1		certification from the Association of Energy Engineers (AEE) as a Certified Energy
2		Manager.
3	Q.	HAVE YOU PREVIOUSLY FILED TESTIMONY BEFORE ANY REGULATORY
4		AGENCY?
5	A.	Yes, I have previously filed testimony before the Commission before the PUC in the
6		following dockets:
7 8		<ul> <li>Docket No. 35627, TCC's Application for Energy Efficiency Cost Recovery Factor (EECRF);</li> </ul>
9 10		<ul> <li>Docket No. 36960, TCC's Application to Adjust Energy Efficiency Cost Recovery Factor;</li> </ul>
11 12		<ul> <li>Docket No. 38208, TCC's Application to Adjust Energy Efficiency Cost Recovery Factor and Related Relief;</li> </ul>
13 14		<ul> <li>Docket No. 39360, TCC's Application to Adjust Energy Efficiency Cost Recovery Factor and Related Relief;</li> </ul>
15 16		<ul> <li>Docket No. 40359, TCC's Application to Adjust Energy Efficiency Cost Recovery Factor and Related Relief;</li> </ul>
17 18		<ul> <li>Docket No. 41538, TCC's Application to Adjust Energy Efficiency Cost Recovery Factor and Related Relief;</li> </ul>
19 20		<ul> <li>Docket No. 42508, TCC's Application to Adjust Energy Efficiency Cost Recovery Factor and Related Relief; and</li> </ul>
21 22		<ul> <li>Docket No. 44717 TCC's Application to Adjust Energy Efficiency Cost Recovery Factor and Related Relief.</li> </ul>
23	Q.	DO YOU SPONSOR ANY OF THE SCHEDULES ACCOMPANYING TCC'S
24		FILING?
25	A.	Yes, I sponsor Schedules L through O and Schedule R. In addition, I cosponsor
26		Schedule A with witnesses Robert Cavazos and Jennifer L. Jackson. I also cosponsor
27		Schedule B with witness Jackson and Schedules J, P and S with witness Cavazos.

1		II. PURPOSE OF TESTIMONY
2	Q.	WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?
3	A.	The purpose of my testimony is to present information supporting TCC's request to
4		adjust its EECRF for 2017. As Mr. Cavazos discusses in his direct testimony, TCC
5		seeks an adjustment in 2017 to reflect:
6 7 8 9 10		<ul> <li>recovery of \$6,869,313, which is the amount of TCC's projected energy efficiency costs for TCC's 2017 programs that exceed the energy efficiency costs expressly included in TCC's prior base rate order adjusted for 2015 revenue according to 16 Tex. Admin. Code § 25.181(f)(1)(B) (TAC);</li> </ul>
11 12		<ul> <li>return to customers of \$1,284,811, which is the amount of TCC's over- recovered energy efficiency costs in 2015;</li> </ul>
13 14 15		<ul> <li>recovery of \$3,459,596, which is the amount of TCC's performance bonus earned from actual energy efficiency achievements in Program Year (PY) 2015 results;</li> </ul>
16 17 18		• recovery of \$5,433, which is the amount of municipal EECRF proceeding expenses incurred in 2015 pursuant to 16 TAC § 25.181(f)(3)(B).
19		The total amount that TCC requests to be recovered through its adjusted 2017 EECRF
20		is \$9,049,531.
21		In my direct testimony, I first outline the energy efficiency goal established by
22		Public Utility Regulatory Act, Tex. Util. Code Ann. § 39.905 (PURA). I also discuss
23		the impact of the identification notice referenced in 16 TAC § 25.181(w). I then
24		present the actual energy efficiency expenditures incurred by TCC for its 2015
25		programs, 2015 municipal EECRF proceeding expenses, and EM&V costs incurred in
26		PY 2015. I describe each of the programs that TCC implemented during 2015. I also
27		present TCC's projected costs and the plans and programs TCC will implement to
28		achieve its energy efficiency objectives for 2017.

1		<b>III. ENERGY EFFICIENCY REQUIREMENTS AND OBJECTIVES</b>
2		A. Statutory and Regulatory Requirements
3	Q.	PLEASE DESCRIBE THE BASIC REQUIREMENTS OF PURA § 39.905 AS
4		RELEVANT TO YOUR TESTIMONY.
5	A.	As discussed by Mr. Cavazos in his testimony, the requirements of PURA § 39.905 as
6		relevant to my testimony are:
7		• A utility must administer energy efficiency programs.
8 9 10 11 12		• A utility must provide incentives adequate for the purpose of acquiring cost-effective energy efficiency equivalent to at least 30% of the electric utility's annual growth in demand of residential and commercial customers beginning with the 2013 program year; but not less than the previous year.
13 14 15 16 17 18 19		• Once the utility's demand reduction goal is equivalent to at least four- tenths of one percent of its summer weather-adjusted peak demand for the combined residential and commercial customers for the previous program year, the utility's goal shall be four-tenths of one percent of its summer weather-adjusted peak demand for the combined residential and commercial customers for the previous program year; but not less than the previous year.
20 21		• A utility must provide incentives through market-based standard offer programs (SOPs) or targeted market transformation programs (MTPs).
22 23 24 25		• A utility must provide incentives in such a manner that retail electric providers (REPs) and competitive energy efficiency service providers (EESPs) install the measures that produce the energy efficiency necessary to meet the utility's mandated annual goal.
26	Q.	HAS THE COMMISSION ADOPTED RULES TO IMPLEMENT PURA § 39.905?
27	A.	Yes, 16 TAC § 25.181 has been adopted to implement PURA § 39.905.

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### Q. WHAT ARE SOME OF THE KEY COMPONENTS OF 16 TAC § 25.181?

- 2 A. Some of the key components of 16 TAC § 25.181 are:
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- A utility must administer energy efficiency programs.
- An electric utility shall administer energy efficiency programs to acquire a 30% reduction of its annual growth in demand of residential and commercial customers until the demand reduction goal to be acquired is 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.
- Once the demand reduction goal to be acquired 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 acquire four-tenths of 1% of its summer weather-adjusted peak demand for the combined residential and commercial customers for the previous program year.
  - A utility's demand goal in any year shall not be lower than its goal for the prior year.
    - 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 required cost caps.
- A utility shall adjust an EECRF to timely recover forecasted annual energy efficiency program costs in excess of the actual energy efficiency revenues collected from base rates, the preceding year's over- or under-recovery including municipal and utility EECRF proceeding expenses, any performance bonus earned, and EM&V costs assigned to the utility.
  - 16 TAC § 25.181(h) allows a utility exceeding the minimum goal to earn a performance bonus.
    - A utility may use up to 15% of its total program costs for administration of its energy efficiency programs.
  - A utility may use up to 10% of the previous program year's costs to perform necessary energy efficiency research and development (R&D) to foster continuous improvement and innovation in the application of energy efficiency technology and energy efficiency program design and implementation.
    - The cumulative cost of administration and R&D shall not exceed 20% of a utility's total program costs.

• An EM&V framework is included to evaluate program portfolio performance and to measure and verify estimated demand and energy impacts reported for those programs.

- Qualifying industrial customers taking electric service at distribution voltage may submit a notice to identify metering points for their industrial processes, which allows those metering points to not be charged for any costs associated with programs provided through the EECRF.
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### Q. HOW DOES TCC IMPLEMENT THESE REQUIREMENTS?

10 TCC develops and offers cost-effective energy efficiency programs to third-party A. EESPs as defined in 16 TAC § 25.181(c)(17), who in turn market their services to 11 12 end-use retail residential and commercial customers. These programs offer incentives to encourage third-party EESPs, REPs and/or customers to participate as project 13 sponsors of energy efficiency measures. These project sponsors then supply and 14 install the measures at homes or businesses that produce the energy efficiency savings 15 that TCC reports to satisfy the energy efficiency objectives of its programs. The 16 Commission's energy efficiency rule allows commercial customers with a peak 17 18 demand of 50 kilowatts (kW) or greater to act as their own EESP for measures they install for themselves. The energy efficiency objectives and goals are established 19 annually, so that each year TCC must procure the necessary demand reduction and 20 energy savings from participating project sponsors to meet TCC's objectives for that 21 year. The energy efficiency savings may be in the form of reduction in summer or 22 23 winter peak demand (kW), energy usage (kWh), or both. TCC pays incentives to the project sponsors for peak demand and energy savings resulting from the energy 24 25 efficiency measures installed according to program guidelines.

Q. PLEASE DEFINE THE TERM SOP.

A. Pursuant to 16 TAC § 25.181(c)(56) an SOP is defined as a program under which a
utility administers standard offer contracts between the utility and the EESP. A
standard offer contract specifies standard payments based upon the amount of energy
and peak demand savings achieved through energy efficiency measures, the
applicable measurement and verification (M&V) protocols, and other terms and
conditions, consistent with 16 TAC § 25.181.

8 Q. PLEASE DEFINE THE TERM MTP.

9 A. Pursuant to 16 TAC § 25.181(c)(37) an MTP is defined as a strategic program
10 intended to induce lasting structural or behavioral changes in a market that result in
11 the increased adoption of energy efficiency technologies, services, and practices.

