AEP Texas tracks Standard Meter market order completion performance against the metrics outlined in Section 6.1.2.1, Uniform Discretionary Service Charges of the AEP Texas Retail Delivery Tariff per Project No. 41121.

Q. WHEN WERE THESE PERFORMANCE STANDARDS EFFECTIVE?

A. Standard Move-Ins, Standard Move-Outs, Disconnection for Non-Payment (DNP), Reconnection after DNP, and Standard Switch performance standards were effective January 15, 2015.

Q. HOW DID AEP TEXAS PERFORM AGAINST THOSE STANDARDS DURING THE TEST YEAR?

A. Figure 3 below illustrates AEP Texas' performance during the test year:

<table>
<thead>
<tr>
<th>Order type</th>
<th>Total Orders Completed</th>
<th>Orders Completed Meeting Tariff:</th>
<th>Percentage of Orders Meeting Tariff:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Move-In</td>
<td>334,882</td>
<td>334,128</td>
<td>99.77%</td>
</tr>
<tr>
<td>2. Move-Out</td>
<td>114,826</td>
<td>114,594</td>
<td>99.80%</td>
</tr>
<tr>
<td>3. Disconnect for Non-Payment (DNP)</td>
<td>360,407</td>
<td>351,944</td>
<td>97.65%</td>
</tr>
<tr>
<td>4. Reconnect after DNP (standard)</td>
<td>293,831</td>
<td>287,477</td>
<td>97.84%</td>
</tr>
<tr>
<td>5. Switch (standard)</td>
<td>106,934</td>
<td>106,928</td>
<td>99.99%</td>
</tr>
</tbody>
</table>

Q. WHAT ACTIONS HAS AEP TEXAS TAKEN TO IMPROVE ITS PERFORMANCE FOR THESE MEASURES AND ENSURE SERVICE ORDER PERFORMANCE STANDARDS ARE EXECUTED IN ACCORDANCE WITH THE AEP TEXAS RETAIL DELIVERY TARIFF?
A. In 2015, AEP Texas developed a System Watchman tool for AMI called SWAMI to monitor service order performance and overall AMI system health.

G. Standard Meter Reading

Q. HOW DOES AEP TEXAS MONITOR AND ENSURE ACCURATE AND TIMELY METER DATA DELIVERY TO THE TEXAS MARKET FOR STANDARD METERS?

A. AEP Texas uses multiple platforms and systems to monitor meter data delivery to the Texas Market. In addition to SWAMI, AEP Texas also developed Daily Snap Reads and the Meter Data Management tool in 2010 to monitor the meter read obtainment success rate and timely delivery of market interval data, daily register reads, and billed register reads for Standard Meters. Figure 4 below illustrates AEP Texas' performance during the test year:

Figure 4- AEP Texas 2018 Standard Meter Reading Performance

| Percentage of Reads Obtained for Standard Meters (Tariff 6.1.2) |
|-----------------|-----------------|-----------------|
| Interval Data   | Daily Register Reads | Billed Register Reads |
| 2018            | 99.39%           | 98.79%           | 99.13%           |

IV. CUSTOMER SERVICE OPERATIONS AND MAINTENANCE (O&M) COSTS

Q. WHAT ARE THE TOTAL TEST YEAR COSTS FOR AEP TEXAS CUSTOMER ACCOUNTS AND CUSTOMER SERVICES?

A. The total adjusted test year expenses are $31,080,494, which includes $11,985,340 relating to Customer Accounts and $19,095,154 relating to Customer Services. AEPSC affiliate costs make up $4,943,371 of the total test year expenses. For additional detail, refer to Figure 5 below. AEP Texas witness Brian Frantz addresses
customer services class of affiliate charges to AEP Texas from other operating companies.

Q. WHAT METHODS HAVE YOU USED TO DETERMINE THE REASONABLENESS OF THESE OVERALL CUSTOMER SERVICE COSTS?

A. I have utilized several methods for proving the reasonableness of the costs, including cost trends, staff trends, and comparisons to the customer services costs of similar utilities.

A. Cost Trends

Q. PLEASE DESCRIBE THE COST TREND FOR AEP TEXAS’ CUSTOMER SERVICES COSTS OVER THE PAST THREE YEARS.

A. Figure 5 shows the AEP Texas Customer Services costs for 2015-2017 and the test year. The costs include those incurred by both the Central and North Division directly, and also those charged to AEP Texas by the AEPSC. The following costs include all the costs charged to Federal Energy Regulatory Commission (FERC) accounts 901, 902, 903, 904, 905, 907, 908, 909, and 910, with the exception of EE costs, which are excluded. As can be seen in Figure 5 below, AEP Texas' customer service costs have been relatively flat since 2015, providing a good illustration of AEP Texas' ongoing commitment to cost control.
Figure 5— Customer Services Costs

<table>
<thead>
<tr>
<th>AEP Texas</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>Test Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Accounts</td>
<td>$12,599,573</td>
<td>$9,608,805</td>
<td>$11,153,680</td>
<td>$11,985,340</td>
</tr>
<tr>
<td>Customer Services</td>
<td>$19,896,835</td>
<td>$18,491,266</td>
<td>$17,611,269</td>
<td>$19,095,154</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$32,496,408</strong></td>
<td><strong>$28,100,071</strong></td>
<td><strong>$28,764,949</strong></td>
<td><strong>$31,080,494</strong></td>
</tr>
</tbody>
</table>

B. Staffing Trends

Q. PLEASE DESCRIBE THE TREND IN FULL TIME EMPLOYEES FOR AEP TEXAS' CUSTOMER SERVICES ORGANIZATION OVER THE PAST FOUR YEARS.

A. The AEP Texas customer services organization had 83 employees at the end of 2015 through the end of 2018. The consistent number of employees since 2015 is attributable to AEP Texas' continual effort to staff at appropriate levels and create more efficiencies.

C. Benchmarking Comparisons

Q. HAVE YOU PERFORMED ANY BENCHMARKING TO COMPARE AEP TEXAS' CUSTOMER SERVICES COSTS TO THOSE OF OTHER TEXAS TDSPs?

A. Yes, I have. Due to the unique market structure in ERCOT and the corresponding unique set of customer service requirements for TDSPs in Texas, a comparison with utilities outside of ERCOT would be of limited value. However, I have reviewed the FERC Form 1 data from 2015-2018 to compare customer service costs for FERC customer service accounts. The accounts included in the analysis were FERC account 586 – Metering; 901 – Meter reading expenses; 903 – Customer records and collection expenses; 904 – Uncollectible accounts; 908 – Customer
assistance expenses; 909 — Informational and instructional expenses; and 910 —
Miscellaneous Customer Service and informational expenses. I excluded account
907 as it primarily reflects EE costs. I would note that companies may have
somewhat different practices regarding which costs go in these individual accounts;
thus, this comparison has some limitations.

Q. PLEASE DESCRIBE THE PEER COMPANIES THAT WERE SELECTED.
A. The Texas peer group consists of four investor-owned electric utilities in ERCOT:
AEP Texas, Oncor, CenterPoint, and Texas New Mexico Power. Only ERCOT
members are selected because, as unbundled utilities, the customer services they
provide are significantly different from those provided by a vertically integrated
utility.

Q. PLEASE DISCUSS THE METHODOLOGY YOU HAVE FOLLOWED IN
CONDUCTING THE BENCHMARKING STUDIES PRESENTED IN THIS
TESTIMONY.

A. As mentioned above, these benchmarking studies are based on FERC Form 1 data,
which is a required filing for all investor-owned electric utilities in the United
States and is information that is straightforward, readily available, and clear. The
benchmarking metrics include the accounts I listed above.

Q. ARE BENCHMARK COMPARISONS BASED ON FERC FORM 1 FILINGS OF
OTHER UTILITIES THE TYPE OF INFORMATION THAT AEP AND ITS
OPERATING COMPANIES COMMONLY USE TO ASSESS THE
PERFORMANCE OF THEIR OPERATIONS?
A. Yes. Benchmarking requires comparable data from a common source for all of the entities compared in the benchmarking study. FERC Form 1 includes data by FERC Accounts, which are the standardized accounts utilized for reporting O&M and capital expenditures. For these reasons, FERC Form 1 data is a reasonable source to use for benchmarking activities.

Q. BASED ON YOUR REVIEW OF THESE EXPENSES DO YOU BELIEVE AEP TEXAS TEST YEAR CUSTOMER SERVICES COSTS TO BE REASONABLE WHEN COMPARED TO THE OTHER TEXAS TDSPS?

A. Yes, those costs appear to be reasonable especially when you consider that AEP Texas has a very large service area with low customer density when compared to the other Texas TDSPs. Serving a large geographic area with low customer density increases cost per customer expenses for functions such as meter and field order completion activities that are labor and travel intensive.

V. AFFILIATE COSTS

Q. WHAT IS THE TOTAL AMOUNT OF AFFILIATE EXPENSES FOR THE AEPSC CUSTOMER SERVICES FUNCTIONS CHARGED TO AEP TEXAS FOR THE TEST YEAR THAT YOU SUPPORT?

A. Test year affiliate expenses charged to AEP Texas for the AEPSC Customer Services functions that I support total $4,943,371. This amount was included above in AEP Texas’ overall test year Customer Services O&M expenses. These affiliate charges are explained in more detail in the direct testimony of Company witness Brian Frantz and Schedule V-K-7.
Q. WHAT HAS BEEN THE COST TREND FOR AEPSC CUSTOMER SERVICES AFFILIATE EXPENSES CHARGED TO AEP TEXAS?

A. The annual trend in AEPSC Customer Services affiliate expenses charged to AEP Texas is as follows:

Figure 6 - Affiliate Expenses

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>$4,199,780</td>
</tr>
<tr>
<td>2016</td>
<td>$4,059,675</td>
</tr>
<tr>
<td>2017</td>
<td>$4,810,172</td>
</tr>
<tr>
<td>2018</td>
<td>$4,943,371</td>
</tr>
</tbody>
</table>

This modest growth in annual charges reflects the growth in AEPSC labor costs, as well as an increase in customer support associated with recent AEP Texas customer growth.

Q. HOW DO AEP TEXAS’ TEST YEAR AFFILIATE CHARGES FROM AEPSC BREAK DOWN BY MAJOR COST CATEGORY?

A. The test year AEPSC Customer Services affiliate expenses charged to AEP Texas can be broken down into the following major categories:

Figure 7- Affiliate Charges by Major Cost Category

<table>
<thead>
<tr>
<th>Category</th>
<th>Amount</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labor/Benefits</td>
<td>$3,716,708</td>
<td>75%</td>
</tr>
<tr>
<td>Outside Services</td>
<td>$789,467</td>
<td>16%</td>
</tr>
<tr>
<td>Material and Supplies</td>
<td>$101,516</td>
<td>2%</td>
</tr>
<tr>
<td>Other</td>
<td>$355,679</td>
<td>7%</td>
</tr>
<tr>
<td>Total</td>
<td>$4,943,371</td>
<td>100%</td>
</tr>
</tbody>
</table>
As shown in Figure 7, the majority of the test year AEPSC Customer Services
affiliate charges to AEP Texas are composed of labor and benefits. The
reasonableness of AEPSC's labor and benefits costs are supported by AEP Texas
witnesses Andrew R. Carlin (reasonableness of employee compensation) and Curt
D. Cooper (reasonableness of employee benefit costs).

Q. HAS THE NUMBER OF FULL-TIME EMPLOYEES WITHIN THE AEPSC
CUSTOMER SERVICES ORGANIZATION CHANGED SINCE THE END OF
2015?

A. Yes. There has been an increase in the total number of support employees, which has
resulted in increased affiliate charges to AEP Texas, as indicated in Figure 6 above.
The AEPSC Customer Services organization had 887, 885, 908, and 964 employees
at the end of 2015, 2016, 2017, and 2018, respectively, consistent with the cost trend
discussion above. This headcount growth within the AEPSC Customer Services
organization and the billing trend to AEP Texas for customer services support is
indicative of Company growth which has triggered a conservative amount of growth
in the need for customer support services.

Q. WHAT PLANNING, BUDGETING, AND OTHER COST CONTROL MEASURES
DOES THE AEPSC CUSTOMER SERVICES ORGANIZATION HAVE IN PLACE
TO CONTROL COSTS?

A. AEPSC Customer Services employees follow rigorous internal forecasting and cost
control processes similar to those employed by AEP Texas employees. Budget
targets for the upcoming year are based on prior-year budget inputs plus or minus any
items that are identified and approved for inclusion or omission. Labor expense is
budgeted by hours. Outside services expenses, materials and supplies, etc., are
budgeted based on prior activity and any anticipated changes. Throughout the year,
costs are tracked on a monthly basis. In addition, variances from budget are reviewed
monthly, and discussed with Customer Services management.

Q. HOW HAS THE AEPSC CUSTOMER SERVICES ORGANIZATION
PERFORMED AGAINST BUDGET?

A. Figure 8 shows the AEPSC Customer Services organization’s O&M budget versus
actual performance for the years 2015, 2016, 2017 and test year.

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Budget</td>
<td>$58,521,044</td>
<td>$59,211,247</td>
<td>$64,107,400</td>
<td>$68,129,822</td>
</tr>
<tr>
<td>Actual</td>
<td>$59,808,103</td>
<td>$59,261,178</td>
<td>$60,613,355</td>
<td>$67,133,382</td>
</tr>
<tr>
<td>Over (Under)</td>
<td>$1,287,059</td>
<td>$49,931</td>
<td>($3,494,085)</td>
<td>($996,440)</td>
</tr>
</tbody>
</table>

Since 2015, the budget has increased by approximately 16 percent due to the
increased cost of labor. Over the last two years of this period, however, the AEPSC
Customer Services organization’s actual costs have been below budget.

Q. IS AEPSC ABLE TO DIRECTLY BILL AEP TEXAS FOR CALLS RECEIVED
FROM AEP TEXAS CUSTOMERS?

A. Yes. AEPSC can directly track the exact origin and the duration of the call and direct
bill AEP Texas based on the number and length of calls received from AEP Texas
customers. This has been greatly influenced by some initiatives undertaken that
support moving to a customer centric Call Center. The initiatives include, but are not
limited to, first call resolution, reduction of customer effort and new technologies supporting call reduction (i.e. proactive outage alerts, outage mapping, and virtual hold). Therefore, AEP Texas is billed from AEPSC for those calls that relate only to AEP Texas customers.

Q. HOW DOES THE AEPSC CUSTOMER SERVICES ORGANIZATION PROCURE OUTSIDE SERVICES AT REASONABLE PRICES?

A. The AEPSC Customer Services organization follows competitive bidding procedures to obtain contracts and services at a reasonable price. Generally, the organization is able to leverage the buying power of multiple companies in order to achieve volume discounts that inure to individual operating companies.

Q. IS THE BENCHMARKING YOU DESCRIBED EARLIER CONCERNING THE OVERALL CUSTOMER SERVICE COSTS RELEVANT TO THE REASONABLENESS OF AFFILIATE CUSTOMER SERVICES CHARGES TO AEP TEXAS?

A. Yes. The benchmarking studies I discussed above comparing AEP Texas’ overall test year Customer Services O&M costs to those of other electric utilities also support the reasonableness of AEP Texas’ affiliate O&M customer services charges. FERC Form 1 data does not separately record affiliate charges. Accordingly, it is not possible to directly benchmark affiliated customer services costs using FERC Form 1 data. However, affiliate charges represent a portion of the overall O&M costs provided in FERC Form 1 filings.

Q. PLEASE SUMMARIZE THE EVIDENCE YOU HAVE OFFERED REGARDING THE REASONABLENESS OF AFFILIATE COSTS.
In my testimony regarding both total and affiliate costs, I have demonstrated that: (1) total customer services costs for the AEPSC and AEP Texas customer service organizations are reasonable; (2) rigorous budgeting and cost control processes are in place; (3) there is no duplication of services by AEP Texas Customer Services and the AEPSC Customer Services organizations; and (4) when benchmarked against other utilities, AEP Texas’ total customer services costs are comparable.

VI. ENERGY EFFICIENCY

Q. PLEASE DESCRIBE THE EE REQUIREMENTS.

A. Public Utility Regulatory Act, Tex. Util. Code Ann. § 39.905 (PURA) and 16 TAC § 25.181 mandate that each investor-owned electric utility, such as AEP Texas, annually will provide, through market-based SOPs and targeted MTPs, incentives sufficient for REPs and competitive energy efficiency service providers to acquire additional cost-effective EE for its residential and commercial customers equivalent to:

- not less than 30 percent of its annual growth in demand of residential and commercial customers by December 31st of each year beginning with the 2013 calendar year; however, not less than the preceding year; or

- for an electric utility whose amount of energy efficiency to be acquired under this subsection is equivalent to at least four-tenths of one percent of the electric utility’s summer weather-adjusted peak demand for residential and commercial customers in the previous calendar year,

- not less than four-tenths of one percent of the utility’s summer weather-adjusted peak demand for residential and commercial customers by December 31st of each subsequent year; however, not less than the preceding year.
The Texas Legislature has also recognized that a utility should have access to
a mechanism to enable it to fully and timely recover the costs of providing the
programs to meet the objectives outlined in PURA § 39.905. This mechanism is the
EECRF.

Q. DO AEP TEXAS' CURRENT BASE RATES INCLUDE ANY AMOUNT THAT IS
EXPRESSLY SPECIFIED FOR EE?

A. Yes. In the Commission’s Final Order in Docket Nos. 33309 and 33310, the amount
of EE program funding expressly included in base rates is $6,334,949 (AEP Texas
Central Division) and $1,294,430 (AEP Texas North Division). Per Commission
rule, because AEP Texas has EE amounts expressly included in base rates, these
express amounts are adjusted to account for changes in billing determinants from the
test year billing determinants used to set rates in Docket Nos. 33309 and 33310. The
most recent adjustment to these amounts was made in Docket No. 48422, AEP Texas’
2018 EECRF proceeding. The total base rate recovery in Docket No. 48422 was
adjusted to $7,224,886 (AEP Texas Central Division) and $1,407,497 (AEP Texas
North Division).

Q. DOES AEP TEXAS CURRENTLY RECOVER EE COSTS IN EXCESS OF THE
AMOUNTS INCLUDED IN BASE RATES?

A. Yes. AEP Texas currently recovers EE costs in excess of the base rate amounts
through its EECRF. The Commission most recently approved the recovery of
$8,972,430 for AEP Texas Central Division and $2,434,792 for AEP Texas North
Division through each EECRF in Docket No. 48422.
Q. WHAT IS THE TOTAL AEP TEXAS EE REVENUE REQUIREMENT, INCLUDING BASE RATE AND EECRF RECOVERY APPROVED IN DOCKET NO. 48422?

A. In Docket No. 48422, the Commission approved a total EE revenue requirement, including base rate and EECRF recovery of $20,039,605; $16,197,316 for AEP Texas Central Division and $3,842,289 for AEP Texas North Division.

Q. AS NOTED EARLIER IN YOUR TESTIMONY, AEP TEXAS IS REQUESTING APPROVAL TO REMOVE ALL EE COSTS CURRENTLY IN BASE RATES. PLEASE EXPLAIN.

