

# Implementation Plan

## Thermoelectric Generation Wall Furnace Direct Install Program



**Program Implementer:** Williams Furnace Company

**Portfolio Administrator:** Southern California Gas Company

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## Program Overview:

The Thermoelectric Generation (TEG) Wall Furnace Direct Install Program (Program) seeks to realize significant energy savings for Residential Single- and Multi-Family, Hard-to-Reach (HTR) customers and/or those in Disadvantaged Communities (DAC) located in SoCalGas' service territory.

The Program will provide no cost installation of legacy, low-efficiency wall furnaces with TEG high-efficiency, low-emission modulating gas wall furnaces (Model TG2030TN). As the manufacturer, the program implementer, Williams Furnace Company (Williams), will directly deliver the energy-efficient, low-emission TEG wall furnace to a participating wholesaler to a trained technician who will directly install it for the residential customer.

Qualifying customers will receive the furnace at no cost, the installation technician will receive up to \$700, and the wholesale distributor will received a \$300 handling fee, a value of \$2800 per installation.

## Program Budget and Savings:

### 1. Program and/or Sub-Program Name

TEG Wall Furnace Direct Install Program

### 2. Program / Sub-Program ID number

TBD

### 3. Program / Sub-program Budget Table

Cost Category*	2024	2025	Total	% of Total Budget
Administration	\$37,350	\$24,530	\$61,880	9%
Marketing	\$17,786	\$11,024	\$28,810	4%
Direct Implementation - Non-Incentive	\$3,655	\$3,655	\$7,310	1%
Direct Implementation – Incentive	\$301,000	\$301,000	\$602,000	86%
<b>Total Budget</b>	<b>\$359,792</b>	<b>\$340,208</b>	<b>\$700,000</b>	<b>100%</b>

### 4. Program / Sub-program Gross Impacts Table

First Year Annualized Deliverable	2024	2025	Total
Gross Therm Savings	2,221	2,221	4,443
Net Therm Savings	1,555	1,555	3,110
Projected Total System Benefits			\$79,748

**5. Program / Sub-Program Cost Effectiveness (TRC)**

TRC = 0.09

**6. Program / Sub-Program Cost Effectiveness (PAC)**

Levelized cost per therm

**7. Type of Program / Sub-Program Implementer:**

Third party-delivered

**8. Market Sector(s):**

Residential Single Family and Multi-Family; and disadvantaged renters/homeowners.

**9. Program / Sub-program Type:**

Resource

**10. Market channel(s):**

Downstream, Direct Install

**Implementation Plan Narrative:****11. Program Description**

The Program will provide energy savings in the residential sector, replacing legacy, low-efficiency wall furnaces with TEG high-efficiency, low-emission modulating gas wall furnaces (Model TG2030TN).

The Program will target homeowners, housing authorities, property managers, low-income tax credit developers, and private homeowners who rent their properties to low-income, disadvantaged residences often in hard-to-reach geographic areas. Direct delivery of TEG high efficiency, low emissions wall furnaces from manufacturer to job site for installation by Williams certified installing contractor.

The Program Implementer will be the primary point of contact for customers to answer any questions, including technical questions, and provide Program assistance when needed. The residential customer will be connected with a qualified installation technician who will perform the work. As there is no cost to the homeowner, no financing options are necessary.

## 12. Program Delivery and Customer Services

As the manufacturer, the program implementer, Williams Furnace Company (Williams), will directly deliver the energy-efficient, low-emission TEG wall furnace to a participating wholesaler to a trained technician who will directly install it for the residential customer. The program will be marketed to distributors/contractors/property owners/homeowners.

The Program Implementer will be the primary point of contact for all customer communications and will perform targeted outreach using data analytics obtained from SoCalGas or public sources. The primary modes of outreach will be attending industry trade shows and conferences, training webinars, program brochure, and direct mail to low-income zip codes with the assistance of SoCalGas program manager.

The Program Implementer will work with participating contractors who are licensed and have experience in the design and/or installation of wall furnaces. These contractors will have access to the furnace through Johnstone Supply.

## 13. Program Design and Best Practices

The Program is designed to provide additional incentives to disadvantaged residential single- and multi-family renters/homeowners. It is a direct Install program is a direct install (DI) offering at no cost to the participating customer. Manufacturer incentives will be paid to the installation technician at the completion of installation. Tracking of installations will be by model number, serial number, and installation address.

