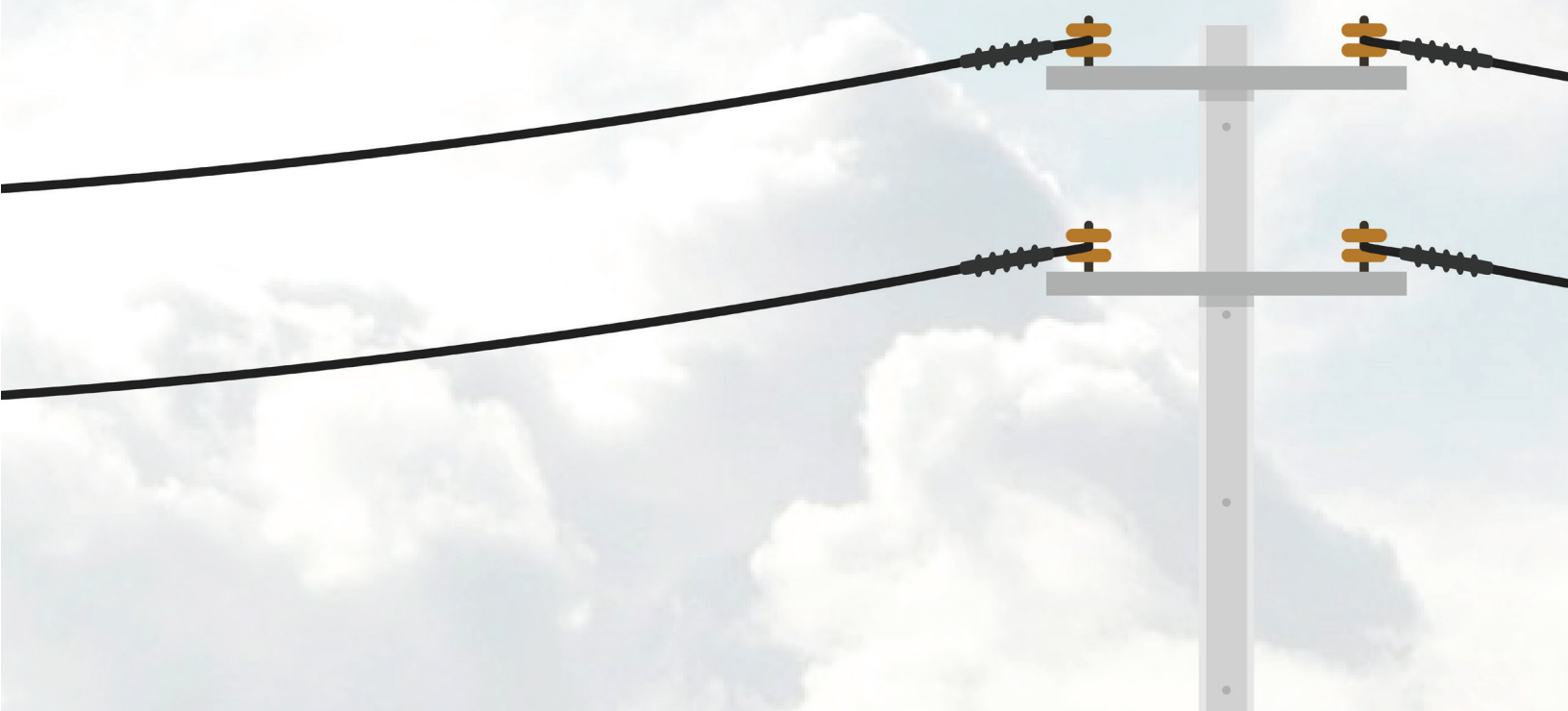


# 2018 Energy Efficiency Accomplishments

Public Utility Commission of Texas  
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## 1

## Introduction

The Public Utility Commission of Texas (PUCT) oversees the energy efficiency programs delivered by the state's investor-owned electric utilities: AEP Texas,

Inc.<sup>1</sup> (AEP Texas), CenterPoint Energy Houston Electric, LLC (CenterPoint), Entergy Texas, LLC (Entergy), El Paso Electric Company (El Paso Electric), Oncor Electric Delivery Co. LLC (Oncor), Southwestern Electric

Power Company (SWEPCO), Xcel Energy Southwestern Public Service Company (Xcel SPS), and Texas New Mexico Power Company (TNMP). The utilities' service territories are shown in Figure 1.