A. This proceeding is the first base rate case for AEP Texas since Docket Nos. 33309 and 33310. Under 16 TAC § 25.182(d)(4), base rates shall not be set to recover EE costs. Accordingly, the EE costs included in and collected through base rates since Docket Nos. 33309 and 33310 have been excluded from AEP Texas’ test year costs at issue in this proceeding. As discussed in the testimony of AEP Texas witness Jennifer Jackson, AEP Texas is requesting that all of its EE costs be recovered through AEP Texas’ EECRF.

Q. WHEN CAN AEP TEXAS REMOVE EE COSTS FROM BASE RATES?

A. AEP Texas will continue to recover EE costs through its base rates until the Commission issues a Final Order in this proceeding. At that time, AEP Texas will file for approval of new compliance base rates, including new EECRF rates that include recovery of all approved EE costs through its EECRF. The timing of the Final Order in this proceeding will dictate which set of EECRF rates are filed as part of this compliance process.
Q. HOW DOES AEP TEXAS PROPOSE TO RECOVER ALL OF ITS EE COSTS, INCLUDING THE AMOUNTS REMOVED FROM BASE RATES, THROUGH ITS EECRF?

A. AEP Texas witness Jackson will explain the proposal to make an adjustment in this proceeding to shift the collection of EE costs from base rates ($7,224,886 for AEP Texas Central Division and $1,407,497 for AEP Texas North Division) to the existing EECRF rates set in Docket No. 48422, if the Commission orders new base rates for AEP Texas prior to March 1, 2020. Additionally, On June 1, 2019, AEP Texas will file its application to adjust its 2020 EECRF as required by 16 TAC § 25.182(d)(8). Within the application, AEP Texas will seek the Commission’s approval of an adjustment to its 2020 EECRF to be effective on March 1, 2020.

As explained in more detail by AEP Texas witness Jackson, AEP Texas will propose two alternative sets of rate schedules in its June 1, 2019 EECRF application:

- one set of Rider EECRF rates that excludes EE costs being collected in base rates (continued base rate recovery plus EECRF recovery of EE costs) that will apply if the new rates resulting from this proceeding are not implemented until sometime after the March 1, 2020 EECRF effective date; and

- an alternate set that includes EE costs previously collected through base rates that will apply when the new rates resulting from this proceeding are implemented after the March 1, 2020 EECRF effective date to accommodate recovery of all EE costs through Rider EECRF.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes, it does.
PUBLIC UTILITY COMMISSION OF TEXAS

APPLICATION OF

AEP TEXAS INC.

FOR AUTHORITY TO CHANGE RATES

DIRECT TESTIMONY OF

GILBERT HUGHES

FOR

AEP TEXAS INC.

MAY 2019
TESTIMONY INDEX

SECTION PAGE

I. INTRODUCTION ........................................................................................................ 1

II. PURPOSE OF TESTIMONY .................................................................................... 3

III. AEP TEXAS EXTERNAL AFFAIRS ...................................................................... 3

   A. Community Affairs & Customer Services ......................................................... 6
   B. Governmental Affairs ....................................................................................... 8
   C. Economic and Business Development .......................................................... 10

IV. AEPSC EXTERNAL AFFAIRS .............................................................................. 11

   A. Description of Services .................................................................................. 11
   B. Reasonableness of AEPSC External Affairs Costs Charged to AEP Texas ...... 13

      1. Cost Trends .................................................................................................. 14
      2. Budget Planning ........................................................................................... 15
      3. Staffing Trends ............................................................................................ 16
      4. Outsourcing .................................................................................................. 16

V. AEP TEXAS CORPORATE COMMUNICATIONS .................................................... 16

VI. AEPSC CORPORATE COMMUNICATIONS ......................................................... 19

   A. Description of Services .................................................................................. 19
   B. Reasonableness of AEPSC Corporate Communications Costs ................. 26

      1. Cost Trends .................................................................................................. 27
      2. Budget Planning ........................................................................................... 28
      3. Staffing Trends ............................................................................................ 29
      4. Outsourcing .................................................................................................. 30

VII. ADVERTISING, CONTRIBUTIONS AND DONATIONS EXPENSES ............... 31

VIII. CONCLUSION ..................................................................................................... 35

EXHIBITS

EXHIBIT DESCRIPTION

EXHIBIT GH-1 Schedules Sponsored or Co-Sponsored
I. INTRODUCTION

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

A. My name is Gilbert Hughes and I am employed by AEP Texas Inc. (AEP Texas or Company) as Director Regulatory Services. My business address is 400 West 15th Street, Austin, Texas 78701.

Q. WOULD YOU PLEASE REVIEW YOUR EDUCATIONAL AND BUSINESS BACKGROUND?

A. I graduated from Texas A&M International in Laredo, Texas, in 1988 with a Bachelor of Arts degree in Business Administration. In my professional career, I have worked in the customer service and operations areas of the electric utility business, as well as Governmental Affairs, and Regulatory.

I began working at Central Power and Light Company (CPL) (a predecessor to AEP Texas) in 1984 as a Residential Conservation Service Auditor. In that position, I implemented the company energy efficiency audit program and provided direct support to Regional Marketing Departments on residential energy efficiency matters.

In 1986, I became a Commercial Marketing Consultant for CPL where I provided commercial customers with technical assistance in solving energy-related problems and worked directly with the construction of electrical distribution systems and metering, and with design engineers and architects in the planning of projects.

Later, in 1988, I accepted a position as Commercial Program Advisor, responsible for the development and implementation of Commercial Demand Side...
Management Programs, as well as the development/procurement of the appropriate training and software tools to support these programs.

During the period of 1991 to 1993, I was the Area Business Manager for an area encompassing the cities of Hebbronville and Zapata. In 1993, I accepted a similar job as the Area Business Manager for the city of Del Rio. In both of these roles, I oversaw the installation and maintenance of electric service, as well as the collection of revenues for the service provided to customers in the areas assigned.

In 1995, I began working as a Key Account Manager with CPL’s large industrial customers to help meet their energy and service needs.

In 2000, I accepted the position as Regulatory Consultant responsible for developing and maintaining working relationships with Commission personnel and other regulatory entities, and representing AEP Texas’ position at formal regulatory proceedings.

In 2008, I began my role as a Manager of State Governmental Affairs, responsible for representing and advocating for AEP Texas’ interests at the State Capital and other State Agencies, and monitoring activity that may impact the company.

In July of 2016, I was promoted to AEP Texas Director of Regulatory Services and am responsible for the Company’s regulatory activities and regulatory relationships.

Q. HAVE YOU PREVIOUSLY FILED TESTIMONY?

A. No.
II. PURPOSE OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?

A. My testimony has several purposes. Specifically, my testimony:

- describes AEP Texas' External Affairs organization and the services it provides in support of the delivery of safe and reliable electricity to AEP Texas' customers;

- describes American Electric Power Service Corporation's (AEPSC) External Affairs organization and the services it provides to AEP Texas, including a demonstration that the affiliate charges billed to AEP Texas for its services are reasonable and necessary;

- describes AEP Texas' Corporate Communications organization and the necessity of the services it provides in support of the Company's provision of utility service;

- describes the AEPSC Corporate Communications organization, including a demonstration that the affiliate charges billed to AEP Texas for its services are reasonable and necessary;

- establishes that the advertising costs requested by AEP Texas in this case are consistent with the Commission's rules regarding recovery and should be included in the Company's cost of service; and

- shows that the contributions and membership dues requested by AEP Texas in this case are consistent with the Commission's rules and should be included in the Company's cost of service.

Q. WHAT SCHEDULES DO YOU SPONSOR IN THIS PROCEEDING?

A. The schedules I sponsor or co-sponsor are listed in EXHIBIT GH-1.

III. AEP TEXAS EXTERNAL AFFAIRS

Q. PLEASE DESCRIBE THE PRIMARY PURPOSE OF AEP TEXAS EXTERNAL AFFAIRS.

A. The primary purpose of AEP Texas' External Affairs organization is to promote business policies that provide safe and reliable electric delivery to our customers and
the communities we serve. To that end, the organization strives to maintain strong relationships and facilitate open dialogues with various stakeholder groups throughout the AEP Texas service territory. Promotion of strong communities allows AEP Texas to fulfill its responsibilities to be a good corporate citizen. Clear and timely communications to community leaders, legislators and consumers throughout our service territory are necessary to ensure that the public: (1) is informed about the safe and efficient use of electricity; and (2) understands important issues related to AEP Texas, such as the need for construction of new and updated transmission and distribution facilities, changes in rates, and prompt, accurate outage information.

In addition, Customer Service employees within the External Affairs organization facilitate resolution of end-use customer requests and inquiries.

Further, the economic and business development support provided by AEP Texas’ External Affairs organization assists our communities in their endeavors to improve the economic well-being of their citizens.

Finally, External Affairs’ legislative monitoring and analysis keeps AEP Texas management apprised of legislative developments and their impact on the local service territory, enabling the Company to comply with legislative directives.

Q. PLEASE DESCRIBE THE SPECIFIC FUNCTIONS PERFORMED BY AEP TEXAS EXTERNAL AFFAIRS.

A. AEP Texas External Affairs performs the following functions:

- Coordinates with state and local government officials and legislators;
- Participates in community and business development, and in local community organizations;
• Monitors and analyzes legislative developments, and advocates positions beneficial to customers, shareholders, and employees (legislative advocacy expenses are not included in AEP Texas’ request in this case);

• Facilitates end-use customer solutions; and

• Manages AEP Texas’ charitable contributions and memberships.

Q. DO THE COSTS OF AEP TEXAS’ EXTERNAL AFFAIRS INCLUDE ANY AFFILIATE CHARGES FROM AEPSC?

A. No.

Q. WHAT GROUPS ARE INCLUDED WITHIN AEP TEXAS EXTERNAL AFFAIRS?

A. AEP Texas External Affairs includes the following groups: 1) Community Affairs & Customer Services; 2) Governmental Affairs; and 3) Economic & Business Development. The Vice President of External Affairs serves as a member of the AEP Texas leadership team and is responsible for oversight of the Company’s external affairs functions. The AEP Texas External Affairs organization is shown in Figure 1.

![AEP Texas External Affairs Organization Diagram]

AEP TEXAS EXTERNAL AFFAIRS ORGANIZATION

DIRECT TESTIMONY
GILBERT HUGHES
A. Community Affairs & Customer Services

Q. PLEASE DESCRIBE THE STAFFING OF THE COMMUNITY AFFAIRS & CUSTOMER SERVICES GROUP.

A. AEP Texas has 26 employees who provide community affairs and customer services throughout the Company's service territory. Of these employees, four managers have supervisory responsibility for External Affairs Managers and Customer Service Account Representatives providing community affairs and customer services, respectively.

Q. PLEASE DESCRIBE THE SERVICES PROVIDED BY THE COMMUNITY AFFAIRS AND CUSTOMER SERVICES GROUP.

A. The Community Affairs group serves as the primary contact point between AEP Texas and local government leaders, business leaders, and representatives of community organizations. Community Affairs coordinates and facilitates solutions to community-related utility service issues, such as municipal franchise rights and obligations, right-of-way disputes, municipal ordinances related to utility service, local taxes, and siting of facilities. Community Affairs is responsible for planning, managing, and directing field efforts in local problem resolution; involvement in civic organizations; overseeing Company contributions; and maintaining a local presence in the communities that we serve.

In addition to the group's community activities, its Customer Service Account Representatives are the primary field customer relations resource for residential and commercial end-use customers in their assigned territory. These customer-specific activities can include coordination of new/expanded electric service requests, tariff
explanations, investigation and resolution of customer complaints, and addressing high/low electric usage inquiries, many of which are conducted in collaboration with other AEP Texas departments to yield positive results for the customer. Additionally, one member of this group serves as the Company’s primary point of contact for new distribution level interconnections of distributed generation.

Q. WHY IS IT IMPORTANT FOR AEP TEXAS TO PLAY AN ACTIVE ROLE IN THE COMMUNITIES IT SERVES?

A. AEP Texas is a committed partner in efforts to build and sustain strong communities in the area it serves. AEP Texas’ active engagement in communities supports the economic vitality of the region and allows AEP Texas to collaboratively address specific community and customer needs in the region. AEP Texas strongly supports a variety of community programs and organizations. Through corporate giving and individual employee involvement, AEP Texas supports initiatives to improve safety, health and education in our service territory, which in turn enhances the strength of our communities. AEP Texas provides support to numerous community service organizations such as United Way, American Red Cross, and Junior Achievement. AEP Texas also supports many K-12 and higher education, culture and arts programs, as well as initiatives addressing hunger, housing, and clothing needs of residents throughout its service territory.

---

1 The customer service activities provided through the AEP Texas External Affairs organization are distinct from the services described and supported by AEP Texas witness Joel S. Murphy in his direct testimony.
B. Governmental Affairs

Q. PLEASE DESCRIBE THE STAFFING AND SERVICES OF THE AEP TEXAS GOVERNMENTAL AFFAIRS GROUP.

A. The Governmental Affairs group is composed of a Director of Governmental Affairs, two Government Affairs Managers, and an employee who supports the External Affairs department. As a whole, the group serves as a Company interface with legislators and state elected and appointed officials on public policy issues. In particular, Governmental Affairs monitors and analyzes legislative initiatives and bills that could affect the utility business, including safety, tax policy, eminent domain, and other matters affecting the provision of electric utility service. Monitoring legislation also allows AEP Texas to proactively prepare for successful compliance with new or amended laws applicable to the provision of electric service.

Q. DOES GOVERNMENTAL AFFAIRS ALSO ENGAGE IN LEGISLATIVE ADVOCACY?

A. Yes. AEP Texas engages in legislative advocacy, which involves actively promoting a particular outcome for a specific piece of legislation with legislators. However, as required by 16 Tex. Admin. Code (TAC) § 25.231(b)(2)(A), all legislative advocacy costs have been excluded from AEP Texas’ request in this case.

Q. ARE THE LEGISLATIVE MONITORING SERVICES PROVIDED BY AEP TEXAS GOVERNMENTAL AFFAIRS DISTINCT FROM LEGISLATIVE ADVOCACY?

A. Yes. The legislative monitoring and analysis for which AEP Texas seeks cost recovery involves identification, review, and analysis of proposed and enacted
legislation to identify its potential impact on the Company. For example, AEP Texas
Governmental Affairs attends and monitors legislative hearings in order to stay
abreast of the intent of proposed legislation and the different positions being voiced
on various issues. The group regularly meets as a team to review filed legislation and
discuss potential impacts on the Company, as well as how the proposed legislation
might affect current regulation. Finally, when legislation becomes law, AEP Texas
Governmental Affairs works with the affected groups and functions within the
Company to support successful implementation of the new or amended law.

Q. ARE THERE CONTROLS IN PLACE TO DISTINGUISH BETWEEN
LEGISLATIVE MONITORING AND LEGISLATIVE ADVOCACY ACTIVITIES?
A. Yes. AEP Texas uses separate accounting codes to maintain the distinction between
legislative monitoring and legislative advocacy. AEP Texas External Affairs
employees receive training to identify and understand the significance of each code in
order to appropriately charge their time and other expenses.

Q. HAS THE COMMISSION DISTINGUISHED BETWEEN NON-RECOVERABLE
LEGISLATIVE ADVOCACY COSTS AND RECOVERABLE COSTS FOR
MONITORING AND ANALYZING LEGISLATION?
A. Yes. In Docket No. 14965, a rate case involving CPL, the Commission concluded
that monitoring of legislation is distinct from legislative advocacy and is a
recoverable expense. The Commission adopted the analysis of the proposal for
decision, which distinguished the objectives of legislative advocacy from those of
legislative monitoring. Specifically, the Commission's decision indicates that
legislative advocacy focuses on affecting the outcome of the legislation, while
legislative monitoring is the review and analysis of legislation to determine the impact on the utility and to prepare for any changes in the law and compliance with those changes.

C. Economic and Business Development

Q. PLEASE DESCRIBE THE STAFFING AND SERVICES OF THE ECONOMIC AND BUSINESS DEVELOPMENT GROUP.

A. Three AEP Texas External Affairs employees are devoted to economic and business development activities. These employees are charged with promoting economic growth by attracting new business and funding to the AEP Texas service area in order to bring new jobs and prosperity to our communities. The economic and business development group also works closely with oil and gas customers and related industrial customers to ensure that they are aware of measures they can take to readily access transmission services when locating new facilities. For instance, the group has developed a web based tool to assist in the identification of optimal locations for new compressor stations or other facilities that shortened the timeframe for interconnecting the new facility.

Q. WHY DOES AEP TEXAS ENGAGE IN ECONOMIC AND BUSINESS DEVELOPMENT ACTIVITIES?

A. Economic Development provides support to state and regional economic development organizations by participating in partnerships with various state agencies and community organizations. The Economic and Business Development group focuses on initiatives designed to educate local communities on how to better analyze and attract new business opportunities. Effective economic and business
development partnerships and programs with communities in the AEP Texas service territory stimulate the local economy, which benefits all customers by spreading fixed costs among a larger end-use customer base.

IV. AEPSC EXTERNAL AFFAIRS

A. Description of Services

Q. DID AEP TEXAS RECEIVE AFFILIATE EXTERNAL AFFAIRS SERVICES DURING THE TEST YEAR IN ADDITION TO THOSE PROVIDED BY THE AEP TEXAS EXTERNAL AFFAIRS GROUP?

A. Yes.

Q. PLEASE DESCRIBE THE COMPOSITION OF THE AEPSC EXTERNAL AFFAIRS ORGANIZATION.

A. The AEPSC External Affairs organization is led by an executive vice president and is composed of the external affairs administration, federal affairs and corporate sustainability groups.

Q. WHAT SERVICES DOES THE AEPSC EXTERNAL AFFAIRS GROUP PROVIDE?

A. AEPSC External Affairs Administration provides leadership to and oversight of the External Affairs organization. Such leadership supports AEP’s engagement with, and demonstrates our commitment to, our customers, regulators, elected officials, and other governmental bodies.

The AEPSC Federal Affairs group provides federal governmental affairs support to all AEP companies, including AEP Texas. The AEPSC Federal Affairs
employees monitor federal legislation and issues that affect the business operations of the AEP companies, and serve as a resource for federal officials. AEPSC Federal Affairs employees also engage in legislative advocacy at the federal level. As is the case of AEP Texas External Affairs, employee time and other costs devoted to AEPSC Federal Affairs’ legislative advocacy activities are segregated and excluded from the costs included in AEP Texas’ rate request.

The AEPSC Federal Affairs team also monitors and participates in rulemakings and other public policy discussions at various federal agencies, such as the Federal Energy Regulatory Commission and the Department of Energy. Like the AEP Texas External Affairs team, the AEPSC Federal Affairs group utilizes the expertise of other affected AEP departments in analyzing federal legislative and regulatory proposals and their effect on the AEP operating companies.

The AEPSC Corporate Sustainability team supports AEP's sustainability goals, which reflect: the corporation’s commitment to the customer experience; economic development; efficient use of energy; safety, health and well-being of our workforce and the public; and community building.