Distributors will receive an incentive for each TEG Wall Furnace Market Transformation unit purchased during the program period.

The Program will use data provided by SoCalGas, third parties and publicly accessible tools to identify properties located in census tracts meeting DAC, HTR, and Underserved criteria as defined by the CPUC. Based on this list, dedicated outreach and marketing personnel will conduct targeted outreach to property managers and owners.

## 14. Innovation

The Williams CARMEL™ TG2030TN is the only 82% efficiency natural gas wall furnace on the market. The revolutionary design of the CARMEL™ TG2030TN allows natural gas to power all electrical components. It is self-powered - once the digital thermostat calls for heat, the electronic hot surface ignitor starts the furnace, then thermoelectric power takes over and converts the heat to electrical energy for continued operation.

**15. Metrics**

<b>First Year Annualized Deliverable<sup>1</sup></b>	<b>2025</b>	<b>2026</b>	<b>Total</b>
Gross Therm Savings	7571	11,357	18,928
Projected Total System Benefits	7571	11357	18928
Assumed Program Launch Date	January 2025		

**16. For Programs claiming to-code savings**

Not applicable.

**17. Pilots**

Not applicable.

**18. Workforce Education and Training**

Williams offers TEG wall furnace installation training to qualifying technicians virtually, in our engineering lab in Colton, CA, or on-site.

**19. Workforce Standards**

For selected installation technicians, the Program Implementer will verify they are licensed by the state of California to perform the work. Installer must provide serial number of unit being replaced to verify efficiency of model being replaced prior to installation. The Program Implementer will work with SoCalGas to negotiate other workforce standards and will provide training to staff, as applicable.

The Implementor does not believe that hiring outcomes will result from this energy efficiency program.

**20. Disadvantaged Worker Plan**

Not applicable.

**21. Additional information**

Not Applicable

## Supporting Documents

### 1. Program Manuals and Program Rules

#### 1.1 Eligible Measures or measure eligibility, if applicable:

The Program will evaluate the customer's current natural gas wall furnace for efficiency – must be 72% AFUE or lower. This unit will be removed – the serial number reported – and replaced with the 82% efficiency wall furnace.

The customer's natural gas billing data can be used to assess the energy baseline for future savings. Data on recent equipment upgrades or replacements and maintenance will also be gathered if applicable.

#### 1.2 Customer Eligibility Requirements:

Qualifying installation will include homeowners, housing authorities, property managers, low-income tax credit developers, and private homeowners who rent their properties to low-income, disadvantaged residences often in hard-to-reach geographic areas. A low-efficiency wall furnace must currently be installed for replacement with a TEG high efficiency, low emissions wall furnaces.

#### 1.3 Contractor Eligibility Requirements:

The qualifying service technician is licensed by the state of California and has participated in TEG installation training (Comfort U) offered by Williams. The technician agrees to report all required data to Williams for reimbursement.

#### 1.4 Participating Contractors, Manufacturers, Retailers, Distributors, and Partners:

Not applicable.



**1.5 Additional Services:**

#	Measure Name	Delivery Type (DI, Deemed)	Number of Wall Heater Units	Price/Unit including Labor & Material (*)
	Contractor Installation	DI	each	\$600.00
	Wholesaler Handling Fee	DI	each	\$300.00
	Installation Accessories to Contractor	DI	each	\$100.00
	TG2030TN Wall Furnace	DI	each	\$1800.00

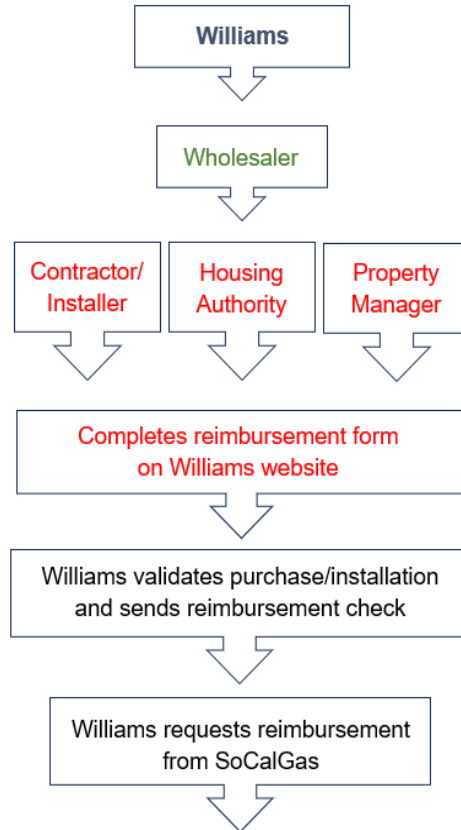
**1.6 Audits: Not applicable****1.7 Sub-Program Quality Assurance Provisions:**