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### B. Annual Demand Reduction Goal

13 Q. PLEASE DESCRIBE TCC'S DEMAND REDUCTION GOAL REQUIREMENT.

Pursuant to 16 TAC  $\S$  25.181(e)(1), TCC is to acquire a 30% reduction of its annual 14 A. growth in demand of residential and commercial customers until that goal is 15 equivalent to at least four-tenths of 1% (the trigger) of TCC's summer 16 weather-adjusted peak demand for the combined residential and commercial 17 customers for the previous program year. Once that trigger is reached, TCC shall 18 acquire four-tenths of 1% of its summer weather-adjusted peak demand for the 19 combined residential and commercial customers for the previous program year. In 20 addition, 16 TAC § 25.181(e)(1)(E) also states that, except as adjusted in accordance 21 with subsection (w) of the rule, a utility's demand reduction goal in any year shall not 22

1		be lower than its goal for the prior year, unless the Commission establishes a goal for
2		a utility pursuant to paragraph (2) of 16 TAC § 25.181(e).
3	Q.	HAS TCC MET THE TRIGGER DESCRIBED IN 16 TAC § 25.181(e)(1)(C)?
4	A.	Yes. TCC met the trigger when calculating its goal for PY 2016.
5	Q.	PLEASE DESCRIBE HOW TCC'S FOUR-TENTHS OF 1% DEMAND
6		REDUCTION GOAL IS CALCULATED.
7	A.	TCC's four-tenths of 1% demand reduction goal was calculated by taking the average
8		of the 2011 - 2015 weather adjusted peak demand at the meter adjusted for line
9		losses. The resulting peak demand average for this time period was 3,958 MW;
10		therefore, TCC's four-tenths of 1% goal for PY 2017 is 15.83 MW.
11	Q.	COULD THE IDENTIFICATION NOTICE REQUIREMENT, AFFECT THE
12		UTILITY'S CALCULATED GOAL FOR ENERGY EFFICIENCY?
13	A.	Yes. Pursuant to 16 TAC § 25.181(w) the utility's demand reduction goal is required
14		to be adjusted to remove any load identified as a result of the identification notice
15		provision.
16	Q.	ARE ANY SUCH NOTICES TO BE EFFECTIVE IN PY 2017?
17	A.	Yes. TCC received identification notices prior to February 1, 2016 for 306 ESIDs
18		representing 8,064.5 kW.
19	Q.	WHAT IS TCC'S DEMAND REDUCTION GOAL TO BE ACHIEVED IN PY
20		2017?
21	A.	The demand reduction goal for TCC to achieve in PY 2017 is 15.83 MW, based on
22		the requirements in 16 TAC § 25.181(e)(1)(E) and as adjusted in accordance with
23		subsection (w). The minimum PY 2017 demand reduction goal is set forth in

1		Schedule N that I sponsor. TCC, however, projects it will achieve as much as 46.91
2		MW of demand reduction from the programs it will implement in PY 2017. As
3		Mr. Cavazos explains in his testimony, TCC interprets PURA §39.905 and 16 TAC
4		§ 25.181 as intended to encourage as much cost-effective energy efficiency as can
5		reasonably be achieved under the limits set forth in the statute and rule.
6	Q.	WERE LINE LOSSES INCORPORATED IN THE CALCULATION OF THE
7		DEMAND REDUCTION GOAL?
8	A.	Yes. Calculation of the demand reduction goal used the line loss numbers referenced
9		in Table 4 of its 2016 Energy Efficiency Plan and Report. Line losses are derived
10		from the loss factors determined in TCC's most recent line loss study.
11		C. Annual Energy Savings Goal
12	Q.	HOW IS THE ENERGY SAVINGS GOAL CALCULATED UNDER 16 TAC
13		§ 25.181?
14	A.	The minimum energy savings goal is calculated from the utility's calculated demand
15		goal, using a 20% conservation load factor, as set forth in 16 TAC § 25.181(e)(4).
16	Q.	WHAT IS TCC'S ENERGY SAVINGS GOAL TO BE ACHIEVED IN PY 2017?
17	A.	The energy savings goal for TCC to achieve in PY 2017 is 27,734 megawatt-hour
18		(MWh). The 2017 energy savings goal is set forth in Schedule N. However, TCC
19		projects to achieve as much as 62,668 MWh of energy savings from the programs it
20		will implement in PY 2017. As I mentioned above and as Mr. Cavazos explains in
21		his testimony, TCC interprets PURA § 39.905 and 16 TAC § 25.181 as intended to
22		encourage utilities to achieve as much cost-effective energy efficiency as can
23		reasonably be achieved under the limits set forth in the statute and rule.

1		D. Process to Achieve Savings
2	Q.	WILL TCC OFFER PROGRAMS TO ACHIEVE THESE PY 2017 SAVINGS?
3	A.	Yes, I discuss the programs that TCC will offer in Section V of my testimony. TCC's
4		energy efficiency program portfolio is designed to achieve both its demand reduction
5		and energy savings objectives for PY 2017.
6	Q.	WILL ALL ELIGIBLE CUSTOMERS HAVE ACCESS TO ENERGY
7		EFFICIENCY PROGRAMS OFFERED BY TCC?
8	A.	Yes, except for industrial customers who have submitted an identification notice, all
9		customers in the residential and commercial customer classes will have access to the
10		energy efficiency programs offered by TCC.
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12		IV. ENERGY EFFICIENCY COSTS
13		<u>A. PY 2015</u>
14	Q.	WHAT COSTS DID TCC INCUR WITH ITS PY 2015 ENERGY EFFICIENCY
15		PROGRAMS?
16	A.	The costs incurred by TCC to implement its PY 2015 energy efficiency programs
17		totaled \$13,483,745, as shown in Schedule B.
18	Q.	WERE TCC'S ACTUAL PY 2015 ENERGY EFFICIENCY COSTS LESS THAN
19		THE ENERGY EFFICIENCY AMOUNT PROJECTED FOR PY 2015?
20	A.	Yes. TCC's energy efficiency costs were about 6% (\$911,846) less than the projected
21		amount in 2015.
22	Q.	WERE TCC'S PY 2015 PROGRAM PORTFOLIO COSTS LESS THAN OR
23		EQUAL TO THE BENEFITS OF THE PROGRAMS?

A. Yes. The benefit-cost ratio for TCC's entire PY 2015 program portfolio is shown in
 Schedule P. The estimated useful life for each measure is provided in Schedule M.

3 Q. PLEASE DESCRIBE TCC'S PY 2015 ADMINISTRATIVE COSTS.

A. TCC's PY 2015 administrative costs included costs to conduct outreach and
workshops to explain programs to EESPs and REPs and costs to review incentive
reports and conduct inspections of installed measures. Administrative duties also
include continuous review and monitoring of programs for successful program
implementation. Costs associated with work activities regarding regulatory reporting
and special projects are also considered administrative costs and are included in
TCC's administrative costs.

11 Q. DID TCC'S PY 2015 ADMINISTRATIVE COSTS INCLUDE ANY AFFILIATE12 COSTS?

13 A. Yes. Affiliate costs are discussed by TCC witnesses Cavazos and Brian J. Frantz.

14 Q. DID TCC HAVE ANY EXPENSES ASSOCIATED WITH R&D IN PY 2015?

15 A. Yes. TCC expended \$332,535 for R&D in PY 2015 as detailed in Schedule B.

16 Q. PLEASE DESCRIBE TCC'S R&D EFFORTS.

A. TCC's PY 2015 R&D projects included costs related to identifying, developing and implementing necessary enhancements to its electronic data collection and management systems to incorporate updates for new program requirements, regulatory requirements, and deemed savings values; and costs associated with researching new technologies and energy efficiency program ideas. TCC also participated with the Electric Utility Marketing Managers of Texas (EUMMOT) in research activities that included providing technical support for the Texas Technical

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1		Reference Manual. All of the R&D expenditures incurred in PY 2015 were for the
2		purpose of fostering continuous improvement and innovation in the application of
3		energy efficiency technology and energy efficiency program design and
4		implementation.
5	Q.	PLEASE DESCRIBE TCC'S PY 2015 EXPENDITURES FOR ITS TARGETED
6		LOW-INCOME PROGRAM.
7	A.	As required by 16 TAC § 25.181(r), TCC expended \$1,368,732 in PY 2015 for the
8		targeted low-income energy efficiency program, which is 10.3% of TCC's PY 2015
9		energy efficiency budget.
10	Q.	HAS TCC PROVIDED INFORMATION ON THE BIDDING AND
11		ENGAGEMENT PROCESS USED FOR CONTRACTING WITH EESPS?
12	A.	Yes. Schedule L describes the process used to select and contract with EESPs.
13	Q.	DID ANY SINGLE EESP RECEIVE MORE THAN 5% OF TCC'S OVERALL
14		INCENTIVE PAYMENTS?
15	A.	Yes. Please see Confidential Schedule J for a list of EESPs receiving more than 5%
16		of TCC's PY 2015 overall incentive payments.
17		B. 2015 EECRF Proceeding Expenses
18	Q.	DOES TCC REQUEST RECOVERY OF ANY COSTS RELATED TO THE 2015
19		EECRF PROCEEDING EXPENSES?
20	A.	Yes. TCC requests recovery of \$5,433 for municipal rate case expenses incurred as a
21		result of its 2015 EECRF proceeding in Docket No. 44717.