Q. WHY ARE THESE SERVICES NECESSARY FOR AEP TEXAS?

A. A centralized, externally-facing organization is necessary to ensure that all of AEP's operating subsidiaries, including AEP Texas, are continuously engaged with our customers and stakeholders on a local, state, and national scale, enabling AEP Texas to successfully implement programs and regulations to benefit our customers. Federal affairs employees ensure that AEP Texas is apprised of national legislative and regulatory developments, and to assess the impact of such developments on AEP
Texas and its customers, enabling AEP Texas to successfully implement federal laws and regulations. Corporate sustainability connects AEP Texas to greater resources and expertise to establish corporate goals for the benefit of AEP employees and its customers.

Q. WHY IS IT APPROPRIATE FOR THESE SERVICES TO BE PROVIDED BY THE CENTRALIZED AEPSC EXTERNAL AFFAIRS ORGANIZATION RATHER THAN AEP TEXAS?

A. These services are provided on a system-wide basis because they are not specific to AEP Texas. Further, by offering such services on a centralized, system-wide basis, AEP achieves economies of scale and scope by sharing common costs across multiple subsidiaries, reducing overlap, and avoiding duplication in staffing.

Q. IS THERE ANY DUPLICATION OF SERVICES PROVIDED TO AEP TEXAS BY THE AEPSC EXTERNAL AFFAIRS GROUPS?

A. No, there is not. No other organization within AEP provides the services that the AEPSC External Affairs group provides to AEP Texas.

B. Reasonableness of AEPSC External Affairs Costs Charged to AEP Texas

Q. WHAT IS THE TOTAL CHARGE FOR AEPSC EXTERNAL AFFAIRS SERVICES PROVIDED TO AEP TEXAS DURING THE TEST YEAR?

A. During the test year, $358,622 of affiliate charges for AEPSC External Affairs services were billed to AEP Texas. These affiliate charges include AEP Texas’ portion of AEPSC donations for which the Company is requesting recovery, subject to Commission rule limitations, of $106,694. Approximately 67 percent of the AEPSC External Affairs’ non-donation expenses allocated to AEP Texas are directly
related to labor and fringe benefits for the eight employees in the group. The
reasonableness of the compensation and benefits paid to the External Affairs staff is
supported by the testimony of Company witnesses Andrew R. Carlin and Curt D.
Cooper. AEP Texas witness Brian Frantz addresses the allocation of these costs as
part of his testimony.

1. Cost Trends

Q. PLEASE DISCUSS THE TRENDS IN AEPSC EXTERNAL AFFAIRS CHARGES
TO AEP TEXAS LEADING UP TO AND INCLUDING THE TEST YEAR.

A. Table 1 depicts the trends in AEP Texas’ actual affiliate charges for AEPSC External
Affairs services for the calendar years 2015 to 2017, and the Test Year.

<table>
<thead>
<tr>
<th>AEPSC External Affairs Charges to AEP Texas</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Adjusted TY</td>
</tr>
<tr>
<td>2015</td>
<td>2016</td>
</tr>
<tr>
<td>$138,354</td>
<td>$157,077</td>
</tr>
</tbody>
</table>

The primary factor causing an increase in charges to AEP Texas in 2017 reflects the
appointment of an Executive Vice President to lead the AEPSC External Affairs
organization. Effective independent leadership of this organization is important to
ensure a sharp focus on the stakeholder engagement and program development
necessary to succeed in external affairs activity. After accounting for the addition of
this executive leadership position and increased charges for outside services, AEPSC

7 The AEPSC External Affairs charges to AEP Texas presented in Table 1 exclude AEPSC’s contributions and
donations. In Section VII, I discuss AEP Texas’ adjusted test year share of AEPSC’s contributions and
donations for which the Company is seeking recovery in this case.
billings to AEP Texas have remained stable in this period and are consistent with continuing efforts to manage and control costs.

2. Budget Planning

Q. WHAT PROCESSES DOES THE AEPSC EXTERNAL AFFAIRS ORGANIZATION USE TO ENSURE COST EFFECTIVE PROVISION OF SERVICES?

A. AEPSC External Affairs employs standardized corporate budgeting tools to ensure that costs are controlled within the individual sections of the department. AEPSC External Affairs has its own budget plans. Budgets are set annually and compliance is monitored by the use of monthly variance reports.

Q. HOW HAS THE AEPSC EXTERNAL AFFAIRS ORGANIZATION PERFORMED IN COMPARISON TO ITS BUDGETS?

A. Table 2 compares AEPSC External Affairs’ total, actual expenditures to budget targets for which it is accountable, for calendar years 2015 to 2018. These expenses are allocated to AEP’s operating companies, including AEP Texas, based on predetermined allocation formulas. AEPSC External Affairs’ variance in 2017 is primarily attributed to additional labor expenses that were not anticipated when the control budget for the year was established. The remaining variances are the result of additional outside services to supplement External Affairs’ activities.

| Table 2 |
|-----------------|-------|-------|-------|-------|
| AEPSC External Affairs | 2015  | 2016  | 2017  | Test Year |
| ACTUAL            | 1,806,123 | 1,975,569 | 2,777,117 | 2,718,364 |
| BUDGET            | 1,031,962 | 1,128,623 | 1,223,836 | 2,486,158 |
| VARIANCE (Over)/Under | (774,161) | (846,946) | (1,553,281) | (232,207) |

DIRECT TESTIMONY
GILBERT HUGHES
3. Staffing Trends

Q. PLEASE DISCUSS STAFFING CHANGES WITHIN THE AEPSC EXTERNAL AFFAIRS ORGANIZATION.

A. As shown in Table 3 below, staffing level decreased to eight positions in the Test Year, from eleven positions in 2015.

Table 3

<table>
<thead>
<tr>
<th>AEPSC External Affairs FTEs</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>Test Year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>11</td>
<td>9</td>
<td>9</td>
<td>8</td>
</tr>
</tbody>
</table>

4. Outsourcing

Q. DOES AEPSC EXTERNAL AFFAIRS USE OUTSOURCING AND/OR CONTRACT SERVICES AS A WAY TO CONTROL ITS COSTS?

A. Yes. Outsourcing and contract services are used as necessary to provide specialized services that AEPSC External Affairs is not staffed to provide and to supplement services they provide. Outside services and contractors are used in lieu of hiring additional permanent staff. Specifically, outside service providers are used to perform “overflow” work activities when demands for external affairs activities exceeds the department’s ability to satisfy those needs with existing in-house resources. This approach allows AEPSC External Affairs to avoid the cost of providing additional full-time staff to perform these occasional, specialized services.

V. AEP TEXAS CORPORATE COMMUNICATIONS

Q. PLEASE DESCRIBE THE AEP TEXAS CORPORATE COMMUNICATIONS GROUP’S RESPONSIBILITIES.
A. The AEP Texas Corporate Communications group is responsible for planning, developing, and implementing internal and external communication strategies for AEP Texas, both independently and in coordination with AEPSC Corporate Communications. AEP Texas Corporate Communications is responsible for local customer communications issues, local employee communications, and local educational and community programs and events, including communications with the local media concerning safety, weather-related events, outages and business-related issues. In some cases, these efforts involve the development of key messages, support materials and news releases and other communication tools, which can be used by the local External Affairs manager responsible for that area. In other cases, Corporate Communications maintains direct contact with the news media responding to inquiries.

During major outages, news releases, regular updates, and social media posts keep the public informed about how the Company’s restoration effort is unfolding. Special advertising often is developed prior to major storms to remind customers with special needs to make arrangements for the possibility of prolonged outages.

Q. PLEASE DESCRIBE THE SPECIFIC FUNCTIONS PERFORMED BY AEP TEXAS CORPORATE COMMUNICATIONS.

A. AEP Texas Corporate Communications performs the following functions:

- State and local media relations – either directly or indirectly through the preparation of key messages and supporting materials for members of the AEP Texas External Affairs team out in the field;
- Company internal and external communications;
- Local advertising;
• Emergency communications planning;
• Liaise with AEPSC Corporate Communications; and
• Coordination of efforts to inform the public about charitable contributions and
sponsors in conjunction with AEP Texas External Affairs.

Q. PLEASE DESCRIBE THE STAFFING AND SERVICES OF AEP TEXAS’
CORPORATE COMMUNICATIONS GROUP.

A. There are five full-time employees in AEP Texas’ Corporate Communications
group—a director, two communications managers, and two consultants.

The director is a member of the AEP Texas leadership team and is responsible
for the overall corporate communications function at AEP Texas, which
encompasses: (1) developing internal and external communication strategies,
including advertising; and (2) providing support for local customer communications
issues, outage communications, promotion of community involvement programs,
safety communications, and social media, both independently and in coordination
with AEPSC Corporate Communications.

The two managers have similar duties, and are responsible for implementation
of communications programs throughout the Company. Both managers are
responsible for the development and dissemination of content for internal and
external communications, including: (1) responding to requests from news media
regarding specific information about the Company; (2) maintaining and regularly
updating content on AEPTexas.com, a publicly accessible website, with technical
support from AEP Texas Corporate Communications; (3) adding to and updating the
content on the AEP Texas Now employee intranet site with Company news and other
information; and (4) contributing to AEP Now and the corporate intranet site updated
daily for all AEP employees. In addition to working with traditional media, AEP Texas Corporate Communications managers monitor and post to company social media sites such as Twitter, Facebook, LinkedIn and YouTube.

The two consultants have separate and distinct duties and roles but both support the two managers in their respective areas. One consultant is based in Corpus Christi and is responsible for most of the company’s video and digital production, including photography to support the internal and external communications needs of the company. The other consultant is based in the Rio Grande Valley and is responsible for the development of content for internal and external communications. In addition to these roles, this consultant’s responsibilities also include addressing local media issues for that area.

Q. DO THE COSTS OF AEP TEXAS CORPORATE COMMUNICATIONS INCLUDE ANY AFFILIATE CHARGES FROM AEPSC?

A. No. All five of the AEP Texas Corporate Communications employees are AEP Texas employees and all test year costs are AEP Texas non-affiliate costs.

VI. AEPSC CORPORATE COMMUNICATIONS

A. Description of Services

Q. DID AEP TEXAS RECEIVE AFFILIATE CORPORATE COMMUNICATIONS SERVICES DURING THE TEST YEAR IN ADDITION TO THOSE PROVIDED BY THE AEP TEXAS CORPORATE COMMUNICATIONS GROUP?
A. Yes. The AEPSC Corporate Communications department provides centralized services to AEP Texas, which supplement and complement the corporate communications activities performed by AEP Texas.

Q. PLEASE DESCRIBE THE MAKE UP OF THE AEPSC CORPORATE COMMUNICATIONS ORGANIZATION.

A. AEPSC Corporate Communications is composed of four groups: (1) Internal Communications & Communications Services; (2) Creative Services; (3) Community Relations & Marketing Communications; and (4) External Communications. The AEPSC Corporate Communications organization is shown in Figure 2.

Figure 2

AEPSC CORPORATE COMMUNICATIONS

| Internal Communications & Communications Services | Creative Services | Community Relations & Marketing Communications | External Communications |

Q. WHAT SERVICES ARE PROVIDED TO AEP TEXAS BY THE AEPSC CORPORATE COMMUNICATIONS ORGANIZATION?

A. AEPSC Corporate Communications provides a variety of communications resources and services to support the communications and business activities of both the central organization and the company's utility operating subsidiaries, including AEP Texas. These resources and services support and facilitate communication between AEP and
its internal and external constituencies. These services include, but are not limited to:

strategic communications counseling; media relations support on corporate issues and
issues that impact all AEP operating subsidiaries; employee communication support
on benefits and other issues that impact all AEP operating subsidiaries; public safety
messaging; employee/contact safety messaging; advertising/sponsorship services;
educational programming; customer communication support; project liaison services
linking central business units with operating subsidiaries; community relations
support; video production services; internal and external web design, development,
and maintenance; user experience support; customer app development and
maintenance; graphic design; administration of contributions and memberships;
policy communication support; and social media monitoring and engagement
management.

Q. PLEASE DESCRIBE IN MORE DETAIL THE SERVICES PROVIDED BY AEPSC
INTERNAL COMMUNICATIONS & COMMUNICATIONS SERVICES.

A. AEPSC Internal Communications & Communications Services has two major
components. The Internal Communications section is responsible for disseminating
corporate messages to employees, through the company email system, through AEP
Now, the AEP corporate intranet, which provides all employees with company
information, safety and technical training, senior executive communication and other
related information, through company webcasts and other internal media (e.g., text
messaging). This section researches, writes, and disseminates information relevant to
employees, contractors and retirees and serves as the primary communications liaison
with the corporate Human Resources department. Working collaboratively, Internal
Communications and Human Resources provide employees with current information on company activities, benefits, and industry issues facing all AEP employees, contractors and retirees, and provides communication support for programs and initiatives developed by the Human Resources department. The staff also contributes material to AEP Now, and serves as a conduit for sharing operating company information with the general employee population. The staff also develops and maintains AEP Now from a technical perspective.

A separate group of Communications Consultants serves as the communications liaison to the individual operating companies on major projects, issues, and initiatives. The group also provides communications support to those central business units that provide services to AEP’s operating entities (e.g., the group supports the AEPSC Transmission and Customer Service, Marketing and Distribution Services groups) as well as general communications support for all of AEP’s operating subsidiary utility companies including AEP Texas. This structure allows the AEPSC Communications Services section to serve as a liaison between operating company communications staffs and specific subject matter experts that are located within the central organizations. This section also supports communication activities concerning field operations issues that are shared in common, such as safety.

In addition, these Communication Consultants are responsible for ensuring that communications strategies and information are consistent across all operating companies with respect to major projects, issues, and initiatives. This section creates communications materials for use by the local operating company representatives...
such as web content, fact sheets, white papers, talking points, frequently asked
questions, slide presentations, and displays. These materials enable the local
operating company representatives to communicate efficiently and consistently to
local stakeholders regarding corporate and industry activities.

Q. PLEASE DESCRIBE IN MORE DETAIL THE SERVICES PROVIDED BY AEPSC
CREATIVE SERVICES.

A. AEPSC Creative Services supports the operating companies by:

• Serving as an in-house design agency, providing creative strategy and services
for a wide range of needs -- creating live internal and external web casts, 2D
and 3D animation, web and application design, user experience research and
consultation, video production, photography, and print design and production.

• Researching and developing emerging electronic communications technology,
including virtual summits, mobile design, interactive magazine development,
drone technology, and responsive design.

• Maintaining the digital photography and video repository for the corporation
for use in the corporate accountability report, AEP.com and other important
corporate messages for investors and other stakeholders.

Q. PLEASE DESCRIBE IN MORE DETAIL THE SERVICES PROVIDED BY THE
COMMUNITY RELATIONS & MARKETING COMMUNICATIONS GROUP
WITHIN AEPSC CORPORATE COMMUNICATIONS.

A. This group is responsible for development and implementation of the corporate brand
strategy, marketing communications, administration of the AEP Foundation,
corporate contributions and memberships, corporate-wide grant programs,
community involvement and employee volunteerism strategy. AEPSC Community
Relations & Marketing include the following services:
• Oversees corporate matching gifts to colleges and universities and philanthropic contributions, including the grants administration for the AEP Foundation.

• Coordinates administration of a gifts database among headquarters, business units and the operating companies to process and track contribution and membership payments to organizations.

• Develops corporate-wide brand image advertising used to deliver key messages about AEP’s operating companies’ commitment to customers and communities, covering topics that include education, technology and innovation, community support and economic development. Media used to deliver messaging include television, digital, social, mobile, outdoor and radio. The group tracks annually increased brand perception as a result of messaging.

• Develops public safety advertising aimed at children and adults to create awareness of overhead and underground safety precautions, as needed.

• Coordinates corporate-wide advertising sponsorships as needed.

• Develops promotional educational and promotional materials aimed at customers and communities.

• Develops and coordinates pre-k through grade 12 education initiatives focused on Science, Technology, Engineering and Math (STEM).

Q. PLEASE DESCRIBE IN MORE DETAIL THE SERVICES PROVIDED BY AEPSC EXTERNAL COMMUNICATIONS.

A. AEPSC External Communications interacts with regional, national, international, financial, and trade media on corporate-wide issues. The group provides support to the local operating companies in responding to media inquiries with AEP’s position on industry, national, and corporate issues. For example, if a local operating company receives a local media request for comment on a financial, legal, or national public policy issue, the local operating company representative may refer the reporter to the Corporate Media Relations staff. The staff drafts news releases, conducts news
conferences and briefings, creates talking points, responds to media inquiries, arranges and facilitates media interviews for AEP management, and meets frequently with the media to improve reporters' understanding of AEP, its utility operations and its positions on industry issues. The group is also responsible for the corporation's overall social media strategy and social media support for all of AEP's operating companies, including AEP Texas.

The group is also responsible for developing and maintaining AEP.COM, AEP's website, and major elements of aep texas.com, the website specific to AEP Texas, which provides customer service guides, company news, current issues and information on storms and outages, safety, and energy efficiency. Additionally, the group maintains and updates customer mobile apps for each AEP operating subsidiary to provide customers the ability to report outages, receive outage alerts and otherwise engage with AEP's operating subsidiaries, including AEP Texas, using their mobile devices.

Q. WHY IS IT APPROPRIATE FOR THESE SERVICES TO BE PROVIDED BY THE CENTRALIZED CORPORATE COMMUNICATIONS GROUP RATHER THAN AEP TEXAS?

A. These services are provided on a system-wide basis because they are not specific to AEP Texas. Further, by offering such services on a centralized, system-wide basis, AEP achieves economies of scale and scope by sharing common costs across multiple subsidiaries, reducing overlap, and avoiding duplication in staffing.

Q. ARE THE AEPSC CORPORATE COMMUNICATIONS SERVICES REASONABLE AND NECESSARY?
Yes. As I have already described, the AEPSC Corporate Communications Department serves as a medium through which information flows among AEP, AEP Texas, and our various stakeholders. Corporate communications are necessary to provide the public with information that supports the safe and efficient use of electricity. These communications supply important and needed information to customers, shareholders, employees, the media and other critical stakeholders.

Q. IS THERE ANY DUPLICATION OF SERVICES PROVIDED TO AEP TEXAS BY THE AEPSC CORPORATE COMMUNICATIONS GROUPS?

A. No, there is not. As demonstrated in my description of these services, there is a clear line of demarcation between the corporate communications services provided by the AEPSC Corporate Communications group and AEP Texas Corporate Communications employees. Specifically, the services provided by AEP Texas Corporate Communications focus on local communications issues while the services provided by AEPSC are generally system-wide or complementary to local efforts. For example, AEPSC has historically created and developed safety advertising for the operating companies, including AEP Texas. This advertising is then customized for use on a local level in AEP Texas’ service territory. No other organization within AEP provides corporate communications services to AEP Texas.

B. Reasonableness of AEPSC Corporate Communications Costs

Q. WHAT IS THE TOTAL CHARGE FOR AEPSC CORPORATE COMMUNICATIONS SERVICES PROVIDED TO AEP TEXAS DURING THE TEST YEAR?
A. The total test year charges for the AEPSC Corporate Communications affiliate class of services provided to AEP Texas are $678,346. Approximately 78% of the total test year AEPSC Corporate Communications affiliate charges to AEP Texas are composed of labor and related employee benefits. The reasonableness of AEPSC’s salaries and employee benefit costs is supported by the testimony of Company witnesses Carlin and Cooper.

