# **AUSTIN ENERGY 2022 BASE RATE REVIEW**

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# BEFORE THE CITY OF AUSTIN HEARING EXAMINER

Direct Testimony and Exhibits

of

**Jeffry Pollock** 

On Behalf of

**Texas Industrial Energy Consumers** 

June 22, 2022



# **AUSTIN ENERGY 2022 BASE RATE REVIEW**

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# BEFORE THE CITY OF AUSTIN HEARING EXAMINER

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# **AUSTIN ENERGY 2022 BASE RATE REVIEW**

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BEFORE THE CITY OF AUSTIN HEARING **EXAMINER** 

### AFFIDAVIT OF JEFFRY POLLOCK

| State of Missouri          | ) |    |
|----------------------------|---|----|
|                            | ) | SS |
| <b>County of St. Louis</b> | ) |    |

Jeffry Pollock, being first duly sworn, on his oath states:

- My name is Jeffry Pollock. I am President of J. Pollock, Incorporated, 12647 1. Olive Blvd., Suite 585, St. Louis, Missouri 63141. We have been retained by Texas Industrial Energy Consumers to testify in this proceeding on its behalf;
- Attached hereto and made a part hereof for all purposes is my Direct Testimony, Exhibits and Appendices A through F, which have been prepared in written form for introduction into evidence before the Austin City Council Impartial Hearings Examiner.
- 3. I hereby swear and affirm that my answers contained in the testimony are true and correct.

Subscribed and sworn to before me this day of June 2022.

KITTY TURNER Notary Public - Notary Seal State of Missouri Commissioned for Lincoln County
My Commission Expires: April 25, 2023
Commission Number: 15390610

Kitty Furner, Notary Public Commission #: 15390610

My Commission expires on April 25, 2023.



# **GLOSSARY OF ACRONYMS**

| Term      | Definition                                               |
|-----------|----------------------------------------------------------|
| 1-NCP     | One Non-Coincident Peak                                  |
| 12-CP     | Twelve Coincident Peak                                   |
| 12-NCP    | Twelve Non-Coincident Peak                               |
| AE        | Austin Energy                                            |
| AED-4CP   | Average and Excess Demand – Four Coincident Peak         |
| ALJ       | Administrative Law Judge                                 |
| C&I       | Commercial and Industrial                                |
| ccoss     | Class Cost-of-Service Study                              |
| СР        | Coincident Peak                                          |
| DSCR      | Debt Service Coverage Ratio                              |
| ETI       | Entergy Texas, Inc.                                      |
| ERCOT     | Electric Reliability Council of Texas                    |
| FERC      | Federal Energy Regulatory Commission                     |
| FY        | Fiscal Year                                              |
| IOU       | Investor-Owned Utility                                   |
| kW / kWh  | Kilowatt / Kilowatt-Hour                                 |
| LMP       | Locational Marginal Price                                |
| MISO      | Midcontinent Independent System Operator                 |
| MW / MWh  | Megawatt / Megawatt-Hour                                 |
| NARUC     | National Association of Regulatory Utility Commissioners |
| NARUC CAM | NARUC Cost Allocation Manual                             |
| NCP       | Non-Coincident Peak                                      |
| O&M       | Operation and Maintenance                                |
| Oncor     | Oncor Electric Delivery Company                          |
| PSA       | Power Supply Adjustment                                  |
| PUCT      | Public Utility Commission of Texas                       |
| RFP       | Rate Filing Package                                      |
| SPP       | Southwest Power Pool                                     |
| SPS       | Southwestern Public Service Company                      |
| SWEPCO    | Southwestern Electric Power Company                      |
| TIEC      | Texas Industrial Energy Consumers                        |
| TNMP      | Texas New Mexico Power Company                           |



