service provider participation. This will require that program savings be credited to a goal for a subsequent year once goals for a current planning year are met.

5. PROGRAM DETAILS

[*To be developed by utility – explains specific actions, budgets, etc. related to each planned program. example provided below*]

The section provides specific details regarding each program that will be implemented during the planning period as a supplement to the program descriptions included in Appendix C.

Example:

5.1 COMMERCIAL AND INDUSTRIAL STANDARD OFFER PROGRAM

- Program start date: January 1, 2001
- Program end date: January 1, 2003
- Annual program budget: $1,500,000
  Budget reserved for incentive payments: $1,350,000 (90%)
  Budget reserved for utility administration: $150,000 (10%)

  Utility expects that the full 10% of total program costs as allowed in the Energy Efficiency Rule will be required to implement this program. This budget will support X FTEs, and will cover utility costs to conduct program outreach, review and select project applications, conduct M&V activities, review program submittals from project sponsors.
- Targeted customer classes: All non-residential customers, primarily large commercial customers (demand exceeds 100 kW) and industrial customers.
- Estimated of the size of large commercial customer class (demand exceeds 100 kW): XXX, based on Utility records for 1999.
- Estimated of the size of industrial customer class:
  XXX, based on Utility records for 1999.
- Estimated size of small commercial class (demand less than 100 kW):
  XXX, based on Utility records for 1999.
- Total estimated savings goals (demand) for the entire program: 2.0 MW
- Total estimated savings goals (energy) for the entire program: 8,000 MWh

APPENDIX A SAVINGS GOALS AND BUDGET PROJECTIONS

Numerical model that estimates savings goals, allocated budgets, and budget cash flow.

APPENDIX B EXISTING CONTRACTS

Description of existing contract obligations with contract start and stop dates, the customer class served, the types of measures installed, and the total demand and energy goals for each.

APPENDIX C PROGRAM DESCRIPTIONS

Five to seven page descriptions for six programs.

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Entergy Gulf States, Inc.
C&I Standard Offer Program

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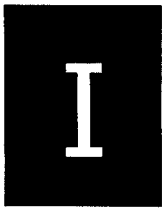
Section I: Program Description

Section II: Enrollment Materials

Section III: Measurement and Verification Guidelines

Appendices



Entergy Gulf States, Inc.
C&I Standard Offer Program
Program Description

This document summarizes the basic design parameters of the Entergy C&I Standard Offer Program. It includes information about the program eligibility requirements, incentive payments, and the participation process. All of this information is available on the program Web site, www.ENTERGYefficiency.com.

1 Introduction

The Entergy Commercial and Industrial (C&I) Standard Offer Program (SOP) pays incentives to energy efficiency service providers (equipment distributors, contractors, energy service companies (ESCOs), or customers) for retrofit projects that save at least 20 kW of peak-period electric demand. Incentives are based on verified demand and energy savings that occur at an Entergy transmission and distribution customer's commercial or industrial site as a result of the project.

To participate in the C&I Standard Offer Program, Project Sponsors undergo an application process and then enter a standard contract with Entergy. Under the contract, the Sponsor agrees to deliver demand and energy savings to an Entergy distribution customer via the installation of eligible energy efficiency measures (EEMs) at that customer's site. To receive incentive payments, the Project Sponsor must demonstrate the demand and energy savings delivered by the installed equipment by performing simplified or comprehensive measurement and verification (M&V) activities.

This chapter provides a general introduction to the C&I Standard Offer Program, including an overview of program features and background information. Chapter 2 provides more detail on the program process and project M&V requirements. All program information, including application materials, will be available via the internet at the Entergy Web site.

Background

This program has been developed to comply with State energy efficiency goals. The Texas Legislature passed Senate Bill 7 (SB7) in 1999, which restructures the state's electric utility industry. Specifically, the law calls for each investor-owned utility to acquire energy efficiency savings equal to 10% of the utility's annual growth in system demand by January 1, 2004. The Public Utility Commission of Texas (PUCT) established an interim goal of 5% reduction of annual growth by January 1, 2003.

Program Goals

While the main goal of the program is to reduce summer peak demand in Entergy's Texas service territory and reach the demand reduction goals established by SB7, there are secondary program goals that are reflected in the program rules and procedures. These secondary program goals include:

- Encourage private sector delivery of energy efficiency products and services;
- Acquire cost-effective energy efficiency resources;
- Maximize customer energy and bill savings;
- Create a simple and streamlined program process, to stimulate strong program participation from energy efficiency service providers; and

- Minimize the burden of M&V requirements for the program by offering deemed or simple savings calculations for many measures where possible.

Eligibility

Project Sponsor Eligibility

Any entity meeting the participation requirements that installs eligible energy efficiency measures at a facility with non-residential electricity distribution service provided by Entergy and a maximum demand of more than 100 kW is eligible to participate in the program as a Project Sponsor. Eligible Project Sponsors include:

- National or local energy service companies (ESCOs);
- National or local companies that provide energy-related services (*e.g.*, contracting) or products (*e.g.*, lighting, HVAC equipment); and
- Individual customers who implement energy efficiency measures in their own facilities.

To ensure that the program 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;
- Evidence of a good credit rating;
- Proof of applicable insurance, licenses and permits; and
- A non-refundable application fee.

Project Eligibility

A project is defined by a set of proposed or installed measures and estimated demand and energy savings included in a single application. Comprehensive projects that include a range of measure types are encouraged. All projects must meet the following requirements:

- Each project must include a total estimated demand reduction of at least **20 kW** during the summer peak period. Entergy defines the summer peak period as the hours occurring between 1 PM and 7 PM Monday through Friday for the months of May through September excluding Independence Day and Labor Day. The 20 kW minimum savings per project criterion may be waived for customers acting as Project Sponsors and installing measures at their own facilities.
- One project may involve the installation of measures at more than one customer site, if the customers and sites are similar. For example, installation of measures at a chain of grocery stores may include more than one customer, but may constitute a single project. Combining similar measures/sites into a single project reduces administrative costs for

performing due-diligence review of applications and can streamline the project's M&V activities.

- For projects with incentives paid on the basis of verified demand and energy savings, peak demand savings must be measured within the peak demand period. M&V of energy savings may continue for up to 12 months and carry into the following year.

Measure Eligibility

The program does not specify eligible measures in order to provide energy service providers flexibility in packaging services. Project Sponsors may propose the inclusion of any measure in their project that meets the following requirements:

- Measure must produce savings through an **increase in energy efficiency** or a substitution of another energy source for electricity supplied through the transmission and distribution grid;
- Measure **must produce a measurable and verifiable electric demand reduction** during the peak summer period and **must reduce electricity consumption.** Fuel-switching measures must reduce peak electric demand but source energy reduction is not mandated;
- Measure must be installed in a **retrofit** application;
- Measure must have a **minimum useful life of 10 years;** and
- Measure must **exceed minimum equipment standards** as provided in the program manual.

The following measures are *excluded* from consideration in the program:

- Measures that involve **self-generation** or **cogeneration,** except for renewable technologies;
- Measures that rely on **changes in customer behavior;**
- Measures that require **no capital investment;**
- Measures that achieve savings through **equipment maintenance, commissioning or operational changes, without an equipment efficiency upgrade;**
- Measures that result in **negative environmental or health effects;** and
- Measures that receive an incentive through any **other energy efficiency program** offered by Entergy.

Project incentives will be paid only for energy and demand savings directly related to end-use equipment installed under the project. Savings due to interactive effects between lighting measures and space-cooling equipment (in cases where lighting measures have been installed in a cooled space) will be eligible for payment based on a stipulated value only. Interactive effects between other end-use equipment will not be eligible for program incentive payments.

Table 1.1 provides examples of eligible and ineligible measures. Entergy will consider any measures that are not listed in Table 1.1 for program eligibility on a case-by-case basis.

Table 1.1: Examples of Eligible and Ineligible Measures and Projects

Eligible Measures or Projects	Ineligible Measures or Projects
Commercial Cooling and Ventilation • Constant air volume (CAV) to variable air volume (VAV) conversion[1] • Chiller replacement • Packaged cooling unit replacement • Air-side and water-side economizer[1] • Fan and pump motor efficiency upgrades • Fan and pump variable speed drive (VSD) installations (as part of a comprehensive system retrofit only)[1] *Commercial/Industrial Lighting* • High-efficiency fluorescent lighting that replaces less efficient lighting • Lighting controls to reduce operating hours (in conjunction with lighting efficiency measures only) • CFLs with hard-wired ballasts, locking mechanisms or permanent socket conversions. *Refrigeration* • Air cooling and refrigeration compressor replacement • Refrigerated case doors *Industrial Process* • Variable speed drive installations on industrial fans and pumps (as part of a comprehensive system retrofit only)[1] • Motor-efficiency upgrades	• Measures with an expected life of less than 10 years • Stand alone controls or VSD projects • CFLs without hard-wired ballasts, locking mechanisms or permanent socket conversions. • Exterior lighting • Cogeneration and self-generation projects, except renewable technologies • Electric equipment with decoupled self-generation • Fuel switching to electric • Thermal energy storage • New construction and expansion projects • Load reductions caused by building vacancies, decreased production, or other changes in occupant characteristics or behavior • Measures that decrease building plug loads, such as "Green Plugs" or computer inactivity time-out controls • Energy-efficient gas-only measures • Load Shifting

[1] While variable air volume, variable speed drive, and economizer measures may not individually yield substantial summer peak demand savings, these measures may be packaged with other demand-saving measures to meet the minimum project size requirement.

Efficiency Standards

Entergy has designed the C&I Standard Offer Program to encourage electric energy-efficiency improvements that go above and beyond the efficiency gains typically achieved in retrofit or replacement projects. Consequently, energy and demand savings credit will be based only on reductions that exceed current industry accepted minimum efficiency standards, where applicable [2]. The equipment efficiency standards listed in Table 1.2 will be used to determine the baseline efficiency. For more information on these standards, see Appendices A, B, and C. Additional information can also be obtained from ASHRAE (www.ashrae.com).

Table 1.2: Baseline equipment efficiency standards

Equipment Type	Applicable Baseline Standard	Appendix
Cooling Equipment	ASHRAE 90.1 1989 (baseline for savings)	A Standard Cooling Equipment Tables
Motors	ASHRAE 90.1m-1995	B Table of Standard Motor Efficiencies
Lighting	Standard Lighting Wattage Table (based on 1992 EPACT)	C Table of Standard Fixture Wattages

Incentive Budgets and Pricing

Available Budgets

The official budget for each year will be available on the program Web site, www.ENTERGYefficiency.com, in September each year.