PUC DOCKET NO. 45929

1	Q.	WHY DID TCC INCLUDE MUNICIPAL RATE CASE EXPENSES?
2	A.	16 TAC § 25.181(f)(3) states that an EECRF proceeding is a ratemaking proceeding
3		for the purposes of PURA § 33.023 and that a utility's EECRF proceeding expenses
4		shall be included in the EECRF. TCC has included municipal expenses incurred for
5		the 2015 EECRF proceeding, as allowed by 16 TAC § 25.181(f)(3)(B).
6		<u>C. 2014 EM&amp;V Costs</u>
7	Q.	DID TCC INCUR ANY COSTS IN 2015 FOR EM&V FOR THE EVALUATION
8		OF PY 2014?
9	A.	Yes, TCC incurred \$222,263 in costs paid to the statewide EM&V contractor during
10		2015 for the evaluation of PY 2014.
11		D. 2017 Projected Energy Efficiency Program Costs
12	Q.	WHAT ARE TCC'S ENERGY EFFICIENCY PLANS FOR PY 2017?
13	A.	As shown in Schedule A, TCC will implement 14 energy efficiency programs in PY
14		2017 for a total projected cost of \$14,082,459, which includes R&D and EM&V
15		activities. The 14 energy efficiency programs are described in Schedule R and are
16		designed to allow TCC to achieve its energy efficiency objectives for PY 2017. This
17		portfolio of programs will continue to encourage EESPs and REPs to provide energy
18		efficiency services to all qualifying residential and commercial customers. Each year
19		TCC reviews the programs and activities that have taken place to improve its plan for
20		the upcoming year. TCC has selected the programs that it believes will achieve its
21		PY 2017 objectives and comply with PURA provisions and the PUC rule.
22	Q.	HOW DID TCC DETERMINE ITS PY 2017 ENERGY EFFICIENCY
23		OBJECTIVES?

PUC DOCKET NO. 45929

1 A. TCC first determined to achieve even greater cost-effective energy efficiency savings 2 than required. TCC then allocated portions of its PY 2017 projected program costs among customer classes using criteria such as customer counts, historical cost 3 allocation, and previous program success. The Hard-to-Reach SOP and the Targeted 4 5 Low-Income Energy Efficiency Program were designed to comply with PURA provisions and the Commission rule. TCC then estimated projected impacts from 6 each program based on historical results and previous years' experience. Projected 7 impacts from all programs within each customer class were then combined to 8 9 formulate customer class projected savings. Finally, all projected customer class 10 savings were added together to produce TCC's PY 2017 energy efficiency objectives 11 as shown in Schedule O.

## 12 Q. ARE THERE SPECIFIC TYPES OF ADMINISTRATIVE COSTS ASSOCIATED 13 WITH THE PY 2017 ENERGY EFFICIENCY PROGRAMS?

14 Yes, administrative costs for PY 2017 include conducting workshops to explain A. programs to EESPs and REPs, conducting outreach and program marketing, 15 16 reviewing M&V plans for some projects that do not utilize deemed savings measures, 17 and site inspections of installed measures. Administrative costs also include development, review and selection of new or revised programs that may be 18 considered for successful program implementation. Costs associated with work 19 activities regarding regulatory reporting and special projects are also considered 20 21 administrative costs and are included as shown in Schedule A.

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PUC DOCKET NO. 45929

1	Q.	DOES TCC INCLUDE ANY PROPOSED R&D ACTIVITIES IN ITS PROJECTED
2		COSTS FOR PY 2017?
3	A.	Yes, TCC's PY 2017 projected R&D costs include \$365,125 or about 2.6% of its
4		total projected program costs as shown in Schedule A.
5		E. 2017 EM&V Costs
6	Q.	DOES TCC INCLUDE ANY EM&V COSTS AS PART OF ITS PROJECTED 2017
7		COSTS?
8	A.	No, the current EM&V contract expires at the end of PY 2016, therefore TCC does
9		not have any projected EM&V expenses for PY 2017.
10		
11		V. ENERGY EFFICIENCY PROGRAMS
12		A. PY 2015 Programs
13	Q.	WHAT PROGRAMS DID TCC OFFER IN PY 2015 TO ACHIEVE ITS ENERGY
14		EFFICIENCY OBJECTIVES?
15	A.	TCC offered the following programs in PY 2015:
16		• A/C Distributor Pilot MTP
17		Commercial Solutions MTP
18		Commercial SOP
19		• CoolSaver <sup>©</sup> A/C Tune-up MTP
20		Efficiency Connection Pilot MTP
21		Hard-to-Reach SOP
22		High Performance New Homes MTP
23		Load Management SOP
24		Open MTP
25		Residential SOP

SCORE/CitySmart MTP 1 SMART Source<sup>SM</sup> Solar PV MTP 2 Targeted Low-Income Energy Efficiency Program 3 • 4 Q. PLEASE DESCRIBE THE A/C DISTRIBUTOR MTP. 5 A. The A/C Distributor MTP targets a select number of air conditioning (A/C)distributors in one or more cities served by TCC. The objective of the program is to 6 increase the market penetration of high efficiency A/C equipment for residential 7 customers served by TCC. Incentives are paid to the distributor for the installation of 8 9 high efficiency A/C equipment of up to five tons in cooling capacity. 10 PLEASE DESCRIBE THE COMMERCIAL SOLUTIONS MTP. О. 11 The Commercial Solutions MTP identifies a variety of commercial customers having A. a high likelihood of installing energy efficiency measures within their facilities. 12 13 These customers may have delayed making such improvements for a number of

reasons, including an inability to identify appropriate actions to take or lack of understanding of energy efficiency project funding. The Commercial Solutions MTP provides education and information to such customers, and provides monetary incentives to encourage them to take action to improve their facilities' energy efficiency.

19 Q. PLEASE DESCRIBE THE COMMERCIAL SOP.

A. The Commercial SOP provides incentives for the installation of a wide range of
 measures that reduce customer energy costs and reduce peak demand and/or save
 energy in non-residential facilities. Examples of eligible customer sites include
 hotels, schools, manufacturing facilities, restaurants, and larger grocery and retail

stores. These types of customers have installed eligible measures such as lighting systems, new or replacement chiller systems, high-efficiency pumping systems, and other similar efficient technologies. Incentives are paid to project sponsors on the basis of deemed savings or, if deemed savings have not been established for a particular qualifying energy efficiency measure, incentives may be paid on the basis of verified peak demand and/or energy savings using the International Performance Measurement & Verification Protocol.

8 Q. PLEASE DESCRIBE THE COOLSAVER<sup>©</sup> A/C TUNE-UP MTP.

9 A. The CoolSaver<sup>©</sup> A/C Tune-Up MTP is designed to overcome market barriers that
10 prevent residential and small business customers from receiving high-performance
11 A/C system tune-ups. This program works with local A/C distributor networks to
12 train and certify A/C technicians on tune-up and air flow correction services and
13 protocols.

### 14 Q. PLEASE DESCRIBE THE EFFICIENCY CONNECTION MTP.

A. The Efficiency Connection Pilot MTP is a partnership with Retail Electric Providers
(REPs) to help promote energy efficiency to TCC residential customers by offering
discounted LED lamps via an online marketplace. A third-party implementer
facilitates customer/REP participation and aids in the selection and management of an
online retailer/vendor for the program website and order fulfillment.

- 20 Q. PLEASE DESCRIBE THE HARD-TO-REACH SOP.
- A. The Hard-to-Reach SOP targets a specific subset of residential customers defined by
  16 TAC § 25.181(c)(27). The hard-to-reach customer is one whose total household
  income is less than 200% of federal poverty guidelines. The program provides

incentives for the installation of a wide range of measures that reduce residential
 customer energy costs and reduce peak demand. It is designed to
 cost-effectively provide energy efficiency improvements to individual households at
 no or very low cost. Incentives are paid to project sponsors for eligible measures
 installed in retrofit applications on the basis of deemed savings. Eligible measures
 include replacement air conditioners, wall and ceiling insulation, and air distribution
 duct improvements, among others.

8 Q. PLEASE DESCRIBE THE HIGH PERFORMANCE NEW HOMES MTP.

9 A. The High Performance New Homes MTP targets homebuilders and residential 10 consumers. The program's goal is to create conditions where consumers demand 11 high performance built homes, and homebuilders supply these energy-efficient 12 homes. Incentives are paid to homebuilders who construct high performance built 13 homes in the TCC service area and independent home energy raters who verify the 14 energy efficiency of the homes.

15 Q. PLEASE DESCRIBE THE LOAD MANAGEMENT SOP.

A. The Load Management SOP targets commercial customers that have a minimum
 demand of 500 kW or more. Incentives are paid to project sponsors that identify
 interruptible load and provide curtailment of this electric load on short notice. These
 payments are based on the delivery of metered demand reduction.

20 Q. PLEASE DESCRIBE THE OPEN MTP.

A. The Open MTP targets traditionally underserved small commercial customers who
 may not employ knowledgeable personnel with a focus on energy efficiency, who are
 limited in the ability to implement energy efficiency measures, and/or who typically

do not actively seek the help of a professional EESP. Small commercial customers with a peak demand not exceeding 100 kW in the previous 12 consecutive billing months may qualify to participate in the program. The program is intended to overcome market barriers for participating contractors by providing technical support and incentives to implement energy efficiency upgrades and produce demand and energy savings.