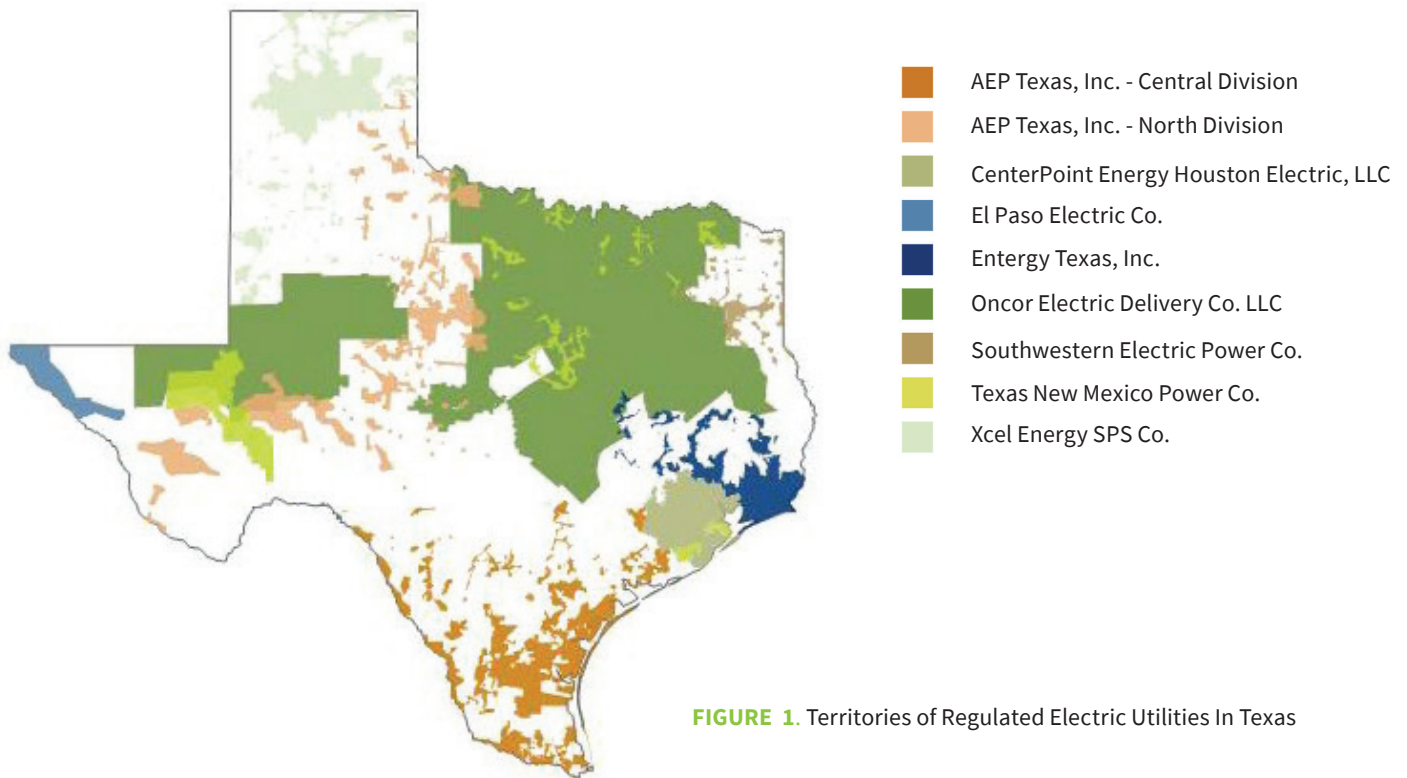


FIGURE 1. Territories of Regulated Electric Utilities In Texas

The Texas electric utilities administer a variety of programs that improve the energy efficiency of residential and commercial customers' homes and businesses. Standard offer programs (SOPs) develop the infrastructure of trade allies (e.g., contractors, distributors) and provide financial incentives to deliver higher efficiency products and services. Utilities select implementation firms to run

market transformation programs (MTPs). MTPs provide additional outreach, technical assistance, and education to customers in harder-to-reach markets (e.g., small business, health care, schools, and local governments) and for select technologies (e.g., recommissioning, air conditioning tune-ups, pool pumps). All utilities provide energy efficiency offerings to low-income customers through hard-to-reach