1. Cost Trends

Q. PLEASE DISCUSS THE TRENDS IN AEPSC CORPORATE COMMUNICATIONS CHARGES TO AEP TEXAS LEADING UP TO THE TEST YEAR.

A. The following table depicts the trends in AEP Texas’ actual affiliate charges for AEPSC Corporate Communications services for the calendar years 2015, 2016, and 2017 and the 2018 Test Year costs for which AEP Texas is seeking recovery.

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>Adjusted Test Year 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEPSC Corporate</td>
<td>$461,705</td>
<td>$504,297</td>
<td>$546,600</td>
<td>$678,346</td>
</tr>
<tr>
<td>Communications</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Charges to AEP</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Texas</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

AEPSC charges to AEP Texas have increased in this period, due primarily to increased full time employees in the AEPSC Corporate Communications group. As discussed in my testimony below, the AEPSC Corporate Communications group has added personnel to address the increased use of social media.
2. Budget Planning

Q. WHAT PROCESSES DOES THE AEPSC CORPORATE COMMUNICATIONS GROUP USE TO ENSURE COST EFFECTIVE PROVISION OF SERVICES?

A. AEPSC Corporate Communications employs standardized corporate budgeting tools to ensure that costs are controlled within the individual sections of the department. AEPSC Corporate Communications has its own budget plans to which it must adhere. Budgets are set annually and monitored for compliance by the use of monthly variance reports.

Q. HOW HAS AEPSC CORPORATE COMMUNICATIONS PERFORMED IN COMPARISON TO ITS BUDGETS?

A. Table 5 compares AEPSC Corporate Communications’ total, actual expenditures to budget targets for which it is accountable, for calendar years 2015 to 2017 and the test year. These expenses are allocated to AEP’s operating companies, including AEP Texas, based on allocation formulas. As noted above, affiliate charges to AEP Texas for Corporate Communications services increased. Overall, however, AEPSC Corporate Communications’ variances were aligned over this period after accounting for: (1) the increase in full-time employees in the group; and (2) corporate advertising and other similar expenses that are not included in the group’s control budget to allow for greater flexibility.
Table 5

AEPSC Corporate Communications Budget vs. Actual

<table>
<thead>
<tr>
<th>AEPSC Corporate Communications</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>Test Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACTUAL</td>
<td>5,438,735</td>
<td>5,756,274</td>
<td>5,908,748</td>
<td>6,785,653</td>
</tr>
<tr>
<td>BUDGET</td>
<td>5,203,317</td>
<td>5,015,243</td>
<td>4,683,686</td>
<td>5,736,897</td>
</tr>
<tr>
<td>VARIANCE (Over)/Under</td>
<td>(235,418)</td>
<td>(741,031)</td>
<td>(1,225,062)</td>
<td>(1,048,756)</td>
</tr>
</tbody>
</table>

3. Staffing Trends

Q. PLEASE DISCUSS STAFFING CHANGES WITHIN AEPSC CORPORATE COMMUNICATIONS.

A. As shown in Table 6 below, staffing levels increased to 42 positions in the test year, from 32 positions in 2015. These changes primarily reflect the increasing importance of social media and mobile application development in communications, particularly in outage-related communications. The importance of this for AEP Texas can be seen in engagement statistics from 2017's Hurricane Harvey, when AEP Texas messages were viewed 5.9 million times, with more than 19,000 comments received.

In the test year, AEPSC Corporate Communications built and staffed a centralized Social Media Center to provide enhanced customer care and engagement on social media channels for customers of all AEP operating subsidiaries. The three corporate communications positions develop informative content, including electrical safety and energy efficiency content, for customers and other stakeholders to support the communication efforts of all the operating subsidiaries on social channels. They also manage measurement and engagement of the effectiveness of social media
communications for all AEP operating subsidiaries and provide social media communications support during storm and large-scale outage situations.

In 2017, AEPSC Corporate Communications added a mobile app developer specializing in Android apps to support the development and ongoing maintenance of the mobile customer apps for each of AEP's operating subsidiaries, including outage reporting and information functions.

Additional designers and a user experience consultant were also added during this period to aid in production of social media content and support the growth of mobile application and online technologies.

Finally, a full-time safety communications consultant was also added to better support both employee safety communication needs, and public safety communications, especially those aimed at high risk populations (for example, roofing and underground work contractors and crews).

### Table 6

AEPSC Corporate Communications FTEs

<table>
<thead>
<tr>
<th>AEPSC Corporate Communications FTEs</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>Test Year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>32</td>
<td>33</td>
<td>37</td>
<td>42</td>
</tr>
</tbody>
</table>

#### 4. Outsourcing

Q. DOES AEPSC CORPORATE COMMUNICATIONS USE OUTSOURCING AND/OR CONTRACT SERVICES AS A WAY TO CONTROL ITS COSTS?

A. Yes. Outsourcing and contract services are used as necessary to provide specialized services that AEPSC Corporate Communications is not staffed to provide and to
supplement services they provide. Outside services and contractors are used in lieu of hiring additional permanent staff. Specifically, outside service providers are used to perform "overflow" work activities when demands for communications support exceeds the department's ability to satisfy those needs with existing in-house resources. Outside services can include: web and app development and support, project writing assignments, specialized publication and graphics design and production services, project research services, specialized video/web production needs and certain branding and safety advertising campaigns to inform end-use customers and the general public. This approach allows AEPSC Corporate Communications to avoid the cost of providing additional full-time staff to perform these occasional, specialized services.

VII. ADVERTISING, CONTRIBUTIONS AND DONATIONS EXPENSES

Q. IS AEP TEXAS REQUESTING RECOVERY OF ITS EXPENDITURES FOR ADVERTISING, CONTRIBUTIONS AND DONATIONS?

A. Yes, AEP Texas is including in its cost of service the actual expenditures for advertising, contributions and donations that meet the Commission's standards set out in 16 TAC § 25.231(b)(1)(E). Company witness Mr. Hamlett sponsors the supporting calculations for the determination of the authorized level of these expenses, shown in Schedule II-D-2.3.

Q. DOES AEP TEXAS USE ADVERTISING?

A. Yes.
Q. PLEASE DESCRIBE THE TYPES OF ADVERTISING USED BY AEP TEXAS.

A. AEP Texas places local newspaper and radio advertising that provides important safety and reliability information to AEP Texas customers and communities. AEP Texas may also sponsor or support local initiatives through placement of advertising.

Q. DOES THE AMOUNT OF ADVERTISING EXPENSE REQUESTED FOR RECOVERY BY AEP TEXAS MEET THE COMMISSION’S REQUIREMENTS FOR RECOVERABLE ADVERTISING COST?

A. Yes. As also discussed by AEP Texas witness Mr. Hamlett, the advertising costs contained in Schedule II-D-2.4, along with AEP Texas’ contributions and donations, meet the Commission’s standards set out in 16 TAC § 25.231(b)(1)(E) and do not include any expense for the promotion of increased consumption of electricity.

Q. WHAT TYPE OF CHARITABLE CONTRIBUTIONS DOES AEP MAKE?

A. Both AEP Texas and AEPSC make contributions principally in the areas of education, community service and economic development. Community service contributions assist community organizations in providing human services, such as food, housing, health and safety. AEP Texas prioritizes its contributions based on the anticipated overall benefit to communities in the Company’s service area.

Q. WHY DOES THE COMPANY MAKE CHARITABLE CONTRIBUTIONS TO CIVIC AND CHARITABLE ENTITIES?

A. AEP Texas and AEPSC are committed to the overall health and economic vitality of the communities we serve. Financial contributions to non-profit organizations are one element of the Company’s engagement in activities to enhance health, education, arts and other aspects of community development in our territory. AEP Texas and
AEPSC also believe that a fundamental responsibility as a good corporate citizen is to support the communities where it does business. The Company makes contributions in helping to fulfill this role.

Moreover, as I explained earlier, AEP Texas employees also take leadership roles in their communities and are encouraged to work on volunteer projects to benefit non-profit organizations.

Q. DO THESE CONTRIBUTIONS BENEFIT AEP TEXAS’ SERVICE AREA?
A. Yes, they do. AEP Texas believes that donating locally is a cost-effective method of assisting our local communities and maximizes the benefits of the dollars for those in the community. AEP Texas works with the local communities in assessing their needs and then determines where to make financial contributions.

Q. WHAT ARE THE TOTAL TEST YEAR CHARITABLE CONTRIBUTIONS FOR WHICH AEP TEXAS SEEKS RECOVERY?
A. The Company’s charitable contributions are shown on Schedule II-D-2.5, which I co-sponsor with Mr. Hamlett. The test year total for contribution expenses for which AEP Texas seeks recovery is $834,892 (for Central and North Divisions) and is referenced in Schedule II-D-2.5. AEP Texas’ portion of the contributions and donations made by AEPSC for which AEP Texas is seeking recovery is $106,694 as shown in Schedule V-K-2B and Schedule II-D-2.5. AEPSC charitable contribution policy and objectives, and the resulting contributions, are consistent in nature with those made by AEP Texas.

Q. PLEASE DESCRIBE THE MEMBERSHIP EXPENSES AEP TEXAS IS SEEKING IN THIS CASE.
A. AEPSC and AEP Texas are members of associations and organizations addressing electric industry issues such as the Edison Electric Institute and the Association of Electric Companies of Texas.

Q. WHAT IS THE LEVEL OF MEMBERSHIP EXPENSES PROPOSED FOR RECOVERY?

A. The test year amount of membership expenses for which AEP Texas seeks recovery is $557,801 and is referenced in Schedule II-D-2.6. AEP Texas’ portion of the membership expenses allocated to it by AEPSC, and for which AEP Texas seeks recovery, is $239,519 and is referenced in Schedule II-D-2.6.

The reasonableness of AEPSC’s allocation to AEP Texas for charitable contributions and membership expenses is supported by the testimony of Mr. Frantz. AEP Texas’ charitable contributions for which it seeks recovery meets the level authorized in 16 TAC § 25.231(b)(1)(E). Company witness Hamlett sponsors the supporting calculations for this determination, shown in Schedule II-D-2.3.

Q. DO THE CONTRIBUTIONS REQUESTED FOR RECOVERY BY AEP TEXAS MEET THE COMMISSION’S REQUIREMENTS FOR RECOVERABLE CONTRIBUTIONS?

A. Yes. I have reviewed all contributions included in Schedule II-D-2.5 for which AEP Texas is requesting recovery. None of the contributions violate the standards set out in 16 TAC § 25.231(b)(2).

Q. DO THE MEMBERSHIP EXPENSES REQUESTED FOR RECOVERY BY AEP TEXAS MEET THE COMMISSION’S REQUIREMENTS FOR RECOVERABLE MEMBERSHIP COST?
A. Yes. None of the membership costs contained in Schedule II-D-2.6 violates the Commission's standards for memberships set out in 16 TAC § 25.231(b)(2)(E), nor any other prohibition in 16 TAC § 25.231(b)(2).

VIII. CONCLUSION

Q. PLEASE SUMMARIZE YOUR TESTIMONY.

A. The services provided by AEP Texas External Affairs AEP Texas Corporate Communication, AEPSC Corporate Communications and AEPSC External Affairs are essential to AEP Texas' mission to provide safe, reliable electricity and provide significant benefits to our customers. Many charitable organizations and educational institutions within AEP Texas' service territory are able to fulfill their respective missions, in part because of the contributions made by AEP Texas and its employee volunteers. Recovery of the costs associated with providing these services is necessary for our company to meet the ongoing obligation to our customers and communities. Additionally, the advertising, contributions and donations expense requested by AEP Texas meets Commission standards for recovery in rates.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes, it does.
### Schedules Sponsored or Co-Sponsored by Gilbert Hughes

<table>
<thead>
<tr>
<th>Schedule</th>
<th>Description</th>
<th>Sponsors</th>
</tr>
</thead>
<tbody>
<tr>
<td>II-D-2.3</td>
<td>Summary of Advertising, Contributions &amp; Dues</td>
<td>Hamlett/Hughes</td>
</tr>
<tr>
<td>II-D-2.4</td>
<td>Summary of Advertising Expense</td>
<td>Hamlett/Hughes</td>
</tr>
<tr>
<td>II-D-2.4a</td>
<td>Capitalized Advertising</td>
<td>Hamlett/Hughes</td>
</tr>
<tr>
<td>II-D-2.5</td>
<td>Summary of Contribution &amp; Donation Expense</td>
<td>Hamlett/Hughes</td>
</tr>
<tr>
<td>II-D-2.6</td>
<td>Summary of Membership Dues Expense</td>
<td>Hamlett/Hughes</td>
</tr>
<tr>
<td>II-D-2.6a</td>
<td>Summary Industry Organization Dues</td>
<td>Hamlett/Hughes</td>
</tr>
<tr>
<td>II-D-2.6b</td>
<td>Summary of Business Economic Dues</td>
<td>Hamlett/Hughes</td>
</tr>
<tr>
<td>II-D-2.6c</td>
<td>Summary of Professional Dues</td>
<td>Hamlett/Hughes</td>
</tr>
</tbody>
</table>
PUBLIC UTILITY COMMISSION OF TEXAS

APPLICATION OF

AEP TEXAS INC.

FOR AUTHORITY TO CHANGE RATES

DIRECT TESTIMONY OF

JEFF S. STRACENER

FOR

AEP TEXAS INC.

MAY 2019
I. INTRODUCTION

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

A. My name is Jeff S. Stracener. My business address is 539 N. Carancahua, Corpus Christi, Texas, 78478. I am currently employed by AEP Texas Inc. (AEP Texas or Company) as the Director of Distribution Risk and Project Management. AEP Texas is the name used to refer to the jointly managed operations of AEP Texas Central Division (TCD) and AEP Texas North Division (TND). AEP Texas is headquartered in Corpus Christi, Texas. As will be explained in my testimony and that of other witnesses, the operations and management of TCD and TND are integrated for many purposes.

Q. PLEASE DISCUSS YOUR EDUCATIONAL BACKGROUND AND PROFESSIONAL QUALIFICATIONS.

A. I graduated from Texas A&M University in College Station, Texas, with a Bachelor of Science degree in Agricultural Engineering in 1983. Most of my professional career I have worked in the customer service and operations areas of the electric utility business, often working on issues related to electric metering. I began working at Central Power and Light Company (CPL) (one of the predecessors to AEP Texas) in 1983 as a Load Management Specialist. In that position, I implemented company load management programs, provided direct technical support to Regional Marketing Departments and conducted technical research and documented the results from marketing programs. I was charged with selecting and purchasing load research metering equipment utilized in these programs.
In 1986, I became an Industrial Marketing Engineer for CPL where I provided industrial, large commercial and agricultural customers with technical assistance in solving energy-related problems and worked directly with the construction of electrical distribution systems and metering and with design engineers and architects in the planning of projects.

In 1990, I was named an Area Manager for CPL where I oversaw the installation and maintenance of electric service, as well as the collection of revenues for the service provided to 15,000 customers in the Del Rio, Texas area.

After a short stint in the mergers and acquisitions area of CPL’s parent company, Central and South West Corporation (CSW), in 1995 I began working with large industrial customers to help meet their energy and service needs, first as a Key Account Manager for CPL and then as manager of a group of Key Account Managers for CSW.

During the period of 1998 to 2002, I was Manager of Customer Relations for CPL’s Laredo District and later AEP Texas’ west and southwest Texas service areas. In this role, I managed customer service activities, which included service coordination for residential, commercial and industrial customers.

In late 2002, I became Manager of Competitive Retailer Relations for AEP Texas, overseeing the liaison activities between Retail Electric Providers (REPs) and AEP Texas’ distribution and transmission services.

I became Manager of Advanced Meter Infrastructure (AMI) in July 2007 and held that position through the end of 2016. During that time, I oversaw the deployment of AMI across AEP Texas and managed the AMI operations. The AMI
organization of TCD and TND are managed as a single organization. The AMI organization’s sharing of management provides efficiencies for both TCD and TND through economy of scale. I was responsible for the effective organization and operation of the advanced metering system (AMS) at AEP Texas. I was charged with coordinating the regulatory approvals, training and support needed to maintain an advanced metering system.

In January 2017, I became Director of Distribution Risk and Project Management for AEP Texas. I am a licensed Professional Engineer in Texas.

Q. WHAT ARE THE PRIMARY RESPONSIBILITIES OF YOUR CURRENT POSITION?
A. I am responsible for the management of risk associated with distribution assets and processes, the management of large distribution projects and programs and crisis response readiness for AEP Texas.

Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE PUBLIC UTILITY COMMISSION OF TEXAS?
A. Yes, I filed direct testimony with the Public Utility Commission (PUC or Commission) in the following proceedings: Docket No. 36928, AEP Texas Central Company and AEP Texas North Company’s Request for Approval of Advanced Metering System (AMS) Deployment Plan and Request for AMS Surcharges; Docket No. 40261, Application of AEP Texas Central Company and AEP Texas North Company for Approval of Advanced Metering System Reconciliation Pursuant to PUC SUBST. R. 25.130(k)(6); Docket No. 41879, Compliance Filing of AEP Texas Central Company and AEP Texas North Company in Response to Rulemaking
Related to Advanced Metering Alternatives Pursuant to PUC SUBST. R. 25.133;

Docket No. 44416, Complaint of Marian S-Cross Against Reliant Energy Retail Services, LLC and AEP Texas Central Company; and Docket No. 46271, Complaint of Everetth Holley AEP Texas, Inc., Just Energy Texas LP and CPL Retail Energy.

II. PURPOSE OF DIRECT TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?

A. In this proceeding, AEP Texas is requesting to (1) implement new base rates reflecting its ongoing costs to provide AMS and (2) reconcile AMS costs with AMS surcharge revenues under 16 Tex. Admin. Code (TAC) § 25.130. My testimony supports both requests. At the conclusion of this proceeding and with the implementation of new base rates, AEP Texas proposes to eliminate the AMS surcharge and roll AMS capital expenditures and AMS operations and maintenance costs into base rates. In my direct testimony:

- I provide an overview of this AMS reconciliation filing.

- I demonstrate that the AMS costs incurred by AEP Texas during this AMS reconciliation period, which includes the base rate Test Year, were reasonable and necessary. The AMS reconciliation period includes those costs incurred from January 1, 2012 through December 31, 2018, which is also the ending date of the base rate Test Year.

- I describe the Company’s AMS Deployment Plan (the Plan) that was approved by the Commission in PUC Docket No. 36928, AEP Texas Central Company and AEP Texas North Company’s Request for Approval of Advanced Metering System (AMS) Deployment Plan and Request for AMS Surcharges.

- I describe relevant findings of the Order in Docket No. 40261, Application of AEP Texas Central Company and AEP Texas North Company for Approval of Advanced Metering System Reconciliation Pursuant to PUC SUBST. R.
25.130(k)(6) which covered the Company's costs expended and investments made in AEP Texas AMS deployment through December 31, 2011.

- I describe the project management team responsible for the AMS deployment, the members of that team, and its management of the AMS deployment.

- I describe the Company’s continued deployment of its AMS since January 1, 2012, and show that the Company implemented that deployment consistent with the AMS Deployment Plan approved by the Commission.

