2019 Healthcare Energy Efficiency Program (HEEP)

Market Transformation Program

Program Manual

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Updates to this manual and program enrollment materials will be provided at

http://www.centerpointefficiency.com

Table of Contents

1 General Program Guidelines

1.1 Introduction

The Healthcare Energy Efficiency Program (HEEP) was developed by CenterPoint Energy to provide complimentary support to participating healthcare providers through a combination of tools and services for participants who complete projects resulting in peak electric demand savings. The Program is designed to help healthcare providers identify energy efficiency opportunities in existing and newly planned facilities and provide monetary incentives to implement these projects. CenterPoint Energy has contracted with Willdan Energy Solutions to implement HEEP and the non-cash incentive services **to participants at NO COST.**

This is a voluntary program that offers objective, third-party consulting on best practices in the areas of energy usage and energy efficiency. Participants in the HEEP must meet minimum eligibility criteria, comply with all program rules and procedures, and submit documentation describing their projects.

Section 1 provides a general introduction to HEEP, including an overview of program features and guidelines, and background information. Section 2 provides more detail on the program process. Section 3 explains project review and measurement & verification (M&V) process and requirements. Section 4 lists out the answers to some possible FAQs; and Section 5 defines key terms used in this program manual. All program information, including application materials, will be available on the HEEP website, www.centerpointefficiency.com.

1.2 Background

In 1999, the Texas Legislature passed Senate Bill 7 (SB7), which restructured the state's electric utility industry, and required each investor-owned electric utility to reduce Texas customers' energy consumption through standard offer programs or limited target market transformation programs. In March of 2000, the Public Utilities Commission of Texas (PUCT) passed Substantive Rule §25.181, leading to the CenterPoint Energy Programs that were developed in 2006 to comply with State's energy efficiency goals to reduce peak electric demand. In September of 2007, House Bill 3693 was passed and expanded these energy efficiency goals.

In 2008, The Public Utility Commission of Texas adopted the repeal of §25.181, relating to Energy Efficiency Goal, and §25.184, relating to Energy Efficiency Implementation Project, and adopted a new §25.181, relating to Energy Efficiency Goal. This rule was further amended in 2010 and 2012. The current rule was adopted in October 2012 to incorporate the changes from the 82nd Legislative Session, resulting from the passage of Senate Bills (SB) 1125, 1150, 1434, and 1910.

1.3 Program Objectives

The Healthcare Energy Efficiency Program (HEEP) is specifically designed for healthcare facilities, such as clinics, hospitals, assisted living/nursing care and medical offices within CenterPoint Energy's Texas electric

service area. This program is offered at no cost to healthcare facilities.

It offers expert, customized solutions focused on improving the energy performance of buildings while maintaining the high-quality operation essential to industry.

HEEP aims to assist healthcare owners and operators in the reduction of energy costs through practical technical assistance and cash incentives, while recognizing the importance of sustaining reliability and maximizing uptime. Program objectives include:

- Encourage delivery of energy efficiency products and services to the target market segment(s).
- Transform these markets over time by addressing specific barriers that hinder adoption of energy efficient technologies and practices.
- Provide a suite of supporting services to facilitate the implementation of energy efficiency projects.
- Create a simple and streamlined program process to stimulate strong participation from the targeted markets.
- Reduce peak demand (kW) and energy consumption (kWh).

1.4 Program Offerings

HEEP, in addition to CenterPoint Energy electric distribution program participants, involves the Program Administrator (CenterPoint Energy) and the Program Implementer (Willdan Energy Solutions or Willdan). The roles and responsibilities of each are defined in the "Program Roles & Responsibilities" section.

HEEP seeks to accomplish these objectives through a variety of services, which include:

- **Technical Education** that helps senior managers and facility supervisors operate their buildings more efficiently by understanding the technical and financial benefits of investing in energy efficiency and developing a plan to make energy efficiency improvements
- **Technical Assistance** that help make decisions about cost effective investments in facility energy efficiency
- **Financial Incentives** for completed energy efficiency projects based on verified peak demand reduction and annual energy savings that reduce payback period of investment
- **Savings Verification** that proves energy savings after projects are completed

Other program services may include: the benchmarking of current energy use, facilitation of an energy master planning workshop, identification and evaluation of opportunities for energy efficiency measures, and communications support. Program staff works with Program participants to determine the most appropriate set of services to offer in order to address both immediate and longer-term needs.

While HEEP does provide some technology recommendations, it does not require specific technologies or end uses. Instead, HEEP provides a framework through which the Program participants can receive incentives for implementing and installing a wide range of measures at their sites.

Note that neither CenterPoint Energy nor Willdan will directly market any energy efficiency-related products or services to its program participants. Entering into an agreement with CenterPoint Energy does not imply

CenterPoint Energy's endorsement or approval of any products or services. CenterPoint Energy or Willdan 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 program participant.

1.5 Program Roles & Responsibilities

1.5.1 Program Administer

CenterPoint Energy (Program Administrator) has contracted with Willdan Energy Solutions (Program Implementer) to implement HEEP. Program Administrator and Program Implementer work together to implement the program and are responsible for:

- Conducting outreach to potential program participants
- Approving program participants' eligibility and enrollment
- Providing some or all of the following services, based on the specific Program participant's needs and savings potential, as assessed by Program Administer: energy performance benchmarking, energy assessments and technical assistance
- Recommending higher efficiency options
- Conducting and/or assigning formal on-site pre-installation inspections of eligible projects to approve kW and kWh savings and incentive amounts
- Reviewing and approving Project Application Forms
- Calculating savings
- Authorizing and issuance of incentive payments for completed projects

1.5.2 Program Participant

For a specific facility to be eligible for financial incentives in the program, its **ESI ID** (noted on the electric bill) must be provided in order to verify electric service provided by CenterPoint Energy. Each CenterPoint Energy electric distribution customer has an ESI ID which begins '100890'. To participate in the CenterPoint Energy Programs, Program participants are asked to fulfill a combination of the following requirements:

- Submit Project Application Forms/Letter of Authorization for the Request of Historical Usage Information Form
- Commit to the terms of the Memorandum of Understanding (MOU)
- Provide a current W9 (for incentive payments)
- Provide site information and information on any potential Energy Conservation Measures (ECMs)
- Provide documentation on project cost
- Exert its best efforts to approve, fund, and install program participant-selected cost-effective energy efficiency projects identified through HEEP within the agreed upon project timeline
- Notify Program Administrator when projects are completed
- Provide access to project facilities and ample lead time both before and after project completion for any inspections that are required to verify electric demand and energy savings from a specific project; new construction projects do not require any inspections prior to project completion.