(HTR) programs that are delivered similarly to the residential SOPs. The utilities that are part of the Electric Reliability Council of Texas (ERCOT) also offer targeted low-income (LI) programs that coordinate with the existing federal weatherization program. Finally, the utilities manage load management programs, which are designed to reduce peak demand when needed.

<sup>1</sup> The PUCT approved the application by AEP Texas Central Company (AEP TCC), AEP Texas North Company (AEP TNC), and AEP Utilities Inc. to merge AEP TCC and AEP TNC into AEP Utilities and then rename that corporate entity AEP Texas, Inc. AEP Texas is reporting energy efficiency programs by the legacy AEP TCC and AEP TNC territories, which are now referred to as AEP Texas Central Division and AEP Texas North Division.

# 2

## PY2018 Energy Efficiency Summary Results

In program year (PY) 2018, the Texas electric utilities achieved statewide demand reductions of 475,752 kilowatts (kW) at a

lifetime savings cost of \$19.99 per kW.<sup>2</sup> The utilities achieved statewide energy savings of 577,804,709 kilowatt-hours (kWh) at a lifetime

savings cost of \$0.009 per kWh. PY2018 achieved the highest demand reductions to-date.

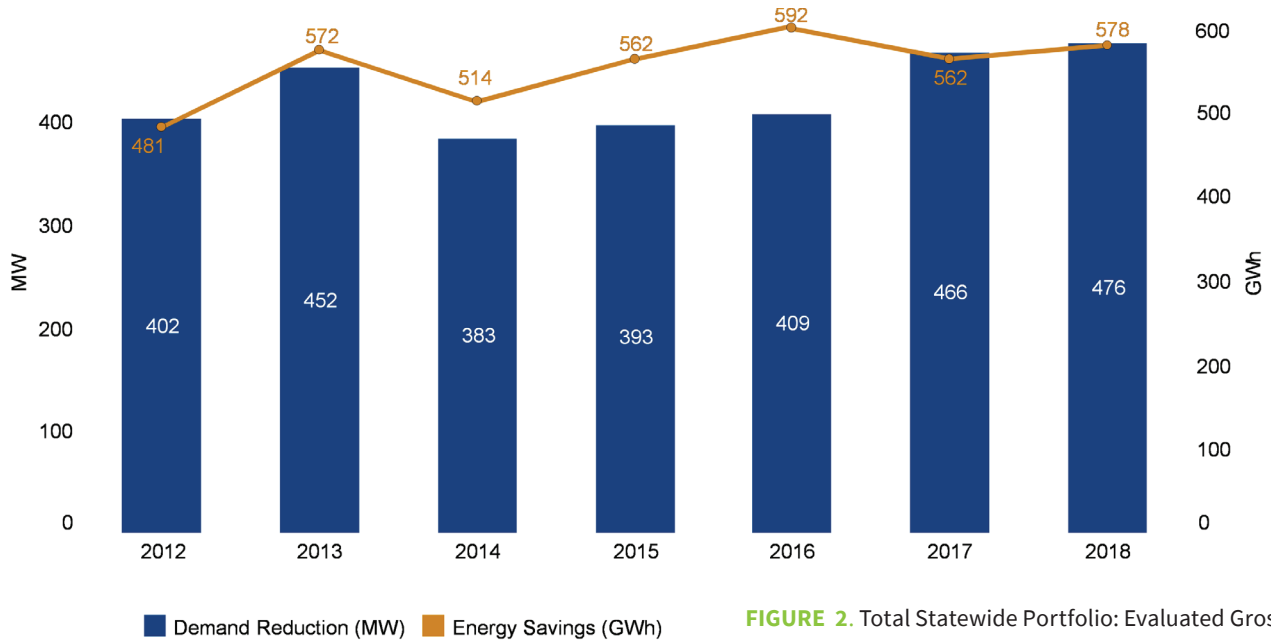


FIGURE 2. Total Statewide Portfolio: Evaluated Gross Demand Reduction and Energy Saving by Program Year

### PERSISTENCE OF SAVINGS

Energy savings and demand reductions from the energy efficiency programs persist beyond the program year they are installed based on the type of energy efficiency improvement made and how long it typically lasts. Half of the demand reductions and energy savings achieved to-date are expected to continue through 2030, as shown in Figures 3 and 4.

