

Figure: 16 TAC §25.184(c)(6)

HARD-TO-REACH STANDARD OFFER PROGRAM

Background

Hard-to-reach customers are defined by P.U.C. SUBST. R. 25.181, relating to the Energy Efficiency Goal, as customers with an annual household income at or below 200% of the federal poverty guideline. P.U.C. SUBST. R. 25.181 requires that each utility meet at least 5.0% of its savings goal for each year through programs targeted to this customer class. The poverty guidelines shall be updated annually [based](#) on the most current guidelines published in the Federal Register. The poverty standard is established separately for households of different sizes.

Data available from the Low-Income Home Energy Assistance Program estimate that approximately 1,825,298 households in Texas have incomes under 150% of the poverty guidelines. These households represent 30% of total households.¹ Households at or below 200% of the poverty guidelines fall within 71% of the state's household median income (68% for metro counties and 98% for non-metro counties).

Objectives

The primary objective of this program is to achieve cost-effective reduction in energy consumption during peak summer demand. Additional objectives of the program are:

- To provide meaningful demand and/or energy savings that contribute to the achievement of utility energy efficiency goals and reduce energy cost for the end-use customer.
- To enhance program cost-effectiveness by minimizing lost opportunities for demand and energy savings in individual residences.
- To provide energy efficiency improvements to individual households at no or very low cost.
- To provide energy efficiency improvements in apartments occupied by hard-to-reach customers with contributions from building owners.

Program Design

Targeted Population

The program will be available to customers living in households with incomes at or below 200% of the federal poverty guidelines consistent with the rule. The target populations are based on the following objectives:

¹ Low Income Home Energy Assistance Program, Division of Energy Assistance/OCS/ACF, Number of all and low income households, by Census Region and State, 1990.

- To serve customers with incomes too high to qualify for low-income weatherization program services to serve customers with incomes with an income level between 125.0% and 200% of the poverty guidelines, and
- To assist customers on long waiting lists for weatherization services (income level at or below 125.0% of the poverty guidelines).

Some examples of target populations include:

- Apartment complexes subsidized by the U.S. Department of Housing and Urban Development that provide housing for households at or below 80% of household median income, such as Section 8 and Public Housing Authorities.
- Households denied weatherization or utility assistance program benefits because income exceeds 125.0% of poverty guidelines.
- Households on long waiting lists for weatherization services.
- Other target groups identified by contractors.

Target populations identified above whose incomes are verified by an appropriate social service agency or organization would require no additional income verification effort. Contractors interested in serving other target populations would be responsible for meeting standard procedures for verification of income eligibility established and approved by the Commission.

Utilities are encouraged to include one of the following energy efficiency program funding allocation strategies to ensure equitable participation from both single-family and multifamily customers, as defined in the 2000 International Energy Conservation Code (IECC). In either case, the utility would establish separate budget allocations for single family and multifamily projects.

1. **Umbrella program approach:** During the application process, applicants designate the proportion of funds that will be applied to multifamily and single-family projects. This proportion would become a contractual obligation of the Project Sponsor, i.e., the amount of funding that the Project Sponsor could receive from either the utility's single-family or multifamily budget would be limited to the amounts requested. If an applicant requests more funds than are available for either market, the applicant may either accept funding allocations as designated by the utility, or keep the application in the queue should additional funds become available.
2. **Separate program approach:** The utility may establish separate application processes for single and multifamily projects. An applicant may elect to reserve up to 100% of the multifamily or single-family allocation, so long as the Project Sponsor's budget reservation does not exceed the cap on incentive funds established by the utility for any Project Sponsor participating in the Hard-to-Reach SOP. Once all available funds for a particular sector are reserved, subsequent applications for that sector will be held in the queue should additional funds become available.

Utilities may require that project sponsors identify targeted multifamily sites for approval prior to installation of any energy efficiency measure for which an incentive will be requested. Once a multifamily project has been submitted, the utility will notify the project sponsor of its approval or disapproval of the proposed project within ten days.

Cost Effectiveness

Program Costs

Program costs are capped by cost-effectiveness criteria at levels that correspond to 100% of avoided costs. Incentive payments shall not exceed the maximum amounts established in P.U.C. SUBST. R. 25.181 regarding proxy avoided costs and customer class, lighting and load factor incentive caps.

Customer Costs

The intent of the hard-to-reach customer program is to provide individual households with energy efficiency measures that will contribute to the energy efficiency goal and lower electricity costs for the customer. Incentives available under the program and other sources of funding may be used to cover 100 percent of the costs whenever possible.