Note that HEEP will not reimburse Program participants for any costs it may incur by participating in HEEP. Please note that any financial investments a Program participant makes through the course of participating in HEEP is for the energy efficiency measures they elect to pursue and NOT for any of the services that are provided through HEEP. Financial incentives for demand and energy savings are paid to Program participants upon verification and approval of eligible, completed energy efficiency projects.

1.6 Program Contacts

Program Administrator will be available to assist program participants with comments, concerns, inquiries or complaints via mail, telephone and email.

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1.7 Program Participant Eligibility

1.7.1 Program Participant Eligibility

CenterPoint Energy HEEP targets both existing and newly constructed facilities for program participants who own and operate either stand-alone healthcare-related facilities or those contained inside other facilities.

It is the goal of HEEP to serve all classes of all healthcare-related program participants located within CenterPoint Energy's Electric service if they are:

- Non-residential class or
- Commercial and industrial program participant taking service at a metered point of delivery at a distribution voltage (<69 kVA) under an electric utility's tariff during the prior calendar year
- non-profit/government transmission class program participant

A program participant is defined by a single Tax ID number. Multiple locations of one organization are thereby considered a single program participant, regardless of how many CenterPoint Energy account numbers they may have.

1.7.2 Project Eligibility

A project is defined as a set of proposed or installed measures at an eligible site or combination of sites. All projects must meet the following requirements:

- Project incentives may be subject to minimum kW and/or kWh savings requirements, which will be determined by the Program Administrator on a case by case basis.

- If the measures and sites proposed are all similar, one project may involve the installation of measures at multiple program participant sites. For example, installation of measures at a chain of clinics may include more than one program participant site, but may constitute a single project. These sites would share a common Measurement and Verification (M&V) plan (as applicable). Proposed measures must be installed at all the sites before the first payment will be made. There are advantages and disadvantages to bundling project sites in this manner. Contact the Program Administrator for more information.

- For non-deemed projects requiring M&V, peak demand savings may require measurement within the summer peak demand period. M&V of energy savings may continue for up to 12 months and carry into the following year.

- Comprehensive projects that include a range of measure types are encouraged.

- New construction projects must demonstrate compliance with local, state or federal codes, whichever is more stringent. Projects using the Energy Cost Budget Method to demonstrate code compliance will be considered for program participation on a case-by-case basis.

1.7.3 Eligible Measures

The energy efficiency upgrade measures in the list below are measurable by deemed savings calculations and are eligible in HEEP. Savings based on the deemed savings approach apply where no unusual conditions exist. Deemed savings measures require no short-term testing or long-term metering.

1. Lighting Efficiency
   a. Lamp and Ballast Replacements
   b. High Intensity Discharge (HID) Fixture Replacements
   c. Compact fluorescent lamp (CFL) with hard-wired ballasts or permanent socket conversions
   d. Light Emitting Diode (LED) Lighting
   e. Screw-in LED lamps, including ‘plug and play’ (Tube style; Types C, as defined by UL)
   f. Lighting controls to reduce operating hours
2. Unitary Air Conditioning and Heat Pump Equipment
   a. Air Conditioners - Air-Cooled
   b. Air Conditioners - Evaporative-Cooled
   c. Heat Pumps - Air-Cooled
3. Water Chilling Equipment (Chillers)
   a. Centrifugal/Screw/Scroll - Air-Cooled
   b. Centrifugal/Screw/Scroll - Water-Cooled
4. Building Envelope
   a. Roofing
   b. Window Film
5. Premium Efficiency Motors
6. Air Handling Unit - Variable Frequency Drive (Replacing Outlet Damper or Inlet Guide Vane)

The energy efficiency upgrade measures in the list below are examples of non-deemed savings measures eligible in HEEP that require using applicable measurement and verification methodologies.

- Constant air to variable air conversions
- Fan and pump variable frequency drive installations
- Heat pipes, enthalpy wheel and other forms of energy recovery
- Air cooling and refrigeration compressor replacement
- Cogeneration projects
- Renewable technologies (solar, wind, tidal, geothermal, etc.)
- Fuel switching from electric to gas (net energy use must decrease; e.g. gas-fired booster heaters in dishwashers)
- Cooling towers
- Air-side and water-side economizers
- Demand control ventilation (DCV)
- Building control systems: wired or wireless sensors, control units, control system integration, etc.
- System optimization such as set point changes and reset strategies, sequencing, balancing, etc.

Other custom measures not listed above may be eligible if they provide measurable and verifiable peak demand or energy consumption savings. Program Administrator will coordinate with the Program participant to determine the measure eligibility, baseline efficiency standard, savings calculation method and Measurement and Verification (M&V) approach. All M&V plans must comply with industry standard protocols. Please refer to the later sections on Measurement and Verification Guidelines for both Retrofit and New Construction projects for further information on preparing and implementing an M&V plan.

1.7.4 Ineligible Measures

Examples of measures that are NOT eligible for incentive include the following:

- Measures that result in negative environmental or health effects
- Measures that involve fuel-switching to electric
- Screw-in LED lamps, including ‘plug and play’ (Tube style; Types A, B and D, as defined by UL)
- Measures that receive an incentive through any other energy efficiency program offered by CenterPoint Energy except for Commercial Load Management Program
- Redundant equipment
- Used or rebuilt equipment

1.7.5 Efficiency Standards

CenterPoint Energy has designed HEEP to encourage electric energy efficiency improvements that exceed the efficiency gains typically achieved in retrofit or replacement projects. Consequently, new equipment installed through HEEP must meet applicable new equipment minimum efficiency standards and demand and energy savings credit will be based only on reductions that exceed current industry accepted baseline standards as discussed in Section 3.2.