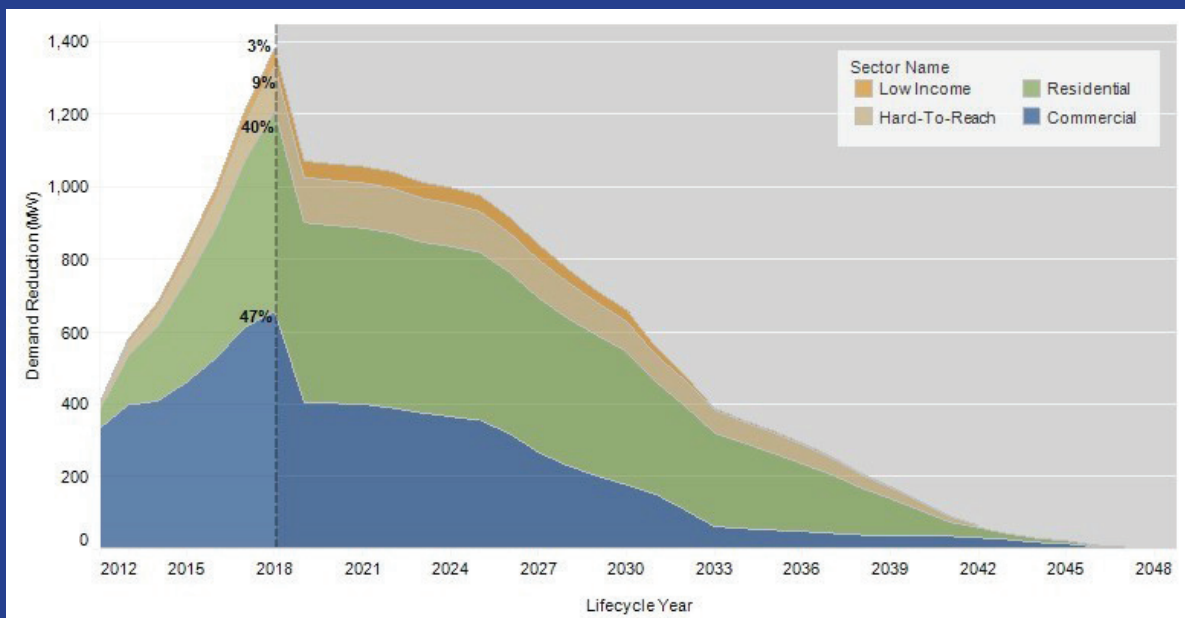