- In conjunction with the Company's other two witnesses, Mr. Gregory Filipkowski and Ms. Heather Whitney, I explain that the costs the Company incurred and the investments the Company made in connection with the AMS deployment from January 1, 2012 through December 31, 2018, were in accordance with the approved AMS Deployment Plan and that, as a result, those costs and investments are entitled to the presumptions of reasonableness and necessity provided in 16 TAC § 25.130(k)(6).

- I describe the advanced meters installed pursuant to the Company's AMS Deployment Plan and explain that the advanced meters' features and functionalities comply with 16 TAC § 25.130(g) and are consistent with the Deployment Plan.

- I provide an overview of the Company’s contract with Landis+Gyr (L+G).

- I support the actual costs of the Company's installed advanced meters and show that those costs were incurred and the investments were made in accordance with the AMS Deployment Plan, are properly allocated to the AMS initiative and are reasonable and necessary.

- I describe and support the meter reading savings associated with the Company's AMS deployment and how those savings benefit customers.

- I describe and support the AMS additional personnel operations and maintenance (O&M) costs, excluding information technology (IT) personnel, and demonstrate that those costs were incurred in accordance with the AMS Deployment Plan, are properly allocated to the AMS initiative and are reasonable and necessary.

- I describe and support the AMS other O&M costs and demonstrate that those costs were incurred in accordance with the AMS Deployment Plan, are properly allocated to the AMS initiative and are reasonable and necessary.

- I describe the activities related to the Low-Income In-Home Monitor Program.

- I describe and support the activities and costs associated with the AMS Customer Education initiative undertaken by the Company.
• I describe how American Electric Power Service Corporation (AEPSC) personnel provide necessary and reasonable support for the AMS program.

Q. PLEASE DESCRIBE THE AEP TEXAS MERGER APPROVED BY THE COMMISSION IN DOCKET NO. 46050.

A. At the time the Company’s existing AMS Deployment Plan and Surcharge was approved in Docket No. 36928, AEP Texas consisted of two separate corporate entities, AEP Texas Central Company (TCC) and AEP Texas North Company (TNC). Prior to the merger approved in Docket No. 46050, these companies were managed and operated as a single business under the brand name “AEP Texas.” After the merger, as ordered by the Commission, AEP Texas established the TCC and TNC “divisions”, (hereinafter referred to as “TCD” and “TND” respectively) within the merged utility. AEP Texas has maintained separate accounting ledgers for the TCD and TND that allow costs to be accounted for and rates to be maintained separately for each division.

Q. HOW IS THE COMPANY’S AMS RECONCILIATION STRUCTURED?

A. The Company’s reconciliation presentation is primarily captured in my EXHIBITs JSS-1 and JSS-2 (Exhibits), which are patterned on the format for the AMS information filed in the Company’s annual reports to the Commission in Docket No. 37907, AEP Texas Central Company and AEP Texas North Company Compliance Filings for Monthly Advanced Metering Status Reports Pursuant to Commission Final Order in Docket No. 36928. These Exhibits include a two-page summary, the first page of which summarizes the estimated and actual savings, O&M costs, depreciation and amortization, taxes, return, and certain other items making up the
Company's revenue requirements related to the deployment of the AMS. The second page summarizes the components of the invested capital (rate base) related to the AMS deployment. Attached to and included in these exhibits are individual Exhibits related to each of the items summarized on the first two summary pages of EXHIBIT JSS-1 and EXHIBIT JSS-2.

Q. WHAT IS THE RECONCILIATION PERIOD ADDRESSED IN THIS FILING?
A. The Company's reconciliation period is from January 1, 2012, to December 31, 2018. As discussed above, this historical period includes the Company's 12-month base rate request Test Year, which also ended on December 31, 2018.

Q. WHO SPONSORS THE VARIOUS PORTIONS OF EXHIBIT JSS-1 and JSS-2?
A.

Figure JSS-1

<table>
<thead>
<tr>
<th>Cost/Savings Description</th>
<th>JSS-1 Exhibit</th>
<th>JSS-2 Exhibit</th>
<th>Sponsor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Field Labor Savings</td>
<td>1-A</td>
<td>1-A</td>
<td>Stracener</td>
</tr>
<tr>
<td>Contract Meter Reading Savings</td>
<td>1-B</td>
<td>1-B</td>
<td>Stracener</td>
</tr>
<tr>
<td>Hardware Savings</td>
<td>1-C</td>
<td>1-C</td>
<td>Stracener</td>
</tr>
<tr>
<td>Vehicle Savings</td>
<td>1-D</td>
<td>1-D</td>
<td>Stracener</td>
</tr>
<tr>
<td>Property Tax Savings</td>
<td>1-E</td>
<td>1-E</td>
<td>Whitney</td>
</tr>
<tr>
<td>Revenue Protection</td>
<td>1-F</td>
<td>1-F</td>
<td>Stracener</td>
</tr>
<tr>
<td>Added Personnel</td>
<td>1-G</td>
<td>1-G</td>
<td>Stracener</td>
</tr>
<tr>
<td>Customer Education</td>
<td>1-H</td>
<td>1-H</td>
<td>Stracener</td>
</tr>
<tr>
<td>Severance</td>
<td>1-I</td>
<td>1-I</td>
<td>Stracener</td>
</tr>
<tr>
<td>Network</td>
<td>1-J</td>
<td>1-J</td>
<td>Filipkowski</td>
</tr>
<tr>
<td>IT Costs</td>
<td>1-K</td>
<td>1-K</td>
<td>Filipkowski</td>
</tr>
<tr>
<td>Other O&amp;M</td>
<td>1-L</td>
<td>1-L</td>
<td>Stracener</td>
</tr>
<tr>
<td>Low-Income In-Home Monitors</td>
<td>1-M</td>
<td>1-M</td>
<td>Stracener</td>
</tr>
<tr>
<td>Meter Depreciation</td>
<td>1-N</td>
<td>1-N</td>
<td>Whitney</td>
</tr>
<tr>
<td>Education Trailer Depreciation</td>
<td>1-O</td>
<td>N/A</td>
<td>Whitney</td>
</tr>
<tr>
<td>Network Depreciation</td>
<td>1-P</td>
<td>1-O</td>
<td>Whitney</td>
</tr>
<tr>
<td>Tools Depreciation</td>
<td>1-P1</td>
<td>1-O1</td>
<td>Whitney</td>
</tr>
<tr>
<td>IT Depreciation</td>
<td>1-Q</td>
<td>1-P</td>
<td>Whitney</td>
</tr>
<tr>
<td>Regulatory Asset Amortization</td>
<td>1-R</td>
<td>1-Q</td>
<td>Whitney</td>
</tr>
<tr>
<td>Interest Expense</td>
<td>1-S</td>
<td>1-R</td>
<td>Whitney</td>
</tr>
<tr>
<td>Rate Base Description</td>
<td>JSS-1 Exhibit</td>
<td>JSS-2 Exhibit</td>
<td>Sponsor</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td>---------------</td>
<td>---------------</td>
<td>-------------</td>
</tr>
<tr>
<td>Meter Gross Plant</td>
<td>2-A</td>
<td>2-A</td>
<td>Stracener</td>
</tr>
<tr>
<td>Education Trailer Gross Plant</td>
<td>2-B</td>
<td>N/A</td>
<td>Stracener</td>
</tr>
<tr>
<td>Network Gross Plant</td>
<td>2-C</td>
<td>2-B</td>
<td>Filipkowski</td>
</tr>
<tr>
<td>Tools Gross Plant</td>
<td>2-C1</td>
<td>2-B1</td>
<td>Stracener</td>
</tr>
<tr>
<td>IT Gross Plant</td>
<td>2-D</td>
<td>2-C</td>
<td>Filipkowski</td>
</tr>
<tr>
<td>Meter Plant Accumulated Depreciation</td>
<td>2-E</td>
<td>2-D</td>
<td>Whitney</td>
</tr>
<tr>
<td>Education Trailer Accumulated Depreciation</td>
<td>2-F</td>
<td>N/A</td>
<td>Whitney</td>
</tr>
<tr>
<td>Network Plant Accumulated Depreciation</td>
<td>2-G</td>
<td>2-E</td>
<td>Whitney</td>
</tr>
<tr>
<td>Tools Accumulated Depreciation</td>
<td>2-G1</td>
<td>2-E1</td>
<td>Whitney</td>
</tr>
<tr>
<td>IT Plant Accumulated Depreciation</td>
<td>2-H</td>
<td>2-F</td>
<td>Whitney</td>
</tr>
<tr>
<td>Regulatory Assets</td>
<td>2-I</td>
<td>2-G</td>
<td>Whitney</td>
</tr>
<tr>
<td>Accumulated Amortization</td>
<td>2-J</td>
<td>2-H</td>
<td>Whitney</td>
</tr>
<tr>
<td>Meter Plant Accumulated Deferred Tax</td>
<td>2-K</td>
<td>2-I</td>
<td>Whitney</td>
</tr>
<tr>
<td>Education Trailer Accumulated Deferred Tax</td>
<td>2-L</td>
<td>N/A</td>
<td>Whitney</td>
</tr>
<tr>
<td>Network Plant Accumulated Deferred Tax</td>
<td>2-M</td>
<td>2-J</td>
<td>Whitney</td>
</tr>
<tr>
<td>Tools Accumulated Deferred Tax</td>
<td>2-M1</td>
<td>2-J1</td>
<td>Whitney</td>
</tr>
<tr>
<td>IT Plant Accumulated Deferred Tax</td>
<td>2-N</td>
<td>2-K</td>
<td>Whitney</td>
</tr>
<tr>
<td>Regulatory Asset Deferred Tax</td>
<td>2-O</td>
<td>2-L</td>
<td>Whitney</td>
</tr>
<tr>
<td>SIA Refund Payable</td>
<td>2-P</td>
<td>2-M</td>
<td>Whitney</td>
</tr>
<tr>
<td>SIA Refund Accumulated Amortization</td>
<td>2-Q</td>
<td>2-N</td>
<td>Whitney</td>
</tr>
</tbody>
</table>

### III. OVERVIEW OF AMS RECONCILIATION

**Q. WHY IS THE COMPANY FILING THIS REQUEST FOR AMS RECONCILIATION?**

**A.** As mentioned previously, AEP Texas proposes to eliminate the AMS surcharge and roll AMS capital expenditures and AMS operations and maintenance costs into base rates.
Q. PLEASE DESCRIBE THE TESTIMONY OF THE OTHER WITNESSES THAT THE COMPANY HAS FILED TO SUPPORT ITS REQUEST FOR AMS RECONCILIATION.

A. In addition to my testimony, the Company is submitting the testimony of two other witnesses in this proceeding to support the Company’s request for AMS reconciliation. These two witnesses are Mr. Filipkowski and Ms. Whitney. The subject matters covered by Mr. Filipkowski and Ms. Whitney in their testimony are as follows:

1. Gregory Filipkowski -- Addresses the Company’s capital investment and O&M costs incurred in connection with the IT and network aspects of the deployment and operation of its AMS.

2. Heather Whitney -- Addresses the Company’s accounting for the actual revenues, costs and investment associated with the Company’s deployment of its AMS and the difference between certain cost estimates as established in the financial models used to set the Company’s original AMS surcharge and actual costs incurred by the Company.

IV. DESCRIPTION OF APPROVED AMS DEPLOYMENT PLAN

Q. PLEASE DESCRIBE THE COMPANY’S APPROVED DEPLOYMENT PLAN.

A. In PUC Docket No. 36928, the Commission issued its Order on December 17, 2009, approving the Company’s AMS Deployment Plan (the Plan). The Plan is attached to the Commission’s final order in PUC Docket No. 36928. The Plan provides for the Company to deploy advanced meters that provide or support the system features identified in 16 TAC § 25.130(g)(1) for residential and non-residential retail electric customers in the Company’s service areas, except those customers who are required to have interval data recorder meters and except in those circumstances in which the
The Commission has granted a waiver (see Finding of Fact No. 17 in the Commission’s Order in PUC Docket No. 36928) or customers that have chosen to opt out of having an AMS meter. The Plan specifies that the Company will use a Radio Frequency (RF) mesh communications technology in the deployment of advance meters.

The Plan describes the communication network and operating system that are necessary for the meter technology employed and contemplates that the Company’s existing IT systems will require upgrades and modifications to support the AMS deployment. The Plan also anticipates that new systems will be required.

The Plan contemplates that the advanced meters will be deployed across the Company’s service areas on a meter reading sub-area basis. That is, the sequence of the geographic areas to be covered by the deployment was structured by meter reading sub-areas so that manual and drive-by meter reading routes could be eliminated as efficiently as possible.

Q. IS THE COMPANY’S AMS DEPLOYMENT COMPLETE?
A. Yes. The Company successfully completed the AMS deployment in February 2014, less than two months after the original estimate of December 31, 2013. As of December 31, 2018, the IT-related work necessary to support the AMS has been completed as contemplated by the Plan, although as requirements and software functionality continue to evolve, additional IT-related work is expected, including Smart Meter Texas webportal expenses. The Company has deployed advanced meters in the geographical areas in accordance with the Plan. The total number of advanced meters deployed as of February 28, 2014, is slightly less than the original estimates due primarily to less than estimated customer growth.
Q. HOW DOES THE ACTUAL CAPITAL INVESTMENT FOR THE AMS COMPARE TO THE AMOUNT ESTIMATED AT THE TIME THE PLAN WAS PREPARED?

A. As set forth in the second page of EXHIBITs JSS-1 (TCD) and JSS-2 (TND), the Company has incurred more than was estimated in the AMS Surcharge Models filed in Docket No. 36928 for some categories and less than estimated for other categories. Taken as a whole, these Exhibits demonstrate that the Company’s actual AMS meter and IT infrastructure and communications systems capital investments incurred through December 31, 2018, have been comparable to those estimated in the AMS Surcharge Model as set forth in the following table:

**Figure JSS-2**

<table>
<thead>
<tr>
<th>AMS Meter and IT Deployment Capital as of 12/31/18 (Smillions)</th>
<th>Estimate</th>
<th>Actual</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>262.0</td>
<td>243.0</td>
<td>(19.0)</td>
</tr>
<tr>
<td>TCD</td>
<td>205.7</td>
<td>185.7</td>
<td>(20.0)</td>
</tr>
<tr>
<td>TND</td>
<td>56.3</td>
<td>57.3</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Q. HOW DOES THE ACTUAL O&M EXPENDITURE FOR THE AMS COMPARE TO THE AMOUNT ESTIMATED AT THE TIME THE PLAN WAS PREPARED?

A. The first page of EXHIBITs JSS-1 (TCD) and JSS-2 (TND) indicates that the total AMS meter and IT O&M costs for this reconciliation period have been slightly more than estimated in the Company’s AMS Surcharge Model. The following table compares the O&M costs for meters and IT incurred through December 31, 2018:

---

1 The Company agreed-to AMS Surcharge Models were filed in Docket No. 36928 pursuant to Commission direction as Interchange Item 106 (November 17, 2009).
AMS Meter and IT Deployment O&M for This Reconciliation Period
($millions)

<table>
<thead>
<tr>
<th></th>
<th>Estimate</th>
<th>Actual</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>102.6</td>
<td>109.2</td>
<td>6.6</td>
</tr>
<tr>
<td>TCD</td>
<td>79.5</td>
<td>87.3</td>
<td>7.8</td>
</tr>
<tr>
<td>TND</td>
<td>23.1</td>
<td>21.9</td>
<td>(1.2)</td>
</tr>
</tbody>
</table>

Q. WHAT FACTOR IS PRIMARILY RESPONSIBLE FOR ACTUAL O&M COSTS HAVING BEEN MORE THAN ESTIMATED IN THE AMS SURCHARGE MODEL FOR THIS RECONCILIATION PERIOD?

A. The primary reason the actual O&M costs for this reconciliation period are more than originally estimated in the AMS Surcharge Model is attributable to TCD having to spend $5.8 million to convert antiquated six-wire meter locations to three-wire metering in order to utilize advanced meters, which was not anticipated in the AMS Surcharge Model.

Q. HOW DO THE AMS REVENUE REQUIREMENTS INCURRED THROUGH DECEMBER 31, 2018, COMPARE TO THE LEVELS ESTIMATED IN THE AMS SURCHARGE MODEL?

A. The AMS revenue requirements for this reconciliation period, were more than estimated in the Company’s AMS Surcharge Model as shown in the following table:

AMS Revenue Requirements for This Reconciliation Period($millions)

<table>
<thead>
<tr>
<th></th>
<th>Est.</th>
<th>Actual</th>
<th>Diff.</th>
</tr>
</thead>
<tbody>
<tr>
<td>This Recon Period</td>
<td>289.9</td>
<td>308.5</td>
<td>18.6</td>
</tr>
<tr>
<td>TCD</td>
<td>234.4</td>
<td>246.0</td>
<td>11.6</td>
</tr>
<tr>
<td>TND</td>
<td>55.5</td>
<td>62.5</td>
<td>7.0</td>
</tr>
</tbody>
</table>
As of December 31, 2018, the Company has recovered approximately $216 million ($174 million TCD and $42 million TND), during this reconciliation period, through the AMS surcharge. The reconciliation balances from deployment through December 31, 2018 (including the previously reconciled balances) are identified in the direct testimony of AEP Texas witness Ms. Whitney.

V. FINDINGS OF THE ORDER IN DOCKET NO. 40261

Q. HAS THE COMPANY MADE PREVIOUS RECONCILIATION FILINGS REGARDING THE AMS DEPLOYMENT?

A. Yes. In April 2012, the Company filed the initial reconciliation under Docket No. 40261, which addressed the costs expended and investments made in the Company's AMS deployment through December 31, 2011.

Q. DID THE ORDER IN DOCKET NO. 40261 FIND THAT THE COMPANY'S DEPLOYMENT OF AMS WAS CONSISTENT WITH THE APPROVED DEPLOYMENT PLAN?

A. Yes. Finding of Fact No. 13 found that AEP Texas' AMS deployment through December 31, 2011, was consistent with the Company's approved AMS Deployment Plan.

Q. DID THE ORDER IN DOCKET NO. 40261 FIND THAT THE COMPANY WAS PRUDENT REGARDING ITS SPENDING AS IT RELATED TO ITS AMS DEPLOYMENT THROUGH DECEMBER 31, 2011?

A. Yes. Finding of Fact No. 14 found that the costs AEP Texas expended and the investments AEP Texas made in the deployment of its AMS through December 31,
2011, were expended and invested in accordance with the Company’s approved AMS Deployment Plan and were reasonable and necessary.

Q. DID THE ORDER DETERMINE THE PRUDENT AMOUNT OF CAPITAL INVESTMENT THAT THE COMPANY HAD MADE THROUGH DECEMBER 31, 2011?

A. Yes. Finding of Fact No. 17 found that through December 31, 2011, the Company incurred $125.63 million ($94.70 million TCD and $30.93 million TND) in reasonable and necessary capital costs.

Q. DID THE ORDER DETERMINE THE REGULATORY ASSETS RECORDED BY THE COMPANY WERE APPROPRIATE?

A. Yes. Finding of Fact No. 24 found that the Company properly recorded the amount of $2.31 million ($1.72 million TCD and $0.59 million TND) in regulatory assets before amortization and is reasonably amortizing these amounts over the life of the AMS surcharge.