Please list quality assurance, quality control, including accreditations/certification or other credentials

**1.8 Other Program Metrics:**

List all documentation and data used to calculate Program Metrics. This includes but is not limited to data in support of sector-level and portfolio-level metrics.

**2. Program Theory and Program Logic Model****3. Process Flow Chart**



Channel (Message A)

Eligible for rebate – (Message B)

#### 4. Incentive Tables, Workpapers, Software Tools

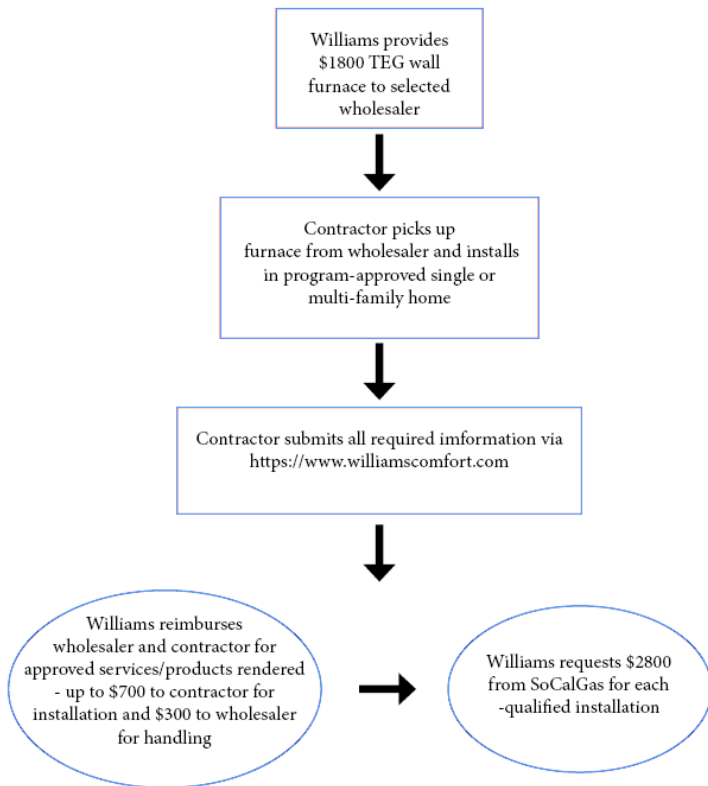
#### 5. Quantitative Program Targets

DBE SUBCONTRACTING GOAL: 43 %

PRIME CONTRACTOR	
	<b>CHECK ONE</b>
<b>Non-DBE Contractor</b>	
<b>MINORITY BUSINESS ENTERPRISES</b>	
Black / African American	
Native American	
Hispanic American	47%
Other:	
<b>NON-MINORITY BUSINESS ENTERPRISES</b>	
Non-Minority Female DBE	10%
Persons with Disabilities	
Service-Disabled Veteran	
LGBT	
SBA 8(a)	

DBE SUBCONTRACTING GOAL	
MINORITY BUSINESS ENTERPRISES	% OF CONTRACT
Black / African American	10%
Native American	
Hispanic American	20%
Other:	7%
NON-MINORITY BUSINESS ENTERPRISES	% OF CONTRACT
Non-Minority Female DBE	
Persons with Disabilities	
Service-Disabled Veteran	5%
LGBT	1%
SBA 8(a)	
<b>PERCENTAGE TOTAL: 100%</b>	

### 6. Diagram of Program



**7. Evaluation, Measurement & Verification (EM&V):**

The program will rely on any relevant CPUC-approved workpapers or other reasonable approved calculation methods and procedures for Measurement and Verification (M&V), if requested.

**8. Normalized Metered Energy Consumption (NMEC)**

Not applicable.