Incentive Prices

The C&I Standard Offer Program provides standard incentive prices for demand and energy savings of **$201/kW** and **$0.069/kWh**. Demand savings will be calculated as the **maximum one-hour average demand reduction** that occurs when the system undergoing retrofit is operating at peak conditions during the summer period. The summer period is defined as weekdays, between the hours of 1 PM and 7 PM from May 1 until September 30, excluding holidays. Annual energy savings are defined as energy savings over the course of one 12-month period.

Energy and demand savings eligible for incentives must be either calculated using pre-approved deemed (stipulated) savings, simplified M&V procedures, or determined through a detailed measurement and verification plan. Please refer to Section III of the Program Manual for simplified and detailed M&V guidelines, which are used to determine demand and energy savings for this program.

[2] In cases where standards do not exist, savings credit will be based on improvements relative to a customer's energy use prior to participating in the program.

Incentive Limitations

Maximum Sponsor Incentives

To ensure that incentives are available to multiple energy service providers, no Project Sponsor may reserve nor receive more than 20% of the total C&I Standard Offer Program incentive budget in a given budget year.

Project load factor

To limit payments for excessive off-peak energy savings, Entergy has set the maximum incentive payment for each project to be **$453/kW** saved based on both energy and demand payments. For lighting-only projects, the incentive payment cap is **$294/kW**-saved. In other words, a Project Sponsor may receive no more than $453 (or $294 for lighting only projects) per verified kW of eligible demand savings for each project submitted.

Payments

Entergy will pay the Project Sponsors in two installments: the Installation Payment and the Performance Payment. After each project is installed and Entergy verifies installation, the Project Sponsor will receive an initial payment of 40% of the total estimated project incentive payment. This initial "Installation Payment" will be calculated as follows:

Equation 1.1:

$$\text{Installation Payment (\$)} = 0.4 * [(\text{Estimated peak kW savings} * \$201) + (\text{Estimated annual kWh savings} * \$0.069)]$$

All M&V activities must be completed, documented, and accepted before the Project Sponsor will receive the remaining incentive payment, based on the one-year verified savings. This "Performance Payment" may be up to 60% of the total estimated incentive payment based on contracted savings, and will be calculated as follows:

Equation 1.2:

$$\text{Performance Payment (\$)} = [(\text{Verified peak kW savings} * \$201) + (\text{Verified annual kWh savings} * \$0.069)] - \text{Installation Payment}$$

However, the total of the Installation and Performance Payments cannot exceed the incentive payment cap of $453/kW saved (or $294/kW for lighting-only projects), determined as shown in the formula below:

Equation 1.3:

$$[(\text{Verified peak kW savings} * \$201) + (\text{Verified annual kWh savings} * \$0.069)] \leq \$453 * (\text{Verified peak kW savings})$$

Under no circumstances will Entergy make a total incentive payment that is more than 100% of the total estimated incentive payment specified in the Standard Contract. If, however, M&V activities indicate that the measured savings are less than the estimated savings, the total incentive payment will be less than the payment estimated in the contract.

Equation 1.4:

Performance Payment ($) + Installation Payment ($) ≤ Contract Limit ($)

Application Fees

Application fees are equal to 5% of project Initial Application (IA) incentive estimates and must be submitted after the IA has been approved for funding. Application fees are non-refundable. Application fees are discussed further in Chapter 2: Participation Process.

Special Incentive Cases

Projects involving lighting and/or fuel switching measures are subject to additional limitations on their total incentive payment.

Lighting Measures

The C&I Standard Offer Program encourages comprehensive energy efficiency retrofits. Therefore, projects that involve only lighting measures, including lighting efficiency, lighting controls, and lighting interactive savings, are limited to 65% of the total demand and energy savings payment possible for each project. This means for lighting-only projects, compensation for the demand and energy savings shall not exceed 65% of maximum incentive amount.

To determine the correct incentive amount for comprehensive projects involving lighting measures, the Project Sponsor must multiply the total project demand and energy savings by 65% and compare these values to the estimated lighting demand and energy savings.

- **If lighting savings are less than 65% of the total project savings,** the lighting incentive payment is calculated the same as other measures, as described in the previous sections.
- **If lighting savings are greater than 65% of the total project savings,** the lighting incentive payment is calculated based on 65% of the total project savings (i.e., Any lighting savings above 65% of the total project savings are not eligible for incentives).

For example, a Project Sponsor has a project with demand and energy savings as shown in Table 1.3.

Table 1.3: Example of application of 65% limit on lighting savings

Measure	Demand Savings	Energy Savings
Lighting Efficiency	200 kW	600,000 kWh
Chiller Replacement	50 kW	200,000 kWh
Total Savings	**250 kW**	**800,000 kWh**

Demand savings and incentive calculation

To determine the demand portion of the total incentive payment, the Project Sponsor would do the following:

Step 1: Calculate the demand savings basis for incentive allowed from lighting measures as follows:

$$250\ kW_{total} * 0.65 = 162.5\ kW_{lighting\text{-}adj}$$

Step 2: Compare this value with the amount of demand savings being claimed for the lighting measures. Since the maximum value (162.5 kW) is less than the claimed value (200 kW), the Project Sponsor uses the maximum allowable value when calculating the total demand savings portion of the project's incentive payment, as follows:

$$\$201 * (162.5\ kW_{lighting\text{-}adj} + 50\ kW_{chiller}) = \$42{,}713$$

In other words, this project's lighting demand savings (at 80% of total) exceed the 65% maximum allowable for comprehensive projects to receive the full incentive amount. Therefore, the incentives are adjusted accordingly.

Energy savings and incentive calculation

To calculate the incentive for the same project's energy savings, the Project Sponsor uses a similar approach:

Step 1: Calculate the maximum amount of energy savings basis for incentive allowed from lighting measures as follows:

$$800{,}000\ kWh_{total} * 0.65 = 520{,}000\ kWh_{lighting\text{-}adj}$$

Step 2: Compare the resulting value with the amount of energy savings being claimed for lighting measures. In this case, the claimed savings (600,000 kWh) are greater than the maximum allowed (520,000 kWh), so the latter value is used to calculate the total energy savings portion of the project's incentive payment:

$$\$0.069 \cdot (520{,}000\ kWh_{lighting\text{-}adj} + 200{,}000\ kWh_{chiller}) = \$49{,}680$$

Similar to the demand savings, this project's lighting energy savings (at 75% of total) exceed the 65% maximum allowable for comprehensive projects to receive the full incentive amount. Therefore, the incentives are adjusted accordingly.

Total project incentive calculation

The total project incentive is therefore calculated as follows:

$$\$42{,}713 + \$49{,}680 = \$92{,}393.$$

To check this project's total incentive against the load factor limit, the maximum allowable kW savings eligible for full incentive are multiplied by the $453/kW cap.

$$\$453 * (162.5\ kW_{lighting\text{-}adj} + 50\ kW_{chiller}) = \$96{,}263$$

$$\$92{,}393 < \$96{,}263$$

Since the total calculated incentive falls under the load factor cap, this project is eligible to receive the full $92,393.

Fuel Switching Measures

Projects involving fuel switching (e.g., electric chillers to gas-driven or absorption chillers) shall be eligible for incentive payments based on the electric demand savings only. Refer to Chapter 3 of the M&V Guidelines in Section III to determine how to calculate fuel switching demand savings. As mentioned earlier, fuel switching to electric is not an eligible measure in the C&I Standard Offer Program.

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Table of Standard Fixture Wattages For Entergy C&I Standard Offer Program