# **EXHIBIT LIST**

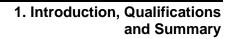
| Exhibit | Description                                                                        |
|---------|------------------------------------------------------------------------------------|
| JP-1    | Adjustment to Test-Year Sales and Base Revenues                                    |
| JP-2    | Base Revenue Requirement                                                           |
| JP-3    | Austin Energy/ERCOT Peak Demands as a Percent of the Annual System Peak Demand     |
| JP-4    | Compilation of Load Zone Locational Marginal Prices                                |
| JP-5    | Derivation of AED-4CP Allocation Factors                                           |
| JP-6    | Derivation of 1-NCP Secondary Distribution Allocation Factors                      |
| JP-7    | Derivation of 1-NCP Primary Substation and Primary Distribution Allocation Factors |
| JP-8    | Derivation of Energy and Demand Loss Factors                                       |
| JP-9    | Derivation of Loss-Adjusted CP, NCP, and Energy                                    |
| JP-10   | Revised PSA Adjustment Factor                                                      |
| JP-11   | TIEC's Revised Class Cost-of-Service Study                                         |



# **Direct Testimony of Jeffry Pollock**

# 1. INTRODUCTION, QUALIFICATIONS AND SUMMARY

| 1  | Q | PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.                                                |
|----|---|---------------------------------------------------------------------------------------------|
| 2  | Α | Jeffry Pollock; 12647 Olive Blvd., Suite 585, St. Louis, MO 63141.                          |
| 3  | Q | WHAT IS YOUR OCCUPATION AND BY WHOM ARE YOU EMPLOYED?                                       |
| 4  | Α | I am an energy advisor and President of J. Pollock, Incorporated.                           |
| 5  | Q | PLEASE STATE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.                                    |
| 6  | Α | I have a Bachelor of Science in electrical engineering and a Master of Business             |
| 7  |   | Administration from Washington University. Since graduation, I have been engaged            |
| 8  |   | in a variety of consulting assignments, including energy procurement and regulatory         |
| 9  |   | matters in the United States and in several Canadian provinces. My qualifications are       |
| 10 |   | documented in Appendix A. A partial list of my appearances is provided in                   |
| 11 |   | Appendix B to this testimony.                                                               |
| 12 | Q | ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS PROCEEDING?                                      |
| 13 | Α | I am testifying on behalf of Texas Industrial Energy Consumers (TIEC). TIEC's               |
| 14 |   | participating member for this case is one of Austin Energy's (AE's) largest electricity     |
| 15 |   | consumers. Service is provided under the High Load Factor Primary Voltage (Demand           |
| 16 |   | ≥ 20 MW) rate schedule.                                                                     |
| 17 | Q | WHAT ISSUES ARE YOU ADDRESSING IN YOUR DIRECT TESTIMONY?                                    |
| 18 | Α | I will first provide an overview of TIEC's direct testimony. Following the overview, I will |





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address:

- Revenue Requirement;
- Class Cost-of-Service Study;
- Class Revenue Allocation; and
- Rate Design.
- 5 Q ARE YOU SPONSORING ANY EXHIBITS SUPPORTING DIRECT TESTIMONY?
- 6 A Yes. I am sponsoring **Exhibits JP-1** through **JP-11**.
- 7 Q HAVE YOU ALSO PREPARED SEVERAL APPENDICES TO YOUR DIRECT
- 8 **TESTIMONY?**
- 9 A Yes. A list of the Appendices to my Direct Testimony is provided below.

| Appendices to the Direct Testimony of Jeffry Pollock |                                                                                    |  |  |
|------------------------------------------------------|------------------------------------------------------------------------------------|--|--|
| Appendix Description                                 |                                                                                    |  |  |
| Α                                                    | Qualifications                                                                     |  |  |
| В                                                    | Appearance List                                                                    |  |  |
| С                                                    | Procedures for Conducting a Class Cost-of-Service Study                            |  |  |
| D                                                    | Excerpts of Public Utility Commission of Texas Orders Approving the AED-4CP Method |  |  |
| E                                                    | Primary Substation Service                                                         |  |  |
| F                                                    | Austin Energy Responses to Data Requests Relied Upon                               |  |  |

- 10 Q ARE YOU ENDORSING AUSTIN ENERGY'S PROPOSALS ON ISSUES NOT
- 11 ADDRESSED IN YOUR DIRECT TESTIMONY?
- 12 A No. If I do not address an issue, it should not be interpreted as an endorsement of
- 13 AE's proposals in this proceeding.



# 1 **Summary**

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### 2 Q PLEASE SUMMARIZE YOUR FINDINGS AND RECOMMENDATIONS.