VI. MANAGEMENT OF IMPLEMENTATION OF AMS DEPLOYMENT PLAN

Q. WHO WAS RESPONSIBLE FOR THE IMPLEMENTATION OF THE COMPANY’S APPROVED AMS DEPLOYMENT PLAN?

A. As Manager of AMI for AEP Texas at the time of deployment, I was responsible for the implementation of the AMS Deployment Plan. I put in place a project management structure that ensured that the AMS deployment was completed effectively, efficiently and in a manner that was consistent with the approved AMS Deployment Plan. The structure was comprised of two Sponsors, a Core Team that
was responsible for the implementation of the AMS Deployment Plan and a Matrix Organization. All members of the Core Team were located in Texas and directed the technical aspects of the day-to-day deployment of the AMS. Their responsibilities included, but were not limited to, installation of advanced meters in a manner consistent with the approved AMS Deployment Plan, Contract Coordination, Customer Education, Contract Scheduling, Accounting, Revenue Protection, HAN Implementation Coordination and monitoring meter activity. The Matrix Organization was comprised of various individuals at AEPSC and the Company. The Matrix Organization utilized functional teams consisting of central organizations to coordinate activities and monitor network systems and IT systems that support all functionality. Daily communication occurred among all of the team members, as well as a weekly conference call involving all of the same members. This constant communication among all the relevant business groups responsible for AMS deployment and the reporting of each group’s efforts helped ensure the implementation of the Plan was appropriately managed.

VII. DEPLOYMENT CONSISTENT WITH APPROVED AMS DEPLOYMENT PLAN

Q. PLEASE DESCRIBE HOW THE COMPANY’S IMPLEMENTATION OF THE AMS DEPLOYMENT PLAN THROUGH DECEMBER 31, 2018, COMPARES TO THE IMPLEMENTATION ANTICIPATED IN THE PLAN APPROVED BY THE COMMISSION.
As I stated previously, the Company's deployment of advanced meters was consistent with the Plan approved by the Commission in Docket No. 36928. The Company deployed the RF technology described in the Plan in the geographical meter reading sub-areas designated in the Plan. As contemplated by the Plan, the Company modified and augmented the IT systems to provide the necessary capabilities to support the AMS. As of February 28, 2014, the Company has covered all the geographical areas contemplated in the approved AMS Deployment Plan and has installed a total of 1,018,175 (827,409 TCD and 190,766 TND) advanced meters.

The Company, as I mentioned previously, has also deployed the necessary RF mesh network to support the RF metering system, as well as the backhaul network, which consists of the communication network(s) from the collectors to the AEP Data Center, using a combination of the Company's and AEP's internal wide-area-network and public cellular networks.

Q. HAS THE COMPANY DEVELOPED THE IT SYSTEMS TO SUPPORT AMS THAT WERE CONTEMPLATED IN THE AMS DEPLOYMENT PLAN APPROVED BY THE COMMISSION?

A. Yes. As contemplated in the Plan and as Mr. Filipkowski discusses in his testimony, the Company has upgraded and modified its IT systems as necessary to support the deployment of advanced meters.

VIII. COSTS INCURRED IN ACCORDANCE WITH THE APPROVED PLAN

Q. PLEASE DESCRIBE THE COSTS THAT THE COMPANY INCURRED IN THE AMS DEPLOYMENT FOR THIS RECONCILIATION PERIOD.
A. As I mentioned, EXHIBITs JSS-1 and JSS-2 provide the O&M costs that the Company has incurred and the capital investments it has made in deploying the AMS. Page 1 of the Exhibit provides a synopsis of the O&M costs for the AMS deployment for this reconciliation period, as well as depreciation, return, taxes and revenue requirement. Page 2 of the Exhibits provide the rate base associated with the AMS deployment, including the net expenditures for advanced meters, communication networks, IT systems, the Smart Meter Texas (SMT) portal, the Mobile Education Display (MED) and regulatory assets. Following those two pages, there is a separate exhibit for each line item included in the first two pages, and each exhibit contains a description of the cost category and an explanation of any differences between the amount estimated in the Company’s AMS Surcharge Models and the actual costs incurred and investments made for this reconciliation period, in connection with the AMS deployment.

Q. WERE THE COSTS THE COMPANY INCURRED AND THE INVESTMENTS THE COMPANY MADE FOR THIS RECONCILIATION PERIOD IN ACCORDANCE WITH THE AMS DEPLOYMENT PLAN APPROVED BY THE COMMISSION IN DOCKET NO. 36928?

A. Yes. As demonstrated by the testimony of the Company’s witnesses in this case, the costs the Company incurred and the investments the Company made in connection with the deployment of advanced meters through December 31, 2018, were in accordance with the Plan approved by the Commission in Docket No. 36928. The Company’s testimony demonstrates that through 2018 it:
1) deployed the advanced meters contemplated by the Plan that have the features and functionalities required by 16 TAC § 25.130(g)(1);

2) deployed the RF communications technology as identified in the Plan;

3) implemented a communication network and operating systems that are necessary to support the RF meter technology as contemplated in the Plan;

4) appropriately implemented a backhaul solution;

5) implemented new IT systems and modified existing IT systems to support the AMS deployment and SMT portal;

6) deployed AMI in the geographical area identified in the Plan; and

7) implemented the customer education program identified in the Plan.

Because the costs the Company has incurred and the investments the Company has made to deploy AMS are consistent with what was contemplated in the AMS Deployment Plan, these costs are entitled to the presumption of reasonableness described in 16 TAC § 25.130(k)(6).

Q. WERE THE COSTS INCURRED AND THE INVESTMENTS MADE BY THE COMPANY FOR THE DEPLOYMENT OF AMS REASONABLE AND NECESSARY?

A. Yes. The costs incurred and the investments made by the Company in deploying its AMS as described in its approved AMS Deployment Plan are reasonable and necessary. The supporting testimony submitted in this case provides specific evidence of the reasonableness and necessity of the costs incurred and the investments made by the Company in its AMS deployment.
IX. ADVANCED METERS INSTALLED


A. The advanced meters that the Company has installed have all of the features and functionalities that are required by 16 TAC § 25.130(g), except where expressly allowed by the Order in Docket No. 36928. For example, loads that currently have poly-phase, class 200 (200 amp 10 rating) meters do not have a service switch as required by 16 TAC § 25.130(g), which is specifically permitted under Finding of Fact No. 17(C) in the Order in Docket No. 36928.

Q. WAS THE NUMBER OF ADVANCED METERS INSTALLED THROUGH THE END OF DEPLOYMENT HIGHER THAN PROJECTED IN THE AMS DEPLOYMENT PLAN?

A. No. The model used to develop the AMS surcharge estimated that 1,078,376 (881,822 TCD and 196,554 TND) meters would be installed by the end of deployment (December 31, 2013). As mentioned previously, 1,018,175 meters have been installed as of February 28, 2014. The primary reason for that difference is that the Company’s original AMS surcharge assumed a higher than actual customer growth rate.

Q. HOW DID THE TIMING OF THE INSTALLATION OF ADVANCED METERS FROM JANUARY 1, 2012, THROUGH DEPLOYMENT COMPLETION COMPARE WITH WHAT WAS ASSUMED IN THE AMS SURCHARGE MODELS?
A. The installation was generally consistent with what was assumed in the AMS Surcharge Model. The AMS Surcharge Model assumed that after the initial ramp-up in meter installations, a consistent number of meters would be installed every quarter. In fact, the number of advanced meters installed per quarter varied due in part to geographical factors and in part to considerations related to orderly ramp-up of installation.

Q. FROM WHOM DID THE COMPANY PURCHASE ITS RF MESH ADVANCED METERS?

A. The Company purchased its meters from L+G. In 2009, the Company contracted with Cellnet Technology, Inc. (doing business as L+G) for the provision of the RF mesh advanced meters, the associated communication network infrastructure, software, databases, equipment and services.

Q. HAS THE COMMISSION FOUND THE L+G CONTRACT TO BE REASONABLE?

A. Yes. The Commission found the terms of the L+G contract, including pricing, to be reasonable (Finding of Fact No. 41 of the Order in Docket No. 36928), and those terms remain reasonable and consistent with the Company’s Plan. The contract has provided and continues to provide cost-effective and competitive pricing for the necessary advanced meters and back-office systems that have the features and functionalities required by 16 TAC § 25.130(g) and the Plan. An amendment to the contract was executed in April 2010, to provide more favorable terms to the Company regarding network equipment volume discounts and related expenses. In addition, a Premium Service Agreement (Service Agreement) was added as a supplement to
Exhibit H of the contract in November 2011. Both the amendment #1 and the Service Agreement were found to be reasonable (Finding of Fact No. 35(a) of the Order in Docket No. 40261). A second amendment to the contract was executed in June 2012, to provide even more favorable terms to the Company by providing additional network equipment volume discounts and eliminating penalties regarding minimum meter purchases. In September 2016, the contract was amended to correct vague language in the “Damages for Delay of RMA equipment” and “Excessive Failure” clauses as these clauses will persist for any equipment purchased through August 31, 2016. A new Contract was also executed in September 2016 that combined all previous amendments, updated equipment price schedules, and professional services price schedules. The term of the contract is September 1, 2016 to December 31, 2021. Otherwise, all contract terms approved by the Commission in Docket No. 36928 remain in effect.

Q. WERE COMPLEX METERS FOR THE LARGER CUSTOMERS ACQUIRED UNDER THE EXISTING ARRANGEMENT WITH L+G?

A. No. The communications modules installed in the complex meters are an L+G product and are covered under the existing arrangement, but the meters themselves were provided by General Electric (GE), now known as Aclara. AEP has a long and successful practice of using the GE KV2C meter to address the complex metering requirements of large commercial and industrial customers. L+G and Aclara have combined their talents to deliver a product that meets the complex metering needs of these classes of customers. The Company purchased the communications module from L+G at the agreed upon price in the contract. Aclara installed the module in its
KV2C meter and shipped the meter to the Company. The Commission found the
terms of the GE (Aclara) contract, including pricing, to be reasonable (Finding of
Fact No. 35(b) of the Order in Docket No. 40261).
Q. PLEASE DESCRIBE HOW THE ACTUAL INVESTMENT IN THE ADVANCED
METERS INSTALLED THROUGH THE END OF DEPLOYMENT COMPARES
TO THE ORIGINALLY ESTIMATED CAPITAL COSTS OF THE ADVANCED
METERS IN THE COMPANY’S AMS SURCHARGE MODELS.
A. As shown in Exhibit 2-A of EXHIBIT JSS-1 and EXHIBIT JSS-2, the actual capital
investment made in advanced meters through the end of deployment, including the
costs of the advanced meters themselves, installation costs, and sales tax, was $19.10
million ($16.34 million TCD and $2.76 million TND) lower than estimated in the
AMS Surcharge Model. The Company’s investment in advanced meters was lower
than originally estimated because, as mentioned previously, the customer growth rate
used in the original estimate was higher than the actual growth rate. The actual base
cost of the meters ended up being less than originally estimated because AEP Texas
was able to negotiate a volume discount that was not figured in the original estimate.
The actual expenditures for meter enclosure seals, meter base adapters and meter
socket repairs were also less than originally estimated.
Q. PLEASE DESCRIBE HOW THE COMPANY HAS ENSURED THAT ACTUAL
ADVANCED METER CAPITAL COSTS HAVE BEEN REASONABLE AND
NECESSARY AND INCURRED IN ACCORDANCE WITH THE AMS
DEPLOYMENT PLAN.
A. In order to provide the functionalities specified in the Commission’s rules and the
Order in Docket No. 36928, the Company has installed the advanced meters in
accordance with the Commission-approved Plan. The Company purchased the
advanced RF meters from L+G at or below the per-meter pricing approved by the
Commission in Docket No. 36928. The Company’s advanced meter costs shown on
Exhibit 2-A of EXHIBIT JSS-1 and EXHIBIT JSS-2 are, therefore, entitled to the
presumption that they are reasonable and necessary under 16 TAC § 25.130(k)(6).

In implementing the Plan, the Company has used reasonable processes to
procure the necessary advanced meters with the required features and functionalities,
associated equipment, technology and services. Meters were shipped directly to the
contractor responsible for installing the meters in order to keep the storage, freight
and handling charges to a minimum. Those processes have enabled the Company to
achieve reasonable costs for the installation of advanced meters that compare
favorably with the costs estimated in the AMS Surcharge Model. Additionally, the
Company tracked the costs associated with the meters in connection with the
implementation of the Plan and ensured that its advanced meter costs were properly
allocated to the correct projects and to the appropriate division of AEP Texas. For all
of these reasons, the Company’s actual advanced meter capital costs have been
reasonably and necessarily incurred and properly allocated.
X. METER READING SAVINGS ACHIEVED

Q. PLEASE DESCRIBE THE METER READING SAVINGS THAT WERE ASSUMED IN THE COMPANY’S AMS SURCHARGE MODELS.

A. The Company’s AMS Surcharge Model recognized that as the Company deployed advanced meters in its service territory, costs associated with manual meter reading activities would gradually be reduced. As shown in Exhibits 1-A through 1-D of EXHIBIT JSS-1 and EXHIBIT JSS-2, the estimated meter reading savings for this reconciliation period (exclusive of property tax savings) total $81.72 million ($59.56 million TCD and $22.16 million TND).

Q. WHAT WERE THE COMPANY’S ACTUAL METER READING SAVINGS FOR THIS RECONCILIATION PERIOD?

A. As can be seen on the first page of EXHIBITs JSS-1 and JSS-2, the components making up the meter reading savings are field labor savings, contract meter reading savings, hardware savings and vehicle savings. As shown in Exhibits 1-A through 1-D of EXHIBITs JSS-1 and JSS-2, the Company achieved actual total meter reading savings from January 1, 2012 through December 31, 2018, of $74.27 million ($54.38 TCD and $19.89 TND), approximately $7.45 million less than estimated in the AMS Surcharge Model.

Q. DID THE COMPANY INCUR ANY COSTS ASSOCIATED WITH THE ACHIEVEMENT OF THE METER READING SAVINGS?

A. Yes. In order to achieve the meter reading savings actually experienced, the Company incurred higher contract meter reading costs related to filling in for the meter-related employees who found alternative employment or terminated service with the
Company prior to when the schedule for the AMS deployment contemplated its ceasing to provide services. This is the primary reason the actual savings achieved was less than what was estimated in the AMS Surcharge Model. The entire amount of the savings arising from the actual reduction in meter-related employees through December 31, 2018, has been credited to AMS, as have been the accompanying costs as set forth in Exhibits 1-A through 1-D of EXHIBITs JSS-1 and JSS-2. By crediting the entirety of the savings to AMS, the resulting actual meter reading savings credited to the AMS are higher than had the Company segregated the savings and associated costs between AMS and non-AMS activities.

Q. DID THE COMPANY INCUR ANY COSTS ASSOCIATED WITH THE SEVERANCE OF METER READERS AND OTHER METER-RELATED PERSONNEL FOR THIS RECONCILIATION PERIOD?

A. Yes. In Docket No. 36928, the Commission recognized that there would be severance costs associated with meter readers, meter installers and associated supervision and management and allowed the Company to recover its costs of employee severances through the AMS surcharge. The Commission directed the Company to attempt to lower actual severance costs for meter readers and installers by allowing the displaced employees to seek other positions within the Company, which the Company was successful in doing. The Company incurred voluntary severance costs for 33 (23 at TCD and 10 at TND) meter readers during this reconciliation period. As reflected in Exhibits 1-I and 2-I to EXHIBIT JSS-1 for TCD and Exhibits 1-I and 2-G to EXHIBIT JSS-2 for TND, the Company’s actual severance costs for this reconciliation period were approximately $1.14 million ($0.83 million TCD and
$0.31 million TND) or approximately $0.17 million less than originally estimated for
this same period.

Q. WHAT ARE THE METER READING SAVINGS AFTER THE ACTUAL
SEVERANCE COSTS ARE INCLUDED?

A. As summarized in the table below, the net result of the changes in meter-related
savings and in the severance costs actually experienced during this reconciliation
period, is comparable to the estimate in the AMS Surcharge Models:

Figure JSS-5

<table>
<thead>
<tr>
<th>Meter Related Net Savings for this Reconciliation Period</th>
<th>Estimate</th>
<th>Actual</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Savings</td>
<td>81.72</td>
<td>74.27</td>
<td>(7.45)</td>
</tr>
<tr>
<td>TCD</td>
<td>59.56</td>
<td>54.38</td>
<td>(5.18)</td>
</tr>
<tr>
<td>TND</td>
<td>22.16</td>
<td>19.89</td>
<td>(2.27)</td>
</tr>
<tr>
<td>Severance</td>
<td>(1.31)</td>
<td>(1.14)</td>
<td>0.17</td>
</tr>
<tr>
<td>TCD</td>
<td>(0.91)</td>
<td>(0.83)</td>
<td>0.08</td>
</tr>
<tr>
<td>TND</td>
<td>(0.40)</td>
<td>(0.31)</td>
<td>0.09</td>
</tr>
<tr>
<td>Total</td>
<td>80.41</td>
<td>73.13</td>
<td>(7.28)</td>
</tr>
<tr>
<td>TCD</td>
<td>58.65</td>
<td>53.55</td>
<td>(5.10)</td>
</tr>
<tr>
<td>TND</td>
<td>21.76</td>
<td>19.58</td>
<td>(2.18)</td>
</tr>
</tbody>
</table>

XI. ADDITIONAL PERSONNEL O&M COSTS (EXCLUDING IT)

Q. WHAT ADDITIONAL PERSONNEL O&M COSTS (EXCLUDING IT) WERE
ASSUMED IN THE AMS SURCHARGE MODEL FOR THIS RECONCILIATION
PERIOD?

A. As reflected in Exhibits 1-F and 1-G of EXHIBITs JSS-1 and JSS-2, the Company’s
additional personnel O&M costs (excluding IT) consist of revenue protection and
other added personnel (excluding IT) cost components in the AMS Surcharge Model.
The Company estimated it would need three additional revenue protection personnel (two at TCD and one at TND) to follow up on energy diversion cases reported by the AMS. The labor, vehicles, materials and equipment costs for these additional revenue protection personnel from January 1, 2012 through December 31, 2018, were estimated in the AMS Surcharge Models to be $3.30 million ($2.18 million TCD and $1.12 million TND).

It was estimated that the Company would need 87 (75 at TCD and 12 at TND) additional field employees to troubleshoot meter problems, replace failed meters and perform periodic inspections of meter locations, as well as employees to manage and supervise these field employees. It was also envisioned that added personnel would be needed to monitor advanced meter data collection, exception handling, staffing for the AMS operating system and transmitting service orders. The labor, vehicles, materials and equipment costs for these additional personnel from January 1, 2012 through December 31, 2018, were estimated in the AMS Surcharge Model to be $69.69 million ($56.88 million TCD and $12.81 million TND).

Q. WAS A PORTION OF THE ADDITIONAL PERSONNEL COSTS ESTIMATED IN THE AMS SURCHARGE MODEL ASSOCIATED WITH THE 87 ADDITIONAL FIELD EMPLOYEES OFFSET IN ANOTHER SECTION OF THE AMS SURCHARGE MODEL?