SORTED by FIXTURE CODE	LAMP CODE	DESCRIPTION	BALLAST	LAMP/ FIXT	WATT/ LAMP	WATT/ FIXT
		Compact Fluorescent Fixtures				
CF11/1-SCRW	CFC11W	Compact Fluorescent, (1) 11W screw-in lamp, Twin, Quad, Multi, Globe, Capsule, or other	Mag-STD	1	11	11
CF13/1-SCRW	CFC13W	Compact Fluorescent, (1) 13W screw-in lamp, Twin, Quad, Multi, Globe, Capsule, or other	Mag-STD	1	13	13
CF15/1-SCRW	CFC15W	Compact Fluorescent, (1) 15W screw-in lamp, Twin, Quad, Multi, Globe, Capsule, or other	Mag-STD	1	15	15
CF15/2-SCRW	CFC15W	Compact Fluorescent, (2) 15W screw-in lamp, Twin, Quad, Multi, Globe, Capsule, or other	Mag-STD	1	15	30
CF15/3-SCRW	CFC15W	Compact Fluorescent, (3) 15W screw-in lamp, Twin, Quad, Multi, Globe, Capsule, or other	Mag-STD	1	15	45
CF15/4-SCRW	CFC15W	Compact Fluorescent, (4) 15W screw-in lamp, Twin, Quad, Multi, Globe, Capsule, or other	Mag-STD	4	15	60
CF16/1-SCRW	CFC16W	Compact Fluorescent, (1) 16W screw-in lamp, Twin, Quad, Multi, Globe, Capsule, or other	Mag-STD	1	16	16
CF17/1-SCRW	CFC17W	Compact Fluorescent, (1) 17W screw-in lamp, Twin, Quad, Multi, Globe, Capsule, or other	Mag-STD	1	17	17
CF18/1-L-SCRW	CFS18W	Compact Fluorescent, (1)18W spiral lamp 4-pin, high CRI, electronic ballasted	Electronic	1	18	18
CF18/1-SCRW	CFC18W	Compact Fluorescent, (1) 18W screw-in lamp, Twin, Quad, Multi, Globe, Capsule, or other	Mag-STD	1	18	18
CF20/1-SCRW	CFC20W	Compact Fluorescent, (1) 20W screw-in lamp, Twin, Quad, Multi, Globe, Capsule, or other	Mag-STD	1	20	20
CF20/2-SCRW	CFC20W	Compact Fluorescent, (2) 20W screw-in lamp, Twin, Quad, Multi, Globe, Capsule, or other	Mag-STD	2	20	40
CF23/1-L-SCRW	CFS23W	Compact Fluorescent, (1)23W spiral lamp 4-pin, high CRI, electronic ballasted	Electronic	1	44	44
CF23/1-SCRW	CFC23W	Compact Fluorescent, (1) 23W screw-in lamp, Twin, Quad, Multi, Globe, Capsule, or other	Mag-STD	1	23	23
CF23/2-SCRW	CFC23W	Compact Fluorescent, (2) 23W screw-in lamp, Twin, Quad, Multi, Globe, Capsule, or other	Mag-STD	2	23	46
CF25/1-SCRW	CFC25W	Compact Fluorescent, (1) 25W screw-in lamp, Twin, Quad, Multi, Globe, Capsule, or other	Mag-STD	1	25	25
CF26/1-L-SCRW	CFS26W	Compact Fluorescent, (1)26W spiral lamp 4-pin, high CRI, electronic ballasted	Electronic	1	26	26
CF28/1-SCRW	CFC28W	Compact Fluorescent, (1) 28W screw-in lamp, Twin, Quad, Multi, Globe, Capsule, or other	Mag-STD	1	28	28
CF44/1-L-SCRW	CFQ44W	Compact Fluorescent, (1)44W screw-in lamp, Twin, Quad, Multi, Globe, Capsule, or other	Electronic	1	44	44
CF7/1-SCRW	CFC7W	Compact Fluorescent, (1) 7W screw-in lamp, Twin, Quad, Multi, Globe, Capsule, or other	Mag-STD	1	7	7
CF9/1-SCRW	CFC9W	Compact Fluorescent, (1) 9W screw-in lamp, Twin, Quad, Multi, Globe, Capsule, or other	Mag-STD	1	9	9
CFD10/1	CFD10W	Compact Fluorescent, 2D, (1) 10W lamp	Mag-STD	1	10	16
CFD13/1-LOCK	CFD13W	Compact Fluorescent, 2D, (1) 13W lamp - lockable base	Mag-STD	1	13	15
CFD16/1	CFD16W	Compact Fluorescent, 2D, (1) 16W lamp	Mag-STD	1	16	26
CFD21/1	CFD21W	Compact Fluorescent, 2D, (1) 21W lamp	Mag-STD	1	21	26
CFD28/1	CFD28W	Compact Fluorescent, 2D, (1) 28W lamp	Mag-STD	1	28	35
CFD38/1	CFD38W	Compact Fluorescent, 2D, (1) 38W lamp	Mag-STD	1	38	46
CFD9/1-LOCK	CFD9W	Compact Fluorescent, 2D, (1) 9W lamp - lockable base	Mag-STD	1	9	12
CFM13/1-L	CFM13W	Compact Fluorescent, Multi, 4-pin, (1) 13W lamp	Electronic	1	13	16
CFM13/2-L	CFM13W	Compact Fluorescent, Multi, 4-pin, (2) 13W lamps	Electronic	2	13	30
CFM18/1-L	CFM18W	Compact Fluorescent, Multi, 4-pin, (1) 18W lamp	Electronic	1	18	20
CFM18/2-L	CFM18W	Compact Fluorescent, Multi, 4-pin, (2) 18W lamps	Electronic	2	18	40
CFM26/1-L	CFM26W	Compact Fluorescent, Multi, 4-pin, (1) 26W lamp	Electronic	1	26	29
CFM26/2-L	CFM26W	Compact Fluorescent, Multi, 4-pin, (2) 26W lamps	Electronic	2	26	51
CFM32/1-L	CFM32W	Compact Fluorescent, Multi, 4-pin, (1) 42W lamps,	Electronic	1	32	35
CFM42/1-L	CFM42W	Compact Fluorescent, Multi, 4-pin, (1) 42W lamps	Electronic	1	42	48
CFM42/8-L	CFM42W	Compact Fluorescent, Multi, 4-pin, (8) 42W lamps, (4) 2-lamp ballasts	Electronic	8	42	314
CFQ10/1	CFQ10W	Compact Fluorescent, quad, (1) 10W lamp	Mag-STD	1	10	15
CFQ13/1	CFQ13W	Compact Fluorescent, quad, (1) 13W lamp	Mag-STD	1	13	17

Table of Standard Fixture Wattages For Entergy C&I Standard Offer Program

SORTED by FIXTURE CODE	LAMP CODE	DESCRIPTION	BALLAST	LAMP/ FIXT	WATT/ LAMP	WATT/ FIXT
CFQ13/1-L	CFQ13W	Compact Fluorescent, quad, (1) 13W lamp, BF=1.05	Electronic	1	13	15
CFQ13/2	CFQ13W	Compact Fluorescent, quad, (2) 13W lamp	Mag-STD	2	13	31
CFQ13/2-L	CFQ13W	Compact Fluorescent, quad, (2) 13W lamp, BF=1.0	Electronic	2	13	28
CFQ13/3	CFQ13W	Compact Fluorescent, quad, (3) 13W lamp	Mag-STD	3	13	48
CFQ15/1	CFQ15W	Compact Fluorescent, quad, (1) 15W lamp	Mag-STD	1	15	20
CFQ17/1	CFQ17W	Compact Fluorescent, quad, (1) 17W lamp	Mag-STD	1	17	24
CFQ17/2	CFQ17W	Compact Fluorescent, quad, (2) 17W lamp	Mag-STD	2	17	48
CFQ18/1	CFQ18W	Compact Fluorescent, quad, (1) 18W lamp	Mag-STD	1	18	26
CFQ18/1-L	CFQ18W	Compact Fluorescent, quad, (1) 18W lamp, BF=1.0	Electronic	1	18	20
CFQ18/2	CFQ18W	Compact Fluorescent, quad, (2) 18W lamp	Mag-STD	2	18	45
CFQ18/2-L	CFQ18W	Compact Fluorescent, quad, (2) 18W lamp, BF=1.0	Electronic	2	18	38
CFQ18/4	CFQ18W	Compact Fluorescent, quad, (4) 18W lamp	Mag-STD	2	18	90
CFQ20/1	CFQ20W	Compact Fluorescent, quad, (1) 20W lamp	Mag-STD	1	20	23
CFQ20/2	CFQ20W	Compact Fluorescent, quad, (2) 20W lamp	Mag-STD	2	20	46
CFQ22/1	CFQ22W	Compact Fluorescent, Quad, (1) 22W lamp	Mag-STD	1	22	24
CFQ22/2	CFQ22W	Compact Fluorescent, Quad, (2) 22W lamp	Mag-STD	2	22	48
CFQ22/3	CFQ22W	Compact Fluorescent, Quad, (3) 22W lamp	Mag-STD	3	22	72
CFQ23/1	CFQ23W	Compact Fluorescent, Quad, (1) 23W lamp	Mag-STD	1	23	27
CFQ25/1	CFQ25W	Compact Fluorescent, Quad, (1) 25W lamp	Mag-STD	1	25	33
CFQ25/2	CFQ25W	Compact Fluorescent, Quad, (2) 25W lamp	Mag-STD	2	25	66
CFQ26/1	CFQ26W	Compact Fluorescent, quad, (1) 26W lamp	Mag-STD	1	26	33
CFQ26/1-L	CFQ26W	Compact Fluorescent, quad, (1) 26W lamp, BF=0.95	Electronic	1	26	27
CFQ26/2	CFQ26W	Compact Fluorescent, quad, (2) 26W lamp	Mag-STD	2	26	66
CFQ26/2-L	CFQ26W	Compact Fluorescent, quad, (2) 26W lamp, BF=0.95	Electronic	2	26	50
CFQ26/3	CFQ26W	Compact Fluorescent, quad, (3) 26W lamp	Mag-STD	3	26	99
CFQ26/6-L	CFQ26W	Compact Fluorescent, quad, (6) 26W lamp, BF=0.95	Electronic	6	26	150
CFQ28/1	CFQ28W	Compact Fluorescent, quad, (1) 28W lamp	Mag-STD	1	28	33
CFQ28/1-L	CFQ28W	Compact Fluorescent, quad, (1) 28W lamp	Electronic	1	28	31
CFQ28/2-L	CFQ28W	Compact Fluorescent, quad, (2) 28W lamps	Electronic	2	28	60
CFQ42/8-L	CFQ42W	Compact Fluorescent, quad, (8) 42W lamps	Electronic	8	42	305
CFQ9/1	CFQ9W	Compact Fluorescent, Quad, (1) 9W lamp	Mag-STD	1	9	14
CFQ9/2	CFQ9W	Compact Fluorescent, Quad, (2) 9W lamp	Mag-STD	2	9	23
CFT13/1	CFT13W	Compact Fluorescent, twin, (1) 13W lamp	Mag-STD	1	13	17
CFT13/1-L	CFT13W	Compact Fluorescent, twin, (1) 13W lamp	Electronic	1	13	15
CFT13/2	CFT13W	Compact Fluorescent, twin, (2) 13W lamp	Mag-STD	2	13	31
CFT13/2-L	CFT13W	Compact Fluorescent, twin, (2) 13W lamp	Electronic	2	13	28
CFT13/3	CFT13W	Compact Fluorescent, twin, (3) 13 W lamp	Mag-STD	3	13	48
CFT18/1	CFT18W	Compact Fluorescent, Long twin., (1) 18W lamp	Mag-STD	1	18	24
CFT18/1-L	CFT18W	Compact Fluorescent, twin, (1) 18W lamp	Electronic	1	18	20
CFT18/2	CFT18W	Compact Fluorescent, twin, (2) 18W lamp	Mag-STD	2	18	38