3 A My findings and recommendations are as follows:

### Revenue Requirement

- AE's proposal would establish a test-year base revenue requirement of \$705 million and a revenue deficiency of \$56.5 million (including Street and Area Lighting costs).
- AE has overstated its test-year revenue requirement by increasing the general funds transfer \$11 million above recent historical transfers and raising internal cash flow to fund 50% of its construction programs. In the current inflationary environment, this is not the proper time to be increasing either the general fund transfer or the percentage of internal cash funding relative to recent years. Further, according to my colleague and TIEC witness, Ms. LaConte, AE can remain within its financial policies with 40% internal cash funding, with the remainder funded with debt.
- Ms. LaConte has determined that reducing the general fund transfer by \$11 million and reducing internal cash funding to 40% would lower AE's test-year revenue requirement by \$20 million.
- AE has also overstated its test-year revenue deficiency because test-year sales and base revenues were understated.
- Although AE claims to have normalized test-year sales and revenues, AE did
  not account for Winter Storm Uri, which resulted in widespread and prolonged
  outages in February 2021. As a result, AE's normalized energy sales are lower
  than actual energy sales in fiscal years 2018 and 2019. Further, test-year
  average normalized kilowatt-hour (kWh) usage decreased by 1.9% and 5.2%
  for Residential and Commercial and Industrial (C&I) customers, respectively,
  as compared to fiscal years 2017 through 2020.
- Rates should reflect the conditions expected to occur when they are in effect in 2023. Recognizing that Winter Storm Uri was a significant but non-recurring event and that AE is also projecting significant customer and sales growth in subsequent years, it is appropriate to adjust test-year sales and base revenues.
- Adjusting the test-year average energy use per customer (to remove the
  effects of Winter Storm Uri) would increase energy sales by 531,346 megawatthours (MWh). These additional sales would have generated approximately
  \$24.3 million of additional base revenues. In other words, even if the City



1. Introduction, Qualifications

and Summary

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1. Introduction, Qualifications and Summary



factor that was derived in AE's Loss Study.

periods. Further, the energy loss factor used by AE was not the same loss

1 AE's CCOSS should be revised with the following changes: 2 1. All pass-through costs, except for Service Area Street Lighting, should be 3 removed. Service Area Street Lighting is a separate customer class in AE's 4 CCOSS. Any changes in the allocation methodology will necessarily affect 5 the base rate costs to serve this class. 6 2. The Average and Excess Demand-Four Coincident Peak (AED-4CP) 7 method should be used to allocate production demand-related costs. AED-8 4CP has been consistently approved by the PUCT for vertically integrated 9 investor-owned utilities (IOUs) even though they are operating in wholesale 10 nodal markets, like AE. 11 3. The 1-NCP method should be used to allocate distribution demand-related 12 costs. This method has also been consistently approved by the PUCT 13 because it is consistent with cost-causation principles. 14 4. Consistent with PUCT precedent and cost-causation principles, the 15 CCOSS should recognize the existence of Primary Substation service. All 16 of the customers in the High Load Factor Primary Voltage (Demand ≥ 20 17 MW) class take Primary Substation service. Hence, no primary voltage 18 poles, lines, conductors, and related facilities (other than the costs of the 19 dedicated radial feeders serving these customers - which should be 20 directly assigned) should be allocated to this class. 21 5. The loss-adjusted CP and NCP demands should be derived using the peak 22 (demand) loss factors derived in AE's Loss Study. Further, both the 23 demand and energy loss factors associated with Primary Substation 24 service should be used to restate the High Load Factor Primary Voltage 25 (Demand ≥ 20 MW) class's CP, NCP, and energy from the meter to the 26 generation level. 27 The PSA uses Adjustment Factors to differentiate the applicable charges by 28 delivery voltage. Currently, the Adjustment Factors recognize transmission, 29 primary, and secondary delivery services. 30 Consistent with recognizing Primary Substation service, and recognizing that 31 that there are lower losses to serve a Primary Substation customer than a 32 Primary Distribution customer, the Adjustment Factors in the PSA should be 33 modified (1) using the energy loss factors that were derived directly from AE's 34 2018 Loss Study and (2) to include a separate Adjustment Factor for Primary

## Class Revenue Allocation

Substation service.

