 45 homes, 16 were actively using propane in their homes
- The housing stock of the 16 homes ranges in age from 1930-2008, some modular and some traditionally built

DEMOGRAPHICS

- Monterey Park Tract (MPT) is a small community located in the San Joaquin Valley
- 45 single-family homes with approximately 133 residents
- Median income around $30,000.00 with an almost 25% unemployment rate
- Designated disadvantaged community with poverty level higher than 67% of the tracts in California
- Historically underserved and served as the location of TID's first residential electrification RD&D project

45
single family homes

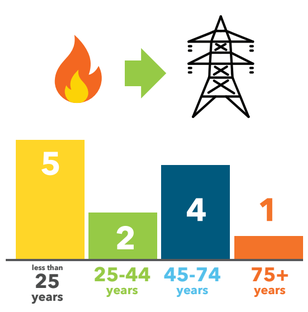


Age of MTP homes

almost **25%**
unemployment rate

$30,000
median income

Average Annual Propane Cost
$910 – $1,800



Age of homes converted to electric

PGE VS TID PROPOSALS

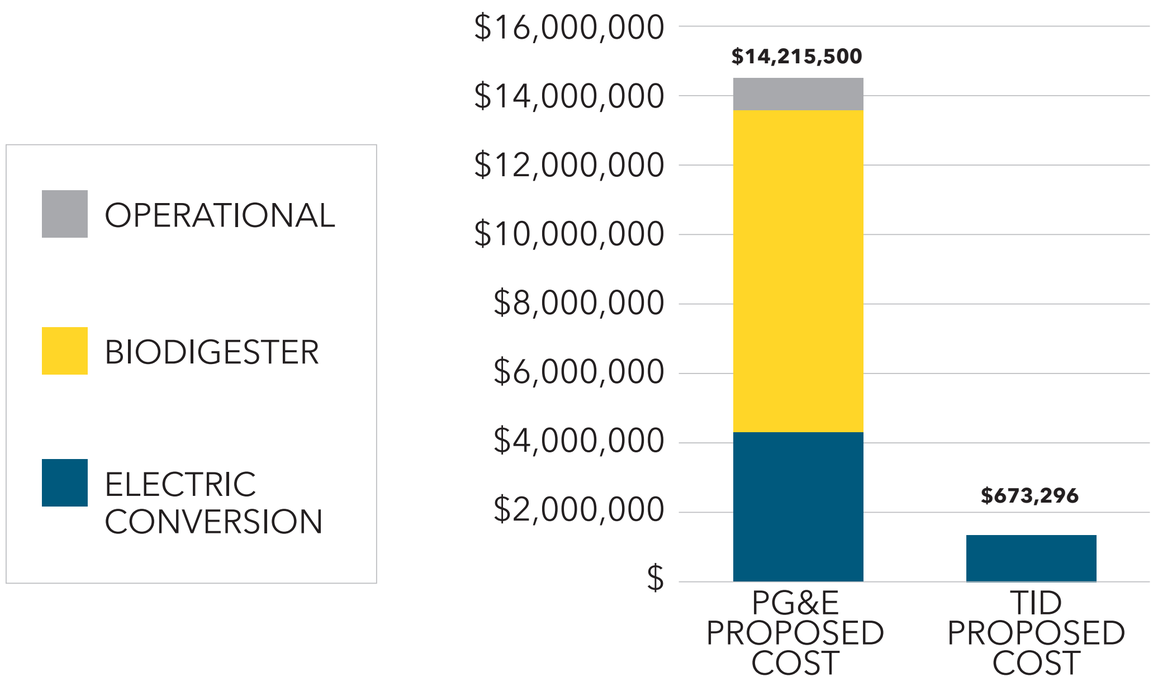
PG&E:

- **Proposed a two phase plan to convert all 45 homes**
- **Phase 1:** Build a microgrid for biogas and convert homes to All-Electric appliances
- **Phase 2:** Build a biodigester facility that converts local dairy methane to biogas to use as source of fuel for the microgrid
- **Total Costs:** 4 Million to convert 45 homes to all Electric, 9.7 Million to build the biodigester, $515k/year to operate and maintain the biodigester, 30+ months to complete project
- All costs to be spread amongst PG&E rate payers
  Proposal was beyond consideration with the astronomical costs