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### Q. PLEASE DESCRIBE THE RESIDENTIAL SOP.

A. The Residential SOP provides incentives for the installation of a wide range of
measures that reduce residential customer energy costs and reduce peak demand. It is
also designed to encourage private sector delivery of energy efficiency products and
services. Incentives are paid to project sponsors for eligible measures installed in
retrofit applications on the basis of deemed savings. Eligible measures include
replacement air conditioners, wall and ceiling insulation, and air distribution duct
improvements, among others.

15 Q. PLEASE DESCRIBE THE SCORE/CITYSMART MTP.

16 A. The Schools COnserving REsources/CitySmart MTP (SCORE/CitySmart) provides 17 energy efficiency and demand reduction solutions for cities and public schools. In 2014, SCORE/CitySmart facilitated the examination of actual demand and energy 18 19 savings, operating characteristics, program design, long-range energy efficiency 20 planning and overall measure and program acceptance by the targeted cities and 21 schools. This program is designed to help educate and assist these customers to lower 22 energy use by integrating energy efficiency into their short- and long-term planning, 23 budgeting and operational practices. Incentives are paid to participants for certain

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qualifying measures installed in new or retrofit applications that result in verifiable demand and energy savings.

3 Q. PLEASE DESCRIBE THE SMART SOURCE<sup>SM</sup> SOLAR PV MTP.

A. The SMART Source<sup>SM</sup> Solar PV MTP offers residential and commercial installations
a financial incentive for installations of solar electric (photovoltaic) systems
interconnected on the customer's side of the electric service meter. The goal of this
program is to transform the market by increasing the number of qualified companies
offering installation services and by decreasing the average installed cost of systems,
creating economies of scale.

10 Q. PLEASE DESCRIBE THE TARGETED LOW-INCOME ENERGY EFFICIENCY11 PROGRAM.

12 A. TCC's Targeted Low-Income Energy Efficiency Program is designed to 13 cost-effectively reduce the energy consumption and energy costs of TCC's 14 low-income residential customers. The program provides eligible residential 15 customers with appropriate weatherization measures and basic on-site energy 16 education.

17

### B. PY 2015 Achievements

18 Q. PLEASE DESCRIBE TCC'S REQUIRED DEMAND REDUCTION GOAL FOR
19 PY 2015 AND THE RESULTS THAT WERE ACHIEVED IN 2015.

20 A. TCC's required demand reduction goal to be achieved in PY 2015 was 12.93 MW.

TCC's actual demand reduction achieved was 43.78 MW of peak demand savings
from its PY 2015 energy efficiency programs.

1	Q.	PLEASE DESCRIBE TCC'S REQUIRED ENERGY REDUCTION GOAL FOR PY
2		2015 AND THE RESULTS THAT WERE ACHIEVED IN PY 2015.
3	Α.	TCC's required energy reduction goal to be achieved in PY 2015 was 22,653 MWh.
4		TCC's actual energy reduction achieved was 68,482 MWh from its PY 2015 energy
5		efficiency programs.
6	Q.	PLEASE DESCRIBE THE AMOUNT OF DEMAND REDUCTION THAT TCC
7		ACHIEVED FROM ITS HARD-TO-REACH PROGRAMS.
8	A.	TCC achieved demand reductions of 1.22 MW from its Hard-To-Reach SOP and 0.63
9		MW from its Targeted Low Income Energy Efficiency Program. The total from both
10		hard-to-reach programs was 1.85 MW in demand reduction.
11	Q.	DID TCC ACHIEVE MORE THAN 5% OF ITS STATUTORY DEMAND
12		REDUCTION GOAL FROM ITS HARD-TO-REACH PROGRAMS?
13	A.	Yes, TCC achieved 14% of its PY 2015 statutory demand reduction goal from its
14		hard-to-reach programs.
15	Q.	DOES TCC REQUEST A PERFORMANCE BONUS FOR PY 2015?
16	A.	Yes, it does. Mr. Cavazos discusses the \$3,459,596 performance bonus requested by
17		TCC for its PY 2015 results.
18	Q.	SHOULD TCC BE GRANTED ITS REQUESTED PERFORMANCE BONUS?

19 A. Yes, TCC should be granted its requested performance bonus set forth in Schedule D.

1		C. PY 2017 Programs
2	Q.	WHAT PROGRAMS WILL TCC OFFER IN PY 2017 TO ACHIEVE THE
3		ENERGY EFFICIENCY OBJECTIVES?
4	A.	TCC will offer the following programs in PY 2017:
5 6 7		<ul> <li>Commercial Solutions MTP</li> <li>Commercial SOP</li> <li>CoolSaver<sup>©</sup> A/C Tune-up MTP</li> </ul>
8		• Earth Networks Residential DR Pilot MTP
9		Efficiency Connection Pilot MTP
10		Hard-to-Reach SOP
11		• High Performance New Homes MTP
12		Load Management SOP
13		• Open MTP
14		Residential SOP
15		Reliant Residential DR Pilot MTP
16		SCORE/CitySmart MTP
17		• SMART Source <sup>SM</sup> Solar PV MTP
18		Targeted Low Income Energy Efficiency Program
19	Q.	WHAT IS THE PY 2017 PROJECTED COST FOR EACH PROGRAM?
20	А.	Schedule A contains details of the PY 2017 projected cost for each of TCC's
21		programs.
22	Q.	WHAT ARE THE PROJECTED SAVINGS FROM EACH PROGRAM?
23	A.	Schedule O contains the PY 2017 projected savings from each program.

1		VI. CONCLUSION
2	Q.	DO TCC'S ENERGY EFFICIENCY COSTS INCURRED IN PY 2015 COMPLY
3		WITH THE COMMISSION RULE?
4	A.	Yes. The costs incurred in connection with the PY 2015 energy efficiency programs
5		were reasonable and necessary to provide energy efficiency to residential and
6		commercial customers and were properly incurred consistent with 16 TAC
7		§ 25.181(f).
8	Q.	DO TCC'S CALCULATIONS OF ITS ENERGY EFFICIENCY GOALS,
9		OBJECTIVES, AND THE PROJECTED COSTS TO BE INCURRED IN PY 2016
10		AND INCLUDED IN THE ADJUSTED 2017 EECRF COMPLY WITH THE
11		COMMISSION RULE?
12	A.	Yes. TCC's statutory minimum goals to be achieved in PY 2017 are MW of demand
13		reduction and MWh of energy reduction, and are in compliance with the Commission
14		rule. As discussed above and in Mr. Cavazos' testimony, in order to satisfy PURA
15		§39.905 and the Commission rule that utilities achieve as much energy efficiency
16		savings as reasonably possible within the limitations in the statute and the rule, TCC
17		has established energy efficiency objectives for PY 2017 above the minimum goals in
18		the statute and rule. The \$14,082,459 that TCC projects it will incur in PY 2017 to
19		achieve its energy efficiency objectives is a reasonable estimate of the costs necessary
20		to provide energy efficiency programs to meet TCC's energy efficiency objectives for
21		PY 2017 in furtherance of PURA § 39.905 and 16 TAC § 25.181.
22	Q.	DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?
23	A.	Yes, it does.

PUC DOCKET NO. 45929

### PUC DOCKET NO. 45929

## PUBLIC UTILITY COMMISSION OF TEXAS

### APPLICATION OF

### AEP TEXAS CENTRAL COMPANY

### TO ADJUST

### ENERGY EFFICIENCY COST RECOVERY FACTOR AND RELATED RELIEF

## DIRECT TESTIMONY OF

## BRIAN J. FRANTZ

## FOR

### AEP TEXAS CENTRAL COMPANY

JUNE 1, 2016

DIRECT TESTIMONY BRIAN J. FRANTZ

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## **EXHIBITS**

<u>EXHIBIT</u>

EXHIBIT BJF-1 EXHIBIT BJF-2 **DESCRIPTION** 

TCC Affiliate Costs – 2015

TCC Affiliate Costs – 2015 by Benefiting Location and Allocation Factor

2

## I. INTRODUCTION

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND POSITION.