1.7.6 Conflicting Standards

In case of a difference between processes or procedures described in this manual and Public Utility Commission of Texas (PUCT) rules and regulations including the Texas Technical Resource Manual (TRM),

the PUCT requirements shall supersede this manual.

1.8 Incentives

There are a variety of incentives available to Program participants in order to assist with identification, evaluation, and implementation of eligible energy efficiency projects. Program incentives include a mix of cash and non- cash incentives as described below. Willdan will work with enrolled Program participants to determine the appropriate non-cash incentives to provide in addition to assisting with identification and development of projects that may be eligible for cash incentives.

1.8.1 Non-Cash Incentives

- **Technical Assistance & Project Identification:** Technical support is provided to help Program participants identify and evaluate energy efficiency opportunities in order to determine which projects are viable and to recommend high energy efficiency options.

- **Energy Performance Benchmarking:** The Program participant's current energy use may be benchmarked using U.S. Energy Information Agency's Commercial Building Energy Consumption Survey (CBECS) to compare energy performance of similar buildings in the same climate zone.

- **Energy Assessments:** Willdan may perform assessments on eligible Program participant's facility to help identify potential measures. The type of assessment offered will be determined solely by Willdan based on the estimate of potential savings.

1.8.2 Cash Incentives

The Program provides financial incentives, based on reductions in peak electric demand (kW) and energy consumption (kWh/yr) at a Program participant's facility. These financial incentives help the Program participant to "buy down" the incremental cost of purchasing more energy-efficient equipment and are meant to encourage adoption of construction and maintenance practices which will reduce energy operating costs. Program participants electing to participate in this Program may apply for cash incentives within this Program only, and may not apply for those incentives in CenterPoint's other energy efficiency programs (e.g., Commercial & Industrial Standard Offer Program, etc.). However, Program participants may participate in both this program and CenterPoint Energy's Load Management Program, since there is no conflict or repetition of measures within these two programs.

1.8.3 Cash Incentive Rate and Limitation

Incentives for eligible energy conservation measures (ECMs) will be paid based on the projects type listed below:

- **Direct Projects:** "Direct Projects" are those projects in which the Program Participant receives limited program services listed under 1.8.1. This only applies to projects using the deemed savings methodology.

- **Non-Direct Projects:** "Non-Direct Projects" are those projects in which the Program Participant receives significant program services. Projects involving substantial measurement & verification may be subject to further reduction of incentives rates, as determined by the Program Implementer.

Table 1: 2019 HEEP Incentive Rates – Direct Projects

Measure Type	$/kW	$/kWh
Lighting – Fluorescent, HID, CFL,	$110	$0.03
Lighting – LED with Fixture	$170	$0.05
Cooling – DX Units	$250	$0.07
Cooling – Chiller (Variable Speed)	$325	$0.04
Cooling – Chiller (Constant Speed)	$300	$0.07
Motor	$170	$0.06
VFD	$170	$0.06
Window Film	$175	$0.06
Window Replacement	$210	$0.08
Roofing	$240	$0.09

Table 2: 2019 HEEP Incentive Rates – Non-Direct Projects

Measure Type	$/kW	$/kWh
Lighting – Fluorescent, HID, CFL, LED without Fixture	$100	$0.03
Lighting – LED with Fixture	$160	$0.04
Cooling – DX Units	$240	$0.06
Cooling – Chiller	$280	$0.06
Motor	$160	$0.05
AHU VFD	$160	$0.05
Window Film	$170	$0.05
Window Replacement	$200	$0.07
Roofing	$230	$0.08
Custom Capital HVAC	$175	$0.06
Food Services	$75	$0.04
Uninterruptible Power Supply (UPS) Installation	$160	$0.05

Operational Measures	$20	$0.01
Other Custom Capital Measures	175	0.06
All Other Measures	TBD	TBD

Incentive Limitations

- Projects involving substantial measurement & verification may be subject to further reduction of incentives rates, as determined by the Program Implementer.

- To ensure that the cash incentives are available to multiple program participants, no program participant may reserve or receive more than 20% of total program budget in each budget year, unless authorized by CenterPoint Energy. An individual program participant may be party to multiple applications as long as the total incentive from all such applications does not exceed that maximum limit.

- The incentives shall also be capped at 50% of out-of-pocket total project cost. Program participants are required to provide documentation on project cost.

- Incentives rate for water cooled VSD chiller will be determined by the Program Implementer.

- Incentive rate is subject to change during the program year at discretion of the Program Implementer.

1.8.4 Incentive Determination

As noted in the table above, financial incentives are based upon peak electric demand savings and annual electric energy savings. Peak electric demand savings will be reported as the maximum of either summer or winter peak demand (kW) but not both. The summer peak period is defined as weekdays, between the hours of 1 P.M. and 7 P.M. from June 1 until September 30, excluding Federal holidays. The winter peak period is defined as between the hours of 6 A.M. and 10 A.M. and 6 P.M to 10 P.M., during the months of December, January, and February, excluding weekends and Federal holidays. Energy savings are defined as electric energy savings over the course of one 12-month period.

1.8.5 Incentive Availability

Both the cash and non-cash incentive annual budgets are limited. If the incentive reservations exceed the program budget for incentives, the program is considered fully-subscribed or over-subscribed. In the event that project applications are submitted after HEEP is fully subscribed, the project will be added to a project wait list.

Any Program participant submitting projects that are unable to receive cash incentives in the current program year due to oversubscription may choose to continue with their installation without incentives or delay the project completion and reapply for incentive funds during the next program year when additional incentive budget becomes available.

