Control Number: 52067

Item Number: 2

Addendum StartPage: 0

DOCKET NO. 52067

APPLICATION OF ENTERGY TEXAS, INC. TO ADJUST ITS ENERGY EFFICIENCY COST RECOVERY FACTOR AND REQUEST TO ESTABLISH REVISED COST CAPS	§ § § § §	**PUBLIC UTILITY COMMISSION OF TEXAS**

2021 MAY -3 PM 4:22

APPLICATION OF ENTERGY TEXAS, INC. TO ADJUST ITS ENERGY EFFICIENCY COST RECOVERY FACTOR AND REQUEST TO ESTABLISH REVISED COST CAPS

Entergy Texas, Inc. ("ETI" or "the Company") files this Application to Adjust its Energy Efficiency Cost Recovery Factor ("EECRF") and Request to Establish Revised Cost Caps under Public Utility Regulatory Act ("PURA")[1] § 39.905 and 16 Texas Administrative Code ("TAC") §§ 25.181 and 25.182. In support thereof, ETI shows the following:

I. BUSINESS ADDRESS AND AUTHORIZED REPRESENTATIVES

The business address of the Company is:

Entergy Texas, Inc.
350 Pine Street
Beaumont, Jefferson County, Texas 77701

The business mailing address of the Company is:

Entergy Texas, Inc.
P.O. Box 2951
Beaumont, Texas 77704

The business telephone number of the Company is (409) 838-6631.

The authorized representatives for the Company in this proceeding are:

Deanna Rodriguez
Vice President, Regulatory & Public Affairs
Entergy Texas, Inc.
919 Congress Avenue, Suite 740
Austin, Texas 78701
(512) 487-3999 telephone

[1] Public Utility Regulatory Act, Tex. Util. Code §§ 11.001-66.016 ("PURA")

2

(512) 487-3998 facsimile

Miguel Suazo
Senior Counsel
Erika Garcia
Senior Counsel
Entergy Services, LLC
919 Congress Avenue, Suite 701
Austin, Texas 78701
(512) 487-3961 telephone
(512) 487-3958 facsimile

ETI requests that all information and documents (orders, discovery, motions, etc.) related to this Application be served on Mr. Suazo's office, as listed in the previous paragraph.

II. JURISDICTION

The Public Utility Commission of Texas ("Commission") has jurisdiction over ETI and the subject matter of this Application under PURA § 39.905 as implemented in 16 TAC §§ 25.181 and 25.182.

III. AFFECTED PERSONS

ETI provides service to approximately 473,000 customers in Texas. ETI proposes to apply the revised EECRF requested herein to all of its retail electric customers that fall within the classes subject to the EECRF as detailed in Section IV below.

IV. DESCRIPTION OF APPLICATION

PURA § 39.905(b) and 16 TAC § 25.182 establish the mechanism under which an electric utility may recover costs associated with providing energy efficiency programs sufficient to

achieve the utility's energy efficiency goal.[2] ETI is required to file an application not later than May 1 of each year to adjust its EECRF effective January 1 of the following year.[3]

Through this Application, the Company seeks to adjust its EECRF for 2022 to recover $12,080,473, reflecting the following five components: (a) estimated 2022 energy efficiency program costs of the Company's forecasted energy efficiency program budget amount of $7,798,726; (b) a performance bonus of $4,704,294 for 2020 program achievements; (c) evaluation, measurement, and verification costs of $104,092 to be collected in 2022; (d) a $589,306 refund for the over-recovery of 2020 program costs, including $16,277 in interest; and (e) $9,360 for Cities'[4] rate case expenses and $53,307 for ETI's rate case expenses in Docket No. 50803, the Company's 2020 EECRF Application. The requested EECRF adjustment would result in a $0.12 per month increase to a residential customer's bill, assuming a monthly usage of 1,000 kWh, or a 0.09% increase based on ETI's charges currently approved by the Commission. The requested revised EECRF rates would be as follows:

Rate Class	**EECRF**
Residential Service	$0.001027 per kWh
Small General Service	$0.000976 per kWh
General Service	$0.000972 per kWh
Large General Service	$0.001702 per kWh
Large Industrial Power Service	
Transmission Customers Only	$0.000000 per kWh
Other Than Transmission Customers	($0.000017) per kWh

[2] Under 16 TAC § 25.181(e), the "energy efficiency goal" is a percentage reduction of the annual growth in demand of an electric utility's residential and commercial customers, based on the energy savings achieved from the utility's energy efficiency programs. The energy efficiency goal is a 30% reduction of annual growth in demand up to four-tenths of 1% of its summer weather-adjusted peak demand. However, pursuant to 16 TAC § 25.181(e)(1)(D), the Company's goal cannot be lower than the prior year's goal.

[3] *See* 16 TAC § 25.182(d)(8).

[4] "Cities" cumulatively refers to the Cities of Anahuac, Beaumont, Bridge City, Cleveland, Dayton, Groves, Houston, Huntsville, Liberty, Montgomery, Navasota, Nederland, Oak Ridge North, Orange, Pine Forest, Pinehurst, Port Arthur, Port Neches, Roman Forest, Shenandoah, Silsbee, Sour Lake, Splendora, Vidor, and West Orange. *See* Cities' Motion to Intervene, Docket No. 50803 (May 13, 2020).

Lighting ($0.000001) per kWh

ETI further requests a good cause exception in accordance with 16 TAC § 25.181(e)(2) to establish a higher cost cap than that prescribed by 16 TAC § 25.182(d)(7)(C) for its commercial rate classes. ETI will be able to recover its 2022 energy efficiency program costs while complying with the residential cost cap; however, the proposed 2022 EECRF would exceed the commercial cost cap. As explained in the Direct Testimony of John "Kelley" Carson, the avoided cost of energy for the Electric Reliability Council of Texas ("ERCOT") market was significantly higher in 2020 than in 2019. Because the avoided cost of energy is one component of the total avoided costs used to calculate the net benefits associated with a utility's energy efficiency programs,[5] the net benefits on which ETI's 2020 performance bonus is based are higher than in past years, resulting in a higher bonus. This 2020 performance bonus is a program cost in the calculation of the 2022 EECRF,[6] which represents a significant increase in the total costs for ETI's energy efficiency programs. Accordingly, a higher commercial cost cap is necessary to maintain energy efficiency program incentives at a level similar to those provided in prior years, achieve similar demand reduction and energy efficiency savings, and allow ETI to recover its 2022 program costs as calculated under the energy efficiency rules.

There is good cause to establish a revised commercial cost cap. First, pursuant to 16 TAC § 25.182(e), "A utility that exceeds its demand and energy reduction goals established in § 25.181 of this title at a cost that does not exceed the cost caps established in subsection (d)(7) of this section shall be awarded a performance bonus calculated in accordance with this subsection. The

[5] *See* 16 TAC §§ 25.182(e)(2) and 25.181(d)(3).

[6] 16 TAC § 25.182(e)(2) provides, in part, "Program costs shall include the cost of incentives, EM&V contractor costs, *any shareholder bonus awarded to the utility*, and actual or allocated research and development and administrative costs, but shall not include any interest amounts applied to over- or under-recoveries." (emphasis added).

performance bonus shall be based on the utility's energy efficiency achievements for the previous program year." The $4.7 million performance bonus proposed in this case (for collection in 2022) is based on the net benefits associated with ETI's energy efficiency programs in 2020, a year in which ETI achieved its energy efficiency goals, did not exceed the cost caps, and the associated savings exceeded the program costs (including a performance bonus related to program year 2018).[7] Thus, a revised cap is appropriate because it is not reasonably possible under the default commercial cost cap for ETI to recover all of its cost-effective 2022 EECRF program costs as defined under the energy efficiency rules, which includes the performance bonus (based on program year 2020) calculated as prescribed by 16 TAC § 25.182(e)(3).

Second, the performance bonus dictated by 16 TAC § 25.182(e) is intended to incentivize utilities to achieve the required energy efficiency goals in a cost-effective manner, which ETI has done in earning the bonus associated with its 2020 energy efficiency programs. The driving factor behind the exceedance of the commercial cost cap in this instance is the change in the avoided cost of energy, which is a component of the net benefits calculation that is not within ETI's control. ETI should not be required to reduce or forgo recovery of its reasonable and cost-effective 2022 program costs due to the variation of the avoided cost of energy (and, thus, net benefits) in a specific year. Similarly, ETI's program costs (including any performance bonus) have not been and would not be increased in any year based on a reduction in the avoided cost of energy and associated net benefits. Instead, the policy underlying the Commission's energy efficiency rules and performance bonus is best served by allowing ETI to continue successfully implementing these programs in a reasonable and cost-effective manner.

[7] 16 TAC § 25.182(e)(1) provides, "The performance bonus shall entitle the utility to receive a share of the net benefits realized in meeting its demand reduction goal established in § 25.181 of this title."

In support of ETI's Application, ETI submits the Direct Testimonies of Mr. Carson and Jay Andrew Lewis, Jr., and their associated exhibits and workpapers. Mr. Carson's Direct Testimony presents the projected costs of the Company's energy efficiency programs for the 2022 program year, the actual costs of the Company's energy efficiency programs for the 2020 program year, and the performance bonus calculation associated with the Company's 2020 programs. Mr. Carson's testimony also demonstrates that these costs are reasonable and consistent with 16 TAC §§ 25.181 and 25.182. Finally, his testimony supports ETI's request for a good cause exception to exceed the cost cap for its commercial rate classes.

Mr. Lewis's Direct Testimony presents the calculation of the 2020 over-recovery amounts, including interest, as well as the adjusted EECRF rates. He further sponsors revised Rider EECRF, which is the rate schedule that contains the adjusted EECRF rates. Mr. Lewis also supports the Company's request to recover affiliate expenses, including the affiliate expenses associated with ETI's 2020 EECRF proceeding.

Additionally, two affidavits accompany this Application to further support the expenses incurred in connection with ETI's 2020 EECRF proceeding: (1) the affidavit of Miguel Suazo, which supports the reasonableness of ETI's external litigation expenses; and (2) the affidavit of Daniel J. Lawton, which supports the reasonableness of the Cities' expenses.

V. NOTICE AND PROTECTIVE ORDER

The Company will provide notice of this proceeding consistent with 16 TAC § 25.182(d)(13) within seven days of the Application filing date and will file an affidavit attesting to the completion of notice within 14 days after this Application is filed. The form of the notice to be provided is included as Attachment A to this Application.

The Company also requests that the Commission's standard protective order be adopted in this proceeding to govern the disclosure of protected materials and highly sensitive protected materials.

VI. CONCLUSION AND REQUESTED RELIEF

In light of the foregoing, as well as the accompanying testimony, exhibits, and attachments, ETI requests that the Commission (1) approve the Company's proposed notice; (2) enter the Commission's standard protective order; (3) approve the Company's proposed EECRF adjustment to be effective with the first billing cycle of January 2022; (4) approve the Company's request for a good cause exception in accordance with 16 TAC § 25.181(e)(2) to establish a higher commercial cost cap than that prescribed by 16 TAC § 25.182(d)(7)(C); and (5) grant the Company such other relief to which it may be entitled.

Respectfully submitted,

Miguel Suazo
Senior Counsel
Erika Garcia
Senior Counsel
ENTERGY SERVICES, LLC
919 Congress Avenue, Suite 701
Austin, Texas 78701
(512) 487-3961 telephone
(512) 487-3958 facsimile

By: _____
Miguel Suazo
State Bar No. 24085608

ATTORNEYS FOR ENTERGY TEXAS, INC.

Application of Entergy Texas, Inc. to Adjust Its Energy Efficiency Cost Recovery Factor and Request to Establish Revised Cost Caps

On April 30, 2021, Entergy Texas, Inc. ("ETI" or "the Company") filed an Application to Adjust its Energy Efficiency Cost Recovery Factor ("EECRF") and Request to Establish Revised Cost Caps (the "Application"). The Application was filed with the Public Utility Commission of Texas ("Commission"), pursuant to Public Utility Regulatory Act § 39.905 and 16 Texas Administrative Code §§ 25.181 and 25.182. In its Application, ETI requested that its adjusted EECRF become effective beginning with the first billing cycle of its January 2022 billing month. All Texas retail customers that fall within the classes subject to the EECRF and listed below would be affected by approval of the Company's Application.

The Company is seeking to adjust its EECRF to recover $12,080,473, which reflects the following five components: (1) estimated 2022 energy efficiency program costs of the Company's forecasted energy efficiency program budget amount of $7,798,726; (2) a performance bonus of $4,704,294 for 2020 program achievements; (3) evaluation, measurement, and verification costs of $104,092 to be collected in 2022; (4) a $589,306 refund for the over-recovery of 2020 program costs, including $16,277 in interest; and (5) $9,360 for Cities' rate case expenses and $53,307 for ETI's rate case expenses in Docket No. 50803, the Company's 2020 EECRF Application. The requested EECRF adjustment would result in a $0.12 per month increase to a residential customer's bill, assuming a monthly usage of 1,000 kWh, or a 0.09% increase based on ETI's charges currently approved by the Commission. The requested revised EECRF rates would be as follows:

Rate Class	**EECRF**
Residential Service	$0.001027 per kWh
Small General Service	$0.000976 per kWh
General Service	$0.000972 per kWh

Large General Service	$0.001702 per kWh
Large Industrial Power Service	
Transmission Customers Only	$0.000000 per kWh
Other Than Transmission Customers	($0.000017) per kWh
Lighting	($0.000001) per kWh

Persons with questions or who want more information on this petition may contact Entergy Texas, Inc. by calling (409) 981-2602 during normal business hours. A complete copy of this filing is available by email request to trc@entergy.com. The Commission will review ETI's Application, establish an intervention deadline for interested persons and determine whether ETI's Application should be approved. The Commission's proceeding to review ETI's Application has been assigned Docket No. 52067. Persons who wish to intervene in or comment upon these proceedings, or obtain further information, should contact the Public Utility Commission of Texas, P.O. Box 13326, Austin, Texas 78711-3326, or call the Commission's Office of Consumer Protection at 512-936-7120 or 1-888-782-8477. All requests to intervene should include your email address, fax number (if available), or other information so that the Commission may provide electronic service. Hearing and speech-impaired individuals with text telephones (TTY) may contact the Commission at 512-936-7136 or use Relay Texas (toll-free) 1-800-735-2989. All communications should refer to Docket No. 52067.

Due to the COVID-19 pandemic, the preferred method for you to file your request for intervention is electronically, and you will be required to serve the request on other parties by email. Therefore, please include your own email address on the intervention request. Instructions for electronic filing via the "PUC Filer" on the Commission's website can be found here: https://interchange.puc.texas.gov/filer. Instructions for using the PUC Filer are available at: http://www.puc.texas.gov/industry/filings/New_PUC_Web_Filer_Presentation.pdf. Once you obtain a tracking sheet associated with your filing from the PUC Filer, you may email the tracking sheet and the document you wish to file to: centralrecords@puc.texas.gov. For assistance with

your electronic filing, please contact the Commission's Help Desk at (512) 936-7100 or helpdesk@puc.texas.gov. You can review materials filed in this docket on the PUC Interchange at: http://interchange.puc.texas.gov/.

DOCKET NO. 52067

APPLICATION OF ENTERGY TEXAS, INC. TO ADJUST ITS ENERGY EFFICIENCY COST RECOVERY FACTOR AND REQUEST TO ESTABLISH REVISED COST CAPS	§ § § § §	**PUBLIC UTILITY COMMISSION OF TEXAS**

DIRECT TESTIMONY

OF

JOHN K. CARSON

ON BEHALF OF

ENTERGY TEXAS, INC.

APRIL 30, 2021

ENTERGY TEXAS, INC.
DIRECT TESTIMONY OF JOHN K. CARSON
2021 EECRF APPLICATION

TABLE OF CONTENTS

EXHIBITS

Exhibit JKC-4	Consumer Price Index and Revised Cost Caps
Exhibit JKC-5	Directly Assigned Costs by Rate Class for Program Year 2020
Exhibit JKC-6	Projected Evaluation, Measurement, and Verification Costs for Program Year 2022
Exhibit JKC-7	Projected Costs by Rate Class for Program Year 2022
Exhibit JKC-8	Bonus Calculation for Program Year 2020
Exhibit JKC-9	Cost-Benefit Calculations for Program Year 2020
Exhibit JKC-10	2020 Administrative Costs Detail

I. WITNESS INTRODUCTION AND QUALIFICATIONS

Q1. PLEASE STATE YOUR NAME, OCCUPATION, AND BUSINESS ADDRESS.

A. My name is John "Kelley" Carson. I am employed by Entergy Texas, Inc. ("ETI" or the "Company") as a Lead Account Service Manager. I manage several energy efficiency programs and assist with budgeting requirements and energy efficiency program forecasting. My business address is 10055 Grogan's Mill Rd., The Woodlands, TX 77380.

Q2. FOR WHOM ARE YOU TESTIFYING?

A. I am testifying on behalf of ETI.

Q3. PLEASE BRIEFLY DESCRIBE YOUR EDUCATIONAL BACKGROUND AND PROFESSIONAL EXPERIENCE.

A. I have worked for Gulf States Utilities, Inc., Entergy Gulf States, Inc., and then ETI for over 36 years in customer relations, marketing, and in managing ETI's energy efficiency programs. I have a bachelor's degree in Accounting from Southwest Texas State University, a Master of Business Administration from LeTourneau University, and a Master of Science in Military History – Civil War from American Military University. In addition, I have passed the Home Energy Rating System test from Southface Energy Institute, which certifies me as a Home Energy Rater.

Q4. PLEASE DESCRIBE YOUR CURRENT JOB RESPONSIBILITIES AS THEY CONCERN ENERGY EFFICIENCY PROGRAMS.

A. I am responsible for developing and implementing ETI's energy efficiency programs in Texas. As part of my job description, I work closely with the various vendors and participants in ETI's energy efficiency programs. I assisted the Company in participating in the rulemakings resulting in the initial adoption of 16 Tex. Admin. Code ("TAC") § 25.181, the adoption of the revisions to the rule that became effective in January 2013, and the most recent rulemaking resulting in a revised 16 TAC § 25.181, newly created § 25.182, and revised § 25.183. I am a member, and former Chairman, of the Electric Utility Marketing Managers of Texas ("EUMMOT"), which is an association of electric utilities working to achieve the goal for energy efficiency established under Section 39.905 of the Public Utility Regulatory Act ("PURA"). EUMMOT members include Oncor Electric Delivery Company LLC, CenterPoint Energy Houston Electric, LLC, AEP Texas, Inc., Southwestern Electric Power Company, Texas-New Mexico Power Company, Xcel Energy, El Paso Electric Company, and ETI.

I currently manage some of ETI's energy efficiency programs, including the Entergy Residential Solutions Market Transformation Program ("MTP") and the Load Management Standard Offer Program ("SOP"). In addition, I am charged with developing ETI's energy efficiency savings goals and the budget requirements necessary to achieve those goals.

Q5. WAS THIS TESTIMONY PREPARED BY YOU OR UNDER YOUR DIRECT SUPERVISION?

A. Yes.

Q6. DO YOU SPONSOR ANY EXHIBITS?

A. Yes, I sponsor the exhibits listed in the Table of Contents to my testimony.

II. PURPOSE OF TESTIMONY

Q7. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY IN THIS PROCEEDING?

A. The purpose of my direct testimony is to support the Company's request to adjust its Energy Efficiency Cost Recovery Factor ("EECRF"). In particular, I present the Company's Energy Efficiency Plan and Report ("EEPR"), as amended on April 30, 2021 as Exhibit JKC-1 and provide direct testimony in support of the actual and projected costs that form the basis of the requested adjustment in EECRF rates.

Exhibit JKC-1 describes the Company's 2020 energy efficiency programs and the results of those programs. It also discusses the Company's current energy efficiency program portfolio, projections for next year, and the circumstances and market conditions that support the reasonableness of the Company's programs and projections. Exhibit JKC-1 includes a projection of the annual growth in demand, an estimate of the energy and peak demand reduction savings to be obtained through each of the Company's energy efficiency programs, a description of the customer classes targeted by the energy efficiency programs, and the proposed

annual budget required to implement the programs for each eligible class of customers.

III. ENERGY EFFICIENCY UNDER THE COMMISSION'S RULES

Q8. HOW IS ENERGY EFFICIENCY DEFINED UNDER THE COMMISSION'S RULES?

A. The term "energy efficiency," as defined by the Public Utility Commission of Texas ("PUCT" or "Commission") in 16 TAC § 25.181(c)(12), is as follows:

> Improvements in the use of electricity that are achieved through customer facility or customer equipment improvements, devices, processes, or behavioral or operational changes that produce reductions in demand or energy consumption with the same or higher level of end-use service and that do not materially degrade existing levels of comfort, convenience, and productivity.

Q9. HOW IS ENERGY EFFICIENCY MEASURED UNDER THE COMMISSION'S RULES?

A. 16 TAC § 25.181 indicates that energy efficiency is to be measured by the energy savings and peak demand reduction. Energy savings is defined in 16 TAC § 25.181(c)(18) as "[a] quantifiable reduction in a customer's consumption of energy that is attributable to energy efficiency measures, usually expressed in kWh or MWh." Peak demand reduction is defined in 16 TAC § 25.181(c)(45) as "[r]eduction in demand on the utility's system at the times of the utility's summer peak period or winter peak period."

Q10. WHAT ARE THE REQUIRED ENERGY EFFICIENCY GOALS UNDER THE COMMISSION'S RULES?

A. Pursuant to 16 TAC § 25.181(e), the Commission's required "energy efficiency goal" for electric utilities is a percentage reduction of the average annual growth in demand of the electric utility's residential and commercial customers. Under the rule, the energy efficiency goal is a 30% reduction of annual growth in demand up to four-tenths of 1% of the summer weather-adjusted peak demand. ETI calculated a new goal for 2022 using the 30% reduction of annual growth calculation. The new demand goal for ETI is 15,697 kW. Further, in accordance with the "ratchet" requirements of 16 TAC § 25.181(e)(1)(D), a utility's demand reduction goal in any year cannot be lower than its goal for the prior year.

The energy savings goal is calculated under 16 TAC § 25.181(e)(4) by applying a 20% conservation load factor against the utility's demand savings goal. Thus, the energy savings goal for ETI for 2022 is 27,500,598 kWh.

Q11. HOW MAY A UTILITY ACHIEVE ITS ENERGY EFFICIENCY GOALS UNDER THE COMMISSION'S RULES?

A. Pursuant to 16 TAC § 25.181(d), utilities are encouraged to achieve demand reduction and energy savings through a portfolio of cost-effective programs that exceed each utility's energy efficiency goals while staying within the cost caps established in 16 TAC § 25.182(d)(7). An energy efficiency program is deemed to be cost-effective if the cost of the program to the utility is less than or equal to the

benefits of the program. The present value of the program benefits is calculated over the projected life of the measures installed or implemented under the program.

Q12. WHAT TYPES OF ENERGY EFFICIENCY MEASURES ARE ALLOWED IN A UTILITY'S ENERGY EFFICIENCY PROGRAM, AND WHAT IS THE ESTIMATED USEFUL LIFE OF EACH MEASURE?

A. The term "energy efficiency measures" is defined in 16 TAC § 25.181(c)(14) as "[e]quipment, materials, and practices, including practices that result in behavioral or operational changes, implemented at a customer's site on the customer's side of the meter that result in a reduction at the customer level and/or on the utility's system in electric energy consumption, measured in kWh, or peak demand, measured in kW, or both."

The types of measures allowed in a utility's 2020 energy efficiency programs are listed in Exhibit JKC-2. The source for this list is the Texas Resource Manual ("TRM"), Version 7.0, which is discussed further below. A revised TRM, Version 8.0, became effective January 1, 2021.

The Estimated Useful Life ("EUL") of a measure is defined in 16 TAC § 25.181(c)(19) as the "number of years until 50% of the installed measures are still operable and providing savings and is used interchangeably with the term 'measure life.'" The EUL determines the period of time over which the benefits of the energy efficiency measure are expected to accrue.

Q13. HAVE ANY ELIGIBLE CUSTOMERS OPTED OUT OF THE ENERGY EFFICIENCY PROGRAMS PURSUANT TO 16 TAC § 25.181(U)?