TID:

- **The State called on TID as the electric provider to consider all options**
- **TID's proposal** included the 16 homes that were still on propane - cap gas at each residence and convert homes to all-electric appliances.
- **Total Costs:**
  $42,081/residence with an estimated project cost of $673,296 – **Less than 10% of the PG&E proposed costs**
- **Hire a third-party contractor** to complete the project within 18-24 months
- TID paid for the project using research, development, and demonstration funds through Public Benefits

PGE VS TID PROPOSED COSTS



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TOTAL NUMBER/TYPE OF APPLIANCES INSTALLED

- HEATING & COOLING HEAT PUMP
- HEATING & COOLING MINI SPLIT
- WATER HEATER
- ELECTRIC COOKTOP & OVEN
- ELECTRIC DRYER
- INDUCTION RANGE
- PANEL UPGRADE
- PANEL SERVICE WORK

24
TOTAL NUMBER OF APPLIANCES INSTALLED

LABOR VS. MATERIAL COSTS

HOMES WITH 1 APPLIANCE INSTALLED	HOMES WITH 2 APPLIANCES INSTALLED	HOMES WITH 3 APPLIANCES INSTALLED	HOMES WITH 4 APPLIANCES INSTALLED
$26,567 MATERIALS $1,408 LABOR	$21,512 MATERIALS $1,878 LABOR	$31,414 MATERIALS $2,731 LABOR	$35,625 MATERIALS $5,634 LABOR
$15,548 MATERIALS $469 LABOR	$21,627 MATERIALS $1,880 LABOR	$27,425 MATERIALS $1,925 LABOR	
$22,295 MATERIALS $3,052 LABOR	$22,923 MATERIALS $1,993 LABOR	$23,532 MATERIALS $1,173 LABOR	
	$21,554 MATERIALS $1,878 LABOR	$28,452 MATERIALS $2,474 LABOR	