Table of Standard Fixture Wattages For Entergy C&I Standard Offer Program

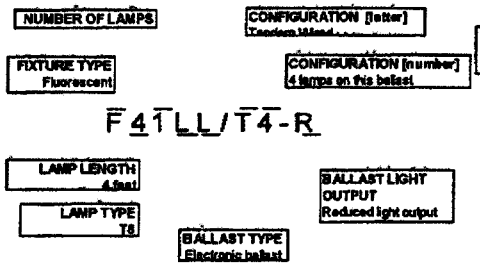
SORTED by FIXTURE CODE	LAMP CODE	DESCRIPTION	BALLAST	LAMP/ FIXT	WATT/ LAMP	WATT/ FIXT
CFT22/1	CFT22W	Compact Fluorescent, twin, (1) 22W lamp	Mag-STD	1	22	27
CFT22/2	CFT22W	Compact Fluorescent, twin, (2) 22W lamp	Mag-STD	2	22	54
CFT22/4	CFT22W	Compact Fluorescent, twin, (4) 22W lamp	Mag-STD	4	22	108
CFT24/1	CFT24W	Compact Fluorescent, long twin, (1) 24W lamp	Mag-STD	1	24	32
CFT26/1	CFT26W	Compact Fluorescent, twin, (1) 26W lamp	Mag-STD	1	26	32
CFT26/1-L	CFT26W	Compact Fluorescent, twin, (1) 26W lamp	Electronic	1	26	27
CFT26/2-L	CFT26W	Compact Fluorescent, twin, (2) 26W lamp	Electronic	2	26	51
CFT28/1	CFT28W	Compact Fluorescent, twin, (1) 28W lamp	Mag-STD	1	28	33
CFT28/2	CFT28W	Compact Fluorescent, twin, (2) 28W lamp	Mag-STD	2	28	66
CFT32/1-L	CFM32W	Compact Fluorescent, twin or multi, (1) 32W lamp	Electronic	1	32	34
CFT32/2-L	CFM32W	Compact Fluorescent, twin or multi, (2) 32W lamp	Electronic	2	32	62
CFT32/6-L	CFM32W	Compact Fluorescent, twin or multi, (2) 32W lamp	Electronic	6	32	186
CFT36/1	CFT36W	Compact Fluorescent, long twin, (1) 36W lamp	Mag-STD	1	36	51
CFT40/1	CFT40W	Compact Fluorescent, long twin, (1) 40W lamp	Mag-STD	1	40	46
CFT40/1-L	CFT40W	Compact Fluorescent, long twin, (1) 40W lamp	Electronic	1	40	43
CFT40/2	CFT40W	Compact Fluorescent, long twin, (2) 40W lamp	Mag-STD	2	40	85
CFT40/2-L	CFT40W	Compact Fluorescent, long twin, (2) 40W lamp	Electronic	2	40	72
CFT40/3	CFT40W	Compact Fluorescent, long twin, (3) 40 W lamp	Mag-STD	3	40	133
CFT40/3-L	CFT40W	Compact Fluorescent, long twin, (3) 40W lamp	Electronic	3	40	105
CFT5/1	CFT5W	Compact Fluorescent, twin, (1) 5W lamp	Mag-STD	1	5	9
CFT5/1-LOCK	CFT5W	Compact Fluorescent, biaxial, (1) 5W lamp - lockable base	Mag-STD	1	5	8
CFT5/2	CFT5W	Compact Fluorescent, twin, (2) 5W lamp	Mag-STD	2	5	18
CFT55/1-L	CFT55W	Compact Fluorescent, twin, (1) 55W lamp	Electronic	1	55	60
CFT55/2-L	CFT55W	Compact Fluorescent, twin, (2) 55W lamp	Electronic	2	55	110
CFT55/3-L	CFT55W	Compact Fluorescent, twin, (3) 55W lamp	Electronic	3	55	170
CFT55/4-L	CFT55W	Compact Fluorescent, twin, (4) 55W lamp	Electronic	4	55	220
CFT7/1	CFT7W	Compact Fluorescent, twin, (1) 7W lamp	Mag-STD	1	7	10
CFT7/2	CFT7W	Compact Fluorescent, twin, (2) 7W lamp	Mag-STD	2	7	21
CFT9/1	CFT9W	Compact Fluorescent, twin, (1) 9W lamp	Mag-STD	1	9	12
CFT9/2	CFT9W	Compact Fluorescent, twin, (2) 9W lamp	Mag-STD	2	9	23
CFT9/3	CFT9W	Compact Fluorescent, twin, (3) 9 W lamp	Mag-STD	3	9	34
	EXIT Sign Fixtures					
ECF5/1	CFT5W	EXIT Compact Fluorescent, (1) 5W lamp	Mag-STD	1	5	9
ECF5/2	CFT5W	EXIT Compact Fluorescent, (2) 5W lamp	Mag-STD	2	5	20
ECF6/1	CFT6W	EXIT Compact Fluorescent, (1) 6W lamp	Mag-STD	1	6	13
ECF6/2	CFT6W	EXIT Compact Fluorescent, (2) 6W lamp, (2) ballasts	Mag-STD	2	6	26
ECF7/1	CFT7W	EXIT Compact Fluorescent, (1) 7W lamp	Mag-STD	1	7	10
ECF7/2	CFT7W	EXIT Compact Fluorescent, (2) 7W lamp	Mag-STD	2	7	21
ECF9/1	CFT9W	EXIT Compact Fluorescent, (1) 9W lamp	Mag-STD	1	9	12
ECF9/2	CFT9W	EXIT Compact Fluorescent, (2) 9W lamp	Mag-STD	2	9	20

Table of Standard Fixture Wattages For Entergy C&I Standard Offer Program

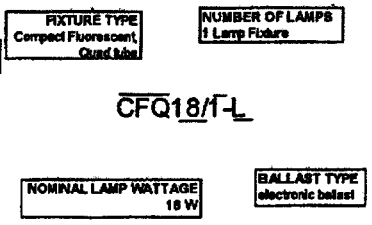
SORTED by FIXTURE CODE	LAMP CODE	DESCRIPTION	BALLAST	LAMP/ FIXT	WATT/ LAMP	WATT/ FIXT
EF2/2	F2T1	EXIT Sub-miniature T-1 Fluorescent, (2) lamps	Electronic	2	2?	5
EF6/1	F6T5	EXIT Miniature Bi-pin Fluorescent, (1) 6 W lamp, (1) ballast	Mag-STD	1	6	9
EF6/2	F6T5	EXIT Miniature Bi-pin Fluorescent, (2) 6 W lamps, (2) ballasts	Mag-STD	2	6	18
EF8/1	F8T5	EXIT T5 Fluorescent, (1) 8W lamp	Mag-STD	1	8	12
EF8/2	F8T5	EXIT T5 Fluorescent, (2) 8W lamp	Mag-STD	2	8	24
EI10/2	I10	EXIT Incandescent, (2) 10W lamp		2	10	20
EI15/1	I15	EXIT Incandescent, (1) 15W lamp		1	15	15
EI15/2	I15	EXIT Incandescent, (2) 15W lamp		2	15	30
EI20/1	I20	EXIT Incandescent, (1) 20W lamp		1	20	20
EI20/2	I20	EXIT Incandescent, (2) 20W lamp		2	20	40
EI25/1	I25	EXIT Incandescent, (1) 25W lamp		1	25	25
EI25/2	I25	EXIT Incandescent, (2) 25W lamp		2	25	50
EI34/1	I34	EXIT Incandescent, (1) 34W lamp		1	34	34
EI34/2	I34	EXIT Incandescent, (2) 34W lamp		2	34	68
EI40/1	I40	EXIT Incandescent, (1) 40W lamp		1	40	40
EI40/2	I40	EXIT Incandescent, (2) 40W lamp		2	40	80
EI5/1	I5	EXIT Incandescent, (1) 5W lamp		1	5	5
EI5/2	I5	EXIT Incandescent, (2) 5W lamp		2	5	10
EI50/2	I50	EXIT Incandescent, (2) 50W lamp		2	50	100
EI6/1	6S6	EXIT Incandescent, (1) 6 W lamp		1	6	6
EI6/2	6S6	EXIT Incandescent, (2) 6 W lamps		2	6	12
EI7.5/1	I7.5	EXIT Tungsten, (1) 7.5 W lamp		1	7.5	8
EI7.5/2	I7.5	EXIT Tungsten, (2) 7.5 W lamp		2	7.5	15
ELED2/1	LED2W	EXIT Light Emmitting Diode, (1) 2W lamp, Single Sided		1	2	6
ELED2/2	LED2W	EXIT Light Emmitting Diode, (2) 2W lamp, Dual Sided		2	2	9
ELED3	LED3W	EXIT Light Emmitting Diode, 3W		NA	NA	3
		Linear Fluorescent Fixtures				
F1.51LS	F15T8	Fluorescent, (1) 18" T8 lamp	Mag-STD	1	15	19
F1.51SS	F15T12	Fluorescent, (1) 18" T12 lamp	Mag-STD	1	15	19
F1.52LS	F15T8	Fluorescent, (2) 18" T8 lamp	Mag-STD	2	15	36
F1.52SS	F15T12	Fluorescent, (2) 18", T12 lamp	Mag-STD	2	15	36
F21HS	F24T12/HO	Fluorescent, (1) 24", HO lamp	Mag-STD	1	35	62
F21ILL	F17T8	Fluorescent, (1) 24", T-8 lamp, Instant Start Ballast, NLO (BF: .85-.95)	Electronic	1	17	20
F21ILL/T2	F17T8	Fluorescent, (1) 24", T-8 lamp, Instant Start Ballast, NLO (BF: .85-.95), Tandem 2 Lamp Ballast	Electronic	1	17	17
F21ILL/T2-R	F17T8	Fluorescent, (1) 24", T-8 lamp, Instant Start Ballast, RLO (BF<.85), Tandem 2 Lamp Ballast	Electronic	1	17	15
F21ILL/T3	F17T8	Fluorescent, (1) 24", T-8 lamp, Instant Start Ballast, NLO (BF: .85-.95), Tandem 3 Lamp Ballast	Electronic	1	17	16
F21ILL/T3-R	F17T8	Fluorescent, (1) 24", T-8 lamp, Instant Start Ballast, RLO (BF<.85), Tandem 3 Lamp Ballast	Electronic	1	17	14
F21ILL/T4	F17T8	Fluorescent, (1) 24", T-8 lamp, Instant Start Ballast, NLO (BF: .85-.95), Tandem 4 Lamp Ballast	Electronic	1	17	15
F21ILL/T4-R	F17T8	Fluorescent, (1) 24", T-8 lamp, Instant Start Ballast, RLO (BF<.85), Tandem 4 Lamp Ballast	Electronic	1	17	14
F21ILL-R	F17T8	Fluorescent, (1) 24", T-8 lamp, Instant Start Ballast, RLO (BF<0.85)	Electronic	1	17	17

Fixture Code Legend and Notes

Sample Linear Fluorescent Fixture Code:



Sample of Other Fixture Code:



Code Explanations

Fixture Type

CF	Compact Fluorescent
CFD	Compact Fluorescent, double-D shape
CFM	Compact Fluorescent, Multi tube
CFT	Compact Fluorescent, Twin tube (including "Biaxial" fixtures)
CFQ	Compact Fluorescent, Quad tube
ECF	Exit sign, Compact Fluorescent
EF	Exit sign, linear Fluorescent (T5, T1)
EI	Exit sign, Incandescent
ELED	Exit sign, LED
F	Fluorescent, linear
FC	Fluorescent, Circline
FU	Fluorescent, U-tube
H	Halogen Incandescent
HPS	High Pressure Sodium
I	Incandescent
LED	Light Emitting Diode (LED) traffic signal
MH	Metal Halide
MV	Mercury Vapor

Lamp Type

for fluorescent fixtures

A	"F25T12" type—25 watt, 4 ft, T12 lamp
IL	T8, Instant start ballast
L	T8, rapid start ballast
E	T12, Energy efficient
EH	T12, Energy efficient, High output lamp
EI	T12, Energy efficient, Instant start lamp
EV	T12, Energy efficient, Very high output
S	T12, Standard wattage
SI	T12, Standard Instant start lamp
SH	T12, Standard, High output lamp
SV	T12, Standard, Very high output lamp
T	T10 lamp

for LED traffic signals

12GA	12" Green Arrow
12RA	12" Red Arrow
12RB	12" Red Ball
8GB	8" Green Ball
8RB	8" Red Ball
PH	Pedestrian Hand signal

Ballast Type

for fluorescent fixtures

L	electronic
S	Standard magnetic
E	Energy efficient magnetic

Configuration [letter]

T	Tandem wired fixture
D	Delamped fixture, i.e. some lamps Permanently removed but ballasts remain

Configuration [number]

for de-lamped fixtures

Number signifies the total number of ballasts in the fixture: e.g. An "F42EE/D2" is an "F44EE" with two lamps removed so that there is one extraneous ballast.

for tandem wired ballasts

Number signifies the total number of lamps being run by the ballast: e.g. An "F42LL/T4" would indicate that a four-lamp ballast is wired to run two two-lamp fixtures.

with no preceding letter

Number indicates the number of ballasts in an ambiguous multiple ballast fixture: e.g. An "F43LL/2" indicates a three-lamp fixture with two ballasts (as is often the case if there is A/B switching).

Ballast Light Output

R	Reduced light output
H	High light output
V	Very high light output

Notes

1) The column labeled Watts/Fixture in the data table includes ballast loads.
2) The fixture wattage values represent an average value, rounded to the nearest whole watt.

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2003 Residential and Small Commercial Standard Offer Program

Released on: **December 3, 2002**

Released by: **Entergy Gulf States, Inc.**
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2003 Residential and Small Commercial Standard Offer Program Overview

On January 1, 2003, Entergy's distribution utility in Texas (EGSI Texas) will begin program year 2003 to pay incentives to Energy Services Companies and other Energy Efficiency Service Providers for a wide variety of projects that improve the energy efficiency of residential, commercial and industrial customers.

Entergy will administer incentive programs in a market based, non-discriminatory manner, and will ensure that all customers in all customer classes have a choice of, and access to, energy efficiency alternatives to reduce energy consumption.

RETRO-FIT PROGRAM TO REDUCE PEAK DEMAND

The Residential and Small Commercial Standard Offer Program (Res/Com SOP) provides incentives for the retrofit installation of a wide range of measures that reduce energy costs, reduce peak demand and/or save energy in residential and small commercial facilities. Certain single-family and multi-family new "affordable housing" projects may also be eligible for incentives. This program complies with the PUCT-approved Residential/Small Commercial Program Template, that was revised on November 21, 2002.

OBJECTIVES

This program is designed to achieve a high level of energy and demand savings in the residential and small commercial sector. The program does not prescribe technologies or end uses, but provides a framework through which energy efficiency service providers can receive incentives for implementing and installing a wide range of measures at customer sites. The primary objective of this program is to achieve cost-effective reduction in peak summer demand. Additionally, the Res/Com SOP is designed to:

- Encourage private sector delivery of energy efficiency products and services;
- Achieve customer energy and cost savings;
- Significantly reduce barriers to participation by streamlining program procedures and measurement and verification (M&V) requirements;
- Encourage participation by a wide range of Project Sponsors; and
- Produce demand, energy and bill savings in new single-family "affordable housing" projects and in new multi-family projects.

ELIGIBLE PROJECT SPONSORS

Any entity meeting the application requirements is eligible to participate in the program as a project sponsor. Eligible project sponsors include:

- National or local energy service companies (ESCOs);
- National or local companies that provide energy-related services (e.g., contracting) or products (e.g., lighting, HVAC equipment);
- Retail Electricity Providers (REPs); and
- Retailers that install the particular energy efficiency products sold as part of this program.

In any funding year, no Project Sponsor and its affiliates may receive more than 15% of Entergy's Res/Com SOP program budget, excluding a set-aside for small contractor projects.

ELIGIBLE HOST CUSTOMER

A participating Residential/Small Commercial customer must receive distribution and transmission service from Entergy and be located in Texas. Small Commercial customers must have an aggregated electric demand of less than 100 kW.

INCENTIVE BASIS

Deemed Savings

Incentives are paid on the basis of deemed savings, which are standardized savings values or simple formulas for a wide range of measures in representative building types.

Measured Savings

If deemed savings have not been established for a qualifying energy efficiency measure, or if the Project Sponsor chooses not to use the deemed savings, then incentives may be paid on the basis of verified peak demand and energy savings using the International Performance Measurement and Verification Protocol.

OTHER NOTES

Entergy will not directly market any energy efficiency-related product or service to its customers. Entering into an agreement with Entergy does not imply Entergy's endorsement or approval of any Project Sponsor's company, product, or service. Entergy makes no representation of the benefits of any particular technology or energy efficiency measure eligible for incentives under this program. The selection of an energy efficiency measure is at the discretion of the individual customers and their energy efficiency service provider.

Incentives

FUNDING

Funding is available for projects for two customer classes: Residential and Small Commercial. Small Commercial customers must have an aggregated peak demand of less than 100 kW.

Res/Com SOP Funding for 2003	
Res/Com SOP	$789,531
Small Contractors	$263,177
Total	$1,052,708

FUNDING LIMITATIONS

To ensure that incentives are available for multiple projects, no project sponsor and its affiliates may receive more than 15% of Entergy's program budget in any funding year, less the small contractor set-aside.

Maximum Incentive to Project Sponsor	
Res/Com SOP	$118,430
Small Contractors	$15,000 ($5,000 max per request)

- A Project Sponsor may submit multiple applications and participate in multiple projects, as long as the total incentive from all such projects does not exceed the above limits.
- These limits may be waived if Entergy requests and is granted a waiver from the PUCT. Such a waiver would be requested if Entergy determines that this limit would prevent it from achieving its energy efficiency goal.

HOW FUNDING IS RESERVED

Funds are reserved for qualified project sponsors with approved applications on a first-come, first-served basis.

INCENTIVE PRICING

Standard incentive prices are offered for demand savings and energy savings. For residential and small commercial customers, the incentive prices may not exceed 50% of the avoided cost of supplying electricity.

Payment per kW Reduction	Payment per annual kWh saved
$224	$0.077

INCENTIVE PRICING LIMITATIONS

Load Factor Cap

For projects implemented under this Residential and Small Commercial Standard Offer Program (Res/Com SOP), there is a limit on the ratio of kWh payment to kW payment. This is to limit incentives for projects that produce relatively little of their energy savings during Entergy's peak summer demand period.

Maximum Payment Per kW Reduction
$526

Example 1

A residential HVAC project saved 25 kW of summer peak demand and 50,000 annual kWh. The unadjusted incentive payment for this project would be:

(25 x $224) + (50,000 x $0.077) = $9,450

The maximum allowable incentive for this project is 25 kW multiplied by $526, or $13,150. This project would not be subject to the load factor cap.

Example 2

A small commercial customer's variable-speed motor retrofit saves 20 kW of summer peak demand and 90,000 annual kWh. The unadjusted incentive payment for this project would be:

(20 x $224) + (90,000 x $0.077) = $11,410

The maximum allowable incentive for this project is 20 kW multiplied by $526, or $10,520. This project would be subject to the load factor cap. The Project Sponsor would receive a $10,520 incentive payment.

Lighting Cap

If the fraction of a project sponsor's kW or kWh savings derived from lighting measures exceeds 65% of the total savings, the incentive amounts paid to the project sponsor for the lighting measures shall be reduced by an adjustment factor. The application of these adjustment factors to kW and kWh payments ensures that the lighting measure incentives paid shall not exceed 65% of the total incentive payable if the project had consisted entirely of non-lighting measures.

Example 3

A project at a small commercial office building is projected to result in 15 kW of lighting savings and 4 kW of HVAC savings. In addition to the demand savings, the lighting measures will provide 60,000 kWh of annual energy savings, and the HVAC measures will provide 8,000 kWh of annual energy savings.

Percentage of kW savings from lighting = 15/19 = 78.9%. This project is subject to the lighting cap.

Adjusted kW = (19 x 0.65) + 4 = 16.35 kW

Adjusted kWh = (68,000 x 0.65) + 8,000 = 52,200 kWh

The Lighting Cap adjusted incentive payment for this project would be:

(16.35 x $224) + (52,200 x $0.077) = $7,682

The maximum allowable incentive for this project is 16.35 kW multiplied by $526, or $8,600. This project would NOT be subject to the load factor cap.

HOW ARE INCENTIVES PAID?

Deemed Savings – One Payment

A project that only utilizes deemed savings to calculate demand and energy savings will receive an "Implementation Payment" that represents 100% of the total estimated incentive payment after the project is installed, documented, and accepted.

Measured Savings – Two Payments

After the project is installed, documented, and accepted, the project sponsor will receive an "Implementation Payment" that represents 40% of the total estimated incentive payment. After all measurement and verification activities are complete, documented, and accepted, the project sponsor will receive the "Performance Payment" based on verified savings (up to 60% of the total estimated incentive payment).