A. Yes. A few eligible customers have opted out of the program pursuant to 16 TAC § 25.181(u). The load of these opt-out customers has been removed from the calculation of average load growth as reflected in Table 4 of my Exhibit JKC-1, and their billing determinants have been removed from the rate calculations presented in the testimony of Company witness Jay Andrew Lewis Jr.

IV. 2020 PROGRAM YEAR ENERGY EFFICIENCY PROGRAMS

Q14. WHAT ENERGY EFFICIENCY PROGRAMS DID ETI OFFER DURING THE 2020 PROGRAM YEAR?

A. ETI implements an array of energy efficiency programs each year that reasonably consider the market conditions, maturity of programs, and regulatory requirements. In 2020, ETI offered five energy efficiency programs: Residential SOP, Hard-to-Reach SOP, Load Management SOP, Residential Solutions MTP, and Commercial Solutions MTP.

Q15. PLEASE DESCRIBE THE ENERGY EFFICIENCY PROGRAMS THAT THE COMPANY IMPLEMENTED IN 2020.

A. Exhibit JKC-1 provides information on each of ETI's energy efficiency programs for 2020, including a list of all programs, energy and demand savings for each program, and the costs associated with the energy efficiency programs. It also

describes the benefits of each program. The energy efficiency programs are diverse so that all eligible customers have an opportunity to participate.

Q16. DURING THE 2020 PROGRAM YEAR, WHAT REDUCTIONS IN PEAK DEMAND AND ENERGY DID ETI ACHIEVE THROUGH ITS ENERGY EFFICIENCY PROGRAMS?

A. As shown in Table 8 of Exhibit JKC-1, ETI achieved a demand reduction, calculated at the meter, of 20,008 kW and energy savings of 44,885,306 kWh during program year 2020, exceeding the goals of 15,500 kW and 27,156,000 kWh. Table 8 of Exhibit JKC-1 also provides a breakdown of the projected and actual peak demand reduction and energy savings for each program.

Q17. WHAT WAS ETI'S APPROVED BUDGET TO ACHIEVE ITS ENERGY EFFICIENCY GOALS FOR THE 2020 PROGRAM YEAR?

A. As shown in Table 10, Exhibit JKC-1, ETI's approved budget to achieve its 2020 energy efficiency goals was $7,601,387.

Q18. WHAT WERE ETI'S ACTUAL COSTS TO REACH ITS ENERGY EFFICIENCY GOALS IN PROGRAM YEAR 2020?

A. As shown in Table 10, Exhibit JKC-1, ETI's actual costs in 2020 totaled $6,732,278, roughly $869,109 less than the forecasted costs. I discuss the reasons why the costs were lower than expected in Q54 below.

Q19. DO THE COMMISSION RULES LIMIT THE EXPENDITURES THAT A UTILITY MAY RECOVER FOR ITS ENERGY EFFICIENCY PROGRAMS?

A. Yes. 16 TAC § 25.182(d)(7) sets cost caps on the amount that can be charged to customers for energy efficiency programs.

Q20. HOW MANY PROJECT SPONSORS AND PROGRAM IMPLEMENTERS PARTICIPATED IN ETI'S ENERGY EFFICIENCY PROGRAMS IN 2020 AND WHICH ONES RECEIVED 5% OR MORE OF THE PROGRAM INCENTIVES?

A. The various Project Sponsors and Program Implementers are listed in the public version of Exhibit JKC-3. Information regarding the amounts and percentage received per program for sponsors and implementers receiving 5% or more of program incentives is presented in the Highly Sensitive version of Exhibit JKC-3.

Q21. DID ETI EXPERIENCE ANY UNIQUE CHALLENGES IN MEETING ITS ENERGY EFFICIENCY GOALS IN 2020?

A. Yes. The COVID-19 pandemic presented a unique challenge to ETI being able to meets its energy efficiency goals.

Q22. CAN YOU EXPLAIN HOW COVID-19 IMPACTED ETI'S ABILITY TO MEET ITS ENERGY EFFICIENCY GOALS?

A. Yes. The COVID-19 pandemic caused ETI to re-evaluate how it managed its energy efficiency programs. Entergy Corporation mandated that employees' exposure to the public be minimized and that as many services as possible be

performed without customer or contractor contact. As a result, the energy efficiency programs had to be managed remotely. Because almost all the energy efficiency programs offered by ETI require contact either with a Program Implementer or the customer, deploying and administering the programs required that the Company adapt to conduct these interactions using technology in order to prevent direct human contact. All program leads, which are potential projects for a program, were worked either by telephone or virtually through the use of video conference platforms such as WebEx, Zoom, or TEAMS. Physical inspections of projects were replaced by virtual inspections, contractor supplied photographs, or telephone calls. This new approach developed gradually over the course of the pandemic as the Company determined how best to implement new processes and protocols in the evolving COVID-19 environment. These procedures increased the time it takes from start to completion of projects, which consequently increased the time to provide incentives to program participants.

V. EECRF FOR 2022

Q23. DOES ETI CURRENTLY HAVE AN EECRF IN PLACE?

A. Yes. ETI's current EECRF was approved in Docket No. 50803[1] to recover a total of $9,431,190. In the Final Order, this amount included: (a) $7,608,671 for ETI's estimated 2021 energy-efficiency program costs, (b) $2,405,052 for the performance bonus for 2019 program achievements, (c) $104,402 in Evaluation,

[1] *Application of Entergy Texas, Inc to Adjust its Energy Efficiency Cost Recovery Factor*, Docket No. 50803, Final Order (Oct. 23, 2020).

Measurement, and Verification ("EM&V") expenses to be collected in 2021; (d) a refund of $742,299 for the over-recovery of 2019 program costs, including $28,868 in interest; and (e) $12,862 for Cities' rate-case expenses and $42,501 for ETI's rate-case expenses in Docket No. 49493. ETI began collecting revenues under the current tariff with the first billing cycle of the January 2021 billing month.

Q24. PLEASE DESCRIBE THE REQUESTED EECRF FOR 2022.

A. ETI is requesting that its 2022 EECRF be set to recover $12,080,473, which is comprised of five parts: (a) the Company's forecasted energy efficiency program budget amount of $7,798,726; (b) a 2020 performance bonus of $4,704,294 for 2020 program achievements; (c) EM&V costs of 104,092 to be collected in 2022; (d) a $589,306 refund for the over-recovery of 2020 program costs, including $16,277 in interest; and (e) $9,360 for Cities' rate-case expenses and $53,307 for ETI's rate-case expenses in Docket No. 50803. The costs components included in the 2022 EECRF are shown in ETI witness Lewis's Exhibit JAL-3, including additional detail regarding the over-recovery of 2020 program costs.

Q25. HOW WERE THE PROPOSED 2022 EECRF RATES CALCULATED?

A. Company witness Lewis describes the calculation of the proposed 2022 EECRF rates in his Direct Testimony.

Q26. DOES THE COMPANY'S PROPOSED EECRF FOR 2022 ACHIEVE THE REQUIRED ENERGY EFFICIENCY GOAL AND COMPLY WITH THE COST CAPS?

A. As explained in more detail later in my testimony, ETI projects that under its proposed EECRF for 2022 it can achieve the required energy efficiency goal and comply with the prescribed residential cost cap, but that it will exceed the prescribed commercial cost cap.[2] Accordingly, ETI is requesting a good cause exception to the commercial cost cap as part of this EECRF Application.

A. Verification and Allocation of Costs and Revenues

Q27. HOW DID THE COMPANY TRACK AND ALLOCATE ITS 2020 COSTS AND REVENUES?

A. Table 10 in Exhibit JKC-1 shows all the 2020 costs. My Exhibit JKC-5 shows the 2020 costs that were directly assigned to specific rate classes. All costs that were incurred by a particular customer were assigned to that customer's rate class. All costs that were incurred by a particular rate class were assigned to that rate class.

All incentive costs, both cash payments to customers and the costs of services provided to customers, were tracked by ETI and/or its vendors so that the costs of the incentives could be assigned to the rate class of the customer who received the incentive payment or service. In that way, all incentive costs were directly assigned to the rate class that received services under the program.

[2] 16 TAC § 25.182(d)(7)(C).

Additionally, administrative costs were directly allocated to programs to the extent reasonably possible and, consistent with 16 TAC § 25.181(g), any portion of the administrative costs that was not directly assignable to a specific program was allocated among the programs in proportion to the program incentive costs. Table 10 of Exhibit JKC-1 shows total 2020 administrative costs per program, and Exhibit JKC-5 shows those costs directly allocated to rate classes.

Research and Development ("R&D") costs were allocated among the programs in proportion to the program incentive costs. Page 5 of Mr. Lewis's Exhibit JAL-1 shows the allocation of the R&D costs to the rate classes.

The costs of last year's EECRF proceeding were related to all programs and rate classes and so they were also allocated across all programs in proportion to the program incentive costs (see Table 10 of Exhibit JKC-1) before being allocated to the rate class or classes that received services under that program as shown on page 5 of Mr. Lewis's Exhibit JAL-1.

As further detailed below, EM&V costs were allocated to the programs pursuant to the methodology recommended by the State's EM&V evaluation team, and the Company then allocated the costs to the rate classes that received services under each program in proportion to the rate class's share of that program's incentive costs.

Revenues for 2020 were tracked by rate class and are identified by ETI witness Lewis in his Exhibit JAL-1 (Page 4 of 6) and Exhibit JAL-4.

B. Incentive Costs

Q28. HOW MUCH DOES THE COMPANY PROJECT TO SPEND ON INCENTIVE COSTS IN 2022?

A. The Company's projected incentive payments for its 2022 programs are $6,975,741 million, which is reflected in Table 6 of Exhibit JKC-1. In addition, a breakdown of the projected energy efficiency program costs by rate class is shown in Exhibit JKC-7.[3]

Q29. ARE THESE INCENTIVE PAYMENT COSTS REASONABLE?

A. Yes. The Company only includes in its request for incentive payments those costs that meet the definition of incentive payments under 16 TAC § 25.181(c)(29). The Company regularly reviews what other utilities are paying for various measures to ensure its costs are in line with incentive payments of other utilities. In addition, several Project Sponsors that work with ETI also work for other utilities and provide feedback on many of the incentives being paid around the state.

For 2022, the Company has proposed no changes to its projected incentive payment costs as compared to its approved budget for 2021, other than amounts for the new R&D project described below.

[3] In Exhibit JKC-7, the total for Incentives is shown as $6,900,741 because R&D costs for all classes are listed in a separate column.

Q30. HOW MUCH DID THE COMPANY INCUR FOR INCENTIVE COSTS IN 2020?

A. As shown in Table 10 of Exhibit JKC-1, ETI's incentive costs for 2020 were $5,908,905. I discuss the reasonableness of these costs in Section VI below.

C. Administrative Costs and R&D Costs

Q31. PLEASE DESCRIBE THE PROJECTED ADMINISTRATIVE COSTS FOR THE COMPANY'S 2022 ENERGY EFFICIENCY PROGRAMS.

A. As shown in Table 6 of Exhibit JKC-1, the Company's projected administrative costs for 2022 are $822,985, which is $149 above the approved budget for 2021.

Q32. DO THE COMPANY'S PROJECTED 2022 COSTS INCLUDE ANY R&D COSTS?

A. Yes. The Company has included $122,000 in its proposed 2022 budget for R&D costs. This amount first includes $22,000 to reflect 20% of the costs for the continued development of a database that is the repository of all ETI's energy efficiency programs.[4]

Additionally, the proposed R&D costs for 2022 include $100,000 ($75,000 for incentives costs and $25,000 for administrative costs) to support a planned retail marketplace website that offers discounted energy efficient measures such as SMART thermostats, SMART power strips, and higher-efficiency LED light bulbs

[4] Pursuant to discussions with Commission Staff over the course of ETI's 2018 EECRF proceeding, Docket No. 47115, and as reflected in Errata No. 2 filed in that docket on July 13, 2018, ETI and Staff agreed to classify 80% of the costs of the database as administrative costs and 20% as R&D costs.

and fixtures to ETI's residential customers. A strategic marketing campaign will coincide with the website launch. The online marketplace is planned to open in January of 2022.

Q33. DO THE COMPANY'S PROJECTED 2022 ADMINISTRATIVE COSTS INCLUDE ALL COSTS FOR THE DISSEMINATION OF INFORMATION AND OUTREACH?

A. Yes.

Q34. PLEASE DESCRIBE THE COMPANY'S ACTUAL ADMINISTRATIVE COSTS FOR ITS 2020 ENERGY EFFICIENCY PROGRAMS.

A. Tables 9 and 10 of Exhibit JKC-1 show the Company's actual administrative costs in 2020. The requested costs in this case include only costs that are recoverable under 16 TAC § 25.181(g)(1). The administrative costs are comprised of costs that are necessary and appropriate for successful program implementation. These costs include Company labor costs charged to specific energy efficiency programs or in support of the Company's programs in general, as well as information and outreach programs designed to explain the Company's energy efficiency programs and improve customer awareness of the programs and measures. For additional detail regarding these costs, please see Exhibit JKC-10.

Q35. ARE THE COMPANY'S 2022 AND 2020 ADMINISTRATIVE COSTS REASONABLE?

A. Yes, the administrative costs are reasonable. These costs are consistent with the spending caps for administrative costs in the Commission's rules. Under 16 TAC § 25.181(g), a utility may recover its administrative costs to the extent these costs do not exceed 15% of the utility's total program costs, and the cumulative administrative and R&D costs do not exceed 20% of the total program costs.[5]

ETI's projected 2022 administrative costs total 10.11% of total projected 2022 program year costs identified in Table 6 of Exhibit JKC-1. When R&D costs are included, the costs equal 10.55% of total program costs. The projections are consistent with the Commission cap on administrative costs as well as the historic levels of costs the Company has incurred to manage its energy efficiency programs.

The Company's actual 2020 administrative costs are also consistent with the Commission cap on administrative spending. Including the ETI costs of last year's EECRF proceeding, the 2020 administrative costs equal 9.89% of total program costs. When R&D costs are included as well, the costs equal 10.70% of total program costs. With the actual and projected amounts being under the prescribed caps, the Company's EECRF costs present a reasonable level of administrative and R&D costs.

[5] Pursuant to 16 TAC § 25.181(g)(1)(G), the costs paid by a utility to Cities pursuant to PURA § 33.023(b) for Cities' EECRF proceeding costs are not included in the administrative caps, and pursuant to 16 TAC § 25.181(o)(10)(B), EM&V costs do not count against the utility's cost caps or administration spending caps.

Q36. ARE THE COMPANY'S TOTAL 2022 PROJECTED ENERGY EFFICIENCY COSTS REASONABLE?

A. Yes. The projected costs of the Company's energy efficiency programs are developed based on the experience of myself and my energy efficiency team with input from our consultants and vendors.

D. EM&V Program and Costs

Q37. PLEASE DESCRIBE THE STATEWIDE EM&V PROGRAM AND ITS REVIEW OF ETI'S ENERGY EFFICIENCY PROGRAMS.

A. Under 16 TAC § 25.181(o)(3), the Commission selects an entity to act as its EM&V contractor and conduct evaluation activities. The EM&V contractor operates under the Commission's supervision and oversight and offers independent analysis to the Commission in order to assist in making decisions in the public interest.

With the oversight of the Commission Staff and the assistance of utilities and other parties, the EM&V contractor evaluates specific programs and the portfolio of programs for each utility. EM&V objectives include: (1) documenting the impacts of the utilities' individual energy efficiency and load management portfolios, comparing their performance with established goals, and determining cost-effectiveness; (2) providing feedback for the Commission, Commission Staff, utilities, and other stakeholders on program portfolio performance; and (3) providing input into the utilities' and the Electric Reliability Council of Texas' ("ERCOT") planning activities.

Another major objective of the EM&V contractor is to develop a TRM. The TRM contains existing deemed savings measures, standard EM&V protocols, and work papers used to develop the TRM. The TRM is available to the public and can be found on the PUCT Interchange under Project No. 38578.

The contractor's evaluation of ETI's 2020 programs has been completed and is included in my workpapers. ETI's 2020 programs were all determined to be cost effective, with the average cost effectiveness rate of 6.60, as shown in Exhibit JKC-9.

Q38. WHAT ARE ETI'S EM&V COSTS AND HOW WERE THE EM&V COSTS ALLOCATED TO THE RATE CLASSES?

A. Tetra Tech, the EM&V contractor for 2020, bills ETI monthly for ETI's portion of the statewide EM&V program. ETI's costs in 2020 for the EM&V contractor's review of ETI's 2019 energy efficiency programs totaled $106,180, as shown in Table 10 of Exhibit JKC-1.

Tetra Tech was again selected to be the EM&V contractor for 2022 and its contract was awarded on December 8, 2020. However, due to the timing of the renewal of the contract, Tetra Tech did not provide ETI with the actual costs for its EM&V review of program year 2021 before ETI's EEPR was filed on April 1, 2021. ETI received Tetra Tech's allocated costs on April 16, 2021. Accordingly, ETI filed an erratum to the EEPR on April 29, 2021 and another on April 30, 2021, to reflect the actual costs as provided by Tetra Tech. Notably, prior to filing the EEPR, ETI estimated its EM&V costs for 2022 by determining its percentage

allocation of the total statewide estimated costs. The total statewide estimated costs were $1,801,213 and ETI's percentage allocation was 5.78%. ETI's 5.78% allocation of the total statewide costs results in an estimated amount of $104,092 for ETI's EM&V costs. Because Tetra Tech had not yet provided the blended percentages for the energy efficiency programs to allocate the $104,092 of EM&V costs, ETI instead used the blended percentages from the previous program year to allocate the 2022 EM&V costs for ETI's energy efficiency programs. Comparing Tetra Tech's costs to ETI's estimate, the total amount of $104,092 is the same. The only difference was in the blended percentages, which resulted in different allocations per energy efficiency program. ETI has reflected these updated allocations in its erratum to its EEPR. ETI then allocated the costs to the rate classes that received services under each program, as needed, using the rate classes' percentages of program incentive costs. The revised allocations to programs are shown in Tables 6 and 10 of my Exhibit JKC-1 and Exhibit JKC-6. The allocations to rate classes are shown in my Exhibit JKC-7 (for the projected EM&V costs) and Mr. Lewis's Exhibit JAL-1, page 5 (for the historical 2020 EM&V costs).

E. 2020 EECRF Proceeding Costs

Q39. DOES THE COMPANY'S REQUESTED EECRF FOR 2022 INCLUDE COSTS FOR AN EECRF PROCEEDING CONDUCTED PURSUANT TO 16 TAC § 25.181(d)?

A. Yes. Pursuant to 16 TAC § 25.182(d)(3), the Company's requested EECRF for 2022 includes costs for last year's EECRF proceeding, Docket No. 50803.

Q40. WHAT COSTS FOR LAST YEAR'S EECRF PROCEEDING ARE INCLUDED IN THE COMPANY'S REQUEST?

A. ETI's proceeding costs for last year's EECRF were $53,307. The Cities' costs for last year's proceeding were $9,360. The reasonableness of ETI's EECRF proceeding costs that are charges from its service company affiliate (Entergy Services, LLC) is supported by the direct testimony of Company witness Lewis. The reasonableness of ETI's non-affiliate charges for last year's EECRF proceeding is supported by the affidavit of Miguel Suazo, Senior Counsel with Entergy Services, LLC, which is included with the Company's application. The reasonableness of Cities' charges for last year's EECRF proceeding is supported by the affidavit of Cities' attorney Daniel J. Lawton, which is also included with the Company's application.

F. Bonus Calculation

Q41. DOES THE COMPANY'S PROPOSED EECRF FOR 2022 INCLUDE A PERFORMANCE BONUS BASED ON ETI'S 2020 PROGRAMS? IF SO, PLEASE EXPLAIN.

A. Yes. Pursuant to 16 TAC § 25.182(e), ETI shall be awarded a performance bonus for its 2020 energy efficiency programs, and ETI has calculated the bonus amount to be $4,704,294. The bonus calculation is shown in Exhibit JKC-8 and was calculated consistent with the Commission's rule.

Q42. IS THE PERFORMANCE BONUS AMOUNT CONSISTENT WITH THE REQUIREMENT UNDER 16 TAC § 25.182(e) THAT THE BONUS NOT EXCEED 10% OF THE UTILITY'S TOTAL NET BENEFITS?

A. Yes. The requested bonus of $4,704,294 is consistent with the maximum bonus allowed under the Rule as shown in Exhibit JKC-8.

VI. REASONABLENESS OF 2020 COSTS

Q43. WHAT WERE THE COSTS INCURRED BY ETI FOR ENERGY EFFICIENCY PROGRAMS IN 2020?

A. Table 10 of Exhibit JKC-1 shows the costs incurred by ETI in 2020 by cost category.

Q44. WERE THE COSTS IDENTIFIED IN TABLE 10 OF EXHIBIT JKC-1 REASONABLE AND NECESSARY TO ACHIEVE THE COMPANY'S GOALS TO REDUCE DEMAND AND ENERGY GROWTH?

A. Yes, the costs incurred were reasonable and necessary to achieve the prescribed goals to reduce demand and energy growth. The goals and projected costs were approved by the Commission. The Company's processes and procedures ensured that the costs to achieve the goals were reasonable and necessary. The Company's testimony in this proceeding provides details about the Company's programs and costs for 2020 and includes a copy of the Company's EEPR as well.

Moreover, the program costs met the cost effectiveness standard definition in 16 TAC § 25.181(d), which states "an energy efficiency program is deemed to be cost-effective if the cost of the program to the utility is less than or equal to the benefits of the program." The cost effectiveness calculations for the 2020 programs are presented in Exhibit JKC-9. Because all of ETI's programs' costs are less than or equal to the benefits of those programs, they are deemed to be cost effective by rule.

Q45. DID THE COSTS INCURRED IN 2020 COMPLY WITH 16 TAC § 25.182(d)?

A. Yes. The costs incurred in 2020 were reasonable and necessary for ETI in providing a portfolio of cost-effective energy efficiency programs that comply with 16 TAC § 25.182(d), including the cost caps of 16 TAC § 25.182(d)(7).

Q46. PLEASE EXPLAIN THE COST CAPS RELEVANT TO ETI FOR ITS 2022 ENERGY EFFICIENCY PROGRAM COSTS.

A. The cost caps, under 16 TAC § 25.182(d)(7)(C), are "calculated to be the prior period's cost caps increased by a rate equal to the most recently available calendar year's percentage change in the South urban [Consumer Price Index ("CPI")], as determined by the Federal Bureau of Labor Statistics." The increase in the CPI from 2019 to 2020 is shown in Exhibit JKC-4. Accordingly, for residential customers, the cost cap applicable to the 2022 EECRF is $0.001364 per kWh, and the commercial cost cap is $0.000853 per kWh. As shown by Company witness Lewis, the Company's proposed EECRF rates are consistent with the residential cost cap but exceed the commercial cost cap.

Q47. PLEASE EXPLAIN HOW ETI'S PROPOSED RATES EXCEED THE COMMERCIAL COST CAP.

A. Exhibit JAL-1 shows ETI's proposed EECRF for 2022. On Tab "EECRF Calculation," Line Number 14 shows the total energy efficiency costs to be $12,080,473. Line Number 15 shows the total energy efficiency costs subject to the cost cap to be $11,983,298. The maximum energy efficiency costs per the cost

caps, shown on Line Number 16, are derived by multiplying the rate factor by the projected EECRF billing determinants. Line Number 17 shows the amount by which each rate class is over or under the cost caps. The aggregate amount by which ETI's commercial (non-residential) rate classes exceed the cap of $4.8 million for 2022 is $874,604, as shown on Line Number 18.

Q48. HOW DOES ETI'S TOTAL ENERGY EFFICIENCY PROGRAM COST FOR ITS COMMERCIAL CLASS IMPACT ITS COMMERCIAL COST CAP?

A. In this application, ETI proposes to maintain its existing commercial programs with a similar amount of funding as the Commission approved in ETI's 2020 EECRF application. However, this year, ETI's total costs for its commercial customers for program year 2022 have increased due to a performance bonus that was higher than in prior years.[6]

Q49. WHAT IS THE PRIMARY DRIVER BEHIND THIS HIGHER PERFORMANCE BONUS, AND SUBSEQUENTLY, ETI'S ANTICIPATED EXCEEDANCE OF THE COMMERCIAL COST CAP?