1.8.6 Payments

Any cash incentives received through HEEP are paid directly to the Program participant after the project is

completed, verified, and a post-installation inspection is conducted. Funds will be paid within the program year once the project is completed and verified. Incentives are paid 100% after project is completed, verified and a post-installation inspection is conducted unless the project requires full M&V.

Deemed Savings and Measurement & Verification Payments

Projects that utilize the streamlined deemed savings (refer to Section 3.5.2) approach will be paid 100% incentives upon installation completion, post inspection and savings verification. Projects that require M&V may be paid at 40% incentive upon installation completion and post inspection, and the remaining 60% incentives will paid after verification completion. If savings are less than anticipated, the second incentive payment will be adjusted accordingly. If a project installation is completed in one year and Measurement & Verification (M&V) is completed in the following year, the incentive rates will be paid at the program rates for the year installation was completed.

2 Participation Process

2.1 Overview

This section provides information on participating in HEEP, including the program process, required submittals, and milestones. There is no financial commitment required to reserve incentives in HEEP, though signing the Project Application Form does signify a commitment from the Program participant that the included projects will be completed during the calendar year in which incentives are being applied for. A Program participant who has not started a project by September 30th will be moved down to the bottom of the waitlist and the Program participant next in line will be bumped up for incentive funds.

The stages for participating in CenterPoint Energy's Healthcare Energy Efficiency Program are outlined below.

- Program participant Engagement
- Project Identification
- Installation
- Verification and Incentive Payment

2.2 Phases of Participation

2.2.1 Program participant Engagement

Through program marketing and outreach activities, if a healthcare program participant is interested to participate in HEEP, the program participant submits a Program Application Form to Willdan.

Upon receipt of the Program Application Form, Willdan and CenterPoint will screen the application for eligibility. Willdan will identify potential savings based on the information submitted for the sites and then determine services available to the program participant based on the savings potential.

A Project Application Form should be submitted for all selected projects so that the implementation team can assess the potential energy savings prior to making a project reservation. Projects without an application form should be identified to the HEEP team as soon as possible, and will be accepted on a project-by-project basis.

The Program participant will also be required to execute a Memorandum of Understanding (MOU) for the Program. The Program MOU is posted on the Program Web Site www.centerpointefficiency.com. If an organization has previously participated in the Program, participation is continued automatically from year-to-year. Willdan may issue an MOU Addendum to existing Program participants at the beginning of each year if there are any significant changes to the terms of the agreement.

2.2.2 Project Identification

Willdan works with individual program participants to assist them in assessing their equipment, facilities and operations to identify eligible energy efficiency projects. Depending on the savings potential, budget

availability and time of year, Willdan may offer any of the following services to the Program participant based on the savings potential.

- Direct Deemed Measures – Identification, Recommendation, Savings Calculations
- Non-Direct-Deemed Measures – Facility Benchmarking, Energy Assessment, Identification, Recommendation, Savings Calculations
- Custom Measures – Measurement & Verification (M&V)

Direct Deemed Measures

This service is intended for program participants that have already targeted potential direct deemed energy conservation measures (ECMs) at their facility, and need the program's cash incentives to ensure the project moves forward by helping to "buy down" the implementation costs. The program participant may provide the required information regarding the project. Willdan will provide recommendations for high energy efficiency options for the measures and calculate potential energy savings using deemed savings approach.

Non-Direct-Deemed Measures, Comprehensive Energy Assessment

This service is intended for program participants that have not identified all of the potential ECMs at their facilities. Program participant may fill out a HEEP facility data form and coordinate with Willdan personnel. Willdan will conduct a detailed energy assessment, including performing an in-depth facility site visit, interviewing key staff and collecting facility documentation. Control system documentation and electricity interval data will also be reviewed where available. Willdan will identify and quantify major potential ECMs, and provide a comprehensive assessment report, including basic facility benchmarking, ECM energy and cost savings estimates, implementation cost estimates and simple paybacks. Custom capital (non-deemed) measures, building operation and optimization measures will also be addressed.

Custom Measures, Measurement & Verification (M&V)

For projects with significant savings opportunity, program participants may elect to have the Program Implementer provide the M&V services for them. The program participant will provide all of the required information regarding the project. Willdan will coordinate the M&V activities (e.g., M&V plan, pre- and post-installation field measurements, and M&V report), and verify the savings and incentives. Custom measures requiring program-provided M&V will be considered on a case by case basis.

After Willdan assists the Program participant to identify the potential savings opportunities and scope of work through any of the three approaches listed above, Willdan will present the findings to the Program participant. Once the Program participant reviews the findings and commits to implementing the selected measures, Willdan will reserve the project funds and send a reservation notification summarizing the details of the project and deadline for completion. If required, program participant final review requirements and M&V plans will be included in the reservation letter.

Project incentive is reserved under the condition that project installations will be completed by November 30th in the program year of the submitted Form. Project installations not completed by November 30th of the

program year may forfeit the incentive funds that have been reserved for that project. Project installations that are not completed by November 30th will be allowed to re-apply for incentive funds for the following program year, under the same conditions listed above. Because program baselines and design can change from year to year, incentive amounts may change in the subsequent year.

Reservations of incentive funds are solely within the discretion of the Program Implementer. Incentive funds estimated are not officially reserved until Willdan approves the project funding.

2.2.3 Installation

After the incentive is reserved, Program participant may proceed with project installation. During installation, or construction, Program participant is to notify Willdan of any changes to the project scope, equipment selection, or timeline.

After the project has been installed, the Program participant must:

- Notify Willdan of the project's completion
- Work with Willdan to confirm, and update if necessary, the supporting documentation.
- Submit to Willdan a copy of the final invoice for equipment cost, contractor labor, and all other costs associated with the project. Program representatives can provide Program participant with guidance on submitting the appropriate project cost information and supporting documentation required to meet this requirement.