3	A.	My name is Brian J. Frantz. My business address is 1 Riverside Plaza, Columbus,			
4		Ohio 43215. I am currently Manager, Regulated Accounting, of American Electric			
5		Power Service Corporation (AEPSC), a wholly-owned subsidiary of American			
6		Electric Power, Inc. (AEP).			
7	Q.	WHAT ARE YOUR PRINCIPAL AREAS OF RESPONSIBILITY WITH AEPSC?			
8	A.	I am responsible for maintaining the accounting books and records, and regulatory			
9		reporting for AEPSC. I am also responsible for AEPSC's monthly service billings to			
10		its affiliates. My responsibilities for AEPSC also include compliance with the			
11		Federal Energy Regulatory Commission's (FERC) Uniform System of Accounts			
12		accounting and reporting requirements.			
13	Q.	PLEASE DESCRIBE YOUR EDUCATIONAL AND PROFESSIONAL			
14		BACKGROUND.			
15	A.	I attended Ohio University and received a Bachelor of Business Administration			
16		degree, with an emphasis in Accounting in 1999. I have been employed by AEPSC			
17		since March 2005, when I was hired as a Staff Accountant in the Wholesale			
18		Commodity Accounting group. In May 2010 I was promoted to Supervisor of the			
19		Fuel and Contract Accounting group. In August 2013 I was promoted to			
20		Administrator of Regulated Accounting. In December 2013 I was promoted to			
21		Manager Regulated Accounting where I was responsible for the books and records for			
22		four operating companies (Indiana Michigan Power Company, Kentucky Power			

1		Company, Kingsport Power Company and AEP Generating Company). I moved to
2		my present position in November 2014. Prior to my employment with AEP, I spent
3		approximately 1 year in financial reporting role and 5 years in various roles in public
4		accounting.
5	Q.	HAVE YOU PREVIOUSLY TESTIFIED BEFORE ANY REGULATORY
6		COMMISSIONS?
7	A.	Yes, I have testified before the Corporation Commission of the State of Oklahoma
8		(OCC) in Cause No. PUD201500208. In addition, I submitted written testimony with
9		the Public Utility Commission of Texas (PUCT) in Docket Nos. 44717 and 44718.
10		
11		II. PURPOSE OF TESTIMONY
12	Q.	WHAT IS THE PURPOSE OF YOUR TESTIMONY?
13	А.	My testimony addresses several areas relating to the affiliate services provided in
14		support of TCC's energy efficiency programs, including:
15 16		• An explanation of how affiliate services related to energy efficiency activities are assigned to TCC;
17 18 19		• A discussion of the workings of the affiliate billing systems for the services provided to TCC and the other AEP utility operating companies;
20 21 22		• A demonstration that the work order billing system ensures that TCC's charges are no higher than those of other AEP affiliates for the same services or types of services;
23		• The Texas standards governing recovery of affiliate costs; and
24		• A review of the affiliate costs included in this filing.
23 26	Q.	DO YOU SPONSOR ANY SCHEDULES IN THE FILING?
27	A.	Yes, I co-sponsor Schedule K with TCC witness Robert Cavazos.

WHAT EXHIBITS DO YOU SPONSOR? 1 Q. 2 I sponsor EXHIBITS BJF-1 and BJF-2 as listed in the index to my testimony. A. 3 III. AFFILIATE COST ACCOUNTING AND OVERSIGHT 4 A. Assignment of Affiliate Costs to TCC 5 6 Q. HOW ARE AFFILIATE SERVICES RELATED TO ENERGY EFFICIENCY 7 **ACTIVITIES ASSIGNED TO TCC?** AEPSC uses a work order system designed for the express purpose of meeting the 8 A. FERC requirements to fairly allocate common charges among AEP affiliates and to 9 do so at cost. By using a work order system, the expenses for specific projects are 10 identified and the work orders are assigned specific and approved benefiting locations 11 and allocation factors. Common costs are allocated based on the factor that best 12 matches the charge with the cost driver related to the service, and that same factor is 13 applied to all companies in proportion to the benefit they receive from the service. 14 The costs for services benefiting only one company are directly assigned and 15 are billed 100% to that company. AEPSC and operating company employees directly 16 assign costs to the maximum extent practicable by coding their time to unique work 17 orders. Unique work orders have also been established for billing of certain affiliate 18 support services exclusively performed for the TCC energy efficiency programs, 19 which allow the associated costs billed to energy efficiency programs to be tracked 20 21 and readily identified.

5

DIRECT TESTIMONY BRIAN J. FRANTZ

Q. HOW DOES AEPSC BILL FOR THE SERVICES IT PROVIDES TO TCC AND
 OTHER AFFILIATES?

3 A. Services are billed by AEPSC at cost, without any profit. Included in the billings for 4 AEPSC labor are overheads for benefits (i.e. medical, dental, pension), payroll taxes, nonproductive time (sick time, vacation time, jury duty, etc.), and departmental 5 charges for certain costs, such as personal computers and the maintenance of 6 automated accounting systems required to provide a service. To the extent third-party 7 labor under a contract with AEPSC is involved, the contract labor charges are at the 8 contract employee's hourly rate paid by AEPSC to the contractor providing the 9 services, without any profit to AEPSC. 10

11 Q. HOW DOES THE WORK ORDER SYSTEM ENSURE THAT AEPSC'S
12 CHARGES TO TCC ARE NO HIGHER THAN THE CHARGES TO OTHER
13 AFFLIATES FOR THE SAME OR SIMILAR SERVICES, AND THAT THE
14 CHARGES REASONABLY REFLECT THE ACTUAL COST OF PROVIDING
15 THE SERVICE TO TCC?

A. Through the use of the AEPSC work order system, TCC and every other affiliate included in the benefiting locations receiving a shared service is charged the same unit price that is its appropriate share of the actual cost of the service. Accordingly, consistent with the requirements of the Public Utility Regulatory Act, Tex. Util. Code Ann. § 36.058(c)(2) (PURA), the price charged to TCC for the service (AEPSC's actual cost) is no higher than the price charged to the other affiliates receiving the same service (AEPSC's actual cost).

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DIRECT TESTIMONY BRIAN J. FRANTZ

## Q. ARE TCC'S AFFILIATE CHARGES REASONABLE AND NECESSARY?

- A. Yes, the affiliate services provided by AEPSC and AEP Texas North Company
  (TNC) are reasonable and necessary costs of TCC's provision of energy efficiency
  programs. These services have been reasonably and necessarily incurred to support
  the energy efficiency programs as set forth in EXHIBITs BJF-1 and BJF-2 and within
  the testimonies of Mr. Cavazos and Ms. Pamela D. Osterloh.
- 7

### B. Standards Governing Recovery of Affiliate Costs

### 8 Q. ARE AFFILIATE EXPENSES ADDRESSED IN PURA?

9 Yes, affiliate expenses are addressed by PURA § 36.058. PURA § 36.058 allows an A. electric utility to include in its revenue requirement payments to affiliates that meet 10 the requirements of PURA § 36.058(b). PURA § 36.058(b), in turn, directs the 11 Commission to allow recovery of affiliate payments "only to the extent that the 12 regulatory authority finds the payment is reasonable and necessary for each item or 13 class of items..." In addition, PURA § 36.058(c) requires that the Commission find 14 that "the price to the electric utility [for the affiliate service] is not higher than the 15 prices charged by the supplying affiliate for the same item or class of items" to other 16 17 affiliates or to non-affiliated persons. Because the billings of AEPSC and other AEP utility operating companies to TCC are affiliate charges, the requirements of PURA 18 19 § 36.058 apply to those billings. PURA § 36.058(f) provides: 20 (f) If the regulatory authority finds that an affiliate expense for the test period is unreasonable, the regulatory authority shall: 21

22 23

24

(1) determine the reasonable level of the expense; and

7

(2) include that expense in determining the electric utility's service.

1	Q.	DOES THE COMMISSION ALSO HAVE RULES PERTINENT TO THE REVIEW
2		OF AFFILIATE TRANSACTIONS?
3	A.	Yes. 16 Tex. Admin. Code § 25.272 (TAC) discusses the code of conduct with which
4		electric utilities and their affiliates must comply. Specifically, 16 TAC § 25.272(e)(1)
5		states:
6 7 8 9 10		In accordance with PURA and the commission's rules, a utility and its affiliates shall fully allocate costs for any shared services, including corporate support services, offices, employees, property, equipment, computer systems, information systems, and any other shared assets, services, or products.
11	Q.	HOW ARE CORPORATE SUPPORT SERVICES DEFINED IN THE
12		SUBSTANTIVE RULES?
13	A.	16 TAC § 25.272(c)(4) defines corporate support services as those "joint corporate
14		oversight, governance, support systems and personnel," "shared by a utility, its parent
15		holding company, or a separate affiliate created to perform corporate support
16		services" AEPSC is such an affiliate. This section of the rule further provides
17		examples of the types of support services that may be shared, including accounting,
18		human resources, procurement, information technology, regulatory services, legal
19		services, environmental services, research and development, internal audit,
20		community relations, and corporate services, among others. The services provided to
21		TCC by AEPSC are of the same type referenced in the Commission's rule.
22	Q.	DO THE AFFILIATE COSTS INCLUDED IN TCC'S FILING COMPLY WITH
23		APPLICABLE STANDARDS IN TEXAS STATUTES AND RULES?

DIRECT TESTIMONY BRIAN J. FRANTZ

1	A.	Yes, they do. Other witnesses and I will discuss how the costs meet the tests for
2		being reasonable and necessary, and that these costs are no higher than prices charged
3		by the affiliate to others.
4		
5		IV. ENERGY EFFICIENCY AFFILIATE COSTS
6	Q.	WERE ANY AFFILIATE SERVICES PROVIDED IN SUPPORT OF TCC'S
7		ENERGY EFFICIENCY PROGRAMS IN 2015?
8	A.	Yes. TCC received affiliate services in 2015.
9	Q.	PLEASE DESCRIBE THE AFFILIATE SERVICES RECEIVED BY THE
10		COMPANY IN 2015.
11	А.	As shown by department and project on EXHIBIT BJF-1, TCC incurred costs for
12		services from the following affiliates:

### Table 1

### TCC Affiliate Costs - 2015

Affiliate	2015 (\$)
American Electric Power Service Corporation	6,280
AEP Texas North Company	281,190
Total Affiliate Services Provided	287,470
Source: EXHIBIT BJF-1	

13 The affiliate services shown above were provided primarily by the Energy 14 Efficiency/Demand Response Programs department as detailed on EXHIBIT BJF-1. 15 This department is comprised of employees of TCC and TNC and is responsible for 16 the overall design and implementation of the programs discussed throughout the 17 testimonies of witnesses Cavazos and Osterloh. Additional services are provided by the legal department in support of compliance with Texas legal requirements related
 to energy efficiency programs.