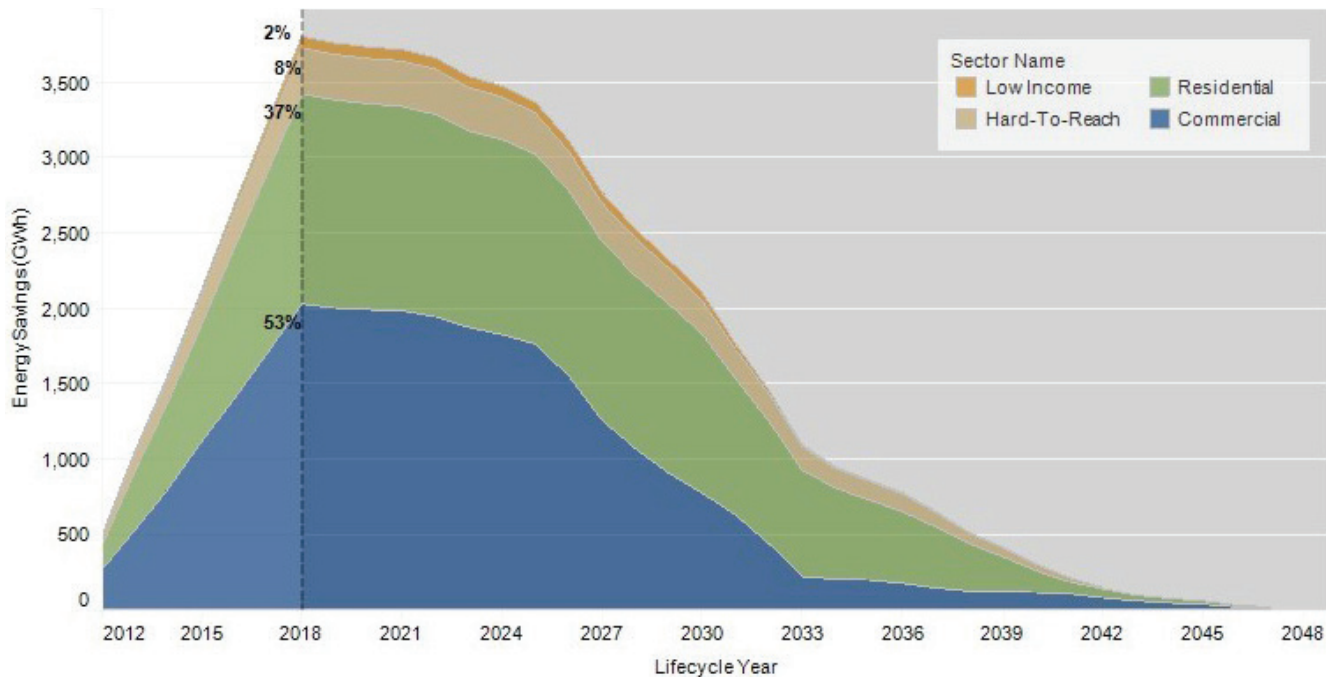