2.2.4 Verification and Incentive Payment

After the project is complete, Willdan reviews submittals for eligibility and completeness through the following steps:

- Confirms that verified project scope and energy savings have not changed in any way that contradicts eligibility criteria.
- Reconfirms application completion.
- Utilizes data gathered post-install to validate calculations of energy savings from the pre-install phase, making adjustments as necessary.
- Confirms that the appropriate level of inspection has occurred post-install. For more on inspections, refer to Section 2.3. If monitoring & verification is needed, M&V analysis completion will also be confirmed.

Once the project has proceeded through post-install checks and has been approved for payment by Program Implementer, this begins the incentive payment process. Program Implementer will notify the applicant of intended payment via a payment correspondence following the guidance outlined below.

- The program is not under any obligation to pay more incentives than the amount reserved for any project.

- If greater savings are achieved than the amount reserved and budget is available, HEEP has the option to pay Participant additional incentives.

- For additional details on how incentive payments are determined, scheduled, and paid, please see the "Incentives" section of the program manual.

2.2.5 Cancellation

If a project is cancelled, Program Implementer records the reason for cancellation and sends a cancellation notification to the program participant, notifying them of the cancellation status, and reason for cancellation.

The primary contact will be notified by Program Implementer via telephone prior to formal cancellation notification. Any project that is cancelled may have a follow up call in three (3) months to determine if there is a way to move the project forward.

2.2.6 Waitlist

In the event that all incentive funding has been reserved, additional application forms submitted will be placed on a waitlist in the order that they are received by Program Implementer. Program participants will be notified of their project's position on the waitlist. If additional incentive funding becomes available, waitlisted projects will be approved in the order received until the funding is fully reserved. Additional consideration may be given to projects most likely to be implemented and verified in that program year.

2.3 Inspection Scheduling and Execution

2.3.1 Requirements and Objectives

Inspections may be held to accomplish the following:

- Verification of the pre-existing conditions of the property.
- Verification of the accuracy and quality of the project scope work described in the Application.
- Verification of equipment counts and the specifications of specific installed equipment (e.g., model numbers) or parameters of operation (e.g., set point temperatures).

A secondary objective of the inspection is to observe additional potential energy efficiency opportunities. When opportunities are observed, the inspector will inform the program participant while on-site, provide related collateral materials, and note the observations in the inspection report.

2.3.2 Inspection Scheduling

Pre-install and post-install inspections are scheduled before the reviews are completed in the pre-approval application and final application stages. The scheduling process is detailed below:

- Willdan reviews all technical information and, if necessary, additional information is requested from the program participant or contractor.

- Willdan develops specific instructions on what to inspect.
- Willdan contacts the program participant to discuss inspection scheduling, review inspection activities, and determine which program participant and/or contractor personnel will be required on-site during the inspection.
- Program participant must provide a knowledgeable representative to accompany the inspector as well as provide any equipment needed to verify installed measures.

2.3.3 Inspection Process

Prior to beginning an inspection, the inspector reviews the application, project schedule and other relevant information. The inspector should also collect the contact information of knowledgeable individuals on-site if they differ from those listed on the application.

Exercising safety precautions during the inspection is critical and the appropriate safety equipment is the responsibility of the inspector; hardhats, earplugs and eye protection are commonly required in light commercial, industrial, or manufacturing settings.

Inspectors are asked not to discuss the results immediately after the walk-through or give any indication that the requested incentive will definitely be granted. The inspector will inform the facility that they will be preparing an inspection report and the results of this report will be factored into the calculations of the reservation amount (in the case of a pre-inspection) or the incentive amount (in the case of a final inspection). If the results are materially different from the amounts requested by the program participant on the project application, the program participant will be contacted prior to the issuance of a reservation letter or incentive check.

2.3.4 Inspection Report

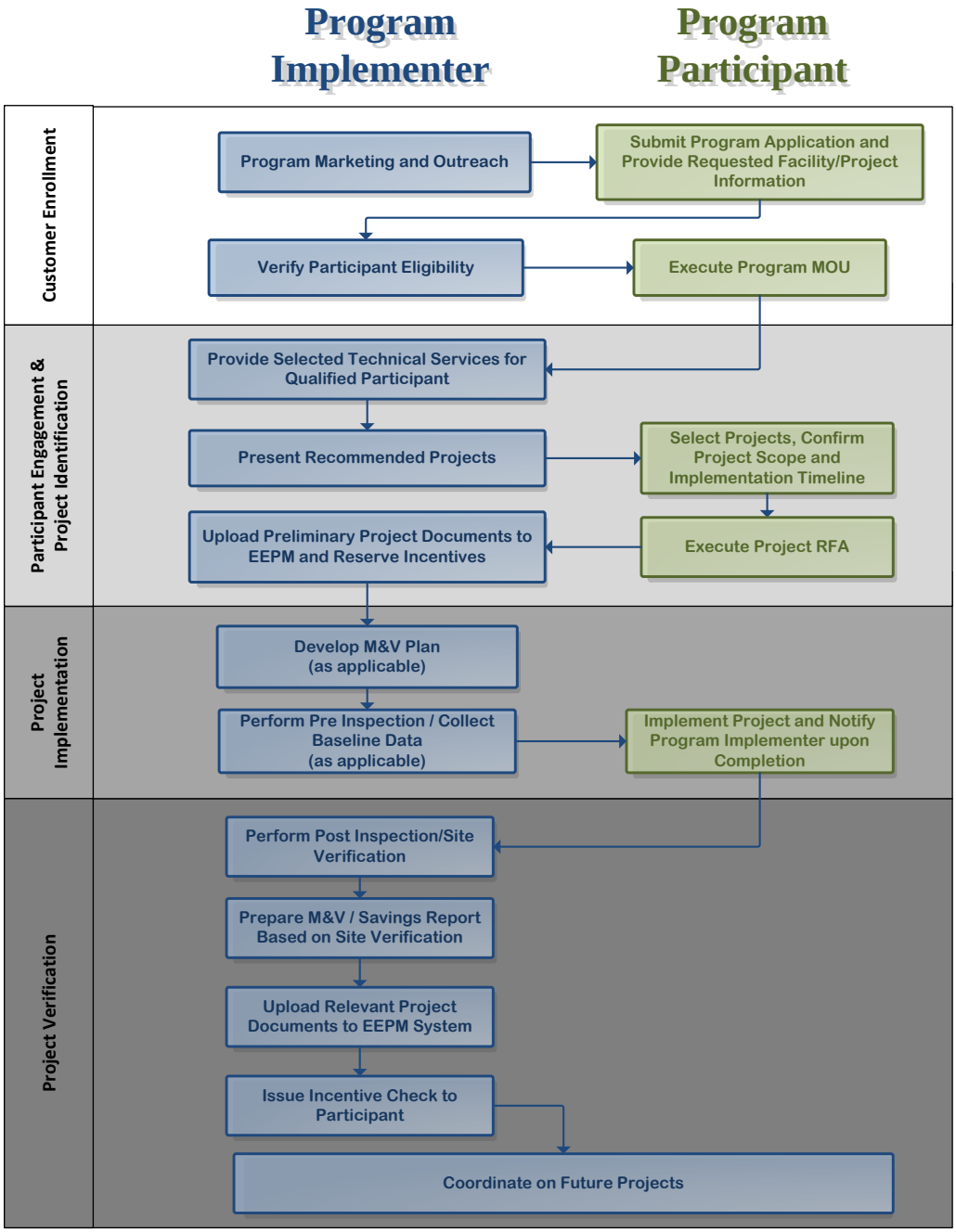
A healthcare facility inspection report form is used, allowing for consistency in evaluations and prompt turn-around of report completion. The current target time frame to turn in inspection reports is five (5) business days after the site visit, assuming all information required for the report is obtained on or before the inspection.