# 3 Q. WERE THE SERVICES PROVIDED BY THESE AFFILIATES IN 2014 4 REASONABLY ALLOCATED?

Yes, they were. As shown on EXHIBIT BJF-2, 92% of the affiliate costs were 5 A. 6 allocated between TCC and TNC, who both participate in energy efficiency programs. 7 These services were performed in a manner to benefit TCC and TNC and were primarily shared among each company using its relative number of customers as the 8 allocation methodology, which is an appropriate manner in which to share the cost of 9 such services. In addition, certain administrative activities shared among TCC and 10 TNC were allocated based upon their relative asset bases. This allocation factor is a 11 12 reasonable methodology in which to share the cost of administrative services.

13 The remaining 8% of the affiliate costs were directly assigned to TCC for
14 those services that were performed solely for the benefit of TCC.

15 Q. HOW DO THE 2015 AFFILIATE COSTS COMPARE TO TCC'S TOTAL

16 ENERGY EFFICIENCY COSTS DURING THIS PERIOD?

A. As shown in the table below, affiliate services received by TCC are 2% of total
energy efficiency costs during the year. The remaining cost, 98%, is incurred directly

by TCC and not through an affiliate.

		Table 2	
		TCC Affiliate Costs as Percentage of Total Costs - 2015	
		Category	2015 (\$)
		Affiliate Cost	287,470
		Total Cost	13,483,745
		Percentage of Total Cost	2%
		Source: EXHIBIT BJF-1 and Schedule B	
1		V. CONCLUSION	
2	Q.	PLEASE SUMMARIZE YOUR TESTIMONY.	
3	A.	My testimony describes and supports TCC's compliance with the r	ules governing
4		affiliate costs. My testimony also addresses the overall reasonablenes	s and necessity
5		of affiliate costs, as well as the work order system utilized to ensure the	at TCC pays no
6		more than any other AEP company for the comparable services it	receives from
7		affiliates.	

8 Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

9 Yes, it does. A.

#### TCC Affiliate Costs - 2015

Years	2015
To BU grouping	тсс

Sum of Act \$					
Cost Type	From D	Department	To Project	From BU Grouping	Total
Administrative Costs	10329	TX EE/DR Programs	EON100551 EE/DR EECRF	TNC	3,560
			EON100551 EE/DR EECRF Total		3,560
			TXDSMANDA Texas DSM Admin & General	TNC	211,436
			TXDSMANDA Texas DSM Admin & General Total		211,436
	10329	TX EE/DR Programs Total			214,996
	10764	Legal GC/Administration	TXDSMANDA Texas DSM Admin & General	AEPSC	228
			TXDSMANDA Texas DSM Admin & General Total		228
	10764	Legal GC/Administration Total			228
1	13168	Legal Reg Services West	TXDSMANDA Texas DSM Admin & General	AEPSC	1,843
		-	TXDSMANDA Texas DSM Admin & General Total		1,843
	13168	Legal Reg Services West Total			1,843
Administrative Costs Total					217,068
Program Direct Costs	10329	TX EE/DR Programs	EON100508 Dsm-Res Standard Offer	TNC	438
-		·	EON100508 Dsm-Res Standard Offer Total		438
			EON100512 Dsm-C&I Standard Offer	TNC	4,251
			EON100512 Dsm-C&I Standard Offer Total		4,251
			EON100514 Dsm-Hard To Reach Std Offer	TNC	20,109
			EON100514 Dsm-Hard To Reach Std Offer Total		20,109
			EON100520 DSM-Load Management	TNC	3,082
			EON100520 DSM-Load Management Total		3,082
			EON100522 DSM-Low Income Weatherization	TNC	1,598
			EON100522 DSM-Low Income Weatherization Total	1	1,598
			EON100534 DSM Solar PV Pilot MTP	TNC	1,859
	1		EON100534 DSM Solar PV Pilot MTP Total	1-1-1-2	1,859
			EON100547 DSM - EM&V	ITNC	321
			EUN100547 DSM - EM&V Total	ITNC	321
			EUN100548 EE/DR Irrigation Load Mgmt MTP		111
	10220	TV EE (DD Decoremo Total	EUN100348 EE/DK Irrigation Load Mgmt MTP Total		21 770
	110529	Customer and Distr Services	EDNANDA Distribution Anda Project	AFPSC	51,//0
	11000	Customer and Distr Services	EDNANDA Distribution Anda Project	ALFOL	679
	11060	Customer and Distr Services Total	EDITATION DISTINUTION AND FTOJECT TOTAL		678
	12883	FF & Consumer Programs	EDNANDA Distribution Anda Project	AFPSC	3.531
	12005	Le of consumer riograms	EDNANDA Distribution Anda Project Total		3.531
	12883	EE & Consumer Programs Total			3,531
Program Direct Costs Total			· · · · · · · · · · · · · · · · · · ·		35,979
R&D Costs	10329	TX EE/DR Programs	EON100535 EE/DR R&D	TNC	34,423
		, , ,	EON100535 EE/DR R&D Total		34,423
	10329	TX EE/DR Programs Total			34,423
R&D Costs Total		· · · · · · · · · · · · · · · · · · ·			34,423
Grand Total					287,470

## TCC Affiliate Costs - 2015 by Benefiting Location and Allocation Factor

Benefiting Location	Allocation Factor	2015 (\$)	%
1397 - Distribution TCC/TNC	08 - Number of Customers	262,950	91.5%
	58 - Total Assets	2,071	0.7%
1397 - Distribution TCC/TNC Total		265,021	92.2%
211 - 100% TCC	39 - Direct	22,449	7.8%
211 - 100% TCC Total		22,449	7.8%
Grand Total		287,470	100.0%

### PUC DOCKET NO. 45929

### PUBLIC UTILITY COMMISSION OF TEXAS

### APPLICATION OF

## AEP TEXAS CENTRAL COMPANY

## TO ADJUST

## ENERGY EFFICIENCY COST RECOVERY FACTOR AND RELATED RELIEF

### DIRECT TESTIMONY OF

## JENNIFER L. JACKSON

## FOR

## AEP TEXAS CENTRAL COMPANY

JUNE 1, 2016

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PUC DOCKET NO. 45929

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### I. INTRODUCTION AND PURPOSE

2 O.	PLEASE STATE YO	JR NAME, POSITION	N, AND BUSINESS ADDRESS
------	-----------------	-------------------	-------------------------

A. My name is Jennifer L. Jackson. I am a Regulatory Consultant in Regulated Pricing
and Analysis, part of the American Electric Power Service Corporation (AEPSC)
Regulatory Services Department, 212 East Sixth Street, Tulsa, Oklahoma
74119-1295.

7 Q. PLEASE BRIEFLY DESCRIBE THE AEPSC REGULATORY SERVICES
8 DEPARTMENT, YOUR CURRENT JOB RESPONSIBILITIES, AND
9 EDUCATION.

AEPSC Regulatory Services is part of the American Electric Power Company, Inc. 10 A. (AEP) Utilities Business Group. Among its activities, Regulatory Services provides 11 coordination and tariff-related services to the eleven AEP operating companies, 12 including AEP Texas Central Company (TCC). As a Regulatory Consultant for 13 AEPSC, my job duties include providing testimony, rate review analysis and support, 14 pricing design, implementation of pricing programs, and regulatory compliance for 15 16 the AEP operating companies. I have been involved in regulatory rate review and pricing design proceedings since 1991 in all four of the AEP west state jurisdictions: 17 Arkansas, Louisiana, Oklahoma, and Texas. I have a Bachelor of Business 18 19 Administration Degree with an emphasis in Marketing from Texas Tech University.

20 Q. HAVE YOU PREVIOUSLY SPONSORED TESTIMONY BEFORE THIS21 COMMISSION?

A. Yes, I have previously sponsored testimony before the Public Utility Commission of
 Texas (PUC or Commission) in the following dockets: 20545, 28520, 28840, 31251,

3

DIRECT TESTIMONY JENNIFER L. JACKSON 31461, 32758, 33309, 33310, 35625, 35627, 36422, 36928, 36949, 36961, 36960,
 36959, 38208, 38209, 38210, 39359, 39360, 39361, 40358, 40359, 40443, 41538,
 41539, 41879, 41970, 42370, 42508, 42509, 44717, 44718, 45787, and 45788. I have
 also sponsored testimony before the Arkansas Public Service Commission and the
 Oklahoma Corporation Commission.