A. The exceedance of the commercial cost cap is driven by the change in the avoided cost of energy. As illustrated in Exhibit JKC-8 (Tab "Step 1 Fixed Inputs"), the avoided cost of energy for the ERCOT market for 2020 was $0.11366 per kWh, compared to $0.05084 per kWh in 2019, or $0.06282 per kWh higher. By contrast,

[6] In ETI's 2020 EECRF Application, its requested calculated performance bonus for the commercial class was $1,062,744.

between 2018 and 2019, the avoided cost of energy increased by $0.01327 per kWh. This higher avoided cost of energy, which increases the net benefits generated by ETI's energy efficiency programs, resulted in the calculation of a higher performance bonus pursuant to the requirements of 16 TAC § 25.182(e).

Q50. IS IT APPROPRIATE AND EXPECTED THAT HIGHER PROGRAM NET BENEFITS WOULD RESULT IN A HIGHER PERFORMANCE BONUS?

A. Yes. In fact, this result is consistent with the Commission's mandate for utilities to implement energy efficiency programs. Net benefits should increase when the cost of electricity increases. In 2019, the total net benefits were $24,050,523 and the commercial component was $15,213,189. In 2020, the total calculated net benefit was $47,042,941 and the commercial component was $29,416,782. The increase in net benefits provided to commercial customers from 2019 to 2020 was $14,203,593. Accordingly, more costs were avoided due to ETI energy efficiency programs that reduce electricity consumption, which results in a higher calculated bonus for performance.

Q51. DOES THE COMMISSION HAVE THE AUTHORITY TO REVISE THE COST CAPS FOR ENERGY EFFICIENCY PROGRAMS?

A. Yes. The Commission may revise the cost caps for a utility's energy efficiency programs pursuant to 16 TAC § 25.181(e)(2), which states:

> The commission may establish for a utility a lower goal than the goal specified in paragraph (1) of this subsection, a higher administrative spending cap than the cap specified under subsection (g) of this section,

> or an EECRF greater than the cap specified in 16 TAC § 25.182(d)(7) of this title if the utility demonstrates that compliance with that goal, administrative spending cap, or EECRF cost cap is not reasonably possible and that good cause supports the lower goal, higher administrative spending cap, or higher EECRF cost cap. To be eligible for a lower goal, higher administrative spending cap, or a higher EECRF cost cap, the utility must request a good cause exception as part of its EECRF application under § 25.182 of this title. If approved, the good cause exception is limited to the program year associated with the EECRF application.

Q52. IS ETI REQUESTING A REVISION TO ITS COMMERCIAL COST CAPS IN ITS APPLICATION?

A. Yes. ETI requests that the Commission grant a good cause exception in accordance with 16 TAC § 25.181(e)(2) and approve a revised cost cap for its commercial class customers so that ETI can maintain its existing programs at similar funding levels as in prior years and collect its reasonable and cost-effective 2022 EECRF program costs.

Q53. IS THERE GOOD CAUSE FOR THE COMMISSION TO APPROVE A REVISED COST CAP FOR ETI'S COMMERCIAL CLASSES?

A. Yes. First, pursuant to 16 TAC § 25.182(e), "A utility that exceeds its demand and energy reduction goals established in §25.181 of this title at a cost that does not exceed the cost caps established in subsection (d)(7) of this section shall be awarded a performance bonus calculated in accordance with this subsection. The performance bonus shall be based on the utility's energy efficiency achievements for the previous program year." The $4.7 million performance bonus proposed in this case (for collection in 2022) is based on the net benefits associated with ETI's

energy efficiency programs in 2020, a year in which ETI achieved its energy efficiency goals, did not exceed the cost caps, and the associated savings exceeded the program costs (including a performance bonus related to program year 2018).[7] Thus, a revised cap is appropriate because it is not reasonably possible under the default commercial cost cap for ETI to recover all of its cost-effective 2022 EECRF program costs as defined under the energy efficiency rules, which includes the performance bonus (based on program year 2020) calculated as prescribed by 16 TAC § 25.182(e)(3).

Second, the performance bonus dictated by 16 TAC § 25.182(e) is intended to incentivize utilities to achieve the required energy efficiency goals in a cost-effective manner, which ETI has done in earning the bonus associated with its 2020 energy efficiency programs. The driving factor behind the exceedance of the commercial cost cap in this instance is the change in the avoided cost of energy, which is a component of the net benefits calculation that is not within ETI's control. ETI should not be required to reduce or forgo recovery of its reasonable and cost-effective 2022 program costs due to the variation of the avoided cost of energy (and, thus, net benefits) in a specific year. Similarly, ETI's program costs (including any performance bonus) have not been and would not be increased in any year based on a reduction in the avoided cost of energy and associated net benefits. Instead, the policy underlying the Commission's energy efficiency rules and performance

[7] 16 TAC § 25.182(e)(1) provides, "The performance bonus shall entitle the utility to receive a share of the net benefits realized in meeting its demand reduction goal established in § 25.181 of this title."

bonus is best served by allowing ETI to continue successfully implementing these programs in a reasonable and cost-effective manner.

Q54. DID ANY OF THE ACTUAL 2020 PROGRAM COSTS VARY BY MORE THAN TEN PERCENT FROM THE PROJECTED PROGRAM COSTS?

A. Yes. There were four programs where the projected budget and actual total funds expended varied by more than ten percent, with the programs coming in below the budgeted amount: Load Management SOP (56%), Residential SOP (10%), Residential Solutions MTP (18%), and Hard-To-Reach SOP (10%).

Costs under the Load Management SOP were lower than projected due to several factors, the foremost being COVID-19. Some of the program's participants provided essential services such as food, groceries, flood control, and sewage control services. When asked to curtail their load, these participants were concerned the switchgear may not operate properly, which would cause them to lose power and prevent them from providing essential services to their customers. In order to avoid this risk, they either refused to curtail or reduced their curtailment amount. Costs under the Residential Solutions MTP, the Residential SOP, and the Hard-to-Reach SOP were lower than expected due to adjustments made to the program to implement COVID-19 protocols as explained above. Many of the measures, such as the installing of high efficiency air conditioning systems, weatherization, reducing infiltration, etc., required contractors to enter a customer's home, which customers were reluctant to allow, due to the risks of the pandemic.

Q55. WHAT PROCESSES DID ETI HAVE IN PLACE TO ENSURE THE REASONABLENESS OF COSTS?

A. ETI regularly monitored market conditions to ensure the reasonableness of its program offerings and costs. The Company also regularly participates in baseline studies. These studies look for trends in specific market sectors and show where there are weaknesses in adapting to the new International Energy Conservation Code or lagging behind as compared to other regions of Texas. Programs can then be developed to address the lack of adaptation. For example, a new baseline study was completed in 2015 showing current residential new construction habits and has been vetted by the EM&V contractor for inclusion in the TRM.

In addition, ETI has used Requests for Proposals ("RFPs") for its programs to make sure it is achieving the best program delivery and a reasonable price for Program Implementers. ETI plans to continue using RFPs as a check on its programs and program costs, and, for example, will begin the RFP process for both the Residential and Commercial Market Transformation Programs in summer 2021 so that its programs are in place by January 1, 2022.

Q56. WHAT PROCESSES DID ETI HAVE IN PLACE TO MONITOR THE COSTS?

A. ETI regularly monitored costs through monthly Program Implementer invoices and reports. ETI monitors its internal costs through a budgeting system. Monthly meetings are held with the Energy Efficiency team and a departmental analyst to discuss current expenditures as well as planned expenditures for the current year such as special promotions or trade show participation.

Q57. HAS ETI IMPROVED ITS PROCESSES OVER THE YEARS BASED ON ITS EXPERIENCE WITH PROCURING ENERGY EFFICIENCY SERVICES?

A. Yes. ETI has continued to adjust and modify its budgeting and accounting processes to meet the needs of the Energy Efficiency team and the requests raised in EECRF proceedings. For example, ETI now tracks costs by rate class rather than customer class. In addition, ETI developed a communications plan and calendar to help track the cost of its promotional activities, and it recently updated the communications plan to include web-based promotions of program builders and contractors. Process improvements such as these helped to continue to ensure the reasonableness of the 2020 programs, as well as future years' programs.

Q58. HAS THE COMPANY'S EXPERIENCE ALSO HELPED TO ENSURE THAT COSTS RECOVERED THROUGH THE EECRF HAVE BEEN REASONABLE?

A. Yes. ETI manages its program costs based on over 17 years of knowledge and experience within the Texas market and the surrounding service territories. The program costs and incentives offered for 2020 were consistent with the offering of similar programs of other utilities and were necessary to encourage participation levels high enough to achieve the energy and demand goals set up by the PUCT at reasonable costs.

VII. CONCLUSION

Q59. DO YOU BELIEVE THE COSTS THAT ETI SEEKS TO INCLUDE IN ITS EECRF FOR 2022 INCLUDE REASONABLE ACTUAL AND ESTIMATED

COSTS NECESSARY TO PROVIDE ENERGY EFFICIENCY PROGRAMS AND TO MEET THE UTILITY'S GOALS UNDER THIS SECTION?

A. Yes. The program costs associated with providing a quality energy efficiency program under ETI's request are reasonable and necessary and meet the cost effectiveness provisions found in the energy efficiency rule. Further, for the reasons explained above, good cause exists to adjust the commercial cost cap to enable ETI to recover its reasonable and cost-effective 2022 program costs.

Q60. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes, at this time.

Entergy Texas, Inc.

2021 Energy Efficiency Plan and Report

Substantive Rule § 25.181 and § 25.183

Amended APRIL 30, 2021

Project No. 51672

Table of Contents

Introduction

Entergy Texas, Inc. (ETI) presents this Energy Efficiency Plan and Report (EEPR) to comply with 16 Tex. Admin. Code (TAC) §§ 25.181 and 25.183, which together comprise the Energy Efficiency Rule (EE Rule) implementing Public Utility Regulatory Act (PURA) § 39.905. As mandated by this section of PURA, the EE Rule requires that each investor owned electric utility achieve the following minimum goals through market-based standard offer programs (SOPs), targeted market transformation programs (MTPs), or utility self-delivered programs:

25.181(e)(1) An electric utility shall administer a portfolio of energy efficiency programs to acquire, at a minimum, the following:

(A) Beginning with the 2013 program year, until the trigger described in subparagraph (B) of this paragraph is reached, the utility shall acquire a 30% reduction of its annual growth in demand of residential and commercial customers.

(B) If the demand reduction goal to be acquired by a utility under subparagraph (C) of this paragraph is equivalent to at least four-tenths of 1 % of its summer weather-adjusted peak demand for the combined residential and commercial customers for the previous program year, the utility shall meet the energy efficiency goal described in subparagraph (C) of this paragraph for each subsequent program year.

(C) Once the trigger described in subparagraph (B) of this paragraph is reached, the utility shall acquire four-tenths of 1% of its summer weather-adjusted peak demand for the combined residential and commercial customers for the previous program year.

(D) Except as adjusted in accordance with subsection (u) of this section, a utility's demand reduction goal in any year shall not be lower than its goal for the prior year, unless the commission establishes a goal for a utility under paragraph (2) of this subsection.

EEPR Organization

This EEPR consists of an executive summary, thirteen sections, and one appendix.

- The Executive Summary highlights ETI's reported achievements for 2020 and ETI's plans for achieving its 2021 and 2022 projected energy efficiency savings goals.

Energy Efficiency Plan (EEP)

- Section I describes ETI's plan for its energy efficiency program portfolio. It details how each program will be implemented, discusses related informational and outreach activities, and introduces any programs not included in ETI's previous EEP.
- Section II provides ETI's targeted customer classes, specifying the size of each class and the method for determining those sizes.
- Section III presents ETI's projected energy efficiency savings and goals for the prescribed planning period broken out by program for each customer class.
- Section IV provides ETI's proposed energy efficiency budgets for the prescribed planning period broken out by program for each customer class.

Energy Efficiency Report (EER)

- Section V presents ETI's actual weather-adjusted demand savings goals and energy targets for the previous five years (2016-2020) with actual demand reduction and energy savings achieved.
- Section VI compares ETI's projected energy and demand savings to its reported and verified savings by program for calendar years 2019 and 2020.
- Section VII presents ETI's incentive and administrative expenditures for the previous five years (2016-2020) broken out by program for each customer class.
- Section VIII compares ETI's actual program funding for 2020 compared to its 2020 budget broken out by program for each customer class.
- Section IX describes the results from ETI's MTPs.
- Section X describes research and development costs and administrative costs.
- Section XI describes ETI's current Energy Efficiency Cost Recovery Rider (EECRF).
- Section XII presents ETI's revenue collection through the 2020 EECRF.
- Section XIII identifies the over/under-recovery of energy efficiency program costs.

Acronyms – A list of abbreviations for common terms used within this document.

Appendices

- Appendix A – Reported kW and kWh savings broken out by county for each program.

Executive Summary

The EEP portion of this EEPR details ETI's plans to achieve its required reduction in its annual growth in demand of residential and commercial customers in 2021 and 2022. It also addresses the corresponding energy savings goal, which is calculated from its demand savings goal using a 20% capacity factor. The goals, budgets, and implementation plans that are included in this EEPR reflect the requirements of the EE Rule and lessons learned regarding energy efficiency service providers and customer participation in the various energy efficiency programs. A summary of annual goals and projected savings and budgets is presented in Table 1.

Table 1: Summary of Goals, Projected Savings, and Projected Budgets[1]

Calendar Year	Average Growth in Demand (kW at Source)	Peak Demand (kW at Source)	Goal Metric: 30% Growth (kW at Meter)	Goal Metric: 0.4% Peak Demand (kW at Meter)	Peak Demand Goal (kW at Meter)	Energy Goal (kWh at Meter)	Projected Demand Reduction (kW at Meter)	Projected Energy Savings (kWh at Meter)	Projected Budget (000's)
2021	26,115	2,781,052	7,241	10,282	15,500	27,156,000	15,500	27,156,000	$7,711
2022	56,936	2,893,417	15,697	10,636	15,697	27,500,598	15,697	27,500,598	$7,903

Note: Goals are calculated by multiplying peak demand values at the source by the applicable goal metric (30% of growth or 0.4% of peak demand) and by the utility's line losses.

Example Goal Metric Calculation: (56,936 kW x 30%) x (1 - 0.081032 line losses) = 15,697 kW
The line loss number is based on the loss study in ETI's last completed rate case, Docket No. 48371.

Example Goal Metric Calculation: (2,893,417 kW x 0.4%) x (1 - 0.081032 line losses) = 10,636 kW
The line loss number is based on the loss study in ETI's last completed rate case, Docket No. 48371.

[1] For 2021 values in this table, all values are based on amounts approved in last year's EECRF proceeding, Docket No. 50803 (and they do not reflect the corrections to historical data included in Table 4 of this EEPR, which would not have affected the projected demand reduction or energy savings goals for 2021). For 2022 values in this table, the Average Growth in Demand and Peak Demand figures are from Table 4; the Projected Demand and Energy Savings are from Table 5; and the Projected Budget is from Table 6.

Energy Efficiency Plan

I. 2021 Programs

A. 2021 Program Portfolio

ETI plans to implement two MTPs and three SOPs in 2021. These include: the Commercial Solutions MTP, Load Management SOP, the Residential SOP, the Residential Solutions MTP, and the Hard-to-Reach SOP. All these programs have been structured to comply with the applicable Public Utility Commission of Texas (PUCT) rules governing program design and evaluation.

These programs target both broad market segments and specific market sub-segments that offer significant opportunities for cost-effective savings. ETI anticipates that targeted outreach to a broad range of service provider types will be necessary in order to meet the savings goals required by PURA § 39.905 on a continuing basis.

Table 2 below summarizes the programs and target markets.

Table 2: 2021 Energy Efficiency Program Portfolios

Program	Target Market	Application
Commercial Solutions MTP	Commercial	Retrofit; New Construction; Behavioral; Midstream
Load Management SOP	Commercial	Existing, Demand Response
Residential SOP	Residential	Retrofit
Residential Solutions MTP	Residential	New Construction; Retrofit
Hard-to-Reach SOP	Residential	Existing; Income Qualified

The programs listed in Table 2 are described in further detail below. ETI maintains a website containing links to the program manuals, all the requirements for project participation, and the forms required for project submission, at http://www.entergy-texas.com/energy_efficiency. This website will be the primary method of communication used to provide potential Project Sponsors with program updates and information.

B. Existing Programs

1. Commercial Solutions MTP

a) Program Description

The Commercial Solutions MTP (COM SOL MTP) offers technical support and incentives for a suite of offerings that help eligible customers overcome the market barriers to adopt energy efficiency measures. Using a combination of utility staff, third-party program implementer expertise, and the local network of qualified contractors, ETI helps customers identify energy efficiency opportunities, complete projects, and capture savings for the program. This approach is flexible depending on customer, project type, and market sector to effectively reach and deliver energy savings to the broadest audience possible. The COM SOL MTP program includes:

- A Commercial Solutions component designed to target small, medium, and large for-profit commercial customers in the service territory (this includes midstream and contractor direct install components);
- A "Schools Concerned with Reducing Energy" (SCORE) component to target local K-12 public school districts, universities and colleges in the service territory (including a Continuous Energy Improvement component driving behavioral changes in public schools);
- A City Smart component to target local, state, and federal governmental customers in the service territory;
- Prescriptive and custom measures to address both standard and more unique, complex opportunities for energy savings; and
- A Midstream point-of-sale lighting component through local wholesale distributors to achieve long-term coincident peak demand reduction and annual energy savings.

b) Implementation Process

With this program offering, ETI will target the following customers for program participation:

- Small, medium, and large commercial and small industrial businesses;
- Rural and urban public K-12 school districts, colleges, and universities;
- Government entities including cities, counties, state, and federal organizations; and
- Non-profit and institutional businesses such as religious institutions, private schools, and healthcare providers.

c) Outreach Activities

To market the availability of this program, ETI:

- Engages its third-party implementer, CLEAResult Consulting, to provide for outreach and training on the program;
- Conducts workshops and webinars to explain the benefits of the program and the necessary information needed to begin or continue participation;

- Participates in regional or area outreach opportunities;
- Attends appropriate industry-related meetings to generate awareness and interest; and
- Promotes awareness of the program through the Company's website, social media, email blasts, radio promotions, and print media.

2. Load Management SOP

a) Program Design

The Load Management (LM SOP) provides demand reduction opportunities to a small group of qualified commercial customers served by ETI and pays incentives to the customers for verifiable demand reductions. Each participant must participate in one scheduled curtailment and up to four unscheduled curtailments during the program year. Additionally, to ensure grid reliability, the Local Balancing Authority (LBA) can call for these customers to curtail through the Energy Efficiency Program Manager. The LBA is the entity that interacts with Midcontinent Independent System Operator, Inc. (MISO) and integrates resource plans in advance, ensuring that the necessary generation is available to reliably serve load.

b) Implementation Process

ETI recruits appropriate and qualified commercial customers to participate in the LM SOP. This program requires the examination of actual demand savings, operating characteristics, program design, long-range planning, and overall measure and program acceptance by the targeted customers. During the implementation process, ETI makes potential customers aware that, if the customer plans to use backup generation when curtailed, ETI assumes that their generators adhere to both state and federal guidelines for emissions.

c) Outreach Activities

To market the availability of this program, ETI:

- Targets several large commercial customers during the program year;
- Conducts workshops to explain elements such as responsibilities of the customers, project requirements, incentive information, and the application and reporting process; and
- Promotes awareness of its energy efficiency programs by rolling out new program promotions through its website, social media, email blasts, radio promotions, and print media.

3. Residential SOP

a) Program Design

The Residential SOP (RES SOP) targets ETI's residential customers. Participating Project Sponsors receive incentive payments for installing pre-approved measures that provide verifiable demand and energy savings. Project Sponsors are encouraged to install comprehensive measures in their projects, and only retrofit projects qualify for incentive payments. Deemed savings are accepted and widely used by Project Sponsors to measure and verify savings for projects submitted in this program. The incentives will be offered at the standard incentive rate to encourage the implementation of this measure.

In 2021, the RES SOP will also deploy two subprograms. First, an A/C Tune Up program that gives contracts to project sponsors that have access to licensed HVAC contractors. Second, a multifamily HVAC retrofit program that assists in replacing all outdated HVAC equipment with energy efficient heat pumps at an apartment complex. Apartment complexes are selected by an application process provided by ENERCHOICE LLC.

b) Implementation Process

ETI will continue implementing its RES SOP by allowing eligible Project Sponsors to apply for projects meeting the minimum program requirements. The program information is on ETI's RES SOP website and is updated frequently with participating Project Sponsor information and the incentives available for installing eligible measures. In 2021, ETI will select nine Project Sponsors to participate in the RES SOP to allow for the appropriate administrative control and visibility of Project Sponsors. The funding awarded to each Project Sponsor should increase the chances that there will be Project Sponsors working in ETI's service territory throughout the entire year and that available funds will not be exhausted by mid-year.

c) Outreach Activities

To market the availability of this program, ETI:

- Utilizes mass email notifications to keep potential Project Sponsors interested and informed;
- Maintains a website with detailed project eligibility, end-use measures, incentives, procedures, and application forms;
- Attends appropriate industry-related meetings to generate awareness and interest;
- Conducts workshops as necessary to explain elements such as responsibilities of the Project Sponsor, project requirements, incentive information, and the application and reporting process; and
- Promotes awareness of its energy efficiency programs by rolling out new program promotions through its website, social media, email blasts, radio promotions, and print media.

4. Entergy Residential Solutions MTP (RES SOL MTP)

a) Program Design

The Entergy Solutions High Performance Homes MTP (ENTERGY SOL MTP) has been combined with the A/C Distributor MTP (A/C and Pool Pump DIST MTP) into the RES SOL MTP for increased administrative efficiency and flexibility. Under the combined MTP, incentives are paid to builders and contractors for installing certain measures in new and existing construction applications that provide verifiable demand and energy savings.

The Entergy Solutions High Performance Homes MTP portion of the RES SOL MTP helps promote the new construction of higher efficiency homes in ETI's service territory. The program pays incentives to the builder that installed the higher energy efficiency equipment. The Program requires the involvement of a third-party rating service to verify the home meets the current energy efficiency code in Texas, which is the 2015 International Energy Conservation Code (IECC). Further, the program provides incentives for builders and contractors who exceed the IECC 2015 with the ultimate aim of promoting construction to Energy Star standards.

In PY 2021, the Entergy Solutions High Performance Homes MTP is partnering with a production builder to install 24 heat pump water heaters in a development in Orange County, Texas. These are the first heat pump water heaters that have been installed in New Construction in many years in Entergy's service territory. The heat pump technology is far more efficient than the heating coils used in typical electric water heater technology. ETI is looking forward to monitoring these unique homes in hopes of developing new programs that will capitalize on this technology.

The A/C and Pool Pump Distributor portion of the RES SOL MTP helps promote the installation of higher efficiency air conditioning and variable speed pool pumps for residential customers throughout ETI's service territory. The program pays incentives to the regional air conditioning and pool pump distributors to reduce the cost of the higher efficiency rated equipment to the local dealers with the goal that the dealer will pass the reduced cost along to the customers.

b) Implementation Process

Any eligible builder or contractor may apply for a home to participate in the program. The program information on ETI's website is updated frequently to reflect participating builders and contractors and incentive amounts that are available.

For the A/C and pool pump distributers, any participating distributor or manufacturer may submit a qualifying batch of invoices to ETI for incentive payment after a random sampling of inspections from each invoice is completed by either ETI or another third-party inspector.

c) Outreach Activities

To market the availability of this program to builders, ETI:

- Utilizes mass email notifications to keep potential builders and contractors interested and informed;

- Works with local code enforcement officials to make sure they understand the need for builders and contractors to follow the requirements of the IECC 2015 and identify common efforts to bypass the code;
- Maintains a website with detailed builder eligibility, end-use measures, incentives, procedures and application forms;
- Attends appropriate industry-related meetings to generate awareness and interest;
- Participates in state-wide outreach activities;
- Conducts workshops as necessary to explain responsibilities of the builder or contractors, project requirements, incentive information, and the application and reporting process; and
- Promotes the awareness of its energy efficiency programs by rolling out program promotions through its website, social media, email blasts, radio promotions, and print media.