Program Delivery Mechanisms

Eligible project sponsors or EESPs are:

- National or local energy service companies (ESCOs)
- National or local companies that provide energy-related services (e.g., contracting) or products (e.g., lighting, heating, ventilation and air-conditioning (HVAC) equipment)
- Retail electricity providers (REPs)
- Social Service Agencies

To ensure that the program's incentive budget is allocated to projects that are likely to meet with success, all project sponsors will be required to demonstrate a commitment to fulfilling program objectives and competency in completing the proposed project. Project sponsors will be required to submit the following information as part of the application process:

- A description of the project sponsor firm, including relevant experience, areas of expertise and references.
- A work plan that covers the design, implementation, operation, and management of the project (the amount of detail required in this work plan will vary with project size).
- Evidence of credit rating.
- Proof of applicable insurance, licenses and permits.

Utility administrators must adopt procedures to ensure compliance with sections of P.U.C. SUBST. R. 25.181 regarding "Utility Administration."

Eligible Energy Efficiency Measures

To establish a comprehensive approach to energy efficiency in each individual household, contractors will be required to evaluate specific measures for installation, meet minimum criteria and follow set priorities for financing of measures through the program. There are three categories of measures – control envelope, interior energy use and heating and cooling equipment – as described below. Where applicable, Project Sponsor shall conduct an initial assessment based on blower door testing results, carbon monoxide testing results, and individual measure savings potential. The installation priority of the measures from each category will be based on energy savings.

The Control Envelope Category will be considered first followed by the Interior Usage and HVAC Efficiency Category. Each customer site must meet the minimum standards for installation (as described in the Eligible Measures and Installation Criteria, and approved deemed savings estimates) for the Control Envelope Category before subsequent categories can be considered. At least one control envelope category measure must be installed in each single-family dwelling unit and multifamily building for the project to qualify for incentives. A control envelope measure is a measure that would be eligible for an incentive under the Commission-approved deemed savings tables. The measures, program criteria, and priorities are as follows:

Control Envelope Energy Waste

- Single-family dwelling insulation measures (all exterior walls, ceiling or floor with pier and beam).
- Multifamily insulation measures (all exterior walls, ceilings or floors with pier and beam). If an insulation measure is adopted for a particular building, that measure shall be applied to the entire building.
- Infiltration measures (weather-stripping and caulking).
- HVAC duct integrity (repair, replace and joint sealing with mastic).

Control Interior Energy Usage

- Compact fluorescent lighting (CFL) (combined 50 watt difference, minimum 3 hour use per day).
- Refrigerator replacement.
- Water saving devices, where applicable.

Control HVAC Efficiency

- Room air conditioning.
- Packaged unit (install to manufacturer's specifications).
- Split system (complete coils and compressor replacement).

Program Promotion

Brochures

A one-page program brochure will be developed to explain basic program information to participants. The brochure will be available to project sponsors upon request and at workshops described below. The sponsoring utility will not undertake direct mailing of brochures to consumers.

Workshops

A series of workshops will be held to explain the program process and requirements to potential project sponsors. Workshops will be advertised in public media and through direct mailings to potential project sponsors.

Customer Protection

The program shall be designed to comply with the customer protection provisions required by P.U.C. SUBST. R. 25.181 relating to the Energy Efficiency Goal.

Energy Education material must be provided to resident, and building owners or property managers.

**HARD-TO-REACH STANDARD OFFER PROGRAM
ELIGIBLE MEASURES AND INSTALLATION CRITERIA**

CONTROL ENVELOPE ENERGY WASTE

MEASURE	MATERIAL	MINIMUM CRITERIA FOR INSTALLATION
Infiltration	<p>Acrylic Latex plus Silicone Sealing Compounds Caulk</p> <p>Polyurethane Foam</p> <p>Elastomeric Sealant (including polysulfide, polyurethane and silicone) caulk</p>	<ul style="list-style-type: none"> • Conforms to ASTM C834-95 with silicone • Conforms to ASTM C920-98 • Conforms to ASTM C920-98 • All visible caulk should be clear • A minimum 10 year life expectancy for ALL materials used.
Weather-stripping	<p>Foam Tape</p> <p>Rigid Gaskets</p>	<ul style="list-style-type: none"> • Must be closed cell • Must be UV resistant • Must be adjustable and attached permanently. • Gaskets must be attached to an aluminum carrier. • A minimum 10 year life expectancy for ALL materials used.