The inspection report form includes project identification, description, and inspection findings, as well as any project discrepancies or unique details. Photographic documentation is not typically required, but will supplement the inspection report if permission is granted by the facility.

Projects requiring M&V will require a longer inspection process based on the approved M&V Plan.

2.4 Program Flow Diagrams

A typical program participation process can be illustrated as the flow diagram below. Each step of participant process could be varied on a case by case scenario.



2.5 Other Information

2.5.1 Confidentiality

The Program is subject to oversight by the Public Utility Commission of Texas (PUCT), which may request a copy of any Program materials received by Willdan Energy Solutions or CenterPoint Energy. A Program participant's sensitive company and project information submitted to HEEP, such as financial statements and project costs, will be treated confidentially to the fullest extent possible and will not be provided directly to

outside parties other than the PUCT. Neither Willdan Energy Solutions nor CenterPoint Energy will be liable to any Program participant or other party as a result of public disclosure of any submittals.

2.5.2 Submission of False Information

Willdan will discontinue its evaluation of all submittals from any Program participant who submits false, misleading or incorrect information. If an evaluation is discontinued under these circumstances, Willdan will return all of the Program participant's submittals.

2.5.3 Internet Sites

The CenterPoint Efficiency Web site at http://www.centerpointefficiency.com will serve as the primary source for all updated program information and materials. The Web site will include:

- Information that describes the program process and requirement
- Status updates on program funding available and committed
- Downloadable program manual and M&V guidelines

2.5.4 Disclaimers

Program participant acknowledges and agrees that any review or inspection by CenterPoint Energy or Willdan of Program participant's facilities/premises or of the design, construction, installation, operation or maintenance of the energy efficiency equipment installed or to be installed in connection with the program is solely for the information of CenterPoint Energy. In performing any such inspection or review or in accepting the installed equipment for the award of incentives, Program participant acknowledges and agrees that CenterPoint Energy or Willdan makes no guarantee, representation or warranty whatsoever as to the economic or technical feasibility, capability, safety or reliability of the equipment, its installation by a project contractor or its compatibility with Program participant's faculties.

Program Rule Changes

CenterPoint Energy reserves the right to modify program features, program participation process, incentive structure and project and measure eligibility requirements throughout the program year.

Program Implementer is an Independent Contractor

Willdan is an independent contractor and is not authorized to incur obligations on behalf of CenterPoint Energy. CenterPoint Energy is not responsible for the truth or validity of any representation not contained in the program manual or Memorandum of Understanding.

3 Project Review and Measurement & Verification

3.1 Overview

Upon receipt of the project application, a technical review of project energy savings will be required for all projects. Review may involve a site visit for data gathering, and calculations and analysis to confirm energy savings estimates. Review will be performed by Willdan at two distinct stages in the application process: before project installation and after project installation.

Project review will require the confirmation of energy savings by comparing the energy consumption of the post-install healthcare facility with that of a baseline, pre-install healthcare facility. Review of both facilities may involve:

- Verification of quantity of installed and operating equipment,
- Verification of makes and models of all involved equipment,
- Gathering and analysis of energy use data points, which may include: equipment input/output voltage, amperage and kW load, operating efficiencies, set point temperatures, actual temperatures, motor horsepower, motor speeds, and operating hours.

Willdan will refer to the current statewide Technical Reference Manual (TRM)[1] wherever is possible to evaluate the energy and peak demand savings. The purpose of the statewide Technical Reference Manual is to provide a single common reference document for estimating energy and peak demand savings resulting from the installation of energy efficiency measures promoted by utility-administered programs in Texas.

While this version of the TRM is specific to measures using a deemed savings approach, this Healthcare Energy Efficiency Market Transformation Program provides program participants with more flexibility in the types of projects they can bring to the program. Projects can include measures for which no deemed savings can be developed, or for measures that are applied to complex energy-using systems. Because these projects are often very site-specific, Willdan will work with the Program participant to evaluate the energy and peak demand savings.

3.2 Energy Efficiency Standard

For equipment or project where deemed savings approach (refer to Section 3.5.2) can be referenced in the TRM, the baseline and efficiency standard requirement will be based on Texas TRM.