To market the availability of the program to A/C and pool pump distributers, ETI attends local dealer meetings to educate the dealer population on how to participate and how to fill out the necessary paperwork. Additionally, ETI's program implementer, TLR Energy, leverages its current A/C distributor and pool pump manufacturer contacts from a similar program with another utility to enroll them in the one offered by ETI. Most of the distributors and manufacturers that service ETI's territory are already participating in that program.

5. Hard To Reach SOP

a) Program Design

The Hard-To-Reach SOP (HTR SOP) targets low-income customers who receive service from ETI with an income at or below 200% of the federal poverty level. Participating Project Sponsors receive incentive payments for installing eligible retrofit measures that provide verifiable demand and energy savings. For 2021, ETI will continue to provide incentives to Project Sponsors for installing LED lighting in addition to previously employed measures. The incentives will be offered at the standard incentive rate to encourage the implementation of this measure. In 2021, the HTR SOP will also deploy an A/C Tune Up program and give contracts to project sponsors that have access to licensed HVAC contractors.

b) Implementation Process

ETI will continue implementing its HTR SOP such that any eligible Project Sponsor may apply for a project meeting the minimum program requirements. The program information on ETI's HTR SOP website is updated frequently with participating Project Sponsor information and the incentives available for installing eligible measures. In 2021 ETI will select nine Project Sponsors to participate in the HTR SOP in order to allow for the appropriate administrative control and visibility of Project Sponsors. By limiting the number of Project Sponsors allowed to participate in the program, ETI believes that there will be sufficient funds available to keep Project Sponsors working in ETI's service territory throughout the entire year and that program funding will not be exhausted by mid-year.

c) Outreach Activities

To market the availability of this program, ETI:

- Utilizes mass email notifications to keep potential project sponsors interested and informed;
- Maintains website with detailed project eligibility, end-use measures, incentives, procedures, and application forms;
- Attends appropriate industry-related meetings to generate awareness and interest;
- Conducts workshops as necessary to explain elements such as responsibilities of the project sponsor, project requirements, incentive information, and the application and reporting process; and
- Promotes awareness of its energy efficiency programs by rolling out new program promotions through its website, social media, email blasts, radio promotions, and print media.

C. New Programs for 2022

Due to the COVID-19 outbreak, the online energy efficiency marketplace providing an outlet for consumers to purchase SMART thermostats, SMART power strips, and higher efficiency LED light bulbs that was planned to launch in 2021 has been postponed. ETI believes it needs that budget to support its current program offerings.

II. Customer Classes

Table 3 below identifies the customer classes targeted by ETI's energy efficiency programs and specifies the size of each class.

Table 3: Summary of Customer Classes[2]

Customer Class	*Number of Customers*
Commercial	50,266
Residential	414,438
Hard to Reach	61,765*

[2] Commercial and Residential figures based on actual historical ETI data as of December 31, 2019; Hard-to-Reach figure based on data obtained from the 2017 US Census Bureau Current Population Survey of 14.9%.

III. Projected Energy Efficiency Savings and Goals

As prescribed by 16 TAC § 25.181(e), a utility's demand goal is specified as a percentage of its historical five-year average growth in demand and the corresponding energy savings goal is determined by applying a 20% capacity factor to the applicable demand goal. Table 4 presents historical annual growth in demand for the previous five years that is used to calculate demand and energy goals. The weather adjusted data for 2020 resulted in an increase to the demand and energy goals. The five-year average for growth from 2016 to 2020 was 56,936 kW. Using the goal metric calculation of 30% of growth at the meter, the new demand goal is 15,697 kW. Using the 20% conservation load factor calculation, the new energy goal is 27,500,598 kWh. Compared to previous goal years, the demand goal increased by 197 kW and the energy goal by 344,598 kWh.

Table 5 presents the demand and energy goals for years 2021 and 2022. This table also shows the breakdown in goals by energy efficiency program.

Table 4: Annual Growth in Demand and Energy Consumption[3]

Calendar Year	Peak Demand at Source (kW)				Energy Consumption at Meter (kWh)				Industrial Opt Out (kW)	Growth (kW)	Average Growth (kW)
	Total System		Residential & Commercial		Total System		Residential & Commercial				
	Actual	Weather Adjusted	Actual	Weather Adjusted	Actual	Weather Adjusted	Actual	Weather Adjusted	At source	Weather Adjusted	Weather Adjusted
2015	3 539 765	3 372 895	2 775 607	2 608 737	18 555 375 494	18,565 515 816	11,445 891,399	11 456,031 721	1 495	-41 741	NA
2016	3 535 916	3 546 564	2 690 571	2 701 219	18 599 778 372	18 619 312 630	11 168 283 152	11 187 817 410	1 421	92 482	NA
2017	3 468 265	3 525 483	2 646 584	2 703 802	18 619 957 598	18 930 151 255	11 062 075 723	11 372 269 380	1 421	2 582	NA
2018	3 534 157	3 579 455	2 699 306	2 744 604	19 612 291 900	19 256 202 352	11 615 486 722	11 259 397 174	1 421	40 802	NA
2019	3 634 264	3 634 264	2 781 052	2 781 052	19 538 240 683	19 350 300 168	11 387 210,651	11 199 270 136	3 330	36 448	NA
2020	3 708 061	3 890 578	2 710 900	2 893 417	19 452 864 015	19 270 964 119	11 174 638 619	11 356 538 516	3 591	112 365	NA
2021	NA	NA	NA	NA	NA	NA	NA	NA	3 591	NA	26 115
2022	NA	NA	NA	NA	NA	NA	NA	NA	3 591	NA	56 936

[3] In past EEPRs, data in this table had been rounded off to MW and MWh instead of kW and kWh. In updating the table for this year's EEPR to present data in kW and kWh, ETI also identified and made minor corrections to the historical data, which ETI plans to use in calculating its demand and energy goals on a going-forward basis. The years that have been corrected were Years 2015 to 2018.

Table 5: Projected Demand and Energy Savings Broken Out by Program for Each Customer Class (at Meter)

2021	Projected Savings	
Customer Class and Program	**kW**	**kWh**
Commercial	**10,460**	**15,608,000**
Commercial Solutions MTP	3,750	15,568,000
Load Management SOP	6,710	40,000
Residential	**3,940**	**8,060,000**
Residential SOP	2,140	5,836,000
Residential Solutions MTP	1,800	2,224,000
Hard-To-Reach	**1,100**	**3,488,000**
Hard-To-Reach SOP	1,100	3,488,000
Total Annual Projected Savings	**15,500**	**27,156,000**
2022	**Projected Savings**	
Customer Class and Program	**kW**	**kWh**
Commercial	**11,697**	**18,363,798**
Commercial Solutions MTP	4,697	18,323,798
Load Management SOP	7,000	40,000
Residential	**3,000**	**7,036,800**
Residential SOP	1,000	3,236,000
Residential Solutions MTP	2,000	3,800,800
Hard-To-Reach	**1,000**	**2,100,000**
Hard-To-Reach SOP	1,000	2,100,000
Total Annual Projected Savings	**15,697**	**27,500,598**

IV. Program Budgets

Table 6: Proposed Annual Budget Broken Out by Program for Each Customer Class

2021	Incentives	Admin	CY2021 EM&V Costs for Review of PY2020	Total Budget
Commercial	**$3,026,978**	**$341,244**	**$60,649**	**$3,428,872**
Commercial Solutions MTP	$2,651,478	$288,707	$48,814	$2,989,000
Load Management SOP	$375,500	$52,537	$11,835	$439,872
Residential	**$2,656,919**	**$309,704**	**$30,805**	**$2,997,428**
Residential SOP	$1,750,210	$179,311	$22,712	$1,952,233
Residential Solutions MTP	$906,709	$130,393	$8,093	$1,045,195
Hard-To-Reach	**$1,026,789**	**$124,888**	**$10,465**	**$1,162,142**
Hard-To-Reach SOP	$1,026,789	$124,888	$10,465	$1,162,142
R&D	**$75,000**	**$47,000**	**$0**	**$122,000**
EM&V	**$0**	**$0**	**$101,920**	**$101,920**
Total Annual Budgets	**$6,785,686**	**$822,836**	**$101,920**	**$7,710,442**
2022	**Incentives**	**Admin**	**CY2022 EM&V Costs for Review of PY2021**	**Total Budget**
Commercial	**$3,106,522**	**$341,244**	**$51,828**	**$3,499,594**
Commercial Solutions MTP	$2,731,022	$288,707	$43,533	$3,063,262
Load Management SOP	$375,500	$52,537	$8,294	$436,332
Residential	**$2,736,626**	**$309,704**	**$31,883**	**$3,078,213**
Residential SOP	$1,802,716	$179,311	$24,881	$2,006,909
Residential Solutions MTP	$933,910	$130,393	$7,002	$1,071,305
Hard-To-Reach	**$1,057,593**	**$125,037**	**$20,381**	**$1,203,011**
Hard-To-Reach SOP	$1,057,593	$125,037	$20,381	$1,203,011
R&D	**$75,000**	**$47,000**	**$0**	**$122,000**
EM&V	**$0**	**$0**	**$104,092**	**$104,092**
Total Annual Budgets	**$6,975,741**	**$822,985**	**$104,092**	**$7,902,818**

V. Historical Demand Savings Goals and Energy Targets for Previous Five Years

Table 7 presents ETI's demand and energy reduction goals for the previous five years (2016-2020) calculated in accordance with 16 TAC § 25.181 and actual demand reduction and energy savings achieved.

Table 7: Historical Demand and Energy Savings Goals and Achievements (at the Meter, except as noted)

Calendar Year	Actual Weather Adjusted Demand Goal (kW)	Actual Weather Adjusted Energy Goal (kWh)	Actual Demand Reduction (kW) [1]	Actual Energy Savings (kWh) [1]
2020	15,500	27,156,000	21,629	48,282,450
2019	15,500	27,156,000	22,595	47,945,445
2018	15,500	27,156,000	21,153	51,740,286
2017	15,500	27,156,000	21,199	50,574,878
2016	15,500	27,156,000	19,739	45,044,145

[1] Beginning with 2018, Actual Demand and Energy Savings is to reported at the Source.
Example based on 2020 Actual Savings:
Demand 20,008 x (1+0.081032) = 21,629
Energy 44,885,306 x (1+0.075685) = 48,282,450
The line loss number is based on the loss study in ETI's last completed rate case, Docket No. 48371.

VI. Projected, Reported, and Verified Demand and Energy Savings

Table 8: Projected versus Reported and Verified Savings for 2019 and 2020 (at Meter)

2019	Projected Savings		Reported and Verified Savings	
Customer Class and Program	**kW**	**kWh**	**kW**	**kWh**
Commercial	**10,460**	**15,608,000**	**13,211**	**31,461,132**
Commercial Solutions MTP	3,750	15,568,000	5,464	31,387,379
Load Management SOP	6,710	40,000	7,747	73,753
Residential	**3,940**	**8,060,000**	**5,936**	**10,435,841**
Residential SOP	2,140	5,836,000	3,962	5,725,406
Residential Solutions MTP	1,800	2,224,000	1,974	4,710,435
Hard-to-Reach	**1,100**	**3,687,000**	**1,859**	**2,675,040**
Hard-to-Reach SOP	1,100	3,687,000	1,859	2,675,040
Total	**15,500**	**27,355,000**	**21,005**	**44,572,012**
2020	**Projected Savings**		**Reported and Verified Savings**	
Customer Class and Program	**kW**	**kWh**	**kW**	**kWh**
Commercial	**10,460**	**15,608,000**	**12,419**	**31,766,415**
Commercial Solutions MTP	3,750	15,568,000	6,196	31,760,192
Load Management SOP	6,710	40,000	6,223	6,223
Residential	**3,940**	**8,060,000**	**5,820**	**10,425,987**
Residential SOP	2,140	5,836,000	3,814	5,774,166
Residential Solutions MTP	1,800	2,224,000	2,006	4,651,821
Hard-to-Reach	**1,100**	**3,488,000**	**1,768**	**2,692,904**
Hard-to-Reach SOP	1,100	3,488,000	1,768	2,692,904
Total	**15,500**	**27,156,000**	**20,008**	**44,885,306**

VII. Historical Program Expenditures

This section documents ETI's incentive and administration expenditures for the previous five years (2016-2020) broken out by program for each customer class.

Table 9: Historical Program Incentive and Administrative Expenditures for 2016 through 2020 (in 000's)

2016 through 2020	2020		2019		2018		2017		2016	
	Incent	Admin	Incent	Admin	Incent	Admin	Incent	Admin	Incent	Admin
Commercial	**2,721**	**350**	**2,814**	**367**	**2,791**	**388**	**2,789**	**372**	**2,489**	**399**
Commercial (Commercial Solutions) MTP	2,569	309	2,587	319	2,603	345	2,529	312	2,211	336
Load Management SOP	152	41	228	48	189	42	259	60	279	63
Residential	**2,304**	**321**	**2,541**	**363**	**2,534**	**322**	**2,481**	**265**	**2,453**	**345**
Residential SOP	1,557	201	1,674	230	1,699	201	1,659	140	1,697	189
Residential Solutions MTP	747	120	866	133	NA	NA	NA	NA	NA	NA
Entergy Solutions High Performance Homes MTP	NA	NA	NA	NA	520	73	446	67	420	108
A/C Distributor MTP	NA	NA	NA	NA	315	47	376	58	272	48
Hard-to-Reach	**884**	**153**	**1,014**	**160**	**1,006**	**146**	**1,072**	**95**	**1,259**	**148**
Hard-to-Reach SOP	884	153	1,014	160	1,006	146	1,072	95	1,259	147
Total Expenditures	**5,909**	**823**	**6,369**	**890**	**6,332**	**855**	**6,343**	**732**	**6,138**	**892**

VIII. Program Funding for Calendar Year 2020

Table 10: Program Funding for Calendar Year 2020

2020	Incentive Budget	Admin Budget	R&D Budget	EM&V Budget	Total Projected Budget	Number of Customers Participating or Installations	Actual Funds Expended (Incentives)	Actual Funds Expended - Admin (Not Including EM&V, or EECRF Proceeding Costs)	R&D Costs	Actual Funds Expended - EM&V (Admin)	Actual Funds Expended - Utility EECRF Proceeding Costs (Admin)	Actual Funds Expended - Cities EECRF Proceeding Costs (Admin)	Total Funds Expended	Funds Committed (Not Expended)	Funds Remaining (Not Committed)	10% Difference?
Commercial	$ 3,026,978	$ 341,244	$ 9,845	$ 49,251	$ 3,427,319	875	$ 2,721,054	$ 244,673	$ 27,285	$ 49,251	$ 24,548	$ 4,310	$ 3,071,122	$ -	$ 356,197	
Commercial Solutions MTP	$ 2,651,478	$ 288,707	$ 8,330	$ 39,804	$ 2,988,319	867	$ 2,569,181	$ 215,946	$ 25,763	$ 39,804	$ 23,178	$ 4,070	$ 2,877,942	$ -	$ 110,378	No
Load Management SOP	$ 375,500	$ 52,537	$ 1,516	$ 9,447	$ 439,000	8	$ 151,873	$ 28,727	$ 1,523	$ 9,447	$ 1,370	$ 241	$ 193,180	$ -	$ 245,820	56%
Residential	$ 2,656,919	$ 309,704	$ 8,935	$ 40,741	$ 3,016,300	8,387	$ 2,303,970	$ 232,267	$ 23,103	$ 40,741	$ 20,785	$ 3,650	$ 2,624,516	$ -	$ 391,784	
Residential SOP	$ 1,750,210	$ 179,311	$ 5,173	$ 20,778	$ 1,955,473	6,328	$ 1,556,896	$ 147,752	$ 15,612	$ 20,778	$ 14,045	$ 2,466	$ 1,757,549	$ -	$ 197,924	10%
Residential Solutions MTP	$ 906,709	$ 130,393	$ 3,762	$ 19,963	$ 1,060,827	2,059	$ 747,075	$ 84,515	$ 7,491	$ 19,963	$ 6,740	$ 1,183	$ 866,967	$ -	$ 193,860	18%
Hard-To-Reach	$ 1,026,789	$ 111,572	$ 3,219	$ 16,188	$ 1,157,768	2,942	$ 883,881	$ 118,334	$ 8,863	$ 16,188	$ 7,974	$ 1,400	$ 1,036,640	$ -	$ 121,128	
Hard-to-Reach SOP	$ 1,026,789	$ 111,572	$ 3,219	$ 16,188	$ 1,157,768	2,942	$ 883,881	$ 118,334	$ 8,863	$ 16,188	$ 7,974	$ 1,400	$ 1,036,640	$ -	$ 121,128	10%
Total	$ 6,710,686	$ 762,520	$ 22,000	$ 106,180	$ 7,601,387	12,204	$ 5,908,905	$ 595,274	$ 59,252	$ 106,180	$ 53,307	$ 9,360	$ 6,732,278	$ -	$ 869,109	

Per 16 TAC § 25.181(l)(2)(Q), please note that there were four programs where the projected budget and actual total funds expended varied by more than ten percent: Load Management SOP (56%), Residential SOP (10%), Residential Solutions MTP (18%), Hard-To-Reach SOP (10%).

Costs under the Load Management SOP were lower than projected due to several factors, the foremost being COVID-19. A couple of the program's participants provided essential services such as food, groceries, flood control, and sewage control services. When asked to curtail their load, they were afraid the switchgear may not operate properly, causing them to lose power, and lose customers. They were not willing to risk that their switch gear would not function properly, so they either refused to curtail or reduced their curtailment amount.

The Residential and Hard-to-Reach SOP and the Residential MTP were undersubscribed due to COVID 19. Due to the reluctance of customers to allow our contractors in their homes to install energy efficiency measures, these programs were underbudget.

IX. Market Transformation Program Results

COM SOL MTP

The primary objective of the COM SOL MTP is to provide a conduit for ETI's commercial customers to install more energy efficient measures in their facilities, both new and existing. CLEAResult Consulting, Inc. was hired to provide expertise in working with customers to ensure they are installing the most cost-effective energy efficient measures by providing equipment recommendations, engineering oversight, consultations, and benchmarking. Under the SCORE component of the COM SOL MTP, school districts and governmental entities targeted by the program have had great success in reducing their demand and energy consumption. Program participants are touting the value of the program and recommending participation to others. Many projects that were scheduled for several years in the future are now being moved up to be completed earlier due to the "Energy Efficiency Business Plan" that is part of the program. In addition, CLEAResult continues to have success working with several schools to control costs by using behavioral measures and techniques. For 2020, this program achieved 6,196 kW and 31,760,192 kWh in reported and verified savings.

ETI issued a request for proposals for the Commercial Solutions MTP as the current contract with CLEAResult Consulting expired on December 30, 2018. Several energy efficiency service providers were solicited to submit bids. CLEAResult won the contract for years 2019-2021. A request for proposals will be issued for the Commercial Solutions MTP in 2021.

COVID-19 Implications

The implications of COVID-19 on the COM SOL MTP were minimal. Some projects were delayed to later in the year or into 2021. Inspections were conducted with added COVID-19 protections, such as mask wearing and limiting in-person site visits by ETI employees. Some inspections had to be completed virtually due to facilities not allowing in outside personnel. Projects that were impacted by COIVD-19 restrictions were tagged in our database to identify changes to these projects.

RES SOL MTP

The RES SOL MTP in 2020 included two components: the ENTERGY SOL MTP and the A/C and Pool Pump DIST MTP. For 2020, the RES SOL MTP achieved a total of 2,006 kW and 4,651,821 kWh in reported and verified savings.

The ENTERGY SOL MTP provides the attributes of an Energy Star Homes new construction program. In this program, savings are driven predominantly by Home Energy Rating Services (HERS). HERS raters provide professional assessments on new and existing homes to bring them up to Energy Star standards. Incentives are paid to builders for installing certain measures in new construction applications that provide verifiable demand and energy savings. The incentives are designed to bridge the gap between the costs of standard efficiency models and higher efficiency models. The program implementer, TRC Company, provides training opportunities for local Code Enforcement Officials to learn about the energy efficiency codes and how to apply them.

The A/C and Pool Pump DIST MTP portion of the RES SOL MTP helps promote the installation of higher efficiency air conditioning for residential customers throughout ETI's service territory. The program pays incentives to the regional air conditioning distributors and pool pump

distributers to reduce the cost of the higher efficiency rated equipment to the local dealers with the goal that the dealer will pass the reduced cost along to the customers.

COVID-19 Implications

The implications that COIVD-19 had on residential new construction in Entergy's service territory were minimal. The State of Texas deemed residential new construction an essential occupation during COVID-19, only requiring smaller work crews and requiring those crews to follow special health and safety practices. The only major disruption in new construction occurred as a result of building material shortages.

X. Research and Development and Administrative Costs

ETI, along with Frontier Energy, continues to develop a database that serves as the repository of all its energy efficiency program activities. It allows the Evaluation, Measurement, and Verification contractor the opportunity to access all the data from Entergy's energy efficiency programs from one database. Previously, Entergy had data housed in three different locations. As part of this project, a Dashboard was developed that allows Program Managers to see results from their programs, program pipelines from start to completion, savings goals and projections, and budget totals in a real-time environment. Each year, ETI incurs some costs to get updates and enhancements to the database.

ETI's Administrative Costs consist of employee salaries and benefits, EM&V costs for both the State's contractor as well as ETI, EECRF proceeding costs, marketing and advertising costs, Electric Utility Marketing Managers of Texas (EUMMOT) fees, and employee expenses used for training, Quality Assurance/Quality Control activities on program results from third parties, and cost of attending local energy efficiency conferences. In 2020, some additional administrative costs were incurred by CLEAResult Consulting for supporting the CoolSaver residential air conditioning tune up program and ENERCHOICE LLC for supporting the Multifamily HVAC retrofit program.

XI. Current Energy Efficiency Cost Recovery Factor (EECRF)

ETI filed an application for a revised EECRF rate schedule on May 1, 2020 in Docket No. 50803. The revised EECRF was approved for recovery of $9,431,190, and ETI implemented the revised rider on January 1, 2021.

XII. Revenue Collected through EECRF (2020)

ETI's 2020 EECRF revenues as of December 31, 2020 were $7,638,574.

XIII. Over/Under-recovery of Energy Efficiency Program Costs

ETI had an over-recovery of its 2020 energy efficiency programs of $573,029, which should be refunded in the 2022 EECRF.