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 As a general matter base rates should move to cost unless doing so would result in an undue impact. Cost-based rates treat customers fairly, send proper



price signals, and enhance revenue stability. Further, the PUCT has consistently set base rates to cost, except when it would result in rate shock.
 AE's proposed class revenue allocation would move rates directionally closer to cost except for the Primary ≥ 3 MW < 20 MW and High Load Factor Primary</li>

Voltage (Demand ≥ 20 MW) classes.

- Using TIEC's revised CCOSS, it is clear that the base rates charged to the Primary ≥ 3 MW < 20 MW and High Load Factor Primary Voltage (Demand ≥ 20 MW) classes should be reduced even if AE receives the \$56.5 million base revenue increase.
- Should the City Council decide not to move all rates immediately to cost, I recommend that the base rates for the Primary ≥ 3 MW < 20 MW and High Load Factor Primary Voltage (Demand ≥ 20 MW) classes be reduced by at least 30% of the reduction needed to achieve cost-based rates. This is in line with the base rate reductions AE has proposed for the other above-cost customer classes.</li>

#### Rate Design

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- AE should implement a new rate schedule applicable to customers taking Primary Substation service (i.e., where the customer is directly connected to an AE-owned distribution substation through a low-voltage dedicated radial feeder).
- Initially, the Primary Substation service rate schedule should be designed based on TIEC's corrected CCOSS using the base revenue requirement for the High Load Factor Primary Voltage (Demand ≥ 20 MW) customer class.
- The Primary Substation rate should be applicable to all Primary voltage customers that take Primary Substation service.
- AE should also implement a facilities charge rate schedule to allow customers to either purchase or lease the equipment required so they can transition to a higher voltage service and better manage their electricity costs.



## 2. OVERVIEW

| ı  | Q | HOW MUCH OF A BASE REVENUE INCREASE IS AUSTIN ENERGY SEEKING IN                                  |
|----|---|--------------------------------------------------------------------------------------------------|
| 2  |   | THIS REVIEW?                                                                                     |
| 3  | Α | AE is proposing a \$705 million annual base revenue requirement for the test year                |
| 4  |   | ended September 30, 2021, adjusted for certain changes AE deemed known and                       |
| 5  |   | measurable. <sup>1</sup> The test year corresponds to AE's fiscal year (FY) 2021. To collect the |
| 6  |   | \$705 million base revenue requirement, AE is proposing a \$56.5 million (8.7%) base             |
| 7  |   | revenue increase. <sup>2</sup>                                                                   |
|    |   |                                                                                                  |
| 8  | Q | WHAT ARE THE KEY ISSUES IN THIS RATE REVIEW?                                                     |
| 9  | Α | First, the timing of the proposed base rate increase is unfortunate for AE's customers.          |
| 10 |   | Record high natural gas prices are driving up power supply costs, inflation is at historic       |
| 11 |   | (near double digit) levels, and supply chain issues have roiled the economy.                     |
| 12 |   | Consumer confidence is at an all-time low. For these reasons, the City Council should            |
| 13 |   | take all reasonable steps to minimize the base rate increase under current conditions.           |
| 14 |   | Second, FY 2021 is a noteworthy aberration because of Winter Storm Uri.                          |
| 15 |   | Widespread and prolonged power outages in February 2021 significantly depressed                  |
| 16 |   | test-year kWh sales and base revenues, but AE did not normalize test-year sales to               |
| 17 |   | remove the aberration. As a consequence, AE's test-year kWh sales were below the                 |
| 18 |   | actual sales in FYs 2018 through 2020. All other things being equal, understating test-          |

<sup>&</sup>lt;sup>2</sup> \$48.2 million (Rate Filing Package at 5) plus \$8.3 million for Service Area Street Lighting (\$18.1 million base revenue requirement less \$9.8 million of present base revenues). However, AE is proposing to recover the Service Area Street Lighting base revenues as a pass-through cost.



<sup>&</sup>lt;sup>1</sup> \$686.8 million (Rate Filing Package at 5) + \$18.1 million from Service Area Street Lighting (Schedule G-7).

year sales also understates test-year billing determinants and present base revenues, thereby overstating AE's proposed revenue deficiency by approximately \$24.3 million.