For measured savings projects, Entergy will use the following formula to calculate the amount of the Implementation Payment:

*Implementation Payment = [((estimated kW) * ($/kW incentive)) +*

*((estimated kWh) * ($/kWh incentive))] * 40%*

The second payment (the "Performance Payment") will be based on the one-year energy savings that the Project Sponsor measures and documents in its M&V Report. The Performance Payment may be up to 60% of the total estimated incentive included in the Res/Com SOP Agreement, and will be calculated as follows:

*Performance Payment = [((measured kW saved) * ($/kW incentive)) +*

*((measured kWh saved) * ($/kWh incentive))] - Implementation Payment*

OTHER NOTES

Under no circumstances will Entergy make a total incentive payment (i.e., the sum of the Implementation Payment and the Performance Payment) that is more than 100% of the total estimated incentive payment specified in the Res/Com SOP Agreement. If the final M&V Report indicates that the measured savings are less than the estimated savings, then the total incentive payment will be less than the payment estimated in the Res/Com SOP Agreement. If the above formula results in a negative amount, the Project Sponsor must refund that amount to Entergy within 30 days of receipt of an invoice from Entergy.

No Project Sponsor has unconditional entitlement to the Res/Com SOP incentive funds.

In all cases, payment procedures and amounts specified in the Res/Com SOP Agreement supercede this and any other documents.

ENTERGY'S
HARD-TO-REACH
STANDARD OFFER PROGRAM

February 2002

Entergy's Hard-to-Reach Standard Offer Program

Table of Contents

1 Background

1.1 Texas Electric Utility Restructuring

In March, 2000, the Public Utility Commission of Texas (PUCT) adopted the Energy Efficiency Rule 25.181. This Energy Efficiency Rule implements Senate Bill 7 (SB7), which was passed in May, 1999.

Both SB7 and the Energy Efficiency Rule have a substantial impact on the manner in which electric utilities shall promote energy efficiency in their service territories from now on.

1.2 New Approach to Energy Efficiency Programs

Here are some of the highlights of the new rules:

Each investor-owned electric utility is required to achieve an energy efficiency program goal equal to 10% of its projected growth in demand by January 1, 2004.

> On a statewide basis, this represents a significant increase in the amount of resources allocated to energy efficiency programs. Collectively, electric utilities in Texas will be spending approximately $70 million per year on energy efficiency programs in order to achieve that goal.

Utilities are required to ensure that 5% or more of these energy savings come from "Hard-to-Reach" customers.

> Hard-to-Reach (HTR) customers are defined as customers with an annual household income at or below 200% of federal poverty guidelines, or who meet certain other qualifications.

As of September 1, 2000, utilities can no longer provide "competitive energy services" directly to customers.

> Investor-owned utilities can no longer provide any of the traditional energy efficiency programs, such as the "Good Cents" program, air conditioner rebate programs, energy audits, weatherization programs, or even energy information programs.

In order to achieve the 10% energy savings goal, Entergy will implement "Standard Offer Programs," and "Market Transformation Programs" as prescribed by the PUCT.

> In a Standard Offer Program (SOP), Project Sponsors propose to deliver certain levels of peak demand savings (measured in kilowatts, or kW) and annual energy savings (measured in kilowatt-hours, or kWh). Entergy pays a fixed price for each kW and kWh of savings. All payments to Project Sponsors are based solely on kW and kWh savings. Entergy pays incentives directly to Project Sponsors, not to customers. There will be Standard Offer Programs for all customer classes.

Who can submit an application to be a Project Sponsor?

> The program is open to a wide range of contractors, equipment manufacturers or distributors, service companies, and community agencies. No individual Project Sponsor and its Affiliates may receive more than 15% of the Hard-to-Reach SOP incentives per year, which will allow numerous businesses and organizations the opportunity to

participate as Project Sponsors.

The PUCT has issued a wide range of rules and requirements for the Standard Offer Programs. The purpose of this manual is to identify and explain these program requirements, and act as a reference for Project Sponsors.

2 Program Design

2.1 Program Description

The Hard-to-Reach Standard Offer Program (HTR SOP) was developed by Entergy to provide an incentive to suppliers of energy services to effectuate electric energy efficiency projects at Entergy Hard-to-Reach residential customer sites. The primary objective of this program is to achieve cost-effective reduction in peak summer demand.

Additionally, the HTR SOP is designed 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;
- Enhance program cost-effectiveness by minimizing lost opportunities for demand and energy savings in individual residences;
- Provide energy efficiency improvements to individual households at no or very low cost;
- Provide energy efficiency improvements in apartments occupied by Hard-to-Reach customers with contributions from building owners;
- Encourage private sector delivery of energy efficiency products and services;
- Significantly reduce barriers to participation by streamlining program procedures and measurement and verification (M&V) requirements;
- Encourage participation by a wide range of Project Sponsors; and

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 medium income, such as Section 8 and Public Housing Authorities;
- Households denied weatherization or utility assistance program benefits because income exceeds 125% of federal poverty guidelines;
- Households on long waiting lists for weatherization services; and
- Other target groups identified by contractors.

This performance-based program offers incentive payments for "deemed" energy savings, based on a dollars-per-kilowatt (kW) and dollars-per-kilowatt-hour (kWh) incentive rate.

Entergy has designed the HTR SOP to encourage electric energy efficiency improvements that go above and beyond the efficiency gains typically achieved in replacement-on-burnout projects. Consequently, energy savings credits for such measures will be based only on energy savings that exceed current federal minimum efficiency standards, if such standards apply. In cases where standards do not exist, and on early replacement or retrofit of existing equipment, demand and energy savings will be based on efficiency improvements relative to typical efficiencies in like circumstances (subject to other limitations as specified herein).

One of the features of the HTR SOP is that Entergy will rely upon the marketing capabilities of Project Sponsors to market services to Entergy's HTR customers. Entergy will not directly

market any energy efficiency-related product or service to its customers. **Entering into an agreement with Entergy as a Project Sponsor does not imply Entergy's endorsement or approval of any company, product, or service.**

Participants in the HTR SOP must meet minimum eligibility criteria, comply with all HTR SOP rules and procedures, submit Project Application forms and supplemental documentation describing their projects, and execute Entergy's HTR SOP Agreement. Entergy also requires that Project Sponsors include in their Host Customer Agreement a consumer protection provision and a provision allowing Entergy and the statewide Measurement and Verification (M&V) auditor access to the Host Customer's facility.

The Program involves three types of entities: the program administrator (Entergy), Project Sponsors, and Host Customers.

Entergy's responsibilities include:

- Conducting outreach for potential Project Sponsors;
- Reviewing and approving or rejecting all Project Applications;
- Performing certain inspection activities[1]; and
- Authorizing and issuing incentive payments.

A Project Sponsor's responsibilities include:

- Identifying potential project opportunities;
- Developing project documentation in accordance with HTR SOP procedures and deadlines;
- Verifying the income eligibility of Hard-to-Reach customers according to procedures established by the Public Utility Commission of Texas (PUCT);
- Conducting pre- and post-installation blower door and carbon monoxide (CO) testing, wherever appropriate;
- Evaluating and installing envelope, interior energy usage, and HVAC measures;
- Distributing customer education material to Host Customers;
- Complying with mandatory progress milestones; and
- Submitting periodic implementation reports and invoices.

A participating Host Customer's responsibilities include:

- Committing to an energy efficiency project;
- Entering into a Host Customer Agreement with the selected Project Sponsor; and
- Providing Entergy, and any statewide M&V contractor, access to project for installation inspection.

[1] Entergy reserves the right to contract with a third party to monitor and verify energy savings from the HTR SOP on its behalf.

Entergy views the preparation of the project documentation as crucial to the success of the HTR SOP. Entergy will provide information to acquaint potential Project Sponsors with program requirements. A web site will be the key informational resource. The web site should be checked regularly for any program updates (please visit www.ENTERGYefficiency.com). Company representatives will respond to questions by posting answers on the web site.[2] Entergy hopes that this collaborative approach will help Project Sponsors gain a clear understanding of the HTR SOP requirements, thereby allowing Entergy to more quickly grant approval of Project Sponsors' submittals.

2.1.1 Definitions

The definitions of some additional terminology, used throughout the HTR SOP documents, are provided below:

Affiliate shall mean for purposes of the HTR SOP:

(A) a person who directly or indirectly own or holds at least 5.0% of the voting securities of an energy efficiency services provider;

(B) a person in a chain of successive ownership of at least 5.0% of the voting securities of an energy efficiency services provider;

(C) a corporation that has at least 5.0% of its voting securities owned or controlled, directly or indirectly, by an energy efficiency service provider;

(D) a corporation that has at least 5.0% of its voting securities owned or controlled, directly or indirectly, by:

  (i) a person who directly or indirectly owns or controls at least 5.0% of the voting securities of an energy efficiency service provider; or

  (ii) a person in a chain of successive ownership of at least 5.0% of the voting securities of an energy efficiency service provider; or

(E) a person who is an officer or director of an energy efficiency service provider or of a corporation in a chain of successive ownership of at least 5.0% of the voting securities of an energy efficiency service provider;

(F) a person who actually exercises substantial influence or control over the policies and actions of an energy efficiency service provider;

(G) a person over which the energy efficiency services provider exercises the control described in (F);

(H) a person who is under common control with an energy efficiency service provider, where "common control with an energy efficiency service provider" means the direct or indirect possession of the power to direct or cause the direction of the management and policies of another, without regard to whether that power is established through ownership or voting of securities or any other direct or indirect means; or

[2] Entergy will attempt to answer telephone inquiries, but no response will be considered official unless the question has been posted and responded to on the official Entergy energy efficiency program web site.

(I) a person who, together with one or more persons with whom the person is related by ownership or blood relationship, or by action in concert, actually exercises substantial influence over the policies and actions of an energy efficiency service company even though neither person may qualify as an affiliate individually.

Baseline is generally defined, for purposes of determining estimated and measured energy savings for equipment replacement projects implemented under the HTR SOP, as the energy consumed by equipment with efficiency levels that meet the applicable current federal standards and reflects current market conditions. In certain limited circumstances, the equipment or conditions currently in place may determine the baseline. This is likely to occur only when federal energy efficiency standards do not apply, or when the existing equipment can be shown by the Project Sponsor to have a remaining service life of at least ten years. For determining estimated and measured savings for building shell improvements, the baseline is generally determined by the building's current condition, e.g., existing insulation r-values, air infiltration rates, etc.

Budget Reservation refers to the amount of incentive funds Entergy sets aside during the project implementation phase for a given Project Sponsor who has submitted a successful application prior to Entergy's complete commitment of funds through Budget Reservations to other Project Sponsors.

Customer is any person that receives residential electric distribution service from Entergy's distribution company in Texas.