Acronyms

COM	Commercial
EEP	Energy Efficiency Plan, which was filed as a separate document prior to April 2009
EEPR	Energy Efficiency Plan and Report
EER	Energy Efficiency Report, which was filed as a separate document prior to April 2009
EE Rule	Energy Efficiency Rule, 16 TAC §§ 25.181 and 25.183
EECRF	Energy Efficiency Cost Recovery Factor
HERS	Home Energy Rating Services
HTR	Hard-To-Reach
EM&V	Evaluation, Measurement and Verification
LM	Load Management
MTP	Market Transformation Program
PUCT	Public Utility Commission of Texas
PURA	Public Utility Regulatory Act
RES	Residential
RFP	Request for Proposals
SCORE	Schools Concerned with Reducing Energy
SOP	Standard Offer Program

Appendix

Appendix A: Reported Demand and Energy Reduction by County 2020 Update[4]

Residential SOP			
County	Savings kW	Savings KWh	Incentives
BRAZOS	4 01	6 750	$ 1 674
CHAMBERS	17 89	21 680	$ 6 800
GRIMES	0 92	1 388	$ 372
HARDIN	351 48	514 471	$ 145 270
JASPER	1 15	1 869	$ 511
JEFFERSON	1 549 29	2 341 371	$ 632 584
LIBERTY	39 18	67 870	$ 16 450
MADISON	4 53	8 255	$ 1 987
MONTGOMERY	749 92	1 211 337	$ 305 742
ORANGE	458 71	656 299	$ 187 392
SAN JACINTO	8 09	13 995	$ 3 469
TRINITY	156 63	265 435	$ 66 279
TYLER	1 63	2 317	$ 707
WALKER	470 71	661 131	$ 187 659
TOTAL	**3,814 12**	**5,774,166**	**$1,556,896**

Hard to Reach SOP			
County	Savings kW	Savings KWh	Incentives
BRAZOS	2 16	2 040	$ 1 026
CHAMBERS	0 45	1 126	$ 85
GALVESTON	4 87	6 166	$ 2 509
GRIMES	1 39	2 098	$ 730
HARDIN	99 47	140 587	$ 51 179
JEFFERSON	664 48	955 858	$ 314 221
LIBERTY	30 15	53 704	$ 16 343
MADISON	5 80	10 958	$ 3 283
MONTGOMERY	468 61	783 631	$ 232 429
ORANGE	216 50	326 783	$ 113 825
SAN JACINTO	1 94	3 523	$ 1 072
TRINITY	131 26	219 695	$ 74 615
WALKER	140 85	186 736	$ 72 565
TOTAL	**1,767 89**	**2,692,904**	**$ 883,881**

Residential Solutions			
County	Savings kW	Savings KWh	Incentives
BRAZORIA	0 31	2 367	$ 300
CHAMBERS	21 52	50 726	$ 4 400
HARDIN	22 15	35 733	$ 4 725
HARRIS	9 78	25 868	$ 4 055
JEFFERSON	107 86	221 841	$ 30 275
LIBERTY	48 30	121 506	$ 9 730
MONTGOMERY	1 768 72	4 139 614	$ 510 630
ORANGE	19 23	32 030	$ 5 050
TRINITY	0 70	2 591	$ 400
WALKER	7 69	19 545	$ 3 350
TOTAL	**2,006.26**	**4,651,821**	**$ 572,915**

Commercial Solutions MTP			
County	Savings kW	Savings KWh	Incentives
Burleson	4 72	11 977	$ 1 419
Chambers	46 98	200 463	$ 9 551
Grimes	29 23	147 550	$ 6 708
Hardin	100 82	477 655	$ 15 699
Harris	97 20	394 730	$ 22 284
Jefferson	1 369 89	6 955 064	$ 311 186
Liberty	158 91	567 083	$ 33 531
Madison	61 45	217 955	$ 13 649
Madison	35 53	932 143	$ 4 400
Montgomery	2 874 63	14 828 097	$ 638 726
Orange	173 74	739 061	$ 35 920
Robertson	14 25	69 445	$ 3 041
San Jacinto	8 62	37 155	$ 1 990
Trinity	4 43	15 216	$ 985
Tyler	368 17	1 201 291	$ 75 310
Walker	847 71	4 965 306	$ 91 893
TOTAL	**6,196 28**	**31,760,192**	**$1,266,294**

Load Management SOP			
County	Savings kW	Savings KWh	Incentives
Chambers	0 00	0	$ -
Hardin	527 00	527	$ 17 128
Jefferson	943 00	943	$ 22 198
Liberty	1 564 00	1 564	$ 34 125
Montgomery	2 914 00	2 914	$ 75 140
Orange	143 00	143	$ 1 658
Tyler	132 00	132	$ 1 625
TOTAL	**6,223 00**	**6,223**	**$ 151,873**

[4] The reported demand and energy reductions by county tables may not match up exactly with the tables above due to minor rounding discrepancies.

Estimated Useful Life Values (EULs)				
Sector	**TRM Measure**	**Energy Efficiency Measure**	**EUL (years)**	***TRM Version***
Custom	NA	Custom	NA	*NA*
Residential	2 1 1	Res Standard Compact Fluorescent Lamps (Standard Baseline)	8 0	*7 0*
Residential	2 1 1	Res Standard Compact Fluorescent Lamps (Low income Baseline)	10 0	*7 0*
Residential	2 1 2	Res Specialty Compact Fluorescent Lamps (EISA Compliant, Standard Baseline)	8 0	*7 0*
Residential	2 1 2	Res Specialty Compact Fluorescent Lamps (EISA Compliant, Low Income Baseline)	10 0	*7 0*
Residential	2 1 2	Res Specialty Compact Fluorescent Lamps (Non-EISA Compliant, 10,000 to 11,000 hour Rated Measure Life)	11 0	*7 0*
Residential	2 1 2	Res Specialty Compact Fluorescent Lamps (Non-EISA Compliant, 11,001 to 13,500 hour Rated Measure Life)	13 0	*7 0*
Residential	2 1 2	Res Specialty Compact Fluorescent Lamps (Non-EISA Compliant, 13,501 to 17,500 hour Rated Measure Life)	16 0	*7 0*
Residential	2 1 2	Res Specialty Compact Fluorescent Lamps (Non-EISA Compliant, ≥ 17,501 hour Rated Measure Life)	20 0	*7 0*
Residential	2 1 3	Res Energy Star Omni-Directional LED Lamps (Standard Baseline)	8 0	*7 0*
Residential	2 1 3	Res Energy Star Omni-Directional LED Lamps (Low Income Baseline)	10 0	*7 0*
Residential	2 1 4	Res Energy Star Specialty and Directional LED Lamps (EISA Compliant Standard Baseline)	8 0	*7 0*
Residential	2 1 4	Res Energy Star Specialty and Directional LED Lamps (EISA Compliant Low Income Baseline)	10 0	*7 0*
Residential	2 1 4	Res Energy Star Specialty and Directional LED Lamps (Non-EISA Compliant 15,000 hour Rated Measure Life)	16 0	*7 0*
Residential	2 1 4	Res Energy Star Specialty and Directional LED Lamps (Non-EISA Compliant 20,000 hour Rated Measure Life)	20 0	*7 0*
Residential	2 2 1	Res AC or HP Tune-Ups	5 0	*7 0*
Residential	2 2 2	Res Duct Efficiency Improvement	18 0	*7 0*
Residential	2 2 3	Res Ground Source Heat Pumps	20 0	*7 0*
Residential	2 2 4	Res Central Air Conditioners	18 0	*7 0*
Residential	2 2 4	Res Central Heat Pumps	15 0	*7 0*
Residential	2 2 5	Res Mini-Split Air Conditioners	18 0	*7 0*
Residential	2 2 5	Res Mini-Split Heat Pumps	15 0	*7 0*
Residential	2 2 6	Res Large Capacity Split System and Single-Package AC	18 0	*7 0*
Residential	2 2 6	Res Large Capacity Split System and Single-Package HP	15 0	*7 0*
Residential	2 2 7	Res PTHPs	15 0	*7 0*
Residential	2 2 8	Res Room Air Conditioners	8 0	*7 0*
Residential	2 2 9	Res Connected Thermostats	11 0	*7 0*
Residential	2 2 10	Res Smart Thermostat Load Management	1 0	*7 0*
Residential	2 2 11	Res Evaporative Cooling	15 0	*7 0*
Residential	2 3 1	Res Air Infiltration	11 0	*7 0*
Residential	2 3 2	Res Ceiling Insulation	25 0	*7 0*
Residential	2 3 3	Res Attic Encapsulation	25 0	*7 0*
Residential	2 3 4	Res Wall Insulation	25 0	*7 0*
Residential	2 3 5	Res Floor Insulation	25 0	*7 0*
Residential	2 3 6	Res Windows	25 0	*7 0*
Residential	2 3 7	Res Solar Screens	10 0	*7 0*
Residential	2 3 8	Res Cool Roofs	15 0	*7 0*
Residential	2 4 1	Res Faucet Aerators	10 0	*7 0*
Residential	2 4 2	Res Low-Flow Showerheads	10 0	*7 0*
Residential	2 4 3	Res DHW Pipe Insulation	13 0	*7 0*
Residential	2 4 4	Res DHW Tank Insulation	7 0	*7 0*
Residential	2 4 5	Res DHW Installation Electric Tankless	20 0	*7 0*
Residential	2 4 5	Res DHW Installation Gas (Fuel Substitution)	11 0	*7 0*
Residential	2 4 6	Res Heat Pump Water Heater	13 0	*7 0*
Residential	2 4 7	Res DHW Replacement Solar	15 0	*7 0*

Residential	248	Res Showerhead TSRVs	10 0	7 0
Residential	249	Res Tub Spout/Showerhead TSRVs	10 0	7 0
Residential	251	Res Ceiling Fans	10 0	7 0
Residential	252	Res Clothes Washer	11 0	7 0
Residential	253	Res Clothes Dryers	16 0	7 0
Residential	254	Res Dishwashers	15 0	7 0
Residential	255	Res Refrigerators	16 0	7 0
Residential	256	Res Freezers	22 0	7 0
Residential	257	Res Pool Pumps	10 0	7 0
Residential	258	Res Air Purifiers	9 0	7 0
Residential	259	Res Advanced Power Strips	10 0	7 0
Residential	2510	Res Electric Vehicle Supply Equipment	10 0	7 0
Residential	2511	Res Solar Attic Fans	15 0	7 0
Residential	261	Res Refrigerator/Freezer Recycling	8 0	7 0
Commercial	211	Com Lamps and Fixtures Halogen Lamps	1 5	7 0
Commercial	211	Com Lamps and Fixtures High Intensity Discharge Lamps	15 5	7 0
Commercial	211	Com Lamps and Fixtures Integrated-ballast CCFL Lamps	4 5	7 0
Commercial	211	Com Lamps and Fixtures Integrated-ballast CFL Lamps	2 5	7 0
Commercial	211	Com Lamps and Fixtures Integral LED Lamps	9 0	7 0
Commercial	211	Com Lamps and Fixtures LED Fixtures	15 0	7 0
Commercial	211	Com Lamps and Fixtures LED Corn Cobs	15 0	7 0
Commercial	211	Com Lamps and Fixtures LED Tubes	15 0	7 0
Commercial	211	Com Lamps and Fixtures Modular CFL/CCFL Fixtures	16 0	7 0
Commercial	211	Com Lamps and Fixtures T8/T5 Linear Fluorescents	15 5	7 0
Commercial	212	Com Lighting Controls	10 0	7 0
Commercial	213	Com LED Traffic Signals 8" and 12" Red, Green, and Yellow Ball	6 0	7 0
Commercial	213	Com LED Traffic Signals 8" and 12" Red, Green, and Yellow Arrow	6 0	7 0
Commercial	213	Com LED Traffic Signals Large (16"x18") Pedestrian Signal	5 0	7 0
Commercial	213	Com LED Traffic Signals Small (12"x12") Pedestrian Signal	5 0	7 0
Commercial	221	Com AC/HP Tune-Up	5 0	7 0
Commercial	222	Com Split/Packaged ACs and HPs	15 0	7 0
Commercial	223	Com HVAC Chillers Screw/Scroll/Reciprocating	20 0	7 0
Commercial	223	Com HVAC Chillers Centrifugal	25 0	7 0
Commercial	224	Com PTAC/PTHPs	15 0	7 0
Commercial	224	Com Room Air Conditioners	11 0	7 0
Commercial	225	Com HVAC VFDs	15 0	7 0
Commercial	226	Com Condenser Air Evaporative Pre-Cooling	15 0	7 0
Commercial	227	Computer Room Air Conditioners	15 0	7 0
Commercial	228	Com High-Volume Low-Speed Fans	9 0	7 0
Commercial	231	Com Cool Roofs	15 0	7 0
Commercial	232	Com Window Film	10 0	7 0
Commercial	233	Com Entrance/Exit Door Air Infiltration	11 0	7 0
Commercial	241	Com Combination Ovens	12 0	7 0
Commercial	242	Com Electric Convention Ovens	12 0	7 0
Commercial	243	Com Dishwashers	11 0	7 0
Commercial	244	Com Hot Food Holding Cabinets	12 0	7 0
Commercial	245	Com Electric Fryers	12 0	7 0
Commercial	246	Com Pre-Rinse Spray Valves	5 0	7 0
Commercial	247	Com Electric Steam Cookers	12 0	7 0
Commercial	248	Com Demand Controlled Kitchen Ventilation	15 0	7 0
Commercial	249	Com Ice Makers	8 5	7 0
Commercial	251	Com Door Heater Controls	12 0	7 0
Commercial	252	Com ECM Evaporator Fan Motors	15 0	7 0
Commercial	253	Com Electronic Defrost Controls	10 0	7 0
Commercial	254	Com Evaporator Fan Controls	16 0	7 0
Commercial	255	Com Night Covers	5 0	7 0
Commercial	256	Com Solid/Glass Door Reach-Ins	12 0	7 0

Commercial	257	Com Strip Curtains	4 0	7 0
Commercial	258	Com Zero-Energy Doors	12 0	7 0
Commercial	259	Com Door Gaskets	4 0	7 0
Commercial	261	Com Vending Machine Controls	5 0	7 0
Commercial	262	Com Lodging Guest Room Occupancy Sensors	10 0	7 0
Commercial	263	Com Pump-Off Controllers	15 0	7 0
Commercial	264	Com Pool Pumps	10 0	7 0
Commercial	265	Com PC Power Management	3 0	7 0
Commercial	266	Com Premium Efficiency Motors	15 0	7 0
Commercial	267	Com Central DHW Controls	15 0	7 0
Measurement and Verification	211	M&V AC Tune-Ups	5 0	7 0
Measurement and Verification	212	M&V Ground Source Heat Pumps	15 0	7 0
Measurement and Verification	213	M&V Variable Refrigerant Flow Systems	15 0	7 0
Measurement and Verification	221	M&V Res New Construction	23 0	7 0
Measurement and Verification	231	M&V Non-Res Solar PV	30 0	7 0
Measurement and Verification	232	M&V Res Solar PV	30 0	7 0
Measurement and Verification	233	M&V Solar Shingles	N/A	7 0
Measurement and Verification	241	M&V Behavioral	1 0	7 0
Measurement and Verification	242	M&V Air Compressors	10 0	7 0
Measurement and Verification	243	M&V Com Retro-Comissioning	5 0	7 0
Measurement and Verification	244	M&V Thermal Energy Storage	15 0	7 0
Measurement and Verification	251	M&V Res Load Curtailment	1 0	7 0
Measurement and Verification	252	M&V Non-Res Load Curtailment	1 0	7 0

Project Sponsor Payments >5%
JKC-3
Admin

386 - Other Contract Work
DR HORTON HOMES
FRONTIER ENERGY INC
HEARST NEWSPAPERS LLC DBA HOUSTON
RAMEY AGENCY LLC
TETRA TECH MA INC

Project Sponsor - Residential SOP >5%
JKC-3
Residential SOP
386 - Other Contract Work
ALLSAVE ENERGY SOLUTIONS LLC
ENERCON RESOURCES INC
FREE LIGHTING CORP
INVESTMENT BY ORMENO DBA HOME SAVE
JOHN SANTALA
TWO RIVERS ENERGY SERVICES

Hard to Reach SOP >5%
JKC-3
Hard-to Reach SOP
386 - Other Contract Work
ALLSAVE ENERGY SOLUTIONS LLC
ENERCHOICE LLC
ENERCON RESOURCES INC
FREE LIGHTING CORP
INVESTMENT BY ORMENO DBA HOME SAVE
JOHN SANTALA
MANUEL ORTEGON DBA GREATER ENERGY
NBW ENERGY LLC
TWO RIVERS ENERGY SERVICES

Residential Solutions MTP>5%
JKC-3
Residential Solutions MTP

386 - Other Contract Work

CENTURY COMMUNITIES INC DBA CENTURY LAND
DR HORTON - TEXAS LTD
LENNAR HOMES OF TEXAS LAND AND
TRC ENGINEERS INC
HDP LTD DBA HUNTON DISTRIBUTION
SCP DISTRIBUTORS LLC

Load Management SOP>5%
JKC-3
Load Management SOP
386 - Other Contract Work
JEFFERSON COUNTY TX
LONE STAR -006
LOWER NECHES VALLEY AUTHORITY
LUMBERTON MUNICIPAL UTILITY DISTRICT
WALMART ST-002

Commercial Solutions >5%
JKC-3
Commercial Solutions
386 - Other Contract Work
CLEARESULT INC
JEFFERSON COUNTY TX

CPI - South Urban Index

Year	Annual	% Change	Source
2011	218.6		
2012	223.2	2 115105%	
2013	226.7	1 558399%	
2014	230.6	1 689742%	http //data bls gov/pdq/SurveyOutputServlet?series_id=CUUR0300SA0,CUUS0300SA0
2015	230.1	*-0.175665%*	http://data.bls.gov/pdq/SurveyOutputServlet?series_id=CUUR0300SA0,CUUS0300SA0
2016	232.7	1.105800%	https //data bls gov/pdq/SurveyOutputServlet?series_id=CUUR0300SA0,CUUS0300SA0
2017	237.5	2.047300%	https://data bls gov/pdq/SurveyOutputServlet?series_id=CUUR0300SA0,CUUS0300SA0
2018	242.7	2.224000%	https://data.bls gov/pdq/SurveyOutputServlet?series_id=CUUR0300SA0,CUUS0300SA0
2019	246.3	1 453400%	https //data bls gov/pdq/SurveyOutputServlet?series_id=CUUR0300SA0,CUUS0300SA0
2020	248 6	0.964000%	https://data bls gov/pdq/SurveyOutputServlet?series_id=CUUR0300SA0,CUUS0300SA0

Cost Caps

	Res Cap $/kWh	Comm Cap $/kWh	
2013	$ 0 001200	$ 0 000750	*per EE Rule Section (f)(7)(E)*
2014	$ 0.001225	$ 0.000766	*escalated based on most recent data at the time in which the 2014 costs were set -- they do not plan to recalculate this number.*
2015	$ 0 001244	$ 0 000778	*escalated based on most recent data - 2015 cost cap as confirmed in docket 42449, Item 37, Therese Harris's testimony, page 11.*
2016	$ 0 001266	$ 0 000791	Hard-wired values (no calculation or rounding, based on revised EE Rule, docket 46388)
2017	$ 0 001266	$ 0.000791	Hard-wired values (no calculation or rounding, based on revised EE Rule, docket 46388)
2018	$ 0.001277	$ 0.000799	Hard-wired values (with calculation based on docket 46388)
2019	$ 0 001303	$ 0 000815	Calculated based on docket 46388
2020	$ 0 001332	$ 0 000833	Calculated in line with 46388, based on new EE Rule under docket 48692
2021	$ 0 001351	$ 0 000845	Calculated in line with 46388, based on EE Rule under docket 48692
2022	**$ 0.001364**	**$ 0.000853**	Calculated in line with 46388; based on EE Rule under docket 48692

Source: *Sec 25.182 EECRF (d)(7)(C). For the 2019 program year and thereafter, the residential and commercial cost caps shall be calculated to be the prior period's cost caps increased or decreased by a rate equal to the m calendar year's percentage change in the South urban CPI, as determined by the Federal Bureau of Labor Statistics*

CPI for All Urban Consumers (CPI-U)
Original Data Value

Series Id: CUUR0300SA0,CUUS0300SA0
Not Seasonally Adjusted
Series Title: All items in South urban, all urban consumers, not
Area: South
Item: All items
Base Period: 1982-84=100
Years: 2011 to 2021

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual	HALF1	HALF2
2011	213 589	214 735	217 214	218 820	219.820	219.318	219 682	220 471	220.371	219.969	219.961	219.469	218.618	217 249	219.987
2012	220 497	221 802	223 314	224 275	223.356	223 004	222 667	223 919	225.052	224.504	223.404	223 109	223 242	222.708	223 776
2013	223 933	225 874	226 628	226 202	226.289	227 148	227 548	227.837	227.876	227 420	226.811	227 082	226.721	226.012	227.429
2014	227 673	228.664	230 095	231.346	231.762	232 269	232 013	231 611	231 762	231 131	229 845	228 451	230.552	230.302	230 802
2015	226 855	227 944	229.337	229 957	230 886	232 026	231 719	231.260	230.913	230.860	230.422	229.581	230.147	229.501	230 793
2016	229.469	229 646	230 977	231.975	232.906	233 838	233.292	233 561	234 069	234 337	234 029	234 204	232 692	231.469	233 915
2017	235.492	236.052	236 154	236.728	236.774	237 346	236.942	237.892	239 649	239 067	238 861	238.512	237 456	236.424	238.487
2018	239 772	241.123	241 595	242 486	243.279	243.770	243.776	243.605	243.640	244.163	243.484	242.150	242.737	242.004	243 470
2019	242 547	243.856	245 554	246 847	246.667	246.515	247.250	246.953	246 891	247 423	247.385	247.289	246.265	245 331	247 199
2020	248 005	248 412	248 136	246 254	245.696	247 223	248 619	249 639	250 193	250 542	250.255	250 693	248.639	247 288	249.990
2021	252 067	253 386													

CPI for All Urban Consumers (CPI-U)
Original Data Value

Series Id: CUUR0300SA0,CUUS0300SA0
Not Seasonally Adjusted
Series Title: All items in South urban, all urban consumers, not
Area: South
Item: All items
Base Period: 1982-84=100
Years: 2010 to 2020

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual	HALF1	HALF2
2010	210 056	210 020	211 216	211 528	211 423	211 232	210.988	211 308	211 775	212 026	211 996	212.488	211.338	210 913	211 764
2011	213 589	214 735	217 214	218.820	219 820	219.318	219 682	220 471	220 371	219 969	219 961	219 469	218.618	217 249	219 987
2012	220 497	221 802	223 314	224 275	223 356	223.004	222.667	223 919	225 052	224 504	223 404	223 109	223 242	222 708	223 776
2013	223 933	225 874	226 628	226 202	226 289	227.148	227 548	227 837	227 876	227 420	226 811	227.082	226.721	226 012	227 429
2014	227 673	228 664	230.095	231 346	231 762	232 269	232 013	231 611	231.762	231.131	229.845	228 451	230 552	230 302	230 802
2015	226 855	227.944	229.337	229 957	230 886	232 026	231 719	231 260	230.913	230.860	230 422	229 581	230 147	229 501	230 793
2016	229.469	229 646	230 977	231 975	232 906	233 838	233 292	233.561	234.069	234 337	234.029	234 204	232.692	231 469	233 915
2017	235 492	236 052	236 154	236 728	236.774	237.346	236.942	237 892	239 649	239 067	238.861	238.512	237 456	236 424	238 487
2018	239 772	241.123	241.595	242 486	243 279	243.770	243 776	243.605	243 640	244 163	243 484	242 150	242 737	242 004	243.470
2019	242 547	243.856	245 554	246 847	246 667	246 515	247 250	246.953	246.891	247 423	247 385	247.289	246 265	245.331	247.199
2020	248 005														

CPI-All Urban Consumers (Current Series)
Original Data Value

Series Id: CUUR0300SA0,CUUS0300SA0
Not Seasonally Adjusted
Series Title: All items in South urban, all urban consumers, not
Area: South
Item: All items
Base Period: 1982-84=100
Years: 2009 to 2019

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual	HALF1	HALF2
2009	204 288	205.343	206 001	206 657	207 265	209 343	208 819	209 000	208.912	209 292	209.738	209.476	207.845	206.483	209 206
2010	210 056	210 020	211 216	211 528	211 423	211 232	210 988	211 308	211 775	212 026	211 996	212.488	211.338	210.913	211 764
2011	213 589	214 735	217.214	218 820	219 820	219 318	219 682	220 471	220 371	219 969	219.961	219.469	218 618	217.249	219 987
2012	220 497	221 802	223 314	224 275	223 356	223 004	222 667	223.919	225 052	224.504	223 404	223 109	223.242	222 708	223 776
2013	223 933	225 874	226 628	226 202	226 289	227.148	227 548	227.837	227 876	227 420	226 811	227 082	226 721	226 012	227 429
2014	227 673	228 664	230 095	231 346	231.762	232.269	232.013	231.611	231 762	231 131	229 845	228 451	230.552	230 302	230 802
2015	226 855	227 944	229 337	229 957	230 886	232 026	231 719	231 260	230 913	230 860	230 422	229 581	230 147	229 501	230 793
2016	229 469	229 646	230 977	231 975	232 906	233 838	233 292	233.561	234 069	234.337	234 029	234 204	232 692	231 469	233.915
2017	235 492	236 052	236 154	236 728	236 774	237.346	236 942	237 892	239 649	239 067	238.861	238.512	237 456	236.424	238.487
2018	239 772	241 123	241 595	242 486	243 279	243.770	243 776	243.605	243 640	244.163	243.484	242.150	242.737	242 004	243 470
2019	242 547	243 856													

CPI-All Urban Consumers (Current Series)
Original Data Value

Series Id: CUUR0300SA0,CUUS0300SA0
Not Seasonally Adjusted
Series Title: All items in South urban, all urban consumers,
Area: South
Item: All items
Base Period: 1982-84=100
Years: 2008 to 2018