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Third, as discussed later, AE has overstated its required return. Based on the testimony of my colleague, Ms. Billie S. LaConte, AE's return is overstated by \$20 million.

Finally, AE's CCOSS fails to recognize cost causation, and it does not follow accepted practices and long-standing precedent at the PUCT with respect to the allocation of production and distribution demand-related costs. In particular, AE's CCOSS fails to recognize that three of its largest customers takes service directly from or near a distribution substation and do not require AE to build out an extensive distribution network.

# 3. REVENUE REQUIREMENT

| ı        | Q | DUES AUSTIN ENERGY REQUIRE A \$30.5 MILLION BASE REVENUE                                                                     |
|----------|---|------------------------------------------------------------------------------------------------------------------------------|
| 2        |   | INCREASE?                                                                                                                    |
| 3        | Α | No. AE has overstated both its test-year revenue requirement and revenue deficiency.                                         |
| 4        |   | The test-year revenue requirement is overstated because AE's proposed                                                        |
| 5        |   | return assumes an \$11 million increase in the general fund transfer over historical                                         |
| 6        |   | needs and internal cash funding of 50% of construction projects to maintain a capital                                        |
| 7        |   | structure consisting of 50% debt and 50% equity. Additionally, Ms. LaConte has                                               |
| 8        |   | determined that the proposed return would result in a corrected debt service coverage                                        |
| 9        |   | ratio (DSCR) of 2.50x, which is unnecessary to maintain an AA bond rating. No                                                |
| 10       |   | vertically integrated electric IOUs have a credit rating as high as AE, yet these utilities                                  |
| 11       |   | have been able to access capital from the market on reasonable terms and at                                                  |
| 12       |   | reasonable costs. Therefore, Ms. LaConte recommends:                                                                         |
| 13<br>14 |   | <ul> <li>Reducing the general fund transfer to reflect the average of the three years<br/>prior to the test year.</li> </ul> |
| 15       |   | <ul> <li>Internal cash funding of 40%, rather than 50%, of construction needs.</li> </ul>                                    |
| 16       |   | These recommendations will reduce AE's test-year revenue requirement by \$20                                                 |
| 17       |   | million.                                                                                                                     |
| 18       | Q | HOW DID AUSTIN ENERGY OVERSTATE ITS TEST-YEAR BASE REVENUE                                                                   |
| 19       |   | DEFICIENCY?                                                                                                                  |
| 20       | Α | The test-year base revenue deficiency is overstated because AE failed to adjust for                                          |
| 21       |   | prolonged involuntary customer outages during Winter Storm Uri.3 This is                                                     |
|          |   |                                                                                                                              |



<sup>&</sup>lt;sup>3</sup> AE Response to TIEC 3-5.

demonstrated in Table 1, which provides an analysis of total energy sales and average sales per customer for FY 2017 through the test year.

| Table 1<br>Test Year Vs. Historical Sales                   |                |                             |                         |  |
|-------------------------------------------------------------|----------------|-----------------------------|-------------------------|--|
|                                                             | Total Energy   | Sales Per Customer<br>(kWh) |                         |  |
| Fiscal Year                                                 | Sales<br>(GWh) | Residential                 | Commercial & Industrial |  |
| 2017                                                        | 12,983         | 10,323                      | 168,526                 |  |
| 2018                                                        | 13,410         | 10,645                      | 168,994                 |  |
| 2019                                                        | 13,446         | 10,314                      | 168,193                 |  |
| 2020                                                        | 13,262         | 10,387                      | 160,172                 |  |
| Avg. 2017-2020                                              | 13,275         | 10,417                      | 166,472                 |  |
| 2021 (Test Year)                                            | 13,353         | 10,218                      | 157,754                 |  |
| Avg. Vs. Test Year         0.6%         -1.9%         -5.2% |                |                             | -5.2%                   |  |
| Sources: AE Response to TIEC 3-6, RFP WP F-6.1.             |                |                             |                         |  |

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As Table 1 demonstrates, AE's allegedly "normalized" test-year sales are lower than the total energy sales in FY 2018 and FY 2019, and despite strong customer growth during this time, are only 0.6% higher than in the four prior fiscal years. Moreover, kWh sales per customer are inexplicably lower. For example, during the test year, AE's Residential customers used nearly 2% less electricity per customer, while C&I customers used 5.2% less electricity per customer as compared to the average usage in fiscal years 2017 through 2020. Winter Storm Uri is the only plausible explanation for such a precipitous decline in average usage.