FIGURE 3. PY2012-PY2048 Lifecycle Demand Reduction by Sector (MW)

<sup>2</sup> Excluding load management programs, the lifetime savings cost is \$18.21 per kW.



**FIGURE 4.** PY2012-PY2048 Lifecycle Energy Savings by Sector (GWh)

## EM&V Overview

In 2011, the Texas Legislature enacted SB 1125, which required the Public Utility Commission of Texas (PUCT) to develop an Evaluation, Measurement, and Verification (EM&V) framework that promotes effective program design and consistent and streamlined reporting. The PUCT's EM&V independently verifies claimed savings across all programs through program tracking data that is received from the utilities. Additional EM&V activities include:

- Engineering desk reviews
- On-site M&V
- Interval meter data analysis
- Participant surveys
- In-depth interviews

The PUCT's EM&V team maintains the Texas Technical Reference Manual (TRM)—a centralized reference document updated annually that provides guidance on how to calculate savings for the wide range of energy efficiency improvements included in the programs.

# 3

## EM&V Key Findings

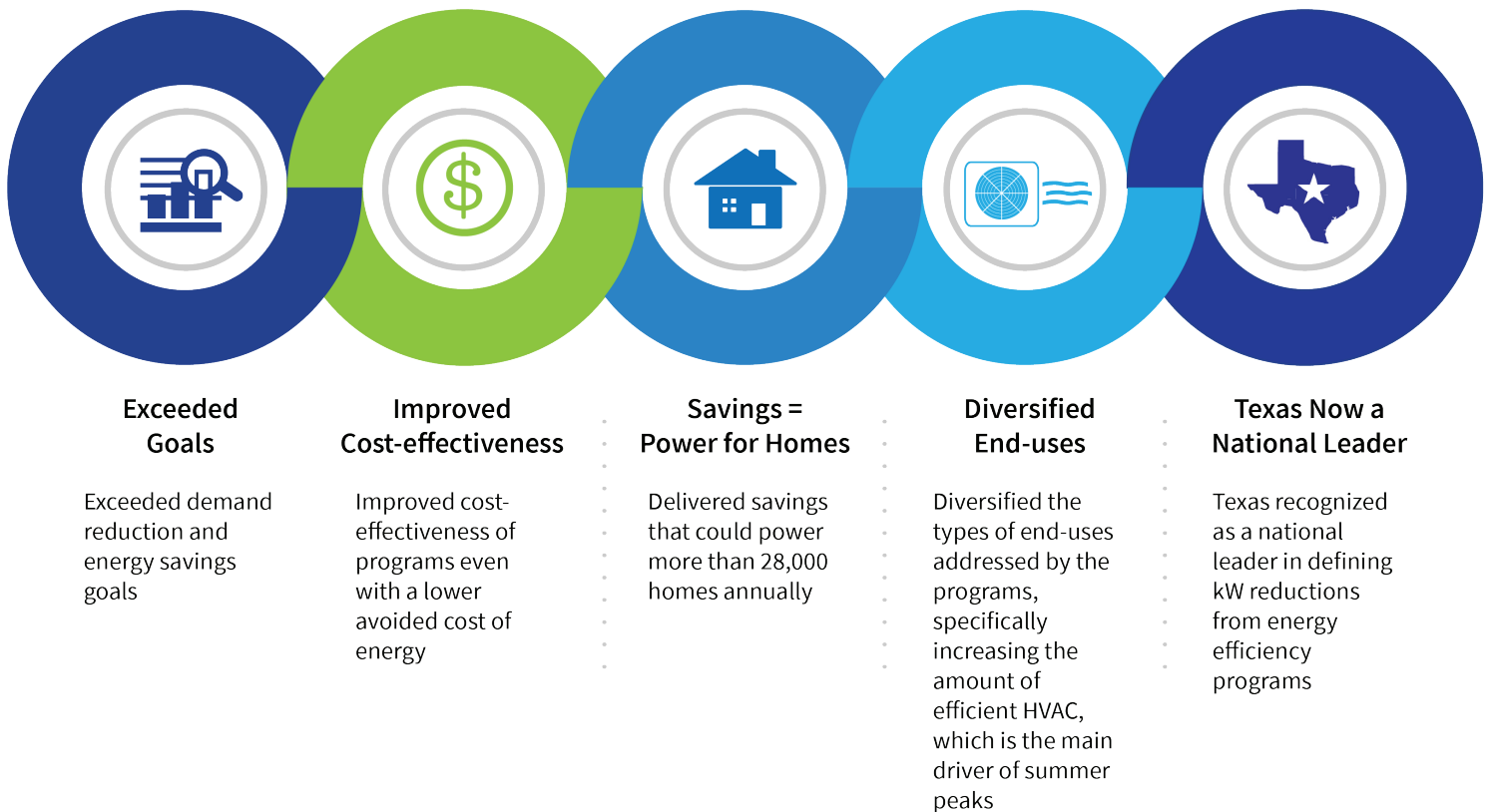
The overall evaluation results for the utilities' portfolios are positive, with claimed savings very similar to evaluated savings. This is a result of well-established program design and delivery processes, tracking systems, documentation,

and savings tools coupled with the utilities' collaboration with and responsiveness to the EM&V effort and improvements in the TRM.

One improvement previously made to the TRM—consistently defining demand reductions—has placed