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual	HALF1	HALF2
2008	204 510	205 060	206 676	208 085	210.006	212.324	213.304	212.387	212.650	210 108	205.559	203.501	208.681	207.777	209.585
2009	204.288	205.343	206 001	206 657	207.265	209 343	208 819	209 000	208 912	209 292	209.738	209.476	207.845	206.483	209.206
2010	210.056	210 020	211 216	211 528	211.423	211.232	210.988	211 308	211 775	212 026	211 996	212 488	211 338	210 913	211 764
2011	213.589	214 735	217 214	218.820	219.820	219 318	219 682	220.471	220 371	219.969	219.961	219.469	218.618	217.249	219.987
2012	220 497	221 802	223 314	224 275	223.356	223.004	222.667	223.919	225.052	224.504	223 404	223.109	223 242	222 708	223.776
2013	223 933	225 874	226.628	226.202	226 289	227.148	227.548	227.837	227.876	227.420	226 811	227 082	226 721	226 012	227 429
2014	227 673	228.664	230.095	231.346	231 762	232.269	232.013	231 611	231 762	231.131	229 845	228 451	230 552	230.302	230.802
2015	226 855	227.944	229 337	229 957	230 886	232 026	231.719	231.260	230.913	230.860	230 422	229 581	230.147	229 501	230 793
2016	229 469	229.646	230.977	231.975	232.906	233.838	233.292	233 561	234 069	234.337	234 029	234 204	232 692	231.469	233.915
2017	235.492	236 052	236.154	236.728	236 774	237 346	236 942	237.892	239.649	239 067	238 861	238 512	**237.456**	236 424	238 487
2018	239.772														

Consumer Price Index - All Urban Consumers
Original Data Value

Series Id: CUUR0300SA0,CUUS0300SA0
Not Seasonally Adjusted
Area: South urban
Item: All items
Base Period: 1982-84=100
Years: 2006 to 2016

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual	HALF1	HALF2
2006	191.5	191 8	192.8	194 7	195 5	196 3	197.0	197.1	195 8	194 7	194 3	194.8	194 7	193 8	195.6
2007	195.021	195 950	197 904	199.618	200 804	201 675	201 571	201 041	201 697	202 155	203 437	203 457	200 361	198.495	202.226
2008	204.510	205 060	206.676	208 085	210 006	212.324	213 304	212.387	212 650	210.108	205.559	203 501	208.681	207 777	209 585
2009	204.288	205.343	206.001	206.657	207.265	209.343	208.819	209 000	208 912	209.292	209.738	209 476	207 845	206.483	209 206
2010	210 056	210 020	211 216	211 528	211 423	211 232	210 988	211.308	211.775	212.026	211.996	212 488	211.338	210.913	211 764
2011	213.589	214.735	217.214	218.820	219.820	219.318	219.682	220 471	220 371	219 969	219.961	219.469	218 618	217.249	219.987
2012	220.497	221.802	223.314	224 275	223.356	223.004	222.667	223.919	225 052	224 504	223.404	223 109	223.242	222.708	223.776
2013	223.933	225 874	226.628	226.202	226.289	227 148	227.548	227 837	227 876	227 420	226 811	227.082	226.721	226.012	227 429
2014	227 673	228.664	230 095	231.346	231.762	232.269	232.013	231.611	231.762	231 131	229 845	228.451	230 552	230.302	230 802
2015	226.855	227 944	229.337	229.957	230 886	232 026	231 719	231 260	230.913	230 860	230 422	229 581	230.147	229.501	230.793
2016	229.469	229.646	230 977	231.975	232.906	233 838	233 292	233.561	234.069	234.337	234 029	234.204	232.692	231 469	233 915

Consumer Price Index - All Urban Consumers
Original Data Value

Source: http://data.bls gov/pdq/SurveyOutputServlet?series_id=CUUR0300SA0,CUUS0300SA0
Series Id: CUUR0300SA0,CUUS0300SA0
Not Seasonally Adjusted
Area: South urban
Item: All items
Base Period: 1982-84=100
Years: 2005 to 2015

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual	HALF1	HALF2
2005	183 6	184.7	185.9	187.3	187.3	187.8	188.5	189.4	192 0	192 5	190.7	190 1	188 3	186 1	190 5
2006	191 5	191 8	192 8	194.7	195.5	196.3	197 0	197 1	195 8	194 7	194 3	194 8	194 7	193 8	195 6
2007	195.021	195.950	197.904	199 618	200 804	201 675	201 571	201 041	201 697	202.155	203 437	203 457	200.361	198.495	202.226
2008	204.510	205.060	206.676	208.085	210.006	212.324	213 304	212 387	212 650	210 108	205 559	203 501	208.681	207 777	209 585
2009	204.288	205.343	206.001	206.657	207 265	209 343	208 819	209 000	208 912	209.292	209 738	209 476	207.845	206.483	209 206
2010	210.056	210.020	211.216	211 528	211 423	211.232	210 988	211 308	211 775	212 026	211 996	212 488	211 338	210.913	211.764
2011	213 589	214 735	217 214	218.820	219.820	219.318	219 682	220 471	220 371	219 969	219.961	219 469	218 618	217 249	219 987
2012	220 497	221 802	223 314	224 275	223 356	223 004	222 667	223 919	225 052	224 504	223.404	223 109	223 242	222 708	223.776
2013	223 933	225 874	226 628	226 202	226 289	227 148	227 548	227 837	227.876	227 420	226.811	227 082	226 721	226 012	227 429
2014	227 673	228 664	230 095	231 346	231 762	232 269	232 013	231 611	231 762	231 131	229 845	228 451	230 552	230 302	230 802
2015	226.855	227 944	229 337	229 957	230 886	232 026	231 719	231 260	230 913	230 860	230 422	229.581	**230.147**	229 501	230.793

Consumer Price Index - All Urban Consumers
Original Data Value

Series Id: CUUR0300SA0,CUUS0300SA0
Not Seasonally Adjusted
Area: South urban
Item: All items
Base Period: 1982-84=100
Years: 2004 to 2014

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual	HALF1	HALF2
2004	178 2	179 1	180 1	180 9	182 0	182 9	182 6	182 6	182 8	183 7	183 7	183 3	181 8	180 5	183 1
2005	183 6	184 7	185 9	187 3	187 3	187 8	188 5	189 4	192 0	192 5	190 7	190 1	188 3	186 1	190 5
2006	191 5	191 8	192 8	194 7	195 5	196 3	197 0	197 1	195 8	194 7	194 3	194 8	194 7	193 8	195 6
2007	195 021	195 950	197 904	199 618	200 804	201 675	201 571	201 041	201 697	202 155	203 437	203 457	200.361	198 495	202 226
2008	204 510	205 060	206 676	208 085	210 006	212 324	213 304	212 387	212 650	210 108	205 559	203 501	208 681	207 777	209 585
2009	204 288	205 343	206 001	206.657	207 265	209 343	208 819	209 000	208 912	209 292	209 738	209 476	207.845	206 483	209 206
2010	210 056	210 020	211 216	211 528	211 423	211 232	210 988	211 308	211 775	212 026	211 996	212 488	211 338	210 913	211 764
2011	213 589	214 735	217 214	218 820	219 820	219 318	219 682	220 471	220.371	219 969	219 961	219 469	**218.618**	217 249	219 987
2012	220 497	221 802	223 314	224 275	223 356	223 004	222 667	223 919	225 052	224 504	223 404	223 109	**223.242**	222 708	223 776
2013	223 933	225 874	226 628	226 202	226 289	227 148	227 548	227 837	227 876	227 420	226 811	227 082	**226.721**	226 012	227 429
2014	227 673	228 664	230 095	231 346	231.762	232 269	232 013	231 611	231 762	231 131	229 845	228 451	**230.552**	230 302	230 802

42449: Item 37, pages 10-11 of 12

17 **Q. What is the percentage change in the South urban CPI to be used to calculate the**
18 **cost caps applicable for the 2015 program year?**

19 A. The annual South urban CPI for 2012 was 223.242 and the annual South urban CPI for
20 2013 was 226.721, as shown in Exhibit TH-5. The annual percentage change is
21 1.5584%.

2 **Q. What are the residential and commercial cost caps to be used in the current**
3 **EECRF?**

4 A. Using the percentage change of 1.5584%, the residential cost cap for utilities
5 administering energy efficiency programs in accordance with PUC SUBST R. 25.181 is
6 increased to $0.001244 per kWh and the commercial cap is increased to $0.000778 per
7 kWh.

CPI - South Urban Index

Year	Annual	% Change	Source
2011	218.6		
2012	223 2	2 12%	
2013	226 7	1 56%	
2014	230 6	1 69%	http://data bls gov/pdq/SurveyOutputServlet?series_id=CUUR0300SA0,CUUS0300SA0
2015	230 1	*-0 18%*	http //data bls gov/pdq/SurveyOutputServlet?series_id=CUUR0300SA0,CUUS0300SA0
2016	232 7	1 11%	https //data bls.gov/pdq/SurveyOutputServlet?series_id=CUUR0300SA0,CUUS0300SA0
2017	237 5	2 05%	https //data bls gov/pdq/SurveyOutputServlet?series_id=CUUR0300SA0,CUUS0300SA0

Cost Caps

	Res Cap	Comm Cap
2		
201		

recalculate this number
rris's testimony, page 11

the CPI South Urban Index) = "2017 caps as filed"

For historical purposes only

Source

d's cost caps increased or decreased by a rate equal to the most recently available calendar

Please see yellow tab for calculation

Exhibit JKC-5

Actual 2020 Direct Costs*

Costs by Rate Class

	Direct Incentives	Direct Admin	Total
Residential	$ 3,187,851	$ 350,601	$ 3,538,452
Small General Service	$ 172,076.98	$ 15,473	$ 187,550
General Service	$ 1,453,351.35	$ 130,683	$ 1,584,035
Large General Service	$ 1,015,188.68	$ 91,284	$ 1,106,473
Large Industrial Power Service (non transmission)	$ 80,436.92	$ 7,233	$ 87,670
Total	$ 5,908,905	$ 595,274	$ 6,504,179

* Table 10 of Exhibit JKC-1

Exhibit JKC-6
EM&V Costs

Projected PY2021 EM&V costs for CY2022	Evaluation Costs
Commercial Solutions MTP	$43,533
Load Management SOP	$8,294
Hard-To-Reach SOP	$20,381
Residential Solutions MTP	$7,002
Residential SOP	$24,881
Total:	$104,092

Exhibit JKC - 7

Projected 2022 Costs by Rate Class

	Incentive	Admin	EM&V Costs	R&D	Total Program
Residential	$ 3,794,219	$ 434,741	$ 52,264	$ 112,325	$ 4,393,550
Small General Service	$ 196,454	$ 21,580	$ 3,278	$ 612	$ 221,923
General Service	$ 1,659,235	$ 182,263	$ 27,682	$ 5,167	$ 1,874,347
Large General Service	$ 1,159,002	$ 127,314	$ 19,336	$ 3,609	$ 1,309,261
Large Industrial Power Service (non transmission)	$ 91,832	$ 10,087	$ 1,532	$ 286	$ 103,737
Total	$ 6,900,741	$ 775,985	$ 104,092	$ 122,000	$ 7,902,818

Insert or Verify Data in Blue Cells	Fixed Inputs per PUC Rule
Avoided Cost per kW	$ 80.00
Avoided Cost per kWh	$ 0.11366
Utility Specific Discount Rate (WACC)	7.725280%
Inflation Rate	2.0%
Maximum % Net Benefits for Bonus	10.0%

Avoided Cost Reference	*2013*	*2014*	*2015*	*2016*	*2017*	*2018*	*2019*	***2020***
	$ *80.00*	$ *80.00*	$ *80.00*	$ *80.00*	$ *80.00*	$ *80.00*	$ *80.00*	$ ***80.00***
	$ *0.10400*	$ *0.04619*	$ *0.05321*	$ *0.05088*	$ *0.03989*	$ *0.03757*	$ *0.05084*	$ ***0.11366***

PUC Goals	kW	kWh
2018 Goals	15,500	27,156,000

Cost-effectiveness Input	
Bonus Collected in 2020 = Bonus Earned in 2018	$ 1,673,207

Please Note: The bonus included in the cost-effectiveness analysis is the bonus *collected* for the program year, not the bonus earned. For example, for PY2020 cost-effectiveness, the *bonus collected* (= 2018 bonus earned) should be included in cell B14 of this tab.

As a result, this bonus will not match the bonus calculated in the Step 4 Bonus Calculator Tab which is the *bonus earned* for PY2020.

Due to the rule change, a bonus must also be included as a program cost for the purposes of calculating the new bonus. We are using the same bonus that is used for cost effectiveness.

Instructions	Last Updated: 5/12/2020	Select from drop-down	Paid Savings				Total Incentive			Automatic Or Manual	Total Program Costs for Program Year 2019				Cost Effectiveness Test Part 1		Cost Effectiveness Test Part 2		Cost Effectiveness Test Part 3		Cost Effectiveness Test Part 4			
	Program (list custom measure here if necessary)	Measure (Select from Drop Down Menu)	Installation	kW Actual Savings	kWh Actual Savings	CASH Incentives Actual	Incentive Allocation Based on kW	NON CASH Incentive	Total Incentive	Estimated Useful Life	Total Admin Spent (Excluding Bonus; including cost paid for EECRF)	Total Program Cost Spent (Excluding Bonus; including cost paid for EECRF)	Total Admin For Bonus (Including Bonus & EECRF)	Total Program Cost For Bonus (Including Bonus & EECRF)	Total Admin for Cost Eff (Including Bonus, excluding cost paid for EECRF)	Total Program Cost for Cost Eff (Including Bonus, excluding cost paid for EECRF)	PV (Avoided Capacity Cost)	PV (Avoided Energy Cost)	PV Avd Capacity Cost * kW	PV Avoided Energy Cost * kWh	Total Avoided Cost (PV kW + PV kWh)	Net Benefits (Avoided Cost - Program Cost)	Ben-Cost Ratio	[illegible]
WHITE CELLS: Enter Data	Commercial Solutions		867	6,196.28	31,760,192	$ 1,266,294.46	100%	$ 1,302,886.97	$2,569,181.43		$ 308,760	$ 2,877,942	$ 1,024,030	$ 3,593,211	$ 1,019,960	$ 3,589,142			$ 4,178,796	$ 28,596,028	$ 32,774,824	$ 29,185,682	9.13	$ 2,918,568
GREY CELLS: Sub Totals or Blanks		Commercial Solutions																						
BLUE CELLS: Optional Data Entry		Comm ECM Evaporator Fan Motor	10	26.49	232,102	$11,927.93	0.4%	$5,570.87	$17,498.80	15.0	$ 2,103	$ 19,602	$ 6,975	$ 24,474	$ 6,947	$ 24,446	$ 797	$ 1.132	$ 21,116	$ 262,821	$ 283,937	$ 259,491	11.61	$ 25,949
GREEN CELLS: Automatic Calculations		Comm ENERGY STAR Combination Ovens	1	5.38	25,472	$1,397.80	0.1%	$1,132.09	$2,529.89	12.0	$ 304	$ 2,834	$ 1,008	$ 3,538	$ 1,004	$ 3,534	$ 685	$ 0.973	$ 3,689	$ 24,796	$ 28,485	$ 24,951	8.06	$ 2,495
Max of 16 programs		Comm ENERGY STAR Commercial Dishwashers	1	1.36	9,212	$408.64	0.0%	$285.97	$694.61	11.0	$ 83	$ 779	$ 277	$ 971	$ 276	$ 970	$ 644	$ 0.914	$ 875	$ 8,424	$ 9,299	$ 8,329	9.58	$ 833
		Comm ENERGY STAR Roofs	7	62.93	199,810	$19,728.45	1.0%	$13,232.03	$32,960.48	15.0	$ 3,961	$ 36,922	$ 13,137	$ 46,098	$ 13,085	$ 46,046	$ 797	$ 1.132	$ 50,155	$ 226,255	$ 276,410	$ 230,364	6.00	$ 23,036
Measure Search:		Comm HVAC Chillers: Screw / Scroll / Reciprocating Chillers	8	124.71	645,401	$44,085.52	2.0%	$26,222.66	$70,308.18	20.0	$ 8,450	$ 78,758	$ 28,024	$ 98,332	$ 27,912	$ 98,220	$ 947	$ 1.346	$ 118,117	$ 868,474	$ 986,590	$ 888,370	10.08	$ 88,837
		Comm HVAC VFD (AHU)	1	5.95	166,920	$4,825.40	0.1%	$1,250.68	$6,076.08	15.0	$ 730	$ 6,806	$ 2,422	$ 8,498	$ 2,412	$ 8,488	$ 797	$ 1.132	$ 4,741	$ 189,012	$ 193,753	$ 185,264	22.89	$ 18,526
Filter measure list for cells in column C here; see comment in C1 for instructions.		Comm Lamps and Fixtures: Integral LED Lamps	50	237.40	1,250,844	$50,989.76	3.8%	$49,917.44	$100,907.20	9.0	$ 12,127	$ 113,034	$ 40,220	$ 141,127	$ 40,060	$ 140,967	$ 553	$ 0.786	$ 131,380	$ 983,501	$ 1,114,882	$ 973,914	7.91	$ 97,391
		Comm Lamps and Fixtures: LED Fixtures	188	3,171.24	15,628,427	$674,517.76	51.2%	$666,814.07	$1,341,331.83	15.0	$ 161,199	$ 1,502,531	$ 534,631	$ 1,875,963	$ 532,506	$ 1,873,838	$ 797	$ 1.132	$ 2,527,509	$ 17,696,862	$ 20,224,371	$ 18,350,533	10.79	$ 1,835,053
		Comm Lighting Controls: Occupancy Sensor	13	200.56	736,112	$44,428.57	3.2%	$42,171.57	$86,600.14	10.0	$ 10,407	$ 97,008	$ 34,517	$ 121,117	$ 34,380	$ 120,980	$ 600	$ 0.852	$ 120,287	$ 627,242	$ 747,529	$ 626,548	6.18	$ 62,655
		Comm Split System/Single Packaged Air Conditioners & Heat Pumps	40	268.60	636,400	$79,878.75	4.3%	$56,478.91	$136,357.66	15.0	$ 16,387	$ 152,745	$ 54,350	$ 190,707	$ 54,134	$ 190,491	$ 797	$ 1.132	$ 214,079	$ 720,628	$ 934,707	$ 744,216	4.91	$ 74,422
		M&V Project - 10 EUL	1	35.86	738,479	$23,734.58	0.6%	$7,540.25	$31,274.83	10.0	$ 3,759	$ 35,033	$ 12,466	$ 43,740	$ 12,416	$ 43,691	$ 600	$ 0.852	$ 21,507	$ 629,259	$ 650,766	$ 607,075	14.88	$ 60,708
		M&V Variable Refrigerant Flow Systems	5	13.32	59,690	$4,523.80	0.2%	$2,800.78	$7,324.58	15.0	$ 880	$ 8,205	$ 2,919	$ 10,244	$ 2,908	$ 10,232	$ 797	$ 1.132	$ 10,616	$ 67,590	$ 78,206	$ 67,974	7.64	$ 6,797
		Midstream																						
		Comm Lamps and Fixtures: Integral LED Lamps	234	627.61	2,723,239	$119,537.00	10.1%	$131,967.25	$251,504.25	9.0	$ 30,225	$ 281,730	$ 100,245	$ 351,749	$ 99,847	$ 351,351	$ 553	$ 0.786	$ 347,332	$ 2,141,201	$ 2,488,533	$ 2,137,182	7.08	$ 213,718
		Comm Lamps and Fixtures: LED Fixtures	107	251.72	1,059,525	$50,095.50	4.1%	$52,928.21	$103,023.71	15.0	$ 12,381	$ 115,405	$ 41,063	$ 144,087	$ 40,900	$ 143,924	$ 797	$ 1.132	$ 200,620	$ 1,199,755	$ 1,400,375	$ 1,256,451	8.73	$ 125,645
		Comm Lamps and Fixtures: Integral LED Lamps	85	231.71	1,006,357	$52,090.00	3.7%	$48,721.38	$100,811.38	9.0	$ 12,115	$ 112,927	$ 40,182	$ 140,993	$ 40,022	$ 140,833	$ 553	$ 0.786	$ 128,232	$ 791,268	$ 919,501	$ 778,667	6.53	$ 77,867
		Comm Lamps and Fixtures: LED Fixtures	112	288.36	1,409,258	$84,125.00	4.7%	$60,634.05	$144,759.05	15.0	$ 17,397	$ 162,156	$ 57,698	$ 202,457	$ 57,469	$ 202,228	$ 797	$ 1.132	$ 229,829	$ 1,595,775	$ 1,825,604	$ 1,623,376	9.03	$ 162,338
		Continuous Energy Improvement																						
		M&V Comm Behavioral	4	643.08	5,232,942	$0.00	10.4%	$135,218.79	$135,218.79	1.0	$ 16,250	$ 151,469	$ 53,896	$ 189,115	$ 53,682	$ 188,900	$ 76	$ 0.108	$ 48,712	$ 563,166	$ 611,877	$ 422,977	3.24	$ 42,298
	Load Management		8	6,223.00	6,223	$ 151,872.50	0%		$151,872.50		$ 41,308	$ 199,180	$ 89,320	$ 241,192	$ 89,079	$ 240,952			$ 471,381	$ 670	$ 472,051	$ 231,099	1.96	$ 23,110
		M&V Comm Load Curtailment	8	6,223.00	6,223	$151,872.50			$ 151,872.50	1.0	$ 41,308	$ 193,180	$ 89,320	$ 241,192	$ 89,079	$ 240,952	$ 76	$ 0.108	$ 471,381	$ 670	$ 472,051	$ 231,099	1.96	$ 23,110
	Residential SOP		6,344	3,814.12	5,774,166	$ 1,556,895.60	100%		$1,556,895.60		$ 200,653	$ 1,757,549	$ 637,466	$ 2,194,362	$ 635,000	$ 2,191,895			$ 3,022,091	$ 6,508,108	$ 9,530,199	$ 7,338,303	4.35	$ 733,830
		Residential Standard Offer Program																						
		Res Air Infiltration	1,623	1,819.83	1,808,202	$672,522.12	47.7%		$672,522.12	11.0	$ 86,675	$ 759,197	$ 275,362	$ 947,884	$ 274,297	$ 946,819	$ 644	$ 0.914	$ 1,171,290	$ 1,653,481	$ 2,824,771	$ 1,877,952	2.98	$ 187,795
		Res Ceiling Insulation	809	1,106.14	1,793,279	$457,372.41	29.0%		$457,372.41	25.0	$ 58,946	$ 516,319	$ 187,270	$ 644,642	$ 186,545	$ 643,918	$ 1,061	$ 1.508	$ 1,174,037	$ 2,704,182	$ 3,878,219	$ 3,234,301	6.02	$ 323,430
		Res Duct Efficiency Improvement	1,639	511.20	965,314	$220,932.23	13.4%		$220,932.23	18.0	$ 28,474	$ 249,406	$ 90,460	$ 311,392	$ 90,110	$ 311,042	$ 892	$ 1.267	$ 455,964	$ 1,223,280	$ 1,679,244	$ 1,368,202	5.40	$ 136,820
		Res ENERGY STAR Omni-Directional LED Lamps (Standard Baseline)	1,486	92.57	589,013	$117,620.00	2.4%		$117,620.00	8.0	$ 15,159	$ 132,779	$ 48,159	$ 165,779	$ 47,973	$ 165,593	$ 504	$ 0.717	$ 46,699	$ 422,171	$ 468,871	$ 303,278	2.83	$ 30,328
		Res Low-Flow Showerheads	627	91.01	245,653	$23,670.00	2.4%		$23,670.00	10.0	$ 3,051	$ 26,721	$ 9,692	$ 33,362	$ 9,654	$ 33,324	$ 600	$ 0.852	$ 54,583	$ 209,321	$ 263,904	$ 230,580	7.92	$ 23,058
		Res Wall Insulation	2	5.18	9,105	$2,308.94	0.1%		$2,308.94	25.0	$ 298	$ 2,607	$ 945	$ 3,254	$ 942	$ 3,251	$ 1,061	$ 1.508	$ 5,500	$ 13,730	$ 19,230	$ 15,980	5.92	$ 1,598
		CoolSaver Program																						
		Res Air Conditioner or Heat Pump Tune-Up	116	78.80	199,274	$19,890.00	2.1%		$19,890.00	5.0	$ 2,563	$ 22,453	$ 8,144	$ 28,034	$ 8,112	$ 28,002	$ 341	$ 0.484	$ 26,838	$ 96,421	$ 123,259	$ 95,257	4.40	$ 9,526
		Multifamily HVAC Program																						
		Res Central Heat Pump	34	109.38	161,784	$42,579.90	2.9%		$42,579.90	15.0	$ 5,488	$ 48,068	$ 17,434	$ 60,014	$ 17,367	$ 59,947	$ 797	$ 1.132	$ 87,179	$ 183,196	$ 270,375	$ 210,429	4.51	$ 21,043
		Res ENERGY STAR Connected Thermostats	8	-	2,543	$0.00	0.0%		$0.00	11.0	$ -	$ -	$ -	$ -	$ -	$ -	$ 644	$ 0.914	$ -	$ 2,325	$ 2,325	$ 2,325	#DIV/0!	$ 232
	Residential Solutions		2,059	2,006.26	4,651,821	$ 572,915.00	100%	$ 174,159.69	$747,074.69		$ 119,892	$ 866,967	$ 335,364	$ 1,082,438	$ 334,180	$ 1,081,255			$ 1,960,431	$ 6,304,838	$ 8,265,270	$ 7,184,015	7.64	$ 718,401
		High Performance Homes Program																						
		M&V New Homes	1,570	1,560.72	3,340,965	$369,850.00	77.8%	$135,481.33	$505,331.33	23.0	$ 81,097	$ 586,430	$ 226,845	$ 732,179	$ 226,045	$ 731,378	1019.38	$ 1.448	$ 1,590,972	$ 4,838,682	$ 6,429,654	$ 5,698,275	8.79	$ 569,828
		Distributed Products Program																						
		Res Central Air Conditioners	313	271.90	711,527	$121,585.00	13.6%	$23,603.16	$145,188.16	18.0	$ 23,300	$ 168,488	$ 65,175	$ 210,363	$ 64,945	$ 210,134	891.95	$ 1.267	$ 242,521	$ 901,673	$ 1,144,193	$ 934,060	5.45	$ 93,406
		Res Central Heat Pump	33	110.65	184,752	$24,540.00	5.5%	$9,605.33	$34,145.33	15.0	$ 5,480	$ 39,625	$ 15,328	$ 49,473	$ 15,274	$ 49,419	797.01	$ 1.132	$ 88,189	$ 209,204	$ 297,393	$ 247,974	6.02	$ 24,797
		Res ENERGY STAR Pool Pumps	141	58.06	407,376	$56,100.00	2.9%	$5,039.91	$61,139.91	10.0	$ 9,812	$ 70,952	$ 27,446	$ 88,586	$ 27,349	$ 88,489	599.75	$ 0.852	$ 34,821	$ 347,126	$ 381,946	$ 293,457	4.32	$ 29,346
		Res Mini-Split Heat Pump	2	4.93	7,201	$840.00	0.2%	$427.96	$1,267.96	15.0	$ 203	$ 1,471	$ 569	$ 1,837	$ 567	$ 1,835	797.01	$ 1.132	$ 3,929	$ 8,154	$ 12,083	$ 10,248	6.58	$ 1,025
	Hard-To-Reach SOP		2,956	1,767.89	2,692,904	$ 883,880.69	100%		$883,880.69		$ 152,759	$ 1,036,640	$ 410,400	$ 1,294,281	$ 409,000	$ 1,292,881			$ 1,395,734	$ 3,010,349	$ 4,406,082	$ 3,113,201	3.41	$ 311,320
		Hard-To-Reach Standard Offer Program																						
		Res Air Infiltration	782	728.03	728,709	$349,515.46	41.2%		$349,515.46	11.0	$ 60,406	$ 409,921	$ 162,286	$ 511,801	$ 161,732	$ 511,248	643.63	$ 0.914	$ 468,580	$ 666,357	$ 1,134,937	$ 623,689	2.22	$ 62,369
		Res Ceiling Insulation	371	494.91	788,118	$271,714.90	28.0%		$271,714.90	25.0	$ 46,960	$ 318,675	$ 126,162	$ 397,877	$ 125,731	$ 397,446	1061.38	$ 1.508	$ 525,291	$ 1,188,445	$ 1,713,736	$ 1,316,290	4.31	$ 131,629
		Res Duct Efficiency Improvement	707	211.19	379,391	$122,415.23	11.9%		$122,415.23	18.0	$ 21,157	$ 143,572	$ 56,839	$ 179,255	$ 56,645	$ 179,061	891.95	$ 1.267	$ 188,370	$ 480,777	$ 669,147	$ 490,086	3.74	$ 49,009
		Res ENERGY STAR Omni-Directional LED Lamps (Low Income Baseline)	635	32.66	209,943	$42,495.00	1.8%		$42,495.00	10.0	$ 7,344	$ 49,839	$ 19,731	$ 62,226	$ 19,664	$ 62,159	599.75	$ 0.852	$ 19,589	$ 178,893	$ 198,482	$ 136,323	3.19	$ 13,632
		Res Low-Flow Showerheads	305	51.21	138,237	$17,680.00	2.9%		$17,680.00	10.0	$ 3,056	$ 20,736	$ 8,209	$ 25,889	$ 8,181	$ 25,861	599.75	$ 0.852	$ 30,716	$ 117,792	$ 148,507	$ 122,646	5.74	$ 12,265
		CoolSaver Program																						
		Res Air Conditioner or Heat Pump Tune-Up	116	78.80	199,274	$19,890.00	4.5%		$19,890.00	5.0	$ 3,418	$ 23,328	$ 9,235	$ 29,125	$ 9,204	$ 29,094	340.57	$ 0.484	$ 26,838	$ 96,421	$ 123,259	$ 94,165	4.24	$ 9,417
		Multifamily HVAC Program																						
		Res Central Heat Pump	33	171.08	246,689	$60,170.10	9.7%		$60,170.10	15.0	$ 10,399	$ 70,569	$ 27,938	$ 88,108	$ 27,843	$ 88,013	797.01	$ 1.132	$ 136,350	$ 279,339	$ 415,689	$ 327,676	4.72	$ 32,768
		Res ENERGY STAR Connected Thermostats	7	-	2,543	$0.00	0.0%		$0.00	11.0	$ -	$ -	$ -	$ -	$ -	$ -	643.63	$ 0.914	$ -	$ 2,325	$ 2,325	$ 2,325	#DIV/0!	$ 232
	Portfolio Total		12,234	20,007.55	44,885,306	$ 4,431,858.25		$ 1,477,046.66	$ 5,908,904.91		$ 823,372.70	$ 6,732,277.61	$ 2,496,579.70	$ 8,405,484.61	$ 2,487,219.70	$ 8,396,124.61			$ 11,028,434	$ 44,419,992	$ 55,448,426	$ 47,052,501	6.60	$ 4,705,230