For equipment or project where no deemed savings approach can be referenced in the TRM or M&V is required, the pre-existing healthcare facility may be analyzed as the baseline to calculate and establish pre-install energy consumption, and best available industry standard or widespread adopted best practices will be used as the guidelines for estimating post-install energy consumption.

[1] Available at http://texasefficiency.com/index.php/regulatory-filings/deemed-savings

The equipment load characteristics and operating hours of the existing baseline equipment may be obtained and documented through regressions on historical data, direct measurements, or operational logs. Only base load will be considered, capability from redundant equipment will not be counted towards baseline load calculation, and load expansion may be addressed as separate projects. For deemed savings replacement projects, it may be necessary to adjust the energy use estimate for the existing equipment to account for minimum-standard equipment efficiency.

For new construction, the design load characteristics and estimated operating hours should be used to create a theoretical baseline energy usage. For large scale new construction projects that span multiple program years, we recommend using the efficiency baseline for the year in which the construction permit was obtained. This would benefit and encourage customers to go above and beyond the code required minimum efficiency that was in effect at the time of design, which is a fundamental principle of a market transformation program. The building permit will be requested as proof to confirm that the old building code was accepted during the design process.

The load dependences that vary significantly over time should be accounted for so that the annual baseline consumption is "typical":

- For weather, bin data should be used to project baseline usage.
- Seasonal values should be applied for those sectors that have significant seasonal variation that could impact the baseline consumption.

3.3 Project Costs and Tests

Estimates and invoices representing total project and/or incremental cost data will be required from the program participant during pre- and post-install project review, respectively. This information will be analyzed so that:

- Total project cost and incremental cost may be identified;
- Any necessary capping of HEEP incentives may be identified;
- Cost data may be provided for cost effectiveness testing.

Total project cost may be defined as all labor and materials directly required to achieve the installation of the energy-saving project. (Total project cost may not include labor of Program participant's in-house staff, but may include equipment costs, delivery costs, and install costs.)

Calculation of incremental cost will depend on the following:

- Whether the project is replacing/retrofitting old equipment or accommodating expansion;
- If a replacement or retrofit, whether the existing equipment has reached the end of useful life (EUL).

In the case of equipment replacements and retrofits, Willdan will be responsible for assessing whether the equipment's operation had reached the end of useful life and functionality. If the replacement or retrofit is deemed not necessary to the continued operation of the equipment, it is considered an early replacement or

retrofit and the full project cost will be used as the incremental cost.

For equipment supporting new cooling load (i.e., no existing equipment is replaced) or replacing equipment at the end of its useful life, incremental cost may be defined as all labor and materials needed to achieve the installation of the energy-saving project, minus those that could achieve an alternate, non-energy-saving project. In some cases, the full measure cost may be the incremental measure cost (e.g., VFD install or free cooling install).

All costs to be included in incremental and total project cost analysis should be submitted as invoices to Program Administrator for inclusion in post-install review.

3.4 Project Review Deliverables

The project review savings analyses conducted by Willdan will be available for review in the form of two documents:

- An engineering analysis, representing all pre-install conditions, energy savings and estimated costs.
- A post-install report (PIR), representing all post-install conditions, energy savings and confirmed costs.

3.5 Measurement & Verification

Certain projects will require further confirmation of energy savings through measurement and verification (M&V) of equipment data points, and associated analysis. In these cases, a comprehensive monitoring and verification plan will be developed by Program Administrator employing the International Performance Measurement and Verification Protocol (IPMVP) (www.ipmvp.org/download.html). Measurement and verification data will be gathered from the program participant utilizing a combination of any available building- or equipment-level monitoring systems, and Willdan provided data collection and logging equipment. If a project requires M&V, Willdan will alert the applicant during application review. Willdan will then assist the applicant with the development of an M&V plan that includes how the collected data will be used to calculate the final energy savings and incentive.

3.5.1 Projects Requiring M&V

M&V will be required on a project-by-project basis. When considering whether or not M&V should be required for projects of this size, Willdan will consider the following: weather-related effects on HVAC efficiencies, interactive measures, and any other needs for trending data.

When M&V is required, M&V data, analysis, and conclusions will be incorporated into the post-installation report (PIR).

3.5.2 M&V Approaches

Three M&V approaches are outlined below:

- **Deemed or Stipulated Savings:** The most common approach, deemed savings, which are based on standardized savings values or simple formulas for a range of measures in representative building types. This approach is suitable for a variety of projects where energy and demand savings may be estimated to a reasonable degree of accuracy without additional M&V. Variables such as operating hours, coincident usage with peak electric demand period, and energy consumption of existing equipment are assumed in these cases according to previously gathered field data. The Program participant is not required to perform any M&V activities when using deemed or stipulated savings. For example, projects that replace DX units or T12 lamps and ballasts with new, higher efficiency alternatives would typically be eligible for deemed savings and would not require further field measurements.

- **Simplified Measurement and Verification (Simple M&V) – IPMVP Option A (Retrofit Isolation: Key Parameter Measurement):** Savings values using this approach are based on engineering calculations using typical equipment characteristics and operating schedules developed for particular applications, with some short-term testing or simple metering. Please contact Program Administrator when determining whether to employ the Simplified M&V or Full M&V approach. An M&V plan is required to be submitted before the project begins for this approach.

- **Measured Savings or Full M&V – IPMVP Options B, C, or D:** With this approach, actual measurements and analysis through metering, billing or regression analysis, or energy modeling are relied upon to calculate peak electric demand savings and energy savings. There are specific M&V procedures based on the International Performance Measurement and Verification Protocol (IPMVP) and there are three Full M&V Options:

    a) Option B – Retrofit Isolation: All Parameter Measurement; Applicable to Various Measures
    b) Option C – Whole Facility Metering or Sub-metering; Applicable to Various Measures
    c) Option D – Calibrated Simulation; Applicable to Various Measures

3.5.3 New Construction and Phased M&V

New construction healthcare projects present a particular program challenge due to the length of a project cycle. A new facility may involve a multi-year planning, engineering, and construction period, and often take several years of operation before reaching full “occupancy”. Willdan may review the construction and build out schedule with new construction applicants to determine an appropriate phasing structure and develop appropriate M&V plan. Note that depending on project specific situation, the baseline may need to be revised.