A. Yes. As discussed below, the other O&M section of the AMS Surcharge Model (Exhibit 1-L) offset a portion of the costs associated with these additional 87 field employees. Specifically, in settling Docket No. 36928, TCD agreed to 42 additional personnel to troubleshoot meters instead of the 75 estimated in the added personnel
section of the AMS Surcharge Model and TND agreed to 8 additional personnel to troubleshoot meters instead of the 12 estimated in the added personnel section of the AMS Surcharge Model. In other words, the added personnel section of the model continued to model costs associated with 87 additional employees; however, the other O&M section of the model contains a $23.13 million ($20.1M at TCD and $3.03M at TND) credit for this reconciliation period to reflect the agreement regarding employees to troubleshoot meters.

Q. PLEASE DESCRIBE THE ACTUAL ADDITIONAL PERSONNEL O&M COSTS (EXCLUDING IT) INCURRED BY THE COMPANY DURING THE CURRENT RECONCILIATION PERIOD.

A. As shown in Exhibit 1-F of EXHIBITs JSS-1 and JSS-2, the Company’s actual additional personnel O&M costs from January 1, 2012 through December 31, 2018, for revenue protection personnel totaled $2.33 million ($2.33 million TCD and $0.003 million TND). Exhibit 1-G of EXHIBITs JSS-1 and JSS-2 illustrates that the Company’s actual other additional personnel (excluding IT) O&M costs for this reconciliation period, totaled $68.76 million ($54.97 million TCD and $13.79 million TND).

Q. WHAT ARE THE TOTAL ADDITIONAL PERSONNEL COSTS (EXCLUDING IT) AND HOW DO THE ACTUAL COSTS COMPARE TO THE TOTAL ESTIMATED AMOUNT IN THE AMS SURCHARGE MODEL?

A. The following table summarizes the additional personnel costs for both revenue protection and other activities and compares the actual amounts to the estimated amounts:
Q. WHAT ACCOUNTS FOR THE ACTUAL ADDITIONAL PERSONNEL (EXCLUDING IT) COSTS BEING MORE THAN THE AMOUNTS ESTIMATED IN THE AMS SURCHARGE MODELS?

A. Despite the lower than modeled Exhibit 1-G costs associated with added personnel, the actual additional personnel costs were higher than modeled because the credit in Exhibit 1-L did not materialize. The primary reason the actual additional personnel O&M (excluding IT) costs for this reconciliation period are more than originally estimated in the AMS Surcharge Models is that it has taken more personnel to support the AMS deployment and operations than originally estimated and agreed to in the settlement of Docket 36928. Another factor that attributed to the higher cost of additional personnel is TCD having to spend $5.8 million to convert antiquated six-wire meter locations to three-wire metering in order to utilize advanced meters, which was not anticipated in the AMS Surcharge Model.
Q. PLEASE DESCRIBE HOW THE COMPANY HAS ENSURED THAT ACTUAL ADDITIONAL PERSONNEL O&M COSTS (EXCLUDING IT) INCURRED HAVE BEEN REASONABLE AND NECESSARY AND ARE IN ACCORDANCE WITH THE COMPANY’S APPROVED AMS DEPLOYMENT PLAN.

A. The Company has incurred the additional personnel O&M costs for the activities I have just discussed, which are essential to the operation of the AMS system. The Company appropriately tracked these costs and ensured that they were expended and properly allocated to the AMS initiative. The additional personnel O&M costs were incurred in accordance with the Company’s approved AMS Deployment Plan and are entitled to the presumption in 16 TAC § 25.130(k)(6) that those costs are reasonable and necessary. These additional personnel O&M costs, which are a critical part of ensuring the proper operation of AMS, are reasonable and necessary, and qualify for recovery through the AMS surcharge.

XII. OTHER O&M COSTS

Q. WHAT OTHER O&M COSTS WERE ASSUMED IN THE AMS SURCHARGE MODEL (EXHIBIT 1-L)?

A. The AMS Surcharge Model also included a $90,000 ($72,000 TCD and $18,000 TND) per year maintenance cost for enhanced AMS security features. These costs are reflected in Exhibit 1-L of EXHIBITs JSS-1 and JSS-2, the Company’s other O&M costs. Additionally, as noted above, Exhibit 1-L of the AMS Surcharge model reflects a $23.13 million ($20.1M at TCD and $3.03M at TND) credit for this reconciliation.
period to offset some O&M costs included in the additional personnel section of the
AMS Surcharge Models for TCD and TND.

Q. PLEASE DESCRIBE THE ACTUAL OTHER O&M COSTS INCURRED BY THE
COMPANY THROUGH DECEMBER 31, 2018.

A. As shown in Exhibit 1-L of EXHIBITs JSS-1 and JSS-2, the Company’s actual other
O&M costs for this reconciliation period, include regulatory support costs, AEPSC
personnel support of hardware testing and overtime labor for field employees and
total $1.14 million.

Q. WHAT ARE THE TOTAL OTHER O&M COSTS AND HOW DO THE ACTUAL
COSTS COMPARE TO THE TOTAL ESTIMATED AMOUNT IN THE AMS
SURCHARGE MODEL FOR THE CURRENT RECONCILIATION PERIOD?

A. The following compares the actual other O&M amounts to the estimated amounts:

Figure JSS-7

<table>
<thead>
<tr>
<th></th>
<th>Other O&amp;M Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(Smillions)</td>
</tr>
<tr>
<td>Jan 1, 2012 – December 31, 2018</td>
<td></td>
</tr>
<tr>
<td>Est.</td>
<td>Actual</td>
</tr>
<tr>
<td>TCD</td>
<td>(19.59)</td>
</tr>
<tr>
<td>TND</td>
<td>(2.91)</td>
</tr>
<tr>
<td>Total</td>
<td>(22.50)</td>
</tr>
</tbody>
</table>

Q. WHAT ACCOUNTS FOR THE ACTUAL OTHER O&M COSTS BEING MORE
THAN THE AMOUNTS ESTIMATED IN THE AMS SURCHARGE MODELS?

A. The primary reason the actual other O&M cost from January 1, 2012 through
December 31, 2018, is $23.64 million more than originally estimated in the AMS
Surcharge Model is attributable to the credit for TCD and TND hiring less personnel
to trouble-shoot meters having been captured in the reduced additional personnel
amount in Exhibit 1-G of EXHIBITs JSS-1 and JSS-2. In other words, the AMS Surcharge Model Exhibit 1-L estimate produces a large negative value as a result of the additional personnel credit, but the actual savings are captured in the Exhibit 1-G calculation.

Q. PLEASE DESCRIBE HOW THE COMPANY HAS ENSURED THAT ACTUAL OTHER O&M COSTS INCURRED HAVE BEEN REASONABLE AND NECESSARY AND ARE IN ACCORDANCE WITH THE COMPANY’S APPROVED AMS DEPLOYMENT PLAN.

A. The Company has incurred the other O&M costs for the activities I have just discussed, which were essential to the ongoing support of the Company’s AMS deployment. The Company appropriately tracked these costs and ensured that they were expended and properly allocated to the AMS initiative. The other O&M costs were incurred in accordance with the Company’s approved AMS Deployment Plan and are entitled to the presumption in 16 TAC § 25.130(k)(6) that those costs are reasonable and necessary. These other O&M costs were essential to the ongoing support of the Company’s AMS deployment, are reasonable and necessary, and qualify for recovery through the AMS surcharge.

XIII. LOW-INCOME IN-HOME MONITOR PROGRAM

Q. DID THE ORDER IN DOCKET NO. 36928 CONTAIN PROVISIONS RELATED TO IN-HOME MONITORS FOR LOW-INCOME CUSTOMERS?

A. Yes. Finding of Fact No. 77 of the Order in Docket No. 36928 required the Company to “include $1 million ($800,000 TCD and $200,000 TND) in the AMS Surcharge to
cover (a) the costs of providing in-home monitors to low-income customers, (b) the
associated administrative costs, and (c) the costs of distribution, training, and
customer education related to the in-home monitors."

Q. DID THE COMPANY INCLUDE THIS AMOUNT IN THE ORIGINAL AMS
SURCHARGE?

A. Yes. The Company included $1 million ($800,000 TCD and $200,000 TND) in the
original AMS surcharge for the purposes outlined above. In the financial model that
was used in setting the Company's original AMS surcharge, the Company allocated
that $1 million ($800,000 TCD and $200,000 TND) evenly over the years 2010 to
2013. For the current reconciliation period, the Company allocated $500,000
($400,000 TCD and $100,000 TND).

Q. WHAT ELSE DID THE ORDER IN DOCKET NO. 36928 REQUIRE THE
COMPANY TO DO REGARDING IN-HOME MONITORS FOR LOW-INCOME
CUSTOMERS?

A. The Order required the Company to work with Commission Staff and market
participants to develop a program to acquire and distribute the in-home monitors to
low-income customers in a cost-effective manner that would reach the greatest
number of eligible low-income customers.

Q. PLEASE DESCRIBE WHAT THE COMPANY HAS DONE WITH RESPECT TO
DEVELOPING THIS PROGRAM.

A. In May 2010, following various meetings with Commission Staff and market
participants, the Company joined with Oncor and CenterPoint (collectively the Joint
TDSPs) to issue a joint request for proposals (RFP) for low-income in-home monitors
(Joint Low-Income RFP) as a part of Project No. 36234. The hope was that combining the available funds of all the companies would provide buying power to drive down the price of the in-home monitor.

In July 2010, after numerous discussions, the Joint TDSPs and Commission Staff agreed to postpone the selection of a potential vendor to allow the engineering working sessions on the Smart Energy Profile that were then being held by the Joint TDSPs to be completed so that experience could be gained from both of those activities prior to selecting a vendor or device for the low-income program.

In the fall of 2013, the Low-Income Program was revisited by the Commission and the market and the focus changed from the TDSPs providing devices to customers to the REPs providing the devices and being reimbursed by the TDSPs. On November 25, 2014, a plan to distribute in-home monitors to low-income customers was filed at the Commission by the TDSPs under Project No. 36234. The implementation plan became effective January 2015.

Q. HAS THE COMPANY INCURRED ANY ACTUAL COSTS RELATED TO THE PROVISION OF THE IN-HOME MONITORS TO LOW-INCOME CUSTOMERS?

A. Yes. During this reconciliation period, the Company has incurred actual costs totaling $983,370 ($795,410 TCD and $187,960 TND).

Q. WHAT IS AEP TEXAS PROPOSING RELATING TO THE REMAINING BALANCE OF FUNDS FOR THE IN-HOME MONITORS TO LOW-INCOME CUSTOMERS?

A. Despite diligent efforts to spend the remaining funds related to the provision of the in-home monitors to low-income customers, AEP Texas has not been able to do so.
AEP Texas will seek to credit customers any balance remaining in the final AMS reconciliation.

XIV. AMS CUSTOMER EDUCATION

Q. WHAT DID THE FINAL ORDER IN DOCKET NO. 36928 REQUIRE THE COMPANY TO DO RELATED TO AMS CUSTOMER EDUCATION?

A. Finding of Fact No. 64 of the Order in Docket No. 36928 required the Company to “conduct a customer education program in accordance with Exhibit G of this Order.” Further, Finding of Fact No. 66 of the Order required the Company to “report on its customer education efforts quarterly.”

Q. HAS THE COMPANY COMPLIED WITH THE REQUIREMENTS OF EXHIBIT G TO THE ORDER REGARDING AMS CUSTOMER EDUCATION?

A. Yes. The Company met with Commission Staff several times to develop and implement an AMS customer education campaign that met the requirements of Exhibit G. These meetings developed the strategy, messaging, delivery methods and materials to be used in the Company’s campaign. Consistent with Exhibit G, with the exception of the original AMS Mobile Education Display (MED), which was developed prior to the existence of Exhibit G, Commission Staff reviewed and approved all of the Company’s AMS customer education material prior to its use in the campaign. Finding of Fact No. 42 in the Order for Docket 40261 found that the Company’s AMS customer education program through December 31, 2011, was consistent with the Commission Staff’s recommendations appearing in Exhibit G to
Q. DID THE ORDER IN DOCKET NO. 36928 IDENTIFY A SPECIFIC DOLLAR AMOUNT RELATED TO THE COMPANY’S AMS CUSTOMER EDUCATION CAMPAIGN?

A. Yes. Finding of Fact No. 65 of the Order in Docket No. 36928 provided that:

It is reasonable for AEP Texas to spend and to include in the AMS surcharge a total of $1.2 million in capital costs ($960,000 for TCD and $240,000 for TND) and $3.8 million in O&M costs ($3.04 million for TCD and $0.76 million for TND) to pay for the costs associated with the customer education proposed by AEP Texas in Exhibit G to the Order.

Q. WERE THE COMPANY’S COSTS ASSOCIATED WITH AMS CUSTOMER EDUCATION FOUND REASONABLE IN DOCKET NO. 40261?

A. Yes. Through the end of 2011, with Commission Staff concurrence, the Company spent approximately $2.38 million ($1.75 million TCD and $0.63 million TND) for customer education O&M-related expenses. Additionally, $1.2 million was expended for capital customer education costs through the acquisition of the MED, which has been capitalized on TCD’s books. All of the Company’s costs associated with AMS customer education through December 31, 2011, were approved as a part of Finding of Fact No. 17 and No. 18 in the Order for Docket No. 40261.

Q. HAS THE COMPANY INCURRED ANY ADDITIONAL ACTUAL COSTS FOR AMS CUSTOMER EDUCATION SINCE JANUARY 1, 2012?

A. Yes. As shown in Exhibit 1-H of EXHIBITs JSS-1 and JSS-2, the Company spent approximately $1.79 million ($1.42 million TCD and $0.37 million TND) for
customer education O&M-related expenses within this reconciliation period. Of this amount, $0.79 million ($0.69 million TCD and $0.10 million TND) was spent on internal labor associated with customer education activities and $1.0 million ($0.84 million TCD and $0.16 million TND) on non-capital MED-related activities (contractor transportation of the MED, event sponsorships, advertising, giveaways, etc.) and customer education activities related to the other delivery methods set forth in Exhibit G of the Order in Docket No. 36928.

Q. WHAT EXPLAINS THE VARIANCE IN CUSTOMER EDUCATION COSTS BETWEEN THE ESTIMATE IN THE AMS SURCHARGE MODEL AND THE ACTUAL AMOUNT INCURRED DURING THIS RECONCILIATION PERIOD?

A. The actual customer education O&M expense from January 1, 2012 through December 31, 2018 has been $233,000 more than originally estimated because additional advertising was done in late 2014 to remind customers that we needed periodic physical access to their meter.

Q. PLEASE EXPLAIN HOW THE ACTUAL AMS CUSTOMER EDUCATION COSTS INCURRED BY THE COMPANY WERE REASONABLE AND NECESSARY.

A. The actual costs incurred by the Company for the AMS customer education campaign were incurred to meet a requirement in the Order in Docket No. 36928 in accordance with the AMS Deployment Plan approved by the Commission in consultation with Commission Staff. Accordingly, these customer education costs were incurred in accordance with the Company’s Deployment Plan, qualify for the presumption of
reasonableness under 16 TAC § 25.130(k) (6), are reasonable and necessary, and should be recovered through the AMS surcharge.

XV. METER-RELATED AFFILIATE COSTS

Q. WERE METER-RELATED AFFILIATE CAPITAL COSTS INCLUDED IN THE AMS COSTS APPROVED IN DOCKET NO. 40261?

A. Yes. Included in the Company’s capital costs of $125.63 million ($94.70 million TCD and $30.93 million TND) through December 31, 2011, were $11.82 million ($8.80 million TCD and $3.02 million TND) in affiliate costs. Finding of Fact No. 36 in the Order to Docket No. 40261 found these capital affiliate costs were reasonably and necessarily incurred for services provided AEPSC and Ohio Power Company in connection with the advanced metering infrastructure installation and in support of system integration, the advanced metering communications network, the advanced metering system command center, the advanced metering web portal, smart grid implementation, and AMS project management. Finding of Fact No. 37 in the Order to Docket No. 40261 further found these affiliate capital costs were primarily charged directly to TCD or to TND, or where they benefited TCD and TND as well as the other American Electric Power Company, Inc. (AEP) distribution companies, were allocated among all AEP distribution companies using cost-causative attribution factors based on the number of customers or the level of distribution construction. Use of direct charging to TCD or to TND and, where applicable, use of such attribution factors for common costs resulted in TCD’s and TND’s costs being no higher than charged to any other AEP affiliate or third party.
Q. WHAT METER-RELATED AFFILIATE CAPITAL COSTS ARE INCLUDED IN THE AMS COSTS FOR THIS RECONCILIATION PERIOD?

A. Meter-related capital affiliate costs are in work orders W0016143 and W0019967 (TCD) and W0016144 and W0019970 (TND). The charges in W0016143 (TCD) and W0016144 (TND) were for advanced metering infrastructure installation and integration, including new meter hardware and development of meter programs. The charges in W0019967 (TCD) and W0019970 (TND) were for AMI project management. These costs were direct assigned to TCD and TND by AEPSC and Ohio Power Company, with the exception of a portion of the costs in W0016143 (TCD) and W0016144 (TND) that represented general AEPSC overheads, which were assigned to the Company based on the level of distribution construction. Level of distribution construction is an appropriate attribution-based allocation factor for such general AEPSC construction overheads.

The affiliate capital charges in W0016143 and W0019967 (TCD) and W0016144 and W0019970 (TND), including costs for testing for new meter hardware and development of meter programs from Ohio Power Company, were reasonable and necessary for the construction or installation of the meter-related AMS infrastructure in accordance with the Commission-approved Plan for AMS deployment. The services provided were necessary for ensuring that the metering equipment and related systems constructed and installed would meet the requirements established in the Plan and that the equipment and related systems would operate and function as contemplated by the Plan. With the exception of the allocated overhead, the charges were directly assigned to unique work orders established for the TCD and...
TND AMS. The use of direct assignment or an attribution-based allocator based on
distribution construction for the shared overhead allocated to TCD and TND ensured
that each of TCD and TND were charged a price that was no higher than the price
charged to another affiliate or third party. Please see the testimony of Ms. Whitney
and Mr. Frantz for more information on meter-related affiliate capital costs.

Q. WERE METER-RELATED AFFILIATE O&M COSTS INCLUDED IN THE AMS
COSTS APPROVED IN DOCKET NO. 40261?

A. Yes. Included in the Company's O&M costs of $11.62 million ($8.98 million TCD
and $2.64 million TND) through December 31, 2011, were $1.32 million ($0.84
million TCD and $0.48 million TND) in affiliate costs for services provided by
AEPSC to support the operation and maintenance and deployment of the AMS.
Finding of Fact No. 38 in the Order to Docket No. 40261 found these costs were
reasonably and necessarily incurred for information technology (IT) and network-
related support, IT-related lease costs and maintenance costs, customer information
support, project management support, customer education support, meter-related
training, integration with the outage management system, applications support for the
advanced metering infrastructure head-end system and severance costs of certain
meter personnel previously working for TCD and/or TND. Finding of Fact No. 39 in
the Order to Docket No. 40261 further found over 99% of the affiliate O&M costs
were charged directly to TCD or to TND or to the AEP Texas AMS project. Where
the costs were charged directly to the AEP Texas AMS project, the costs were
allocated between TCD and TND using cost-causative attribution factors described in
the Companies' testimony. The remaining less than 1% of O&M support services,
which were shared with other AEP affiliates, consisted of costs allocated among all AEP distribution companies using the number of customers as the basis for the allocation. Use of directly charging to TCD or to TND or to the AEP Texas AMS project and, where applicable, use of the attribution factors for common costs described in the Company's testimony resulted in TCD's and TND's costs being no higher than charged to any other AEP affiliate or third party.