Hard-to-Reach Customers are customers with an annual household income at or below 200% of the federal poverty guidelines and who have properly completed a PUCT-approved income verification form, or who have been designated as Hard-to-Reach through another PUCT-approved methodology.

Implementation Period, for the purposes of the Entergy HTR SOP is the contract period during which Project Sponsor may conduct marketing and installation activities. The Implementation Period shall commence with the date of execution of the HTR SOP Agreement, and shall continue for a period of one year.

Peak Demand Savings, for purposes of the Entergy HTR SOP, is the maximum average load reduction occurring during any one-hour period between 1 PM and 7 PM CDT weekdays, from May 1 through September 30 (holidays excluded).

A Project shall mean the sum of all activities required to achieve the Energy Savings and Peak Demand Savings included in the Project Sponsor's application. New construction projects are not eligible for the Entergy HTR SOP.

Project Site is one or more adjacent buildings on a single meter owned or operated by a single Entergy customer.

Proposed Measures and/or Equipment are the energy efficiency measures that the Project Sponsor intends to install under the HTR SOP. All proposed equipment must exceed applicable minimum federal efficiency standards. After the project has been installed, the *proposed* measures and/or equipment become the *installed* measures and/or equipment.

Typical Equipment and Efficiencies in this circumstance, are the equipment and efficiencies Entergy assumes would be in place absent the intervention of the Project Sponsor.

Definitions for other common terms used throughout this document are contained in the Glossary (Appendix E).

2.2 Project Sponsor Eligibility

A Project Sponsor is any organization, group, or individual who contracts with Entergy to provide energy savings under the HTR SOP. The following types of organizations are eligible to participate as Project Sponsors:

- Energy service companies (ESCOs);
- Local contractors;
- Not-for-profit housing or social service organizations;
- National or local companies that provide energy-related services (e.g., weatherization, appliances, lighting or HVAC); and
- Retailers are eligible if they provide the necessary analyses, and they install the particular energy-efficient measures included as part of this HTR SOP.

Entergy requires Project Sponsors to demonstrate their financial, technical, experiential, and managerial qualifications as part of the application process to help ensure that the proposed projects will be successful in delivering the estimated energy savings. This requirement is described in further detail in this Section. Entergy also requires Project Sponsors and their subcontractors to carry all statutorily required insurance, and all insurance as described in the Standard Offer Program Agreement.

2.2.1 Project Sponsor Funding Limits

Under Entergy's 2002 HTR SOP, the total amount available for incentives is $309,000. To ensure that funding will be available to multiple participants, Entergy has set the maximum level of HTR incentives paid to any one Project Sponsor (including Project Sponsor's Affiliates) at $46,350 for projects implemented under this program. The minimum Project size is 15 kW of peak demand savings.

A Project Sponsor may submit multiple applications, and participate in multiple projects, as long as the total incentive from all such projects does not exceed the above limit. These limits may be waived if Entergy requests and is granted a waiver from the PUCT. Such a waiver would be requested if Entergy determines that this limit would prevent it from achieving its energy efficiency goal. No Project Sponsor has unconditional entitlement to the HTR SOP incentive funds.

2.3 Participant Eligibility

Entergy residential customers in single-family and individually-metered multi-family residences who meet the HTR income eligibility requirements are eligible to have measures installed in their existing residences as part of the HTR SOP.

Each individually metered multi-family residence is considered a separate residential account. Common areas are classified as commercial accounts, and are not eligible under this program.

Commercial facilities or portions of buildings served through commercial accounts, and new construction (residential or commercial) projects are not eligible to participate in this program.

Deemed Savings,

Installation & Efficiency Standards

1. Residential and Small Commercial Standard Offer Program, and Hard-To-Reach Standard Offer Program

Prepared for the Public Utility Commission of Texas by:
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May, 2003

Table of Contents

DEEMED SAVINGS

All Residential and Hard-To-Reach SOP Measures

for Texas Programs

INTRODUCTION

This document contains all of the approved energy and peak demand deemed savings values established for energy efficiency programs in Texas. The figures correspond with the set of residential and small commercial sector deemed savings values approved by the Public Utility Commission of Texas (Commission) in Project No. 22241. A more detailed description of the methodology used to calculate these savings is found in the Petitions, which may be found at: www.puc.state.tx.us/electric/projects/22241/22241.cfm.

For all envelope measures, e.g., ceiling insulation, ENERGY STAR® windows, etc., the presence of electric refrigerated air conditioning is assumed. Separate deemed savings values have been calculated for homes with electric air conditioning / gas heat, for electric air conditioning / electric resistance heat, and for heat pumps.

For climate-sensitive energy efficiency measures, separate calculations have been performed for four different regions of the state:

- Panhandle Region - using typical weather information for Amarillo or Oklahoma City (for windows only).
- North Region - using typical weather information for Dallas or Fort Worth.
- South Region - using typical weather information for Houston or San Antonio (for windows only).
- Valley Region - using typical weather information for Corpus Christi or Brownsville (for windows).

General Installation Standards

Equipment must exceed applicable federal energy standards adopted at the time the Project Sponsor submits the project application.

No used or reconditioned equipment shall be qualified for incentives. All equipment shall be new.

Project Sponsor must follow all state and local building codes. Project Sponsor shall be responsible for licenses, building permits and inspections. Any fees/payments for licenses, building permits, and inspections shall be paid by the Project Sponsor.

CENTRAL AIR CONDITIONER REPLACEMENT

Measure

Residential retrofit with a new central air conditioning system (packaged unit, or split system consisting of an indoor unit with a matching remote condensing unit). Maximum cooling capacity per unit is 65,000 Btu/hour.

Baseline

In the Residential/Small Commercial Standard Offer Program, the baseline is assumed to be a new central air conditioning system with an ARI-listed Seasonal Energy Efficiency Ratio (SEER) rating of 10.5. Current National Appliance Energy Conservation Act (NAECA) standard is 10.0.

The baseline for the Hard-To-Reach Program template participants is assumed to be a new central air conditioning system with an Air-Conditioning and Refrigeration Institute (ARI)-listed SEER rating of 10.0.

Installation & Efficiency Standard

Air conditioning equipment shall be properly sized to dwelling based on American Society of Heating, Refrigeration and Air-Conditioning Engineers (ASHRAE) or Air-Conditioner Contractors of America (ACCA) Manual J standards.

Manufacturer data sheets on installed air conditioning equipment or ARI equivalent combined compressor and coil SEER must be provided to the utility in the Implementation Report.

The central air conditioning equipment must have a minimum ARI-listed SEER rating of 13.00 for the Residential/Small Commercial Standard Offer Program (Res/SC SOP) and 12.00 SEER for the Hard-To-Reach Standard Offer Program (HTH SOP).

Deemed Savings

Residential/Small Commercial Standard Offer Program

Demand Savings (kW) – All Climate Zones

Central Air Conditioner Replacement – Res/SC SOP Demand Savings, All Climate Zones								
Size (tons)	ARI Rated BTU/Hr		SEER Range					
	Minimum	Maximum	13.00-13.49	13.50-13.99	14.00-14.99	15.00-15.99	16.00-16.99	17.00-17.99
1.5	15,000	20,999	0.36	0.41	0.41	0.41	0.41	0.41
2.0	21,000	26,999	0.47	0.54	0.54	0.54	0.54	0.54
2.5	27,000	32,999	0.59	0.68	0.68	0.68	0.68	0.68
3.0	33,000	38,999	0.71	0.81	0.81	0.81	0.81	0.81
3.5	39,000	44,999	0.83	0.95	0.95	0.95	0.95	0.95
4.0	45,000	50,999	0.95	1.08	1.08	1.08	1.08	1.08
4.5	51,000	56,999	1.07	1.22	1.22	1.22	1.22	1.22
5.0	57,000	62,999	1.19	1.35	1.35	1.35	1.35	1.35

Residential/Small Commercial Standard Offer Program

Energy Savings (kWh)

Climate Zone 1: Panhandle Region

Central Air Conditioner Replacement – Res/SC SOP Energy Savings, Climate Zone 1								
Size (tons)	ARI Rated BTU/Hr		SEER Range					
	Minimum	Maximum	13.00-13.49	13.50-13.99	14.00-14.99	15.00-15.99	16.00-16.99	17.00-17.99
1.5	15,000	20,999	333	379	443	518	583	642
2.0	21,000	26,999	444	506	590	690	778	856
2.5	27,000	32,999	555	632	738	863	972	1,070
3.0	33,000	38,999	666	759	885	1,035	1,167	1,284
3.5	39,000	44,999	777	885	1,033	1,208	1,361	1,498
4.0	45,000	50,999	888	1,011	1,180	1,380	1,556	1,712
4.5	51,000	56,999	999	1,138	1,328	1,553	1,750	1,925
5.0	57,000	62,999	1,110	1,264	1,475	1,725	1,945	2,139

Climate Zone 2: North Region

Central Air Conditioner Replacement – Res/SC SOP Energy Savings, Climate Zone 2								
Size (tons)	ARI Rated BTU/Hr		SEER Range					
	Minimum	Maximum	13.00-13.49	13.50-13.99	14.00-14.99	15.00-15.99	16.00-16.99	17.00-17.99
1.5	15,000	20,999	444	506	590	690	778	856
2.0	21,000	26,999	592	674	787	920	1,037	1,141
2.5	27,000	32,999	740	843	984	1,150	1,297	1,426
3.0	33,000	38,999	888	1,011	1,180	1,380	1,556	1,712
3.5	39,000	44,999	1,036	1,180	1,377	1,610	1,815	1,997
4.0	45,000	50,999	1,184	1,348	1,574	1,840	2,075	2,282
4.5	51,000	56,999	1,332	1,517	1,771	2,070	2,334	2,567
5.0	57,000	62,999	1,480	1,686	1,967	2,300	2,593	2,853

Climate Zone 3: South Region

Central Air Conditioner Replacement – Res/SC SOP Energy Savings, Climate Zone 3								
Size (tons)	ARI Rated BTU/Hr		SEER Range					
	Minimum	Maximum	13.00-13.49	13.50-13.99	14.00-14.99	15.00-15.99	16.00-16.99	17.00-17.99
1.5	15,000	20,999	611	659	812	949	1,070	1,177
2.0	21,000	26,999	814	927	1,082	1,265	1,426	1,569
2.5	27,000	32,999	1,018	1,159	1,353	1,582	1,783	1,961
3.0	33,000	38,999	1,221	1,391	1,623	1,898	2,139	2,353
3.5	39,000	44,999	1,425	1,622	1,894	2,214	2,496	2,746
4.0	45,000	50,999	1,628	1,854	2,164	2,531	2,853	3,138
4.5	51,000	56,999	1,832	2,086	2,435	2,847	3,209	3,530
5.0	57,000	62,999	2,035	2,318	2,705	3,163	3,566	3,922