6 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

7 The purpose of my testimony is to support the calculation of the annual A. redetermination of TCC's Rider EECRF - Energy Efficiency Cost Recovery Factors 8 and to support the revised tariff (Rider EECRF) accompanying this filing, proposed to 9 be effective March 1, 2017. The adjusted factors are proposed based on 16 TAC 10 11 § 25.181(f), which among other things provides for a cost recovery factor to allow a utility to recover reasonable expenditures on energy efficiency as well as a 12 performance bonus for exceeding its goals, recover municipal EECRF proceeding 13 expenses, and recover Evaluation, Measurement and Verification (EM&V) costs. 14

15 Q. WHAT SCHEDULES THAT ACCOMPANY TCC'S FILING DO YOU SPONSOR?

16 A. I sponsor the following schedules:

Schedule	Description
Schedule E	Calculation of the 2017 Revised EECRF Factors
Schedule F	Updated Energy Efficiency Cost Recovery Factor
	Rider
Schedule G	Calculation of Cost Caps
Schedule H	Development of Forecasted Billing Units
Schedule I	Energy Efficiency Costs Recovered Through Base
	Rates
Schedule Q	System and Line Losses

4

17 I also sponsor the workpapers supporting those schedules.

Q.

### WHAT SCHEDULES ARE YOU CO-SPONSORING?

A. I am co-sponsoring Schedule A with TCC witnesses Robert Cavazos and Pamela D.
Osterloh, Schedule B with TCC witness Osterloh, and Schedule C with TCC witness
Cavazos.

5 Q. PLEASE DESCRIBE THE SCHEDULES THAT YOU ARE SPONSORING.

Schedule E provides the calculation of the proposed 2017 EECRF class factors. 6 Α. Schedule F contains the adjusted Rider EECRF, which sets forth the adjusted 2017 7 EECRF factors by EECRF rate class. Schedule G provides the 2017 cost cap 8 calculation for the requested program budget year and the 2015 actual cap calculated 9 on 2015 actual costs, without EM&V and class kWh. Schedule H details the 10 development of the forecasted EECRF class kWh for program year 2017, including 11 historical kWh for the most recent calendar year, January through December 2015. 12 Schedule I shows the determination of the energy efficiency costs included in base 13 rates and the adjustment to the base rate revenues using 2015 actual billing units. 14 Schedule Q indicates that system and line losses are not applicable in the TCC 15 EECRF filing. 16

17

18 19

### II. ADJUSTED ENERGY EFFICIENCY COST RECOVERY REVENUE REQUIREMENT

### 20 Q. WHY IS TCC REQUESTING APPROVAL OF AN ADJUSTED EECRF?

A. TCC is requesting approval of an adjusted EECRF based on 16 Tex. Admin. Code
§ 25.181(f) (TAC). TCC filed for and received approval of its initial Schedule
EECRF in Docket No. 35627. TCC also filed for an adjustment to its EECRF in

1 Docket Nos. 36960, 38208, 39360, 40359, 41538, 42508, and 44717. In the current 2 adjustment request, TCC is requesting: 1) recovery of the 2017 projected energy efficiency program costs in excess of the amount expressly included in TCC's prior 3 base rate order, adjusted to account for changes in billing determinants from the test 4 year billing determinants used to set rates in the last base rate proceeding; 2) an 5 6 adjustment to the EECRF factors for the over-recovery of actual energy efficiency program costs in 2015; 3) recovery of TCC's 2015 performance bonus for demand 7 and energy reduction that exceeded the minimum goal to be achieved in 2015; and 4) 8 9 recovery of municipal EECRF proceeding expenses from Docket No. 44717. For program year 2017, there are no projected EM&V costs included because TCC was 10 advised by PUC Staff that the current EM&V contract expires at the end of program 11 TCC is requesting Commission approval of an adjusted Rider EECRF 12 year 2016. with revised factors to be effective March 1, 2017. 13 WHAT AMOUNT EXPRESSLY SPECIFIED AS ENERGY EFFICIENCY COSTS 14 **O**. IS INCLUDED IN TCC'S BASE RATES? 15 16 The Commission's final order in Docket No. 33309 expressly included \$6,334,949 of A. 17 energy efficiency program funding in base rates.

18 Q. HOW WERE THE ENERGY EFFICIENCY COSTS THAT ARE EXPRESSLY

- 19 INCLUDED IN TCC'S BASE RATES ALLOCATED TO THE CLASSES?
- A. The total energy efficiency program costs approved to be recovered through base rates were functionalized to both the distribution function and the customer service function. The majority (99%) of the energy efficiency program costs recovered in TCC's base rates is included in the base distribution rates. Only a small portion of

1		the total costs is recovered through the customer service function. The energy
2		efficiency costs included in TCC's current distribution base rates were allocated to
3		the classes based on each class's average 4 coincident peak (4CP) demand, the
4		allocator used and approved in Docket No. 33309 to allocate transmission expenses to
5		the classes. The energy efficiency costs included in the customer service function
6		were allocated to the classes based upon total customers. Schedule I shows the
7		allocation factors by function and the amounts included in base rates for each
8		function by class.
9	Q.	HAS TCC MADE AN ADJUSTMENT TO THE ENERGY EFFICIENCY
10		REVENUES INCLUDED IN BASE RATES?
11	A.	Yes. Pursuant to 16 TAC § 25.181(f)(2):
12 13 14 15 16		where a utility collects energy efficiency costs in its base rates, actual energy efficiency revenues collected from base rates consist of the amount of energy efficiency costs expressly included in base rates, adjusted for changes in billing determinants from the test year billing determinants used to set rates in the last base rate proceeding.
17		TCC has increased actual energy efficiency base revenues by \$878,197 to
18		account for changes in test year billing determinants as determined in Docket No.
19		33309. Total energy efficiency base revenues are adjusted to be \$7,213,146 as shown
20		in Table 1 below.

	Table 1		
EECRF Rate Class	Total Energy Efficiency Costs Expressly Included In Base Rates	Adjustment to Base Revenue	Total Adj. EE Base Revenue per 16 TAC § 25.181
Residential	\$3,024,435	\$519,310	\$3,543,745
Secondary <= 10 kW	\$114,088	\$9,199	\$123,287
Secondary > 10 kW	\$1,957,962	\$351,211	\$2,309,174
Primary	\$675,491	(\$19,740)	\$655,751
Transmission	\$562,892	\$18,297	\$581,190
Lighting	\$81	(\$81)	\$0
Total	\$6,334,949	\$878,197	\$7,213,146

The revenue adjustment is used in the base rate revenue adjustment determination for both the 2015 actual and 2017 forecasted program years. The base rate energy efficiency adjustment is represented in the determination of the 2015 over-/underrecovery (Schedule C 2015 and WP Schedule C 2015) and in the determination of 2017 EECRF (Schedule E and WP Schedule E). Schedule I details the calculation of the base revenue adjustment, including the base rate billing determinants and the 2015 billing determinants by class.

### 8 Q. WHAT IS TCC REQUESTING THROUGH THE ADJUSTED EECRF?

9 A. TCC, through this application, is requesting to adjust the EECRF cost recovery

10 factors to reflect:

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- recovery of \$6,869,313 in energy efficiency program costs projected to be incurred in 2017 that exceed costs for energy efficiency included in its prior base rate order, including the revenue adjustment;
  - return of \$1,284,811 to account for the over-recovery of EECRF revenues in excess of actual energy efficiency program expenditures incurred for its 2014 programs;

- recovery of \$3,459,596 representing TCC's earned performance bonus; and
- recovery of municipal EECRF proceeding expenses from Docket No.
  44717 in the amount of \$5,433.

1	In sum, TCC requests Commission approval of the adjusted EECRF cost recovery
2	factors as provided for in 16 TAC § 25.181(f)(1) to recover \$9,049,531 in energy
3	efficiency costs in 2017.

# 4 Q. HOW ARE THE 2017 PROGRAM COSTS SOUGHT TO BE RECOVERED 5 THROUGH THE EECRF ASSIGNED TO EACH CLASS?

A. TCC has assigned the 2017 program costs, including the administrative portion of
each program cost, to each EECRF rate class based on each class's eligibility to
participate in the proposed 2017 programs. Where more than one EECRF rate class
is eligible to participate in a specific program, TCC has employed an adjusted and
weighted demand allocator to assign program costs across the eligible classes. TCC
has employed the weighted and adjusted demand allocator to assign R&D costs
across the eligible classes.

The transmission service class of customers is not allocated energy efficiency program costs through the EECRF because those customers taking service at 69 kilovolts (kV) and above are not eligible for participation in the 2017 energy efficiency programs.

17 Q. PLEASE DESCRIBE THE 2017 ADJUSTED DEMAND ALLOCATION
18 FACTORS USED TO ALLOCATE COSTS THAT ARE NOT DIRECTLY
19 ASSIGNED TO RATE CLASSES.