Q. DID THE COMPANY'S USE OF METER-RELATED AFFILIATE SERVICES CHANGE IN THE CURRENT RECONCILIATION PERIOD?

A. No

Q. WHAT METER-RELATED AFFILIATE O&M COSTS ARE INCLUDED IN THE AMS COSTS FOR THIS RECONCILIATION PERIOD?

A. Meter-related affiliate O&M support services to TCD's and TND's AMS were provided by the AEPSC Customer and Distribution Services and Utility Operations West departments. The meter-related support services provided by the AEPSC Customer and Distribution Services department included support for the Customer Information System, project management support, customer education support (including development of brochures and door hangers), training for meter troubleshooting, integration with the Outage Management System and applications support for the advanced metering infrastructure head-end system. The meter-related support services provided by the Utility Operations West department included AMS customer complaint support, rate design support for discretionary service fees, executive support, AMS budgeting support and meter revenue operations support for the AMS deployment.
The meter-related affiliate O&M charges from the AEPSC Customer and Distribution Services and the Utility Operations West departments were reasonable and necessary for the operation of the AMS systems in accordance with the Commission-approved Plan for the AMS deployment. Please see the testimony of Ms. Whitney and Mr. Frantz for more information on meter-related affiliate O&M costs.

XVI. SUMMARY AND CONCLUSION

Q. PLEASE SUMMARIZE YOUR DIRECT TESTIMONY.

A. In summary, my direct testimony demonstrates that the actual capital expenditures and O&M costs incurred during the Reconciliation Period in connection with the items listed in my testimony in Figure JSS-1 were made in accordance with the Company’s approved AMS Deployment Plan, are properly allocated to the AMS, and are reasonable and necessary.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes, it does.
## AEP Texas (Central Division)
### AMS Cost and Savings Detail

1/1/2012 through 12/31/2018

$ Thousands

<table>
<thead>
<tr>
<th>Line Number</th>
<th>Cost/Savings Description</th>
<th>1/1/2012 through 12/31/2018</th>
<th>Original Estimate</th>
<th>Actual</th>
<th>Over (Under)</th>
<th>Exhibit</th>
<th>Sponsor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Field Labor Savings</td>
<td>($46,936.14)</td>
<td>($46,036.72)</td>
<td>$899.42</td>
<td>Exhibit 1-A</td>
<td>Stracener</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Contract Meter Reading Savings</td>
<td>($11,615.50)</td>
<td>($7,640.60)</td>
<td>$3,974.90</td>
<td>Exhibit 1-B</td>
<td>Stracener</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Hardware Savings</td>
<td>($513.67)</td>
<td>($324.30)</td>
<td>$389.37</td>
<td>Exhibit 1-C</td>
<td>Stracener</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Vehicle Savings</td>
<td>($393.37)</td>
<td>($386.40)</td>
<td>$12.97</td>
<td>Exhibit 1-D</td>
<td>Stracener</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Property Tax Savings</td>
<td>($4,165.68)</td>
<td>($3,504.58)</td>
<td>$661.10</td>
<td>Exhibit 1-E</td>
<td>Whitney</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Total Benefits</td>
<td>($63,724.57)</td>
<td>($57,886.60)</td>
<td>$5,837.97</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Revenue Protection</td>
<td>$2,176.07</td>
<td>$2,328.34</td>
<td>$152.27</td>
<td>Exhibit 1-F</td>
<td>Stracener</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Added Personnel</td>
<td>$56,877.25</td>
<td>$54,969.07</td>
<td>($1,908.17)</td>
<td>Exhibit 1-G</td>
<td>Stracener</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Customer Education</td>
<td>$1,240.54</td>
<td>$1,424.86</td>
<td>$184.32</td>
<td>Exhibit 1-H</td>
<td>Stracener</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Severance</td>
<td>$0.00</td>
<td>$384.64</td>
<td>$384.64</td>
<td>Exhibit 1-I</td>
<td>Stracener</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Network</td>
<td>$5,671.88</td>
<td>$4,228.29</td>
<td>($1,443.59)</td>
<td>Exhibit 1-J</td>
<td>Filipkowski</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>IT Costs (Including Independent IT)</td>
<td>$32,696.58</td>
<td>$21,855.06</td>
<td>($10,841.52)</td>
<td>Exhibit 1-K</td>
<td>Filipkowski</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Other O&amp;M</td>
<td>($19,591.94)</td>
<td>$874.82</td>
<td>$20,466.76</td>
<td>Exhibit 1-L</td>
<td>Stracener</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Low-Income In-Home Monitors</td>
<td>$400.00</td>
<td>$795.41</td>
<td>$395.41</td>
<td>Exhibit 1-M</td>
<td>Stracener</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Total O&amp;M Expense</td>
<td>$79,470.47</td>
<td>$87,310.50</td>
<td>$7,840.03</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Total O&amp;M Expense Net of Savings</td>
<td>$15,745.90</td>
<td>$29,423.90</td>
<td>$13,678.00</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### DEPRECIATION & AMORTIZATION

<table>
<thead>
<tr>
<th>Line Number</th>
<th>Cost/Savings Description</th>
<th>1/1/2012 through 12/31/2018</th>
<th>Original Estimate</th>
<th>Actual</th>
<th>Over (Under)</th>
<th>Exhibit</th>
<th>Sponsor</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>Meter Depreciation</td>
<td>$136,211.42</td>
<td>$131,010.38</td>
<td>($5,201.04)</td>
<td>Exhibit 1-N</td>
<td>Whitney</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Education Trailer Depreciation</td>
<td>$0.00</td>
<td>$246.11</td>
<td>$246.11</td>
<td>Exhibit 1-O</td>
<td>Whitney</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Network Depreciation</td>
<td>$22,762.57</td>
<td>$23,917.54</td>
<td>$1,154.97</td>
<td>Exhibit 1-P</td>
<td>Whitney</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Tools Depreciation</td>
<td>$0.00</td>
<td>$98.55</td>
<td>$98.55</td>
<td>Exhibit 1-P</td>
<td>Whitney</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>IT Depreciation</td>
<td>$14,401.38</td>
<td>$35,350.64</td>
<td>$20,949.26</td>
<td>Exhibit 1-Q</td>
<td>Whitney</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>Total Deprecation</td>
<td>$173,375.38</td>
<td>$189,623.22</td>
<td>$16,247.84</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>Regulatory Asset Amortization</td>
<td>$4,141.90</td>
<td>$1,095.30</td>
<td>($3,046.60)</td>
<td>Exhibit 1-R</td>
<td>Whitney</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Total Depreciation &amp; Amortization</td>
<td>$177,517.28</td>
<td>$190,718.52</td>
<td>$13,201.24</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### RETURN

<table>
<thead>
<tr>
<th>Line Number</th>
<th>Cost/Savings Description</th>
<th>1/1/2012 through 12/31/2018</th>
<th>Original Estimate</th>
<th>Actual</th>
<th>Over (Under)</th>
<th>Exhibit</th>
<th>Sponsor</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>Interest Expense</td>
<td>$16,809.45</td>
<td>$12,021.33</td>
<td>($4,788.12)</td>
<td>Exhibit 1-S</td>
<td>Whitney</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>Return on Equity</td>
<td>$19,051.44</td>
<td>$13,624.70</td>
<td>($5,426.74)</td>
<td>Exhibit 1-T</td>
<td>Whitney</td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>Total Return</td>
<td>$35,860.89</td>
<td>$25,646.03</td>
<td>($10,214.86)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### TAXES

<table>
<thead>
<tr>
<th>Line Number</th>
<th>Cost/Savings Description</th>
<th>1/1/2012 through 12/31/2018</th>
<th>Original Estimate</th>
<th>Actual</th>
<th>Over (Under)</th>
<th>Exhibit</th>
<th>Sponsor</th>
</tr>
</thead>
<tbody>
<tr>
<td>28</td>
<td>Property Tax</td>
<td>$8,354.17</td>
<td>$7,258.69</td>
<td>($1,095.49)</td>
<td>Exhibit 1-U</td>
<td>Whitney</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>Texas Gross Margin Tax</td>
<td>$1,834.58</td>
<td>$905.58</td>
<td>($928.90)</td>
<td>Exhibit 1-V</td>
<td>Whitney</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>Federal Income Tax</td>
<td>$10,258.47</td>
<td>$7,214.08</td>
<td>($3,044.38)</td>
<td>Exhibit 1-W</td>
<td>Whitney</td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>Total Taxes</td>
<td>$20,447.22</td>
<td>$15,378.36</td>
<td>($5,068.86)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>SIA Refund Amortization</td>
<td>($15,150.38)</td>
<td>($15,150.38)</td>
<td>($0.00)</td>
<td>Exhibit 1-X</td>
<td>Whitney</td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>Total Revenue Requirement</td>
<td>$234,420.91</td>
<td>$246,016.43</td>
<td>$11,595.52</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*These Exhibits were added in the 2015 Annual Report model to account for items that were previously booked in the Network Plant account. These amounts are now shown separately since the underlying assets have different depreciable lives than the remainder of Network Plant. These items were not broken out in the original surcharge model.*
AEP Texas (Central Division)
AMS Rate Base Detail
As of 12/31/2018
$ Thousands

<table>
<thead>
<tr>
<th>Line</th>
<th>Rate Base Description</th>
<th>As Of 12/31/2018 (Original Estimate)</th>
<th>As Of 12/31/2018 (Actual)</th>
<th>Over (Under) Actual Exhibit Original Estimate</th>
<th>Sponsor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Meter Plant</td>
<td>$158,441.60</td>
<td>$142,102.99</td>
<td>($16,338.61)</td>
<td>Exhibit 2-A Stracener</td>
</tr>
<tr>
<td>2</td>
<td>Education Trailer</td>
<td>$0.00</td>
<td>$0.00</td>
<td>$0.00</td>
<td>Exhibit 2-B Stracener</td>
</tr>
<tr>
<td>3</td>
<td>Network Plant</td>
<td>$26,481.11</td>
<td>$21,030.94</td>
<td>($5,450.17)</td>
<td>Exhibit 2-C Filipkowski</td>
</tr>
<tr>
<td>4</td>
<td>Tools</td>
<td>$0.00</td>
<td>$579.14</td>
<td>$579.14</td>
<td>Exhibit 2-C1* Stracener</td>
</tr>
<tr>
<td>5</td>
<td>IT Plant</td>
<td>$20,764.95</td>
<td>$21,983.40</td>
<td>$1,218.45</td>
<td>Exhibit 2-D Filipkowski</td>
</tr>
<tr>
<td>6</td>
<td>Total Gross Plant</td>
<td>$205,687.66</td>
<td>$185,696.47</td>
<td>($19,991.19)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Meter Plant</td>
<td>($144,556.44)</td>
<td>($139,307.19)</td>
<td>$5,249.25</td>
<td>Exhibit 2-E Whitney</td>
</tr>
<tr>
<td>8</td>
<td>Education Trailer</td>
<td>$0.00</td>
<td>$0.00</td>
<td>$0.00</td>
<td>Exhibit 2-F Whitney</td>
</tr>
<tr>
<td>9</td>
<td>Network Plant</td>
<td>($24,142.25)</td>
<td>($15,218.25)</td>
<td>$8,924.00</td>
<td>Exhibit 2-G Whitney</td>
</tr>
<tr>
<td>10</td>
<td>Tools</td>
<td>$0.00</td>
<td>($89.55)</td>
<td>($89.55)</td>
<td>Exhibit 2-G1* Whitney</td>
</tr>
<tr>
<td>11</td>
<td>IT Plant</td>
<td>($20,764.95)</td>
<td>($20,717.06)</td>
<td>$47.89</td>
<td>Exhibit 2-H Whitney</td>
</tr>
<tr>
<td>12</td>
<td>Total Accumulated Depreciation</td>
<td>($189,463.64)</td>
<td>($175,341.06)</td>
<td>$14,122.58</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Net Plant</td>
<td>$16,224.02</td>
<td>$10,355.41</td>
<td>($5,868.61)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Regulatory Assets</td>
<td>$6,023.67</td>
<td>$1,721.19</td>
<td>($4,302.48)</td>
<td>Exhibit 2-I Whitney</td>
</tr>
<tr>
<td>15</td>
<td>Accumulated Amortization</td>
<td>($4,930.53)</td>
<td>($1,408.25)</td>
<td>$3,522.28</td>
<td>Exhibit 2-J Whitney</td>
</tr>
<tr>
<td>16</td>
<td>Net Regulatory Assets</td>
<td>$1,093.14</td>
<td>$312.94</td>
<td>($780.20)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Meter Plant</td>
<td>$6,914.72</td>
<td>$237.66</td>
<td>($6,677.06)</td>
<td>Exhibit 2-K Whitney</td>
</tr>
<tr>
<td>18</td>
<td>Education Trailer</td>
<td>$0.00</td>
<td>$0.00</td>
<td>$0.00</td>
<td>Exhibit 2-L Whitney</td>
</tr>
<tr>
<td>19</td>
<td>Network Plant</td>
<td>$1,158.00</td>
<td>($882.32)</td>
<td>($2,040.32)</td>
<td>Exhibit 2-M Whitney</td>
</tr>
<tr>
<td>20</td>
<td>Tools</td>
<td>$0.00</td>
<td>($153.28)</td>
<td>($153.28)</td>
<td>Exhibit 2-N Whitney</td>
</tr>
<tr>
<td>21</td>
<td>IT Plant</td>
<td>($0.00)</td>
<td>($1,213.30)</td>
<td>($1,213.30)</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>Total Plant-Related Deferred Tax</td>
<td>$8,072.72</td>
<td>($2,011.25)</td>
<td>($10,083.97)</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>Regulatory Asset Deferred Tax</td>
<td>($382.60)</td>
<td>($109.53)</td>
<td>$273.07</td>
<td>Exhibit 2-O Whitney</td>
</tr>
<tr>
<td>24</td>
<td>Total Accumulated Deferred Tax</td>
<td>$7,690.12</td>
<td>($2,120.78)</td>
<td>($9,810.90)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>SIA Refund Payable</td>
<td>($21,210.53)</td>
<td>($21,210.53)</td>
<td>$0.00</td>
<td>Exhibit 2-P Whitney</td>
</tr>
<tr>
<td>26</td>
<td>SIA Refund Accumulated Amortization</td>
<td>$15,150.38</td>
<td>$15,150.38</td>
<td>$0.00</td>
<td>Exhibit 2-Q Whitney</td>
</tr>
<tr>
<td>27</td>
<td>Net SIA Refund Payable</td>
<td>($6,060.15)</td>
<td>($6,060.15)</td>
<td>$0.00</td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>Total Rate Base</td>
<td>$18,947.14</td>
<td>$2,487.42</td>
<td>($16,459.71)</td>
<td></td>
</tr>
</tbody>
</table>

*These Exhibits were added in the 2015 Annual Report model to account for items that were previously booked in the Network Plant account. These amounts are now shown separately since the remaining assets have different depreciable lives than the remainder of Network Plant. These items were not broken out in the original surcharge model.
Field Labor Savings

Exhibit 1-A

Surcharge Model Reference:
Tab Name: Benefits
Line Number: 3
Name: Field Labor Impact

Description of Costs:
The AMS Surcharge Model estimated field labor savings for 2012 through 2018 is based on the release of a total of 87 meter readers, seven Meter Revenue Operations (MRO) supervisors and 1.2 (north division manager charged 20% of his time to central division) MRO managers. The original estimate is based on a reduction of of 41 meter readers, three supervisors and 1.2 managers in 2012 for savings of $3,312,534 (cell F3 in the Benefits worksheet of the AMS Model agreed to in settlement), plus an additional reduction of 21 meter readers, and two supervisors in 2013 for savings of $5,097,048 (cell G3), plus an additional reduction of 25 meter readers, and two supervisors in 2014 for savings of $7,256,653 (cell H3). For each year after 2014, this amount was escalated at 3.0%.

Cumulative Estimate vs. Actual:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Field Labor Savings</td>
<td>($46,936.14)</td>
<td>($46,036.72)</td>
<td>$899.42</td>
</tr>
</tbody>
</table>

Jan 1, 2012 through Dec 31, 2018 Variance Explanation:
As meter readers began finding jobs elsewhere in AEP Texas or leaving altogether prior to AMS deployment, AEP Texas replaced them with contract meter readers beginning in January 2010. During the summer of 2010, AEP Texas combined its Distribution and Meter Revenue Operations (MRO) organizations, which reduced the need for management and supervision personnel. A summary of the savings follows:

<table>
<thead>
<tr>
<th></th>
<th>Estimate</th>
<th>Actual</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>MRO Management</td>
<td>($1,929,176)</td>
<td>($1,791,550)</td>
<td>$137,626</td>
</tr>
<tr>
<td>MRO Supervision</td>
<td>($7,017,037)</td>
<td>($5,846,583)</td>
<td>$1,170,454</td>
</tr>
<tr>
<td>Meter Reading</td>
<td>($37,989,926)</td>
<td>($38,398,586)</td>
<td>($408,660)</td>
</tr>
<tr>
<td></td>
<td>($46,936,139)</td>
<td>($46,036,719)</td>
<td>$899,420</td>
</tr>
</tbody>
</table>

The Meter Reader savings realized were dependent on increased contract meter reading costs to replace the meter readers in areas where AMS was yet to be deployed as described in Exhibit 1-B (Contract Meter Reading Savings) and severance costs reflected in Exhibit 1-I (Severance).
Exhibit 1-B  

Contract Meter Reading Savings

Surcharge Model Reference:
Tab Name: Benefits
Line Number: 7
Name: Outsourced Labor

Description of Costs:
The AMS Surcharge Model estimated contract meter reading savings for 2012 through 2018 is based on the release of a total of 25 contract meter readers. The original estimate reflects a reduction of 12 contract meter readers in 2012 resulting in savings of $803,787 (cell F7 in the Benefits worksheet of the AMS Model agreed to in settlement), plus an additional reduction of eight contract meter readers in 2013 resulting in savings of $1,379,835 (cell G7), plus an additional reduction of five contract meter readers in 2014 resulting in savings of $1,776,538 (cell H7). For each year after 2014, this amount was escalated at 3.0%.

Cumulative Estimate vs. Actual:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Contract Meter Reading Savings</td>
<td>($11,615.50)</td>
<td>($7,640.60)</td>
<td>$3,974.90</td>
</tr>
</tbody>
</table>

Jan 1, 2012 through Dec 31, 2018 Variance Explanation:

As meter readers began finding jobs elsewhere in AEP Texas or leaving altogether prior to AMS deployment, AEP Texas replaced them with contract meter readers beginning in January 2010. This increase in utilization of contract meter readers where AMS was yet to be deployed added to the cost associated with contract meter reading, but the savings associated with the meter reading personnel who accelerated their termination with AEP Texas has been fully reflected in meter reading savings in Exhibit 1-A (Field Labor Savings).