	Program Incentives (These columns will auto-populate)			Program Specific Admin: *Enter Manually*			Total Admin Calculation (Excluding Bonus) Allocated based on Total Incentives: *Enter Values in cells C22, C23, C25 and results will auto-populate*					Total Admin Cost Effectiveness Calculation (Including Bonus) Allocated based on Program Costs:			
	Program	Incentives	Incentive as % of Total Incentives (R&D/Other Admin Allocator)	Program Specific Admin (Do not include the costs paid by a utility for an EECRF proceeding here; these values are exempt from the CE test)	Program Specific R&D	Program Specific EM&V Admin (TetraTech Allocation not actual expenditures)	R&D/Other Admin Portion	EM&V Costs	Costs Paid by a Utility for an EECRF Proceeding (to be included in Total Admin for Bonus Calculation)	Total Admin for Bonus Calculation (Excluding Bonus)	Total Program Costs (EEPR)	Program Costs as % of Total Spending (Bonus Allocator)	Bonus Portion *(Enter value in C24)*	Total Admin for Cost-effectiveness Calculation (Including Bonus)	Total Program Costs (Cost Effectiveness)
1	Commercial Solutions	$ 2,569,181	43.48%	$ 239,123.70	$ 25,762.53	$ 39,804.41	$ -	$ -	$ 4,069.71	$ 308,760.36	$ 2,877,941.79	42.75%	$ 715,269.43	$ 1,019,960.08	$ 3,589,141.51
2	Load Management	$ 151,873	2.57%	$ 30,097.21	$ 1,522.91	$ 9,447.06	$ -	$ -	$ 240.57	$ 41,307.75	$ 193,180.25	2.87%	$ 48,012.06	$ 89,079.24	$ 240,951.74
3	Residential SOP	$ 1,556,896	26.35%	$ 161,797.18	$ 15,611.81	$ 20,778.28	$ -	$ -	$ 2,466.20	$ 200,653.47	$ 1,757,549.07	26.11%	$ 436,812.56	$ 634,999.83	$ 2,191,895.43
4	Residential Solutions	$ 747,075	12.64%	$ 91,254.68	$ 7,491.31	$ 19,962.70	$ -	$ -	$ 1,183.40	$ 119,892.09	$ 866,966.78	12.88%	$ 215,471.64	$ 334,180.32	$ 1,081,255.01
5	Hard-To-Reach SOP	$ 883,881	14.96%	$ 126,307.86	$ 8,863.14	$ 16,187.92	$ -	$ -	$ 1,400.11	$ 152,759.03	$ 1,036,639.72	15.40%	$ 257,641.31	$ 409,000.23	$ 1,292,880.92
6	0.0	$ -	0%												
7	0.0	$ -	0%												
8	0.0	$ -	0%												
9	0.0	$ -	0%												
10	0.0	$ -	0%												
11	0.0	$ -	0%												
12	0.0	$ -	0%												
13	0.0	$ -	0%												
14	0.0	$ -	0%												
15	0.0	$ -	0%												
16	0.0	$ -	0%												
	Portfolio Total	**$ 5,908,905**	**100%**	**$ 648,580.63**	**$ 59,251.70**	**$ 106,180.37**	**$ -**	**$ -**	**$ 9,360.00**	**$ 823,372.70**	**$ 6,732,277.61**	**100%**	**$ 1,673,207.00**	**$ 2,487,219.70**	**$ 8,396,124.61**
											$ -				$ -

Other Costs to Be Allocated Among All Programs Enter Blue Cells Manually; Green Will Autocalculate if Step 1 completed:		PUC Rule: How to allocate non-program specific expenses	$ (1,675,026.37)
R&D and Non-program specifc Admin to be Allocated (Rate Case Expenses Details: Include any costs incurred by the utility for an EECRF filing here *unless* they have already been included in the program specifc admin in column F. Do not include the costs paid by a utility for an EECRF proceeding here; these values are exempt from the CE test. Enter those costs separately in cell C25 below.)		(i): Any portion of these costs which are not directly assignable to a specific program shall be allocated among the programs in proportion to the program incentive costs. Any bonus awarded by the commission shall not be included in program costs for the purpose of applying these limits.	
Third party EM&V Costs (Ex: Frontier EM&V; counted as admin)		(i): Any portion of these costs which are not directly assignable to a specific program shall be allocated among the programs in proportion to the program incentive costs. Any bonus awarded by the commission shall not be included in program costs for the purpose of applying these limits.	
Bonus for Cost-effectiveness (bonus collected during the PY)	$ 1,673,207.00	(h)(6): The bonus shall be allocated in proportion to the program costs associated with meeting the demand and energy goals and allocated to eligible customers on a rate class basis.	
Costs Paid by a Utility for an EECRF Proceeding (To be included as admin in the "total program cost" input for the bonus calculation in Step 4)	$ 9,360.00	These are costs to be included as admin in the "total program costs" for the bonus calculation (per the preamble pg 150). Please note these values are excluded from the cost-effectiveness test (per the preamble and email from Katie Rich). This is why they are not included in either the program-specific admin values or the non-program specific admin in other cells on this tab.	

Program Year 2020

Energy Efficiency Performance Bonus Calculator

	kW	kWh
Demand and Energy Goals	15,500	27,156,000
Actual Demand and Energy Savings	20,008	44,885,306
Reported/Verified Hard-to-Reach	*1,768*	
Program Costs (excluding bonus)	$6,732,278	
Program Costs (including bonus)	$8,405,485	
Performance Bonus	**$4,704,294**	

Directions:

Fill in blue cell and performance bonus will calculate.

All green cells will auto-populate

All inputs must be accounted for the in the "Fixed Inputs," "Admin Allocation," and "Results Calculator" tabs in order to correctly calculate bonus.

11%	**Hard-to-Reach Goal Met?**
	Bonus Calculation Details
129%	Percentage of Demand Reduction Goal Met (Reported kW/Goal kW)
165%	Percentage of Energy Reduction Goal Met (Reported kWh/Goal kWh)
TRUE	Met Requirements for Performance Bonus?
$55,448,426	Total Avoided Costs
$8,405,485	Total Program Costs (including bonus)
$47,042,941	Net Benefits
$6,840,270	Calculated Bonus (((Achieved Demand Reduction/Demand Goal - 100%) / 2) * Net Benefits)
$4,704,294	Maximum Bonus Allowed (10% of Net Benefits)

Residential & Commercial EULs						
Sector	TRM Measure	DO NOT DELETE, FOR SEARCH Step 2 tab	Energy Efficiency Measure	EUL (years)	TRM Version	
Custom	NA	1	Custom	NA	NA	Custom
Residential	2 1 1	2	Res Standard Compact Fluorescent Lamps (Standard Baseline)	8 0	7 0	Res Standard Compact Fluorescent Lamps (Standard Baseline)
Residential	2 1 1	3	Res Standard Compact Fluorescent Lamps (Low Income Baseline)	10 0	7 0	Res Standard Compact Fluorescent Lamps (Low Income Baseline)
Residential	2 1 2	4	Res Specialty Compact Fluorescent Lamps (Standard Baseline)	8 0	7 0	Res Specialty Compact Fluorescent Lamps (Standard Baseline)
Residential	2 1 2	5	Res Specialty Compact Fluorescent Lamps (Low Income Baseline)	10 0	7 0	Res Specialty Compact Fluorescent Lamps (Low Income Baseline)
Residential	2 1 3	6	Res ENERGY STAR Omni-Directional LED Lamps (Standard Baseline)	8 0	7 0	Res ENERGY STAR Omni-Directional LED Lamps (Standard Baseline)
Residential	2 1 3	7	Res ENERGY STAR Omni-Directional LED Lamps (Low Income Baseline)	10 0	7 0	Res ENERGY STAR Omni-Directional LED Lamps (Low Income Baseline)
Residential	2 1 4	8	Res ENERGY STAR Specialty and Directional LED Lamps (Standard Baseline)	8 0	7 0	Res ENERGY STAR Specialty and Directional LED Lamps (Standard Baseline)
Residential	2 1 4	9	Res ENERGY STAR Specialty and Directional LED Lamps (Low Income Baseline)	10 0	7 0	Res ENERGY STAR Specialty and Directional LED Lamps (Low Income Baseline)
Residential	2 2 1	10	Res Air Conditioner or Heat Pump Tune-Up	5 0	7 0	Res Air Conditioner or Heat Pump Tune-Up
Residential	2 2 2	11	Res Duct Efficiency Improvement	18 0	7 0	Res Duct Efficiency Improvement
Residential	2 2 3	12	Res Ground Source Heat Pump	20 0	7 0	Res Ground Source Heat Pump
Residential	2 2 4	13	Res Central Air Conditioners	18 0	7 0	Res Central Air Conditioners
Residential	2 2 4	14	Res Central Heat Pump	15 0	7 0	Res Central Heat Pump
Residential	2 2 5	15	Res Mini-Split Air Conditioners	18 0	7 0	Res Mini-Split Air Conditioners
Residential	2 2 5	16	Res Mini-Split Heat Pump	15 0	7 0	Res Mini-Split Heat Pump
Residential	2 2 6	17	Res Large Capacity Split System & Single-Package Air Conditioners	18 0	7 0	Res Large Capacity Split System & Single-Package Air Conditioners
Residential	2 2 6	18	Res Large Capacity Split System & Single-Package Heat Pumps	15 0	7 0	Res Large Capacity Split System & Single-Package Heat Pumps
Residential	2 2 6	19	Res Large Capacity Split System & Single-Package Ground Source Heat Pumps	20 0	7 0	Res Large Capacity Split System & Single-Package Ground Source Heat Pumps
Residential	2 2 7	20	Res Packaged Terminal Heat Pumps (PTHP)	15 0	7 0	Res Packaged Terminal Heat Pumps (PTHP)
Residential	2 2 8	21	Res Room Air Conditioner (Window)	8 0	7 0	Res Room Air Conditioner (Window)
Residential	2 2 9	22	Res ENERGY STAR Connected Thermostats	11 0	7 0	Res ENERGY STAR Connected Thermostats
Residential	2 2 10	23	Res Smart Thermostat Demand Response	1 0	7 0	Res Smart Thermostat Demand Response
Residential	2 2 11	24	Res Evaporative Cooling	15 0	7 0	Res Evaporative Cooling
Residential	2 3 1	25	Res Air Infiltration	11 0	7 0	Res Air Infiltration
Residential	2 3 2	26	Res Ceiling Insulation	25 0	7 0	Res Ceiling Insulation
Residential	2 3 3	27	Res Attic Encapsulation	25 0	7 0	Res Attic Encapsulation
Residential	2 3 4	28	Res Wall Insulation	25 0	6 0	Res Wall Insulation
Residential	2 3 5	29	Res Floor Insulation	25 0	7 0	Res Floor Insulation
Residential	2 3 6	30	Res ENERGY STAR Windows	25 0	7 0	Res ENERGY STAR Windows
Residential	2 3 7	31	Res Solar Screens	10 0	7 0	Res Solar Screens
Residential	2 3 8	32	Res Cool Roofs	15 0	7 0	Res Cool Roofs
Residential	2 4 1	33	Res Faucet Aerators	10 0	7 0	Res Faucet Aerators
Residential	2 4 2	34	Res Low-Flow Showerheads	10 0	7 0	Res Low-Flow Showerheads
Residential	2 4 3	35	Res Water Heater Pipe Insulation	13 0	7 0	Res Water Heater Pipe Insulation
Residential	2 4 4	36	Res Water Heater Tank Insulation	7 0	7 0	Res Water Heater Tank Insulation
Residential	2 4 5	37	Res Water Heater Installation - Tankless	20 0	7 0	Res Water Heater Installation - Tankless
Residential	2 4 5	38	Res Water Heater Installation - Fuel Substitution	11 0	7 0	Res Water Heater Installation - Fuel Substitution
Residential	2 4 6	39	Res Heat Pump Water Heater	13 0	7 0	Res Heat Pump Water Heater
Residential	2 4 7	40	Res Solar Water Heater	15 0	7 0	Res Solar Water Heater
Residential	2 4 8	41	Res Showerhead Temperature Sensitive Restrictor Valves	10 0	7 0	Res Showerhead Temperature Sensitive Restrictor Valves
Residential	2 4 9	42	Res Tub Spout & Showerhead Temperature Sensitive Restrictor Valves	10 0	7 0	Res Tub Spout & Showerhead Temperature Sensitive Restrictor Valves
Residential	2 5 1	43	Res ENERGY STAR Ceiling Fans	10 0	7 0	Res ENERGY STAR Ceiling Fans
Residential	2 5 2	44	Res ENERGY STAR Clothes Washer	11 0	7 0	Res ENERGY STAR Clothes Washer
Residential	2 5 3	45	Res ENERGY STAR Clothes Dryers	16 0	7 0	Res ENERGY STAR Clothes Dryers
Residential	2 5 4	46	Res ENERGY STAR Dishwashers	15 0	7 0	Res ENERGY STAR Dishwashers
Residential	2 5 5	47	Res ENERGY STAR Refrigerators	16 0	7 0	Res ENERGY STAR Refrigerators
Residential	2 5 6	48	Res ENERGY STAR Freezers	22 0	7 0	Res ENERGY STAR Freezers

Residential	2 5 7	49	Res ENERGY STAR Pool Pumps	10 0	7 0	Res ENERGY STAR Pool Pumps
Residential	2 5 8	50	Res ENERGY STAR Air Purifiers	9 0	7 0	Res ENERGY STAR Air Purifiers
Residential	2 5 9	51	Res Advanced Power Strips	10 0	7 0	Res Advanced Power Strips
Residential	2 5 10	52	Res ENERGY STAR Electric Vehicle Supply Equipment (EVSE)	10 0	7 0	Res ENERGY STAR Electric Vehicle Supply Equipment (EVSE)
Residential	2 5 11	53	Res Solar Attic Fans	15 0	7 0	Res Solar Attic Fans
Residential	2 6 1	54	Res Refrigerator/Freezer Recycling	8 0	7 0	Res Refrigerator/Freezer Recycling
Commercial	2 1 1	55	Comm Lamps and Fixtures Halogen Lamps	1 5	7 0	Comm Lamps and Fixtures Halogen Lamps
Commercial	2 1 1	56	Comm Lamps and Fixtures High Intensity Discharge Lamps	15 5	7 0	Comm Lamps and Fixtures High Intensity Discharge Lamps
Commercial	2 1 1	57	Comm Lamps and Fixtures Integrated-ballast CCFL Lamps	4 5	7 0	Comm Lamps and Fixtures Integrated-ballast CCFL Lamps
Commercial	2 1 1	58	Comm Lamps and Fixtures Integrated-ballast CFL Lamps	2 5	7 0	Comm Lamps and Fixtures Integrated-ballast CFL Lamps
Commercial	2 1 1	59	Comm Lamps and Fixtures Integral LED Lamps	9 0	7 0	Comm Lamps and Fixtures Integral LED Lamps
Commercial	2 1 1	60	Comm Lamps and Fixtures LED Fixtures	15 0	7 0	Comm Lamps and Fixtures LED Fixtures
Commercial	2 1 1	61	Comm Lamps and Fixtures LED Corn Cob	15 0	7 0	Comm Lamps and Fixtures LED Corn Cob
Commercial	2 1 1	62	Comm Lamps and Fixtures LED Tubes	15 0	7 0	Comm Lamps and Fixtures LED Tubes
Commercial	2 1 1	63	Comm Lamps and Fixtures Modular CFL and CCFL Fixtures	16 0	7 0	Comm Lamps and Fixtures Modular CFL and CCFL Fixtures
Commercial	2 1 1	64	Comm Lamps and Fixtures T8 and T5 Linear Fluorescents	15 5	7 0	Comm Lamps and Fixtures T8 and T5 Linear Fluorescents
Commercial	2 1 2	65	Comm Lighting Controls Occupancy Sensor	10 0	7 0	Comm Lighting Controls Occupancy Sensor
Commercial	2 1 2	66	Comm Lighting Controls Photocell (Daylighting Control)	10 0	7 0	Comm Lighting Controls Photocell (Daylighting Control)
Commercial	2 1 2	67	Comm Lighting Controls Timeclock	10 0	7 0	Comm Lighting Controls Timeclock
Commercial	2 1 2	68	Comm Lighting Controls Tuning Control	10 0	7 0	Comm Lighting Controls Tuning Control
Commercial	2 1 3	69	Comm LED Traffic Signals (8" & 12" Red, Green & Yellow)	6 0	7 0	Comm LED Traffic Signals (8" & 12" Red, Green, & Yellow)
Commercial	2 1 3	70	Comm LED Traffic Signals (Large Pedestrian Signal)	5 0	7 0	Comm LED Traffic Signals (Large Pedestrian Signal)
Commercial	2 1 3	71	Comm LED Traffic Signals (Small Pedestrian Signal)	5 0	7 0	Comm LED Traffic Signals (Small Pedestrian Signal)
Commercial	2 2 1	72	Comm Air Conditioner or Heat Pump Tune-Up	5 0	7 0	Comm Air Conditioner or Heat Pump Tune-Up
Commercial	2 2 2	73	Comm Split System/Single Packaged Air Conditioners & Heat Pumps	15 0	7 0	Comm Split System/Single Packaged Air Conditioners & Heat Pumps
Commercial	2 2 3	74	Comm HVAC Chillers Screw / Scroll / Reciprocating Chillers	20 0	7 0	Comm HVAC Chillers Screw / Scroll / Reciprocating Chillers
Commercial	2 2 3	75	Comm HVAC Chillers Centrifugal Chillers	25 0	7 0	Comm HVAC Chillers Centrifugal Chillers
Commercial	2 2 4	76	Comm Packaged Terminal Air Conditioners & Heat Pumps	15 0	7 0	Comm Packaged Terminal Air Conditioners & Heat Pumps
Commercial	2 2 4	77	Comm Packaged Terminal Room Air Conditioners	11 0	7 0	Comm Packaged Terminal Room Air Conditioners
Commercial	2 2 5	78	Comm HVAC VFD (AHU)	15 0	7 0	Comm HVAC VFD (AHU)
Commercial	2 2 5	79	Comm HVAC VFD (Hot Water Pumps)	15 0	7 0	Comm HVAC VFD (Hot Water Pumps)
Commercial	2 2 5	80	Comm HVAC VFD (Chilled Water Pumps)	15 0	7 0	Comm HVAC VFD (Chilled Water Pumps)
Commercial	2 2 6	81	Comm Condenser Air Evaporative Pre-Cooling	15 0	7 0	Comm Condenser Air Evaporative Pre-Cooling
Commercial	2 2 7	82	Comm Computer Room Air Conditioners	15 0	7 0	Comm Computer Room Air Conditioners
Commercial	2 2 8	83	Comm High-Volume Low-Speed (HVLS) Fans	9 0	7 0	Comm High-Volume Low-Speed (HVLS) Fans
Commercial	2 3 1	84	Comm ENERGY STAR Roofs	15 0	7 0	Comm ENERGY STAR Roofs
Commercial	2 3 2	85	Comm Window Treatments (Film)	10 0	7 0	Comm Window Treatments (Film)
Commercial	2 3 3	86	Comm Entrance & Exit Door Air Infiltration	11 0	7 0	Comm Entrance & Exit Door Air Infiltration
Commercial	2 4 1	87	Comm ENERGY STAR Combination Ovens	12 0	7 0	Comm ENERGY STAR Combination Ovens
Commercial	2 4 2	88	Comm ENERGY STAR Electric Convention Ovens	12 0	7 0	Comm ENERGY STAR Electric Convention Ovens
Commercial	2 4 3	89	Comm ENERGY STAR Commercial Dishwashers	11 0	7 0	Comm ENERGY STAR Commercial Dishwashers
Commercial	2 4 4	90	Comm ENERGY STAR Hot Food Holding Cabinets	12 0	7 0	Comm ENERGY STAR Hot Food Holding Cabinets
Commercial	2 4 5	91	Comm ENERGY STAR Electric Fryers	12 0	7 0	Comm ENERGY STAR Electric Fryers
Commercial	2 4 6	92	Comm Pre-Rinse Spray Valves	5 0	7 0	Comm Pre-Rinse Spray Valves
Commercial	2 4 7	93	Comm ENERGY STAR Electric Steam Cookers	12 0	7 0	Comm ENERGY STAR Electric Steam Cookers
Commercial	2 4 8	94	Comm Demand Controlled Kitchen Ventilation	15 0	7 0	Comm Demand Controlled Kitchen Ventilation
Commercial	2 4 9	95	Comm Commercial Ice Maker	8 5	7 0	Comm Commercial Ice Maker
Commercial	2 5 1	96	Comm Door Heater Controls	12 0	7 0	Comm Door Heater Controls
Commercial	2 5 2	97	Comm ECM Evaporator Fan Motor	15 0	7 0	Comm ECM Evaporator Fan Motor
Commercial	2 5 3	98	Comm Electronic Defrost Controls	10 0	7 0	Comm Electronic Defrost Controls
Commercial	2 5 4	99	Comm Evaporator Fan Controls	16 0	7 0	Comm Evaporator Fan Controls