Climate Zone 4: Valley Region

Central Air Conditioner Replacement – Res/SC SOP Energy Savings, Climate Zone 4								
Size (tons)	ARI Rated BTU/Hr		SEER Range					
	Minimum	Maximum	13.00-13.49	13.50-13.99	14.00-14.99	15.00-15.99	16.00-16.99	17.00-17.99
1.5	15,000	20,999	638	727	848	992	1,118	1,230
2.0	21,000	26,999	851	969	1,131	1,323	1,491	1,640
2.5	27,000	32,999	1,064	1,212	1,414	1,653	1,864	2,050
3.0	33,000	38,999	1,277	1,454	1,697	1,984	2,237	2,460
3.5	39,000	44,999	1,489	1,696	1,980	2,315	2,609	2,870
4.0	45,000	50,999	1,702	1,938	2,262	2,646	2,982	3,280
4.5	51,000	56,999	1,915	2,181	2,545	2,979	3,355	3,691
5.0	57,000	62,999	2,128	2,423	2,828	3,307	3,728	4,101

Hard-To-Reach Program Template

Demand Savings (kW) – All Climate Zones

Central Air Conditioner Replacement – HTR SOP Demand Savings, All Climate Zones							
Size	ARI Rated BTU/Hr		SEER Range				
(tons)	Minimum	Maximum	12.00-12.49	12.50-12.99	13.00-13.99	14.00-14.99	15.00-15.99
1.5	15,000	20,999	0.33	0.39	0.47	0.56	0.56
2.0	21,000	26,999	0.44	0.52	0.62	0.74	0.74
2.5	27,000	32,999	0.55	0.65	0.78	0.93	0.93
3.0	33,000	38,999	0.66	0.78	0.93	1.12	1.12
3.5	39,000	44,999	0.77	0.91	1.09	1.30	1.30
4.0	45,000	50,999	0.88	1.04	1.24	1.49	1.49
4.5	51,000	56,999	0.99	1.16	1.40	1.68	1.68
5.0	57,000	62,999	1.10	1.29	1.56	1.86	1.86

Hard-To-Reach Program Template

Energy Savings (kWh)

Climate Zone 1: Panhandle Region

Central Air Conditioner Replacement – HTR SOP Energy Savings, Climate Zone 1							
Size	ARI Rated BTU/Hr		SEER Range				
(tons)	Minimum	Maximum	12.00-12.49	12.50-12.99	13.00-13.99	14.00-14.99	15.00-15.99
1.5	15,000	20,999	309	363	437	523	598
2.0	21,000	26,999	413	485	582	697	797
2.5	27,000	32,999	516	606	728	871	996
3.0	33,000	38,999	619	727	874	1,046	1,196
3.5	39,000	44,999	722	848	1,019	1,220	1,395
4.0	45,000	50,999	825	969	1,165	1,394	1,594
4.5	51,000	56,999	928	1,090	1,310	1,569	1,793
5.0	57,000	62,999	1,032	1,211	1,456	1,743	1,993

Climate Zone 2: North Region

Central Air Conditioner Replacement – HTR SOP Energy Savings, Climate Zone 2							
Size	ARI Rated BTU/Hr		SEER Range				
(tons)	Minimum	Maximum	12.00-12.49	12.50-12.99	13.00-13.99	14.00-14.99	15.00-15.99
1.5	15,000	20,999	413	485	582	697	797
2.0	21,000	26,999	550	646	777	930	1,063
2.5	27,000	32,999	688	808	971	1,162	1,329
3.0	33,000	38,999	825	969	1,165	1,394	1,594
3.5	39,000	44,999	963	1,131	1,359	1,627	1,860
4.0	45,000	50,999	1,100	1,292	1,553	1,859	2,126
4.5	51,000	56,999	1,238	1,454	1,747	2,091	2,391
5.0	57,000	62,999	1,375	1,615	1,941	2,324	2,657

Climate Zone 3: South Region

Central Air Conditioner Replacement – HTR SOP Energy Savings, Climate Zone 3							
Size	ARI Rated BTU/Hr		SEER Range				
(tons)	Minimum	Maximum	12.00-12.49	12.50-12.99	13.00-13.99	14.00-14.99	15.00-15.99
1.5	15,000	20,999	567	666	801	959	1,096
2.0	21,000	26,999	756	888	1,068	1,278	1,461
2.5	27,000	32,999	946	1,110	1,335	1,598	1,827
3.0	33,000	38,999	1,135	1,332	1,602	1,917	2,192
3.5	39,000	44,999	1,324	1,554	1,869	2,237	2,557
4.0	45,000	50,999	1,513	1,777	2,135	2,556	2,923
4.5	51,000	56,999	1,702	1,999	2,402	2,876	3,288
5.0	57,000	62,999	1,891	2,221	2,669	3,195	3,653

Climate Zone 4: Valley Region

Central Air Conditioner Replacement – HTR SOP Energy Savings, Climate Zone 4							
Size	ARI Rated BTU/Hr		SEER Range				
(tons)	Minimum	Maximum	12.00-12.49	12.50-12.99	13.00-13.99	14.00-14.99	15.00-15.99
1.5	15,000	20,999	593	696	837	1,002	1,146
2.0	21,000	26,999	791	929	1,116	1,336	1,528
2.5	27,000	32,999	989	1,161	1,395	1,670	1,910
3.0	33,000	38,999	1,186	1,393	1,674	2,004	2,292
3.5	39,000	44,999	1,384	1,625	1,953	2,338	2,674
4.0	45,000	50,999	1,582	1,857	2,233	2,672	3,056
4.5	51,000	56,999	1,779	2,089	2,512	3,006	3,438
5.0	57,000	62,999	1,977	2,322	2,791	3,341	3,819

HEAT PUMP - ENERGY SAVINGS (HEATING KWH ONLY)

Measure

Heat pump savings listed below are for the heating side of the heat pump only. The following tables provide annual heating kWh energy savings.

Cooling savings are based on the heat pump's SEER, and are the same values as for a central air conditioning system of the same capacity and SEER. Please refer to Central Air Conditioner Measure for those values.

Only installations, which replace an existing central heat pump with supplemental electric resistance heat or existing central electric resistance heating system are eligible to receive the annual heat pump heating kWh component of the deemed energy savings.

Baseline

Baseline is assumed to be a new heat pump system with an HSPF of 7.2. Current NAECA standard is 6.8.

Installation & Efficiency Standard

Equipment shall be properly sized to dwelling based on ASHRAE or ACCA Manual J standards.

Manufacturer data sheets on installed air conditioning equipment or ARI equivalent combined compressor and coil HSPF must be provided to the utility in the Implementation Report.

Heat pumps shall have a minimum HSPF of 8.0.

Deemed Savings

Climate Zone 1: Panhandle Region

Heat Pump – Energy Savings (Heating kWh Only), Climate Zone 1						
	HSPF Range					
Size (tons)	8.0 - 8.1	8.2 - 8.3	8.4 - 8.5	8.6 - 8.7	8.8 - 8.9	9.0 - 9.1
1.5	300	369	438	506	574	641
2.0	399	492	583	675	765	855
2.5	499	615	729	843	956	1,069
3.0	599	737	875	1,012	1,148	1,283
3.5	699	860	1,021	1,180	1,339	1,496
4.0	799	983	1,167	1,349	1,530	1,710
4.5	899	1,106	1,313	1,518	1,721	1,924
5.0	998	1,229	1,458	1,686	1,913	2,138

Climate Zone 2: North Region

Heat Pump – Energy Savings (Heating kWh Only), Climate Zone 2						
	HSPF Range					
Size (tons)	8.0 - 8.1	8.2 - 8.3	8.4 - 8.5	8.6 - 8.7	8.8 - 8.9	9.0 - 9.1
1.5	133	164	194	224	254	283
2.0	178	218	259	299	338	377
2.5	222	273	323	373	423	472
3.0	267	328	388	448	507	566
3.5	311	382	453	523	592	660
4.0	356	437	518	597	676	755
4.5	400	492	582	672	761	849
5.0	445	546	647	747	845	943

Climate Zone 3: South Region

Heat Pump – Energy Savings (Heating kWh Only), Climate Zone 3						
	HSPF Range					
Size (tons)	8.0 - 8.1	8.2 - 8.3	8.4 - 8.5	8.6 - 8.7	8.8 - 8.9	9.0 - 9.1
1.5	77	94	111	128	145	162
2.0	102	126	149	171	194	216
2.5	128	157	186	214	242	270
3.0	153	188	223	257	291	324
3.5	179	220	260	300	339	378
4.0	204	251	297	343	388	432
4.5	230	282	334	385	436	486
5.0	256	314	371	428	485	540

Climate Zone 4: Valley Region

Heat Pump – Energy Savings (Heating kWh Only), Climate Zone 4						
	HSPF Range					
Size (tons)	8.0 - 8.1	8.2 - 8.3	8.4 - 8.5	8.6 - 8.7	8.8 - 8.9	9.0 - 9.1
1.5	58	72	85	98	111	123
2.0	78	96	113	131	148	165
2.5	97	120	142	163	185	206
3.0	117	144	170	196	222	247
3.5	136	167	198	228	258	288
4.0	156	191	226	261	295	329
4.5	175	215	255	294	332	370
5.0	195	239	283	326	369	412

GROUND SOURCE HEAT PUMP

Measure

The following tables present the deemed savings values for ground source heat pumps for each of the four climate zones. The deemed savings are dependent upon the energy efficiency rating (EER) of the equipment, and are presented as kWh and kW savings per ton installed.

Baseline

Only ground source heat pumps that replace an existing air source heat pump, ground source heat pump system, or other combination of electric heating and cooling systems are eligible for these deemed savings. In any case, the baseline from which energy savings are measured is a 10 SEER air source heat pump in an existing dwelling.

Installation & Efficiency Standard

The ground source heat pump must meet a minimum Energy Star criteria of 14 EER (ISO/ARI 13256-1) in order to be eligible for these deemed savings.