4 Frequently Asked Questions

1. What is the Healthcare Energy Efficiency Program (HEEP)?

HEEP is an energy efficiency program designed to assist CenterPoint Energy's healthcare program participants to reduce peak electric demand and annual energy usage by providing access to technical knowledge, energy assessments, and financial incentives to improve the efficiency of their buildings.

2. Who is eligible to participate in these Programs?

Non-residential healthcare-related program participants in CenterPoint Energy's Electric service territory receiving non-transmission class service (<69 kV); or non-profit/governmental transmission class service. Please see the "Program Eligibility" section of this Program Manual for exact details.

3. What does HEEP cost?

The Program participant PAYS NOTHING for participating in these Programs. CenterPoint Energy provides all of the support and incentives for HEEP. THE FINANCIAL INVESTMENT ANY PROGRAM PARTICIPANT MAKES IS FOR THE ENERGY EFFICIENCY MEASURES THAT THEY INSTALL IN THEIR FACILITIES.

4. What incentives are available through HEEP?

HEEP offers both cash and non-cash incentives to Program participants in order to assist with a specific organization's needs. Financial incentives may be available for energy efficiency projects, depending on the budget available at the time of your project submission. Other program services, such as technical assistance and communications support, are made available according to the needs of each Program participant.

5. How does a program participant enroll in HEEP?

An eligible program participant may participate in HEEP by submitting a Memorandum of Understanding (MOU) with the Program Implementer (Willdan Energy Solutions). Please see the "Phases of Participation" section for additional details.

6. What are the next steps after initial enrollment in HEEP?

a) Program Implementer (Willdan Energy Solutions) will contact Program participant to discuss what, if any, technical assistance is needed to identify energy efficiency projects.

b) Willdan and the Program participant work collaboratively to appropriately characterize potential energy efficiency projects, including recommended upgrades and estimated electric demand (kW) and energy savings (kWh).

c) Program participant selects projects for the current program year and works with Willdan to prepare a timeline of each individual project.

d) For projects retrofitting or replacing existing equipment, Program Administrator will conduct a pre-installation inspection at the project site prior to the Program participant implementing the project. The pre-installation inspection is REQUIRED for ALL retrofit projects. New construction projects do not require a pre-installation inspection.

e) For projects involving new construction, Program participant may be requested to submit a full set of stamped construction drawings (A/M/E/P) (in electronic, PDF file format) to Willdan for review.

f) Willdan reviews project and reserves incentives according to estimated reductions in peak electric demand (kW) and energy consumption (kWh).

g) The Program participant completes the energy efficiency project.

h) The Program participant notifies Willdan that the project is completed. Please note that all projects that are to receive a financial incentive from HEEP for the current program year must be completed by November 30th in order to allow time for verification of the project.

i) For all projects, program implementation team will conduct a post-installation inspection at the project site.

j) Willdan finalizes project savings/incentive amounts based on the results of the post-installation inspection.

k) Incentive checks will be issued to Program participant by CenterPoint Energy.

l) Willdan follows up with the program participant regarding future energy efficiency projects.

7. Who decides what energy efficiency technologies to install and who installs them?

The Program participant decides what energy efficiency measures to implement and how they are implemented. The Program offers only improved access to assistance for identification and evaluation of energy efficiency opportunities. The Program does NOT provide any installation of energy efficiency measures.

8. How are energy efficiency opportunities determined?

Willdan works with each Program participant to assess energy efficiency opportunities in both existing facilities and with new construction projects using a combination of a facility walk through, energy performance benchmarking analysis, staff interviews, etc.

5 Program Key Definitions

Deemed Savings – a set of pre-determined, validated estimates of energy and peak demand savings attributable to energy efficiency measures in particular types of application that an electric utility may use instead of energy and peak demand savings determined through measurement and verification activities.

Demand Savings (kW) – Peak demand savings that have been approved using one of the eligible measurement and verification protocols as set forth in this Program Manual. It represents the average reduction in demand on the utility system throughout the utility system's peak period calculated by determining the average hourly impact over the hours contained in the peak period.

Energy Savings (kWh/yr) – electric energy savings over the course of one 12-month period

Estimated Incentive Payment – contained in the Project Application Form (once approved by the Program Implementer), this is the amount of incentives reserved in HEEP budget for the list of committed projects, and therefore is the maximum amount of incentives the Program participant can receive upon project completion and verification of savings.

Incentive Reservation – in order to receive financial incentives through this Program, Program participant must first reserve incentives by submitting (and having approved) a Project Application Form.

Memorandum of Understanding (MOU) – non-binding agreement signed and submitted by Program participant, stating their intent to participate in HEEP

Program participant – eligible CenterPoint Energy electric distribution customer who has enrolled in HEEP or customer's authorized representative.

Peak demand – electrical demand at the times of highest annual demand on the utility's system

Peak period – For the purpose of this section, the summer peak period consists of the hours from 1 P.M. to 7 P.M., during the months of June, July, August, and September, excluding weekends and Federal holidays. The winter peak period consists of the hours from 6 A.M. to 10 A.M. and 6 P.M to 10 P.M., during the months of December, January, and February, excluding weekends and Federal holidays.

Post-Installation Inspection – inspection performed after installation of new equipment. Post installation inspection verifies actual installed measure(s) to verify resulting deemed or measured and verified demand and energy savings.

Pre-Installation Inspection – inspection performed prior to any replacement of existing equipment, device, or structural energy efficiency measures (windows, window film, roof coatings, etc.) to validate and collect data on existing equipment and measures.

Project – for Program purposes, a project is defined as one (1) proposed peak demand savings measure type at one (1) facility owned and/or operated by the Program participant.