Commercial	255	100	Comm Night Covers for Open Refrigerated Display Cases	5 0	7 0	Comm Night Covers for Open Refrigerated Display Cases
Commercial	256	101	Comm Solid and Glass Door Reach-Ins	12 0	7 0	Comm Solid and Glass Door Reach-Ins
Commercial	257	102	Comm Strip Curtains for Walk-In Refrigerated Storage	4 0	7 0	Comm Strip Curtains for Walk-In Refrigerated Storage
Commercial	258	103	Comm Zero Energy Doors for Refrigerated Cases	12 0	7 0	Comm Zero Energy Doors for Refrigerated Cases
Commercial	259	104	Comm Door Gaskets for Walk-in & Reach-in Coolers & Freezers	4 0	7 0	Comm Door Gaskets for Walk-in & Reach-in Coolers & Freezers
Commercial	261	105	Comm Vending Machine Controls	5 0	7 0	Comm Vending Machine Controls
Commercial	262	106	Comm Lodging Guest Room Occupancy Sensor Controls	10 0	7 0	Comm Lodging Guest Room Occupancy Sensor Controls
Commercial	263	107	Comm Pump-Off Controller	15 0	7 0	Comm Pump-Off Controller
Commercial	264	108	Comm ENERGY STAR Pool Pumps	10 0	7 0	Comm ENERGY STAR Pool Pumps
Commercial	265	109	Comm Computer Power Management	3 0	7 0	Comm Computer Power Management
Commercial	266	110	Comm Premium Efficiency Motors	15 0	7 0	Comm Premium Efficiency Motors
Commercial	267	111	Comm Central Domestic Hot Water (DHW) Controls	15 0	7 0	Comm Central Domestic Hot Water (DHW) Controls
M&V	211	112	M&V Air Conditioning Tune-Up	5 0	7 0	M&V Air Conditioning Tune-Up
M&V	212	113	M&V Ground Source Heat Pump	15 0	7 0	M&V Ground Source Heat Pump
M&V	213	114	M&V Variable Refrigerant Flow Systems	15 0	7 0	M&V Variable Refrigerant Flow Systems
M&V	221	115	M&V New Homes	23 0	7 0	M&V New Homes
M&V	231	116	M&V Comm Solar Photovoltaic (PV)	30 0	7 0	M&V Comm Solar Photovoltaic (PV)
M&V	232	117	M&V Res Solar Photovoltaci (PV)	30 0	7 0	M&V Res Solar Photovoltaci (PV)
M&V	233	118	M&V Solar Shingles	30 0	7 0	M&V Solar Shingles
M&V	241	119	M&V Comm Behavioral	1 0	7 0	M&V Comm Behavioral
M&V	242	120	M&V Air Compressors < 75 hp	10 0	7 0	M&V Air Compressors < 75 hp
M&V	243	121	M&V Comm Retro-Commissioning	5 0	7 0	M&V Comm Retro-Commissioning
M&V	244	122	M&V Thermal Energy Storage	15 0	7 0	M&V Thermal Energy Storage
M&V	251	123	M&V Res Load Curtailment	1 0	7 0	M&V Res Load Curtailment
M&V	252	124	M&V Comm Load Curtailment	1 0	7 0	M&V Comm Load Curtailment
M&V	X	125	M&V Project - 15 EUL	15		M&V Project - 15 EUL
M&V	X	126	M&V Project - 2 9 EUL	2 9		M&V Project - 2 9 EUL
M&V	X	127	Old Measure - 8 5 EUL	8 5		Old Measure - 8 5 EUL
M&V	X	128	M&V Project - 10 EUL	10		M&V Project - 10 EUL

Insert or Verify Data in Blue Cells	Fixed Inputs per PUC Rule
Avoided Cost per kW	$ 80.00
Avoided Cost per kWh	$ 0.11366
Utility Specific Discount Rate (WACC)	7.725280%
Inflation Rate	2.0%
Maximum % Net Benefits for Bonus	10.0%

	2013	2014	2015	2016	2017	2018	2019	**2020**
Avoided Cost Reference	$ 80.00	$ 80.00	$ 80.00	$ 80.00	$ 80.00	$ 80.00	$ 80.00	**$ 80.00**
	$ 0.10400	$ 0.04619	$ 0.05321	$ 0.05088	$ 0.03989	$ 0.03757	$ 0.05084	**$ 0.11366**

PUC Goals	kW	kWh
2018 Goals	15,500	27,156,000

Cost-effectiveness Input	
Bonus Collected in 2020 = Bonus Earned in 2018	$ 1,673,207

Please Note: The bonus included in the cost-effectiveness analysis is the bonus *collected* for the program year, not the bonus earned. For example, for PY2020 cost-effectiveness, the *bonus collected* (= 2018 bonus earned) should be included in cell B14 of this tab.

As a result, this bonus will not match the bonus calculated in the Step 4 Bonus Calculator Tab which is the *bonus earned* for PY2020.

Due to the rule change, a bonus must also be included as a program cost for the purposes of calculating the new bonus. We are using the same bonus that is used for cost effectiveness.

Instructions

WHITE CELLS: Enter Data
GREY CELLS: Sub-Totals or Blanks
BLUE CELLS: Optional Data Entry
GREEN CELLS: Automatic Calculations
Max of 16 programs

Measure Search:

Filter measure list for cells in column C here; see comment in C1 for instructions.

Last Updated: 5/12/2020	Select from drop-down	Paid Savings				Total Incentive			Automatic Or Manual	Total Program Costs for Program Year 2019				Cost Effectiveness Test Part 1		Cost Effectiveness Test Part 2		Cost Effectiveness Test Part 3		Cost Effectiveness Test Part 4			
Program (list custom measure here if necessary)	Measure (Select from Drop Down Menu)	Installation	kW Actual Savings	kWh Actual Savings	CASH Incentives Actual	Incentive Allocation Based on kW	NON CASH Incentive	Total Incentive	Estimated Useful Life	Total Admin Spent (Excluding Bonus; including cost paid for EECRF)	Total Program Cost Spent (Excluding Bonus; including cost paid for EECRF)	Total Admin For Bonus (Including Bonus & EECRF)	Total Program Cost For Bonus (Including Bonus & EECRF)	Total Admin for Cost Eff. (Including Bonus, excluding cost paid for EECRF)	Total Program Cost for Cost Eff. (Including Bonus, excluding cost paid for EECRF)	PV Avoided Capacity Cost	PV Avoided Energy Cost	PV Avd Capacity Cost * kW	PV Avoided Energy Cost * kWh	Total Avoided Cost (PV kW + PV kWh)	Net Benefits (Avoided Cost - Program Cost)	Ben-Cost Ratio	[illegible]
Commercial Solutions		**867**	**6,196.28**	**31,760,192**	**$ 1,266,294.46**	**100%**	**$ 1,302,886.97**	**$2,569,181.43**		**$ 308,760**	**$ 2,877,942**	**$ 1,024,030**	**$ 3,593,211**	**$ 1,019,960**	**$ 3,589,142**			**$ 4,178,796**	**$ 28,596,028**	**$ 32,774,824**	**$ 29,185,682**	**9.13**	**$ 2,918,568**
	Commercial Solutions																						
	Comm ECM Evaporator Fan Motor	10	26.49	232,102	$11,927.93	0.4%	$5,570.87	$17,498.80	15.0	2,103	19,602	6,975	24,474	6,947	24,446	797	1.132	21,116	262,821	283,937	259,491	11.61	25,949
	Comm ENERGY STAR Combination Ovens	1	5.38	25,472	$1,397.80	0.1%	$1,132.09	$2,529.89	12.0	304	2,834	1,008	3,538	1,004	3,534	685	0.973	3,689	24,796	28,485	24,951	8.06	2,495
	Comm ENERGY STAR Commercial Dishwashers	1	1.36	9,212	$408.64	0.0%	$285.97	$694.61	11.0	83	778	277	971	276	970	644	0.914	875	8,424	9,299	8,329	9.58	833
	Comm ENERGY STAR Roofs	7	62.93	199,810	$19,728.45	1.0%	$13,232.03	$32,960.48	15.0	3,961	36,922	13,137	46,098	13,085	46,046	797	1.132	50,155	226,255	276,410	230,364	6.00	23,036
	Comm HVAC Chillers: Screw / Scroll / Reciprocating Chillers	8	124.71	645,401	$44,085.52	2.0%	$26,222.66	$70,308.18	20.0	8,450	78,758	28,024	98,332	27,912	98,220	947	1.346	118,117	868,474	986,590	888,370	10.04	88,837
	Comm HVAC VFD (AHU)	1	5.95	166,920	$4,825.40	0.1%	$1,250.68	$6,076.08	15.0	730	6,806	2,422	8,498	2,412	8,488	797	1.132	4,741	189,012	193,753	185,264	22.89	18,526
	Comm Lamps and Fixtures: Integral LED Lamps	50	237.40	1,250,844	$50,989.76	3.8%	$49,917.44	$100,907.20	9.0	12,127	113,034	40,220	141,127	40,060	140,967	553	0.786	131,380	983,501	1,114,882	973,914	7.91	97,391
	Comm Lamps and Fixtures: LED Fixtures	188	3,171.24	15,628,427	$674,517.76	51.2%	$666,814.07	$1,341,331.83	15.0	161,199	1,502,531	534,631	1,875,963	532,506	1,873,838	797	1.132	2,527,509	17,696,862	20,224,371	18,350,533	10.79	1,835,053
	Comm Lighting Controls: Occupancy Sensor	13	200.56	736,112	$44,428.57	3.2%	$42,171.57	$86,600.14	10.0	10,407	97,008	34,517	121,117	34,380	120,980	600	0.852	120,287	627,242	747,529	626,548	6.18	62,655
	Comm Split System/Single Packaged Air Conditioners & Heat Pumps	40	268.60	636,400	$79,878.75	4.3%	$56,478.91	$136,357.66	15.0	16,387	152,745	54,350	190,707	54,134	190,491	797	1.132	214,079	720,628	934,707	744,216	4.91	74,422
	M&V Project - 10 EUL	1	35.86	738,479	$23,734.58	0.6%	$7,540.25	$31,274.83	10.0	3,759	35,033	12,466	43,740	12,416	43,691	600	0.852	21,507	629,259	650,766	607,075	14.89	60,708
	M&V Variable Refrigerant Flow Systems	5	13.32	59,690	$4,523.80	0.2%	$2,800.78	$7,324.58	15.0	880	8,205	2,919	10,244	2,908	10,232	797	1.132	10,616	67,590	78,206	67,974	7.64	6,797
	Midstream																						
	Comm Lamps and Fixtures: Integral LED Lamps	234	627.61	2,723,239	$119,537.00	10.1%	$131,967.25	$251,504.25	9.0	30,225	281,730	100,245	351,749	99,847	351,351	553	0.786	347,332	2,141,201	2,488,533	2,137,182	7.08	213,718
	Comm Lamps and Fixtures: LED Fixtures	107	251.72	1,059,525	$50,095.50	4.1%	$52,928.21	$103,023.71	15.0	12,381	115,405	41,063	144,087	40,900	143,924	797	1.132	200,620	1,199,755	1,400,375	1,256,451	9.73	125,645
	Comm Lamps and Fixtures: Integral LED Lamps	85	231.71	1,006,357	$52,090.00	3.7%	$48,721.38	$100,811.38	9.0	12,115	112,927	40,182	140,993	40,022	140,833	553	0.786	128,232	791,268	919,501	778,667	6.53	77,867
	Comm Lamps and Fixtures: LED Fixtures	112	288.36	1,409,258	$84,125.00	4.7%	$60,634.05	$144,759.05	15.0	17,397	162,156	57,698	202,457	57,469	202,228	797	1.132	229,829	1,595,775	1,825,604	1,623,376	9.03	162,338
	Continuous Energy Improvement																						
	M&V Comm Behavioral	4	645.08	5,232,942	$0.00	10.4%	$135,218.79	$135,218.79	1.0	16,250	151,469	53,896	189,115	53,682	188,900	76	0.108	48,712	563,166	611,877	422,977	3.24	42,298
Load Management		**8**	**6,223.00**	**6,223**	**$ 151,872.50**	**0%**		**$151,872.50**		**$ 41,308**	**$ 193,180**	**$ 89,320**	**$ 241,192**	**$ 89,079**	**$ 240,952**			**$ 471,381**	**$ 670**	**$ 472,051**	**$ 231,099**	**1.96**	**$ 23,110**
	M&V Comm Load Curtailment	8	6,223.00	6,223	$151,872.50			$ 151,872.50	1.0	41,308	193,180	89,320	241,192	89,079	240,952	76	0.108	471,381	670	472,051	231,099	1.96	23,110
Residential SOP		**6,344**	**3,814.12**	**5,774,166**	**$ 1,556,895.60**	**100%**		**$1,556,895.60**		**$ 200,653**	**$ 1,757,549**	**$ 637,466**	**$ 2,194,362**	**$ 635,000**	**$ 2,191,895**			**$ 3,022,091**	**$ 6,508,108**	**$ 9,530,199**	**$ 7,338,303**	**4.35**	**$ 733,830**
	Residential Standard Offer Program																						
	Res Air Infiltration	1,623	1,819.83	1,808,202	$672,522.12	47.7%		$672,522.12	11.0	86,675	759,197	275,362	947,884	274,297	946,819	644	0.914	1,171,290	1,653,481	2,824,771	1,877,952	2.98	187,795
	Res Ceiling Insulation	809	1,106.14	1,793,279	$457,372.41	29.0%		$457,372.41	25.0	58,946	516,319	187,270	644,642	186,545	643,918	1,061	1.508	1,174,037	2,704,182	3,878,219	3,234,301	6.02	323,430
	Res Duct Efficiency Improvement	1,639	511.20	965,314	$220,932.23	13.4%		$220,932.23	18.0	28,474	249,406	90,460	311,392	90,110	311,042	892	1.267	455,964	1,223,280	1,679,244	1,368,202	5.40	136,820
	Res ENERGY STAR Omni-Directional LED Lamps (Standard Baseline)	1,486	92.57	589,013	$117,620.00	2.4%		$117,620.00	8.0	15,159	132,779	48,159	165,779	47,973	165,593	504	0.717	46,699	422,171	468,871	303,278	2.83	30,328
	Res Low-Flow Showerheads	627	91.01	245,653	$23,670.00	2.4%		$23,670.00	10.0	3,051	26,721	9,692	33,362	9,654	33,324	600	0.852	54,583	209,321	263,904	230,580	7.92	23,058
	Res Wall Insulation	2	5.18	9,105	$2,308.94	0.1%		$2,308.94	25.0	298	2,607	945	3,254	942	3,251	1,061	1.508	5,500	13,730	19,230	15,980	5.92	1,598
	CoolSaver Program																						
	Res Air Conditioner or Heat Pump Tune-Up	116	78.80	199,274	$19,890.00	2.1%		$19,890.00	5.0	2,563	22,453	8,144	28,034	8,112	28,002	341	0.484	26,838	96,421	123,259	95,257	4.40	9,526
	Multifamily HVAC Program																						
	Res Central Heat Pump	34	109.38	161,784	$42,579.90	2.9%		$42,579.90	15.0	5,488	48,068	17,434	60,014	17,367	59,947	797	1.132	87,179	183,196	270,375	210,429	4.51	21,043
	Res ENERGY STAR Connected Thermostats	8	-	2,543	$0.00	0.0%		$0.00	11.0	-	-	-	-	-	-	644	0.914	-	2,325	2,325	2,325	#DIV/0!	232
Residential Solutions		**2,059**	**2,006.26**	**4,651,821**	**$ 572,915.00**	**100%**	**$ 174,159.69**	**$747,074.69**		**$ 119,892**	**$ 866,967**	**$ 335,364**	**$ 1,082,438**	**$ 334,180**	**$ 1,081,255**			**$ 1,960,431**	**$ 6,304,838**	**$ 8,265,270**	**$ 7,184,015**	**7.64**	**$ 718,401**
	High Performance Homes Program																						
	M&V New Homes	1,570	1,560.72	3,340,965	$368,850.00	77.8%	$135,483.33	$505,333.33	23.0	81,097	586,430	226,845	732,179	226,045	731,378	1019.38	1.448	1,590,972	4,838,682	6,429,654	5,698,275	8.79	569,828
	Distributed Products Program																						
	Res Central Air Conditioners	313	271.90	711,527	$121,585.00	13.6%	$23,603.16	$145,188.16	18.0	23,300	168,488	65,175	210,363	64,945	210,134	891.95	1.267	242,521	901,673	1,144,193	934,060	5.45	93,406
	Res Central Heat Pump	33	110.65	184,752	$24,540.00	5.5%	$9,605.33	$34,145.33	15.0	5,480	39,625	15,328	49,473	15,274	49,419	797.01	1.132	88,189	209,204	297,393	247,974	6.02	24,797
	Res ENERGY STAR Pool Pumps	141	58.06	407,376	$56,100.00	2.9%	$5,039.91	$61,139.91	10.0	9,812	70,952	27,446	88,586	27,349	88,489	599.75	0.852	34,821	347,126	381,946	293,457	4.32	29,346
	Res Mini-Split Heat Pump	2	4.93	7,201	$840.00	0.2%	$427.96	$1,267.96	15.0	203	1,471	569	1,837	567	1,835	797.01	1.132	3,929	8,154	12,083	10,248	6.58	1,025
Hard-To-Reach SOP		**2,956**	**1,767.89**	**2,692,904**	**$ 883,880.69**	**100%**		**$883,880.69**		**$ 152,759**	**$ 1,036,640**	**$ 410,400**	**$ 1,294,281**	**$ 409,000**	**$ 1,292,881**			**$ 1,395,734**	**$ 3,010,349**	**$ 4,406,082**	**$ 3,113,201**	**3.41**	**$ 311,320**
	Hard-To-Reach Standard Offer Program																						
	Res Air Infiltration	782	728.03	728,709	$349,515.46	41.2%		$349,515.46	11.0	60,406	409,921	162,286	511,801	161,732	511,248	643.63	0.914	468,580	666,357	1,134,937	623,689	2.22	62,369
	Res Ceiling Insulation	371	494.91	788,118	$271,714.90	28.0%		$271,714.90	25.0	46,960	318,675	126,162	397,877	125,731	397,446	1061.38	1.508	525,291	1,188,445	1,713,736	1,316,290	4.31	131,629
	Res Duct Efficiency Improvement	707	211.19	379,391	$122,415.23	11.9%		$122,415.23	18.0	21,157	143,572	56,839	179,255	56,645	179,061	891.95	1.267	188,370	480,777	669,147	490,086	3.74	49,009
	Res ENERGY STAR Omni-Directional LED Lamps (Low Income Baseline)	635	32.66	209,943	$42,495.00	1.8%		$42,495.00	10.0	7,344	49,839	19,731	62,226	19,664	62,159	599.75	0.852	19,589	178,893	198,482	136,323	3.19	13,632
	Res Low-Flow Showerheads	305	51.21	138,237	$17,680.00	2.9%		$17,680.00	10.0	3,056	20,736	8,209	25,889	8,181	25,861	599.75	0.852	30,716	117,792	148,507	122,646	5.74	12,265
	CoolSaver Program																						
	Res Air Conditioner or Heat Pump Tune-Up	116	78.80	199,274	$19,890.00	4.5%		$19,890.00	5.0	3,438	23,328	9,235	29,125	9,204	29,094	340.57	0.484	26,838	96,421	123,259	94,165	4.24	9,417
	Multifamily HVAC Program																						
	Res Central Heat Pump	33	171.08	246,689	$60,170.10	9.7%		$60,170.10	15.0	10,399	70,569	27,938	88,108	27,843	88,013	797.01	1.132	136,350	279,339	415,689	327,676	4.72	32,768
	Res ENERGY STAR Connected Thermostats	7	-	2,543	$0.00	0.0%		$0.00	11.0	-	-	-	-	-	-	643.63	0.914	-	2,325	2,325	2,325	#DIV/0!	232
Portfolio Total		**12,234**	**20,007.55**	**44,885,306**	**$ 4,431,858.25**		**$ 1,477,046.66**	**$ 5,908,904.91**		**$ 823,372.70**	**$ 6,732,277.61**	**$ 2,496,579.70**	**$ 8,405,484.61**	**$ 2,487,219.70**	**$ 8,396,124.61**			**$ 11,028,434**	**$ 44,419,992**	**$ 55,448,426**	**$ 47,052,301**	**6.60**	**$ 4,705,230**