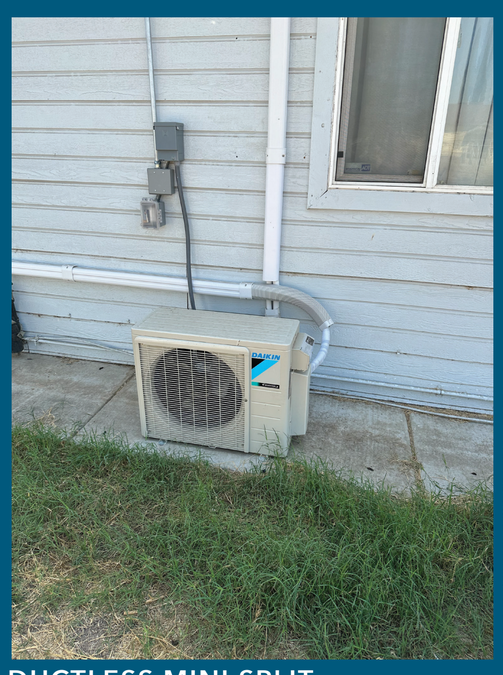
$16,018 LOWEST COST

$41,260 HIGHEST COST

LABOR GRAND TOTAL $26,501

MATERIALS GRAND TOTAL $324,981

8% AVERAGE LABOR COST PER HOME


DUCTLESS MINI SPLIT


HEAT PUMP EXTERNAL BLOWER

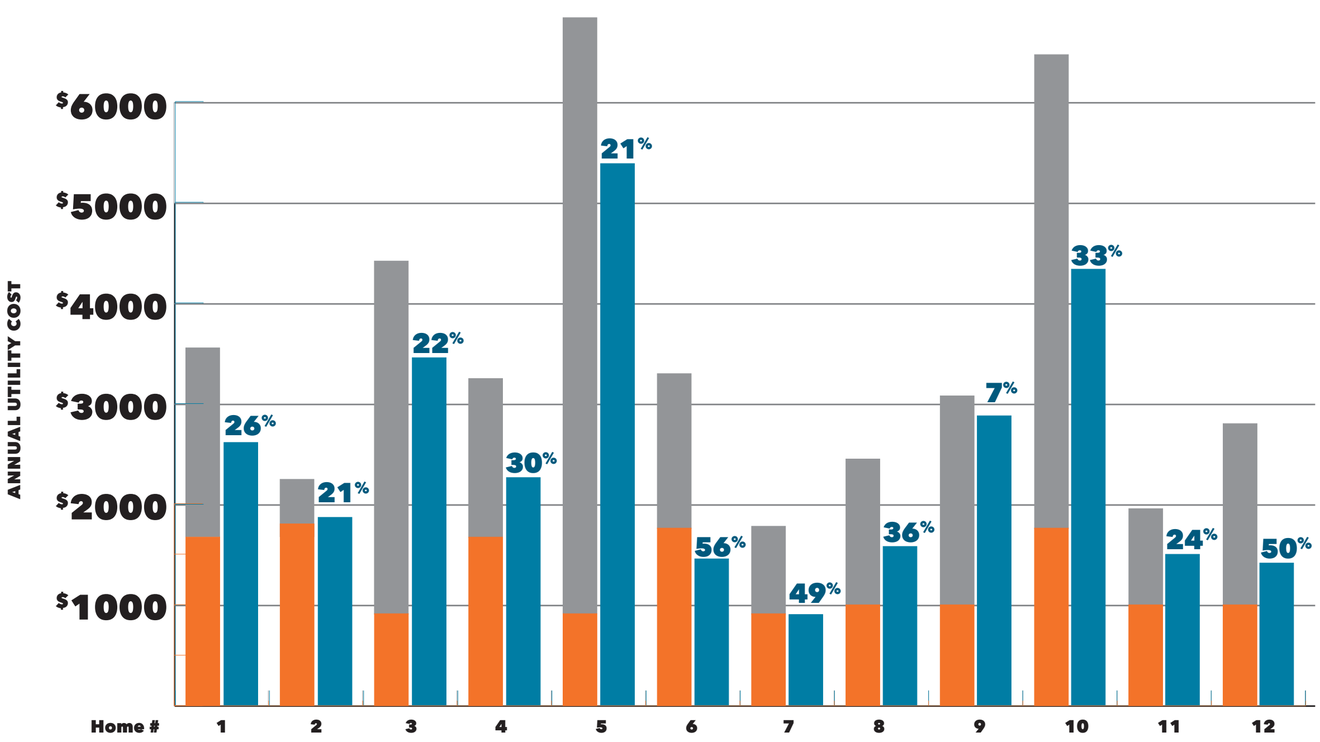

INDUCTION STOVE


HEAT PUMP WATER HEATER


ROOF TOP UNIT

NEW APPLIANCES INSTALLED IN MONTEREY PARK TRACT HOMES.

ANNUAL SAVINGS PER HOME



Average annual savings of $1,053

Before Electrification
- PROPANE
- TID

After TID Electrification
- TID 2024

31% AVERAGE COST REDUCTION OF UTILITY BILLS AFTER ELECTRIFICATION

CO_2 **25.9 METRIC TONS** OF CO_2 REDUCTION

TID FINDINGS

- Expense per home varies greatly depending primarily on age
- Appliances are expensive and traditionally only replaced at burnout
- Learning curve for customers (comfortability)
- Customers are saving money on utility bills
- Indoor air quality improved
- Positively impacting a disadvantaged community in our territory

TID SMART ENERGY PROGRAMS

NEW G2E REBATES

WHEN YOU CONVERT FROM GAS TO ELECTRIC

G2E GAS TO ELECTRIC CONVERSION

$4,000	$800	$1,000
G2E HEAT PUMP 15 SEER2 OR HIGHER (FULLY SUBSCRIBED 3/21/25)	G2E INDUCTION STOVETOP	G2E ENERGY STAR® HEAT PUMP WATER HEATER