A. The class demand allocators from TCC's last rate case in Docket No. 33309 have
 been weighted to remove the lighting class and transmission customers at or above 69
 kV and adjusted using 2017 program year projected kWh. The 2017 program year
 kWh projection has accounted for industrial customers identifying themselves under

16 TAC § 25.181(c)(30) and (w). Under 16 TAC § 25.181(c)(30) and (w), 1 distribution voltage industrial customers that qualify for a tax exemption under Tex. 2 Tax Code Ann. § 151.317 and submit an identification notice by February 1 3 characterizing the account as such, are not eligible for participation in energy 4 efficiency programs through the EECRF beginning with the next calendar year. TCC 5 has therefore removed kWh associated with those customers from the 2017 program 6 year kWh projection. The removal of the identification notice customers affects the 7 adjusted demand allocators and the calculation of the proposed class EECRF factors 8 9 for 2017. The kWh associated with the identification notice customers and the 10 resulting 2017 program year kWh projection are shown in Schedule H and the 11 adjusted demand allocators are shown in the rate design workpapers supporting Schedule E. 12

### 13 Q. HOW IS THE 2015 OVER-RECOVERY DETERMINED?

A. The over-recovery is determined by first assessing the total energy efficiency costs
incurred in program year 2015. TCC incurred total energy efficiency costs of
\$13,483,745, including municipal rate case expenses and EM&V in program year
2015. After rate case expenses paid in program year 2015 are removed, the total
incurred cost equals \$13,478,118.

19 Next, the total energy efficiency program revenue is recognized. TCC 20 recovered energy efficiency program costs through its base rates, including a base 21 rate adjustment, and through the EECRF rider. TCC recovered \$7,213,146 through 22 base rates and \$7,549,782 in program costs through the EECRF rider for a total 23 program cost recovery of \$14,762,929. The difference between total costs incurred,

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less municipal rate case expenses, and total program revenue determines the 2015 over-recovery amount of \$1,284,811.

## 3 Q. HOW IS TCC ASSIGNING THE 2015 OVER-RECOVERY TO THE CLASSES?

The over-recovery assignment to each class is based on a comparison of the total 4 A. 5 program year 2015 energy efficiency revenues, including the adjusted base rate and EECRF Rider revenues by EECRF rate class, to actual 2015 program costs assigned 6 to each EECRF rate class. The municipal rate case expenses that were included in the 7 total program expenses in 2015 have been removed from the total 2015 program 8 9 expenses and are therefore not included in the over-recovery determination for program year 2015. TCC's actual 2015 energy efficiency program costs have been 10 directly assigned to the individual EECRF rate classes that actually participated in 11 each program using a direct, program-by-program assignment. The 2015 12 administrative costs follow the assignment of the incentive costs and the R&D costs 13 have been either directly assigned to the rate classes or allocated to the classes based 14 on the 2015 class program cost assignment. The specifics of the class assignment of 15 the over-recovery are shown on filed Schedule C and the workpaper supporting 16 17 Schedule C.

# 18 Q. HOW IS TCC ASSIGNING THE PROGRAM YEAR 2015 EARNED 19 PERFORMANCE BONUS TO THE CLASSES?

A. TCC has assigned the program year 2015 earned performance bonus to all EECRF rate classes eligible for participation in the 2015 energy efficiency program year using an allocator based on the direct assignment of the 2015 program incentives to the EECRF rate classes. TCC's allocation is in accordance with 16 TAC § 25.181(h)(6),

which states that the bonus shall be allocated in proportion to the program costs
 associated with meeting the demand and energy goals and allocated to the eligible
 customers on a rate class basis.

4 Q. ARE THERE MUNICIPAL RATE CASE EXPENSES INCLUDED IN THE 2017
5 TOTAL REVENUE REQUIREMENT?

- A. Yes. TCC was billed by the municipal entities who took part in the EECRF
  proceeding in Docket No. 44717 in 2015 and TCC paid those bills even though the
  expenses have not been included for recovery in any program year. As stated above,
  the Docket No. 44717 municipal EECRF case expenses have been removed from the
  over-recovery of the 2015 program expenses and included for recovery in program
  year 2017.
- 12 Q. HOW IS TCC ASSIGNING THE MUNICIPAL EECRF PROCEEDING13 EXPENSES TO THE CLASSES?
- A. TCC has assigned the municipal EECRF proceeding expenses to the classes using an
  allocator developed using the assignment of the 2017 program cost to the classes.
- 16 Q. HAS TCC INCLUDED EM&V COSTS IN THE 2017 REVENUE17 REQUIREMENT?

A. No. TCC has not included any statewide EM&V contractor costs for evaluating
program year 2016 to be recovered in the 2017 revenue requirement. PUC Staff has
advised TCC that the current EM&V contract expires at the end of program year 2016
and a projection of 2016 EM&V costs has not been made.

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DIRECT TESTIMONY JENNIFER L. JACKSON

1 2		III. DEVELOPMENT OF CLASS ENERGY EFFICIENCY COST RECOVERY FACTORS	
3	Q.	WHAT ARE THE COMPONENTS NEEDED TO DEVELOP TCC'S ADJUSTED	
4		ENERGY EFFICIENCY COST RECOVERY FACTORS?	
5	A.	The components needed to develop the EECRF cost recovery factors include:	
6 7		<ol> <li>the amount of energy efficiency revenue requirement included in base rates, including the base rate adjustment;</li> </ol>	
8 9		<ol> <li>the projected 2017 energy efficiency program cost provided in Schedule A;</li> </ol>	
10 11		<ol> <li>the over- or under-recovery associated with the 2015 energy efficiency programs;</li> </ol>	
12		4) TCC's performance bonus achieved for 2015 performance;	
13 14 15		<ol> <li>the 2015 actual program direct assignment to the EECRF rate classes based on actual 2015 participation and assignment of the 2017 energy efficiency program costs to the EECRF rate classes;</li> </ol>	
16		6) the adjusted class demand allocation factors;	
17		7) the identification notice customers and related kWh;	
18 19		8) the forecasted billing units by EECRF rate class for program year 2017; and	
20 21		<ol> <li>the municipal rate case expenses from the immediately preceding EECRF docket.</li> </ol>	
22	Q.	HOW ARE THE EECRF FACTORS DETERMINED ONCE ALL THE	
23		COMPONENTS ARE ASSEMBLED?	
24	A.	Once the total EECRF class revenue requirement based on the components listed	
25		above has been assigned to EECRF rate classes by direct assignment or by using the	
26		appropriate allocators, the EECRF factors are calculated by dividing the revenue	
27		requirement for each EECRF rate class by the program year 2017 projected billing	
28		units for each EECRF rate class. The 2017 EECRF factors are shown in Schedule E	
29		and the revised Rider EECRF is contained in Schedule F.	

Q. WHAT BILLING UNIT IS TCC PROPOSING TO USE TO RECOVER THE
 ENERGY EFFICIENCY COSTS?

A. As was approved in Docket Nos. 35627, 36960, 38208, 39360, 40359, 41538, 42508,
and 44717, TCC is proposing to continue to use an energy charge (kWh) for recovery
of energy efficiency costs for all classes of customers included in the EECRF, as
authorized by 16 TAC § 25.181(f)(6). TCC's kWh proposal is consistent with past
approved EECRF billing methodologies and is in compliance with 16 TAC
§ 25.181(f)(6). TCC has supplied forecasted 2017 kWh data for all classes in
Schedule H.

Q. PLEASE DESCRIBE HOW THE 2017 FORECASTED BILLING UNITS USED IN
 THE DEVELOPMENT OF THE EECRF FACTORS FOR PROGRAM YEAR 2017
 WERE DETERMINED.

As part of the normal course of business, AEP projects monthly kWh sales for each of 13 A. its operating companies, including TCC. The AEPSC Economic Forecasting 14 Department provides the total retail kWh sales forecasts by revenue class for the 2017 15 energy efficiency program year. Because the kWh sales are projected on a revenue 16 class basis, kWh data must be converted to EECRF rate class forecasted kWh sales. 17 Forecasted kWh sales by EECRF rate class were established by first determining each 18 EECRF rate class's percentage of total retail sales based on twelve months of 19 20 historical kWh sales data. Forecasted kWh sales by rate class were then calculated by 21 multiplying each rate class's percentage of total retail kWh sales by the total retail forecasted kWh sales. As discussed above, the projection of the 2017 kWh accounts 22 for the removal of the identification notice customer kWh. The annual class projected 23

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kWh sales less the customer identification notice kWh were used to determine the
 adjusted 2017 EECRF class factors. Schedule H specifies the process for determining
 the projected kWh sales by EECRF rate class.

4 Q. WERE SYSTEM AND LINE LOSSES USED TO DEVELOP THE EECRF5 FACTORS?

6 A. No. TCC's kWh sales forecast for 2017 is based on energy delivered at the meter, so

7 it was not necessary to adjust the EECRF factors to reflect system and line losses.

8 Q. WHAT ARE THE PROPOSED 2017 EECRF RATE CLASS FACTORS?

9 A. The proposed 2017 factors by EECRF rate class are:

	Proposed
Rate Class	kWh Factor
Residential	\$0.000535
Secondary <= 10 kW	\$0.000333
Secondary > 10 kW	\$0.000428
Primary	\$0.000296
Transmission	(\$.000118)

Q. DO THE REVISED EECRF FACTORS INCLUDING BASE RATE AMOUNTS
AND EXCLUDING MUNICIPAL EECRF PROCEEDING EXPENSES AND
STATEWIDE EM&V CONTRACTOR COSTS EXCEED THE MAXIMUM PRICE
PER KWH FOR RESIDENTIAL AND COMMERCIAL CUSTOMERS AS
SPECIFIED IN 16 TAC § 25.181(f)(7)?
A. No, they do not. 16 TAC § 25.181(f)(7) recognizes two groups of customers for the

purposes of setting cost caps, residential and commercial. Neither class factor
exceeds the 2017 cost cap.