### 1 Q DOES AE RECOGNIZE THAT IT IS APPROPRIATE TO NORMALIZE ABNORMAL 2 TEST-YEAR DATA TO BETTER REFLECT THE CONDITIONS THAT ARE LIKELY TO OCCUR IN THE FUTURE? 3 4 Α In concept, yes. The RFP states that AE has made certain adjustments to test-year 5 data, including normalization adjustments.<sup>4</sup> The purpose of these adjustments is, 6 presumably, to better align test year outcomes with expected future conditions for in 7 setting base rates. 8 Q IS THERE EVIDENCE THAT AUSTIN ENERGY IS NOT PROJECTING DECLINING 9 SALES AND BASE REVENUES AFTER FY 2021? 10 Α Yes. AE's 2020 Resource Plan forecasts both continued peak load growth and energy sales growth after 2021.<sup>5</sup> As a result of projected sales growth, AE is projecting higher 11 12 base rate revenues. 13 Table 2 shows AE's projected weather-normal base revenues. For 14 comparison, AE's "normalized" test-year base revenues are also shown.

| Table 2<br>Normalized Base Rate Revenues<br>(\$ Millions) |               |
|-----------------------------------------------------------|---------------|
| Fiscal Year                                               | Amount        |
| 2021                                                      | \$648         |
| 2023                                                      | \$701         |
| 2024                                                      | \$729         |
| 2025                                                      | \$737         |
| 2026                                                      | \$745         |
| 2027                                                      | \$754         |
| FY 2023-2027<br>Increase                                  | 1.8% per Year |
| Sources: RFP at WP (Figure 7-35).                         |               |

<sup>&</sup>lt;sup>4</sup> Rate Filing Package at 37-38.

<sup>&</sup>lt;sup>5</sup> AE Response to SCPC 2-3, Attachment SCPC 2-3D at 35.



| 1 | As Table 2 demonstrates, AE is projecting higher base revenues after FY 2023, which |
|---|-------------------------------------------------------------------------------------|
| 2 | is when the new rates approved in this review will become effective. This further   |
| 3 | indicates that test year outcomes were an anomaly due to Winter Storm Uri.          |

# IS THERE ANY CONSEQUENCE OF USING ARTIFICIALLY LOW SALES IN SETTING BASE RATES?

Yes. AE's proposed base rate charges were designed using the artificially low test-year sales and billing determinants. By understating test-year sales and billing determinants, AE makes its base rate deficiency appear larger than it actually is. As a result, the proposed base rate charges would be too high, and the base revenues collected by AE would more than exceed the test-year revenue requirement.

### WHAT DO YOU RECOMMEND?

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Test-year sales, revenues, and billing determinants must be restated to reflect expected rate year (*i.e.*, FY 2023) sales and revenues. Unfortunately, AE has refused to produce detailed projections of sales and revenues beyond FY 2021 or historical sales data by customer class. AE asserted that this information is irrelevant to this rate review and also confidential, notwithstanding that it has relied on such projections for its own purposes.<sup>6</sup>

Even without this data, it is clear that relative to both the recent past and AE's own projections, test-year sales and revenues are abnormally low. Accordingly, it would be appropriate to restate the test-year sales, billing determinants, and base revenues to reflect more normal average electricity usage.

<sup>&</sup>lt;sup>6</sup> AE Objection to TIEC 4; No. 10; RFP at 117.



| 1  | Q | HAVE YOU QUANTIFIED THE ADJUSTMENT TO TEST-YEAR SALES AND BASE                           |
|----|---|------------------------------------------------------------------------------------------|
| 2  |   | REVENUES TO REFLECT MORE NORMAL LEVELS?                                                  |
| 3  | Α | Yes. My proposed sales and