MEASURE	MATERIAL	MINIMUM CRITERIA FOR INSTALLATION
Insulation	Mineral Fiber Blanket Mineral Fiber Loose Fill Cellulose Vermiculite (loose fill) Perlite (loose fill) R-Value	<ul style="list-style-type: none"> • Conforms to ASTM C665-98 • Conforms to ASTM C764-98 • Conforms to ASTM C739-97 • Conforms to ASTM C1149-97 • Conforms to ASTM C516-80 • Conforms to ASTM C549-81 • Existing ceiling insulation level of R-22 is in compliance with program. • Added ceiling insulation above R-22 must be installed to R-30 in compliance with the deemed savings standards.
Insulating R-values	Walls Knee wall Floor (Pier & Beam)	<ul style="list-style-type: none"> • Install to R-13 • Install to R-19 • Install to R-15

MEASURE	MATERIAL	MINIMUM CRITERIA FOR INSTALLATION
Duct Sealing	Fiber Backed Mastic Compound Replacement Duct	<ul style="list-style-type: none"> • Apply to the duct joint • Replace with R-4 insulated duct. • A minimum 10 year life expectancy for ALL materials used.

CONTROL INTERIOR ENERGY USAGE

MEASURE	MATERIAL	MINIMUM CRITERIA FOR INSTALLATION
Lighting	Compact Fluorescent Lighting	<ul style="list-style-type: none"> • All CFLs to have a minimum 10,000 hour lifetime burn. • 82 CRI (color rendition index). • 2700 Kelvin (color temperature) • A minimum 7 year life expectancy for all CFLs • “Hollywood” style or other vanity bathroom fixtures with four or more lamps per fixture must be replaced with a fluorescent lamp and ballast fixture meeting the standards described in the deemed savings tables • Use of a disk device which prevents screw-in CFLs from being replaced with an incandescent bulb is not eligible

MEASURE	MATERIAL	MINIMUM CRITERIA FOR INSTALLATION
Refrigerators	Two Door/High Efficiency	<ul style="list-style-type: none"> • 14,16 & 18 cubic feet offered • Maximum size 18 cubic feet • When the refrigerator model alone is not an adequate indicator of energy savings, the EESP has the option of metering and documenting the energy usage of the old unit.

MEASURE	MATERIAL	MINIMUM CRITERIA FOR INSTALLATION
Water Savers	Kitchen Aerators Bath Aerators Showerhead	<ul style="list-style-type: none"> • 1.5 gallons per minute maximum • 1.5 gallons per minute maximum • 2. gallons per minute maximum. Device must be approved by the utility. • Existing showerheads must be marked as 2.5 gallons per minute. Illegible markings are ineligible.

CONTROL HVAC EFFICIENCY

MEASURE	MATERIAL	MINIMUM CRITERIA FOR INSTALLATION
Heating, Ventilation and Air Conditioning (HVAC)	Window Unit Packaged Units Split System	<ul style="list-style-type: none"> • Must comply with deemed savings values and installation standards • Must comply with deemed savings values and installation standards • Must comply with deemed savings values and installation standards

DIAGNOSTIC MEASURE	MATERIAL	MINIMUM CRITERIA																
Health & Safety	CO Testing Device	<ul style="list-style-type: none"> • Test every housing unit that has combustion equipment. • Ambient air CO levels must not exceed 9 parts per million at project completion. 																
Air Infiltration/Indoor Air Quality	Blower Door Testing	<p>The final air exchange rate of a household treated with infiltration measures shall not be less than the standards set forth in the following table:</p> <p>Minimum Final Exchange Rate*</p> <table border="1" data-bbox="989 662 1858 857"> <thead> <tr> <th><u>Shielding</u></th> <th><u>Single Story</u></th> <th><u>Two-story</u></th> <th><u>3> Stories</u></th> </tr> </thead> <tbody> <tr> <td>Well Shielded</td> <td>1.18</td> <td>0.95</td> <td>0.83</td> </tr> <tr> <td>Normal</td> <td>0.99</td> <td>0.79</td> <td>0.69</td> </tr> <tr> <td>Exposed</td> <td>0.89</td> <td>0.71</td> <td>0.62</td> </tr> </tbody> </table> <p>*Measured in cubic feet per minute at 50 Pascal per square foot of conditioned area.</p> <ul style="list-style-type: none"> • Well shielded is defined as urban areas with high buildings or sheltered areas or buildings surrounded by trees, bermed earth, or higher terrain. • Normal is defined as buildings in a residential neighborhood or subdivision setting, with yard space between buildings (90-90% of houses fall in this category) • Exposed is defined as an open setting with few surrounding building or trees 	<u>Shielding</u>	<u>Single Story</u>	<u>Two-story</u>	<u>3> Stories</u>	Well Shielded	1.18	0.95	0.83	Normal	0.99	0.79	0.69	Exposed	0.89	0.71	0.62
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