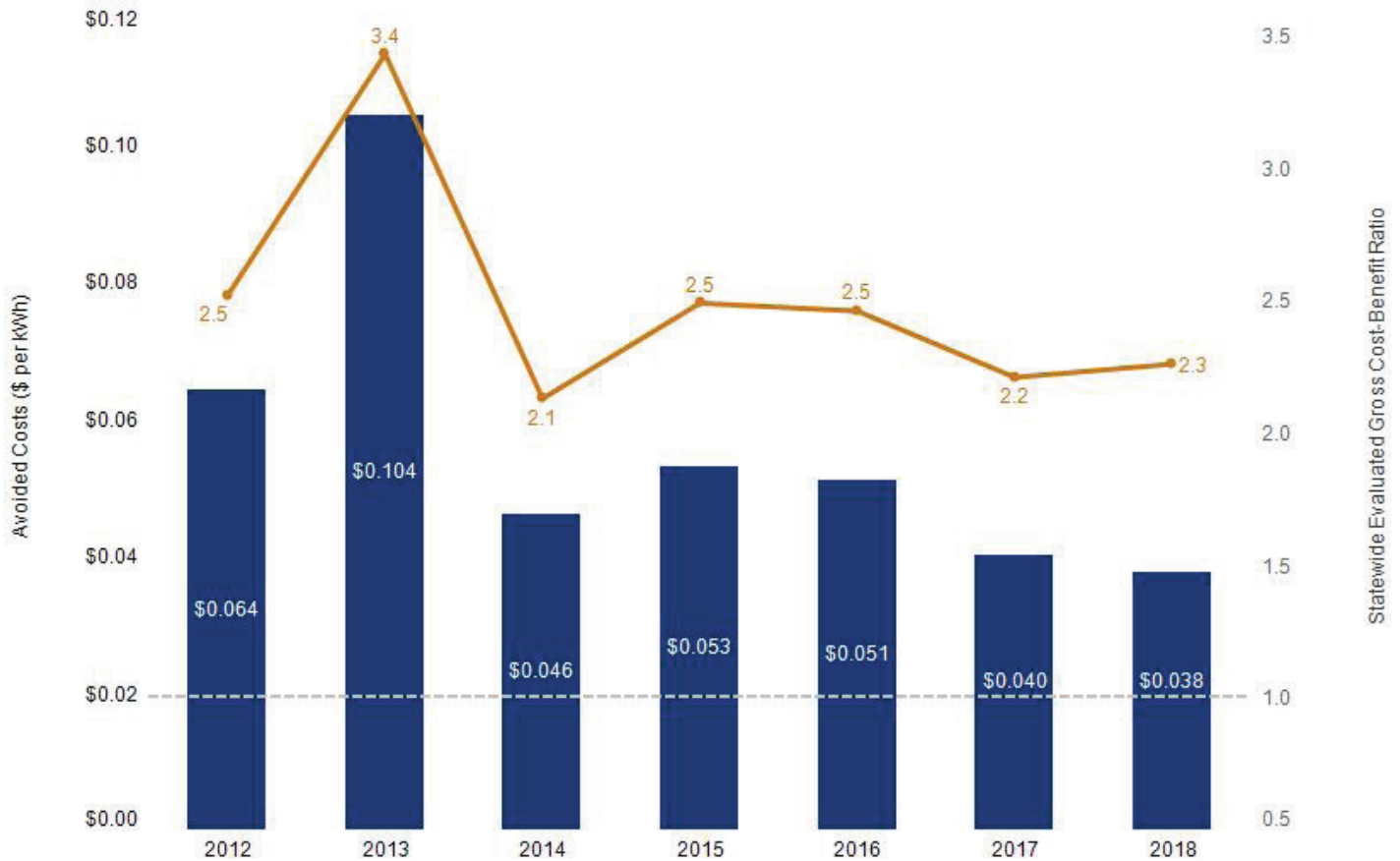
Texas as a national leader in defining demand reduction savings through energy efficiency programs.<sup>3</sup> The programs have demonstrated marked improvement in the diversity of measures offered through the programs, in particular, increasing HVAC projects.

### 2018 Energy Efficiency Accomplishments



<sup>3</sup> Collecting and Analyzing Peak Demand Impacts from Electricity Efficiency Programs, Energy Analysis and Environmental Impacts Division, Lawrence Berkeley National Laboratory, 2019

Statewide cost-effectiveness remains above 2.0 (benefits divided by costs) using the program administrator cost test. Figure 5 shows the gross cost-benefit ratio and avoided cost by program year.



**FIGURE 5.** Statewide Evaluated Gross Cost-benefit Ratio and Avoided Cost by Program Year

## Recommendations

The PUCT's EM&V recommendations facilitate more accurate, transparent, and consistent savings calculations and program reporting across the Texas energy efficiency programs, as well as provide feedback that can lead to improved program design and delivery. The PUCT and EM&V team work with the utilities to document "action plans" on how the utilities will respond to recommendations within the next program year.

Utilities have been responsive to prior recommended changes in their program implementation, savings calculations and reporting. The PY2018 evaluation

resulted in 42 additional recommendations across commercial programs (15), residential programs (9), load management programs (11), and cross-sector areas (7). Recommendations include opportunities to improve program performance, internal processes, tracking data and documentation, and TRM updates for more accurate savings calculations.

**The PY2018 evaluation resulted in 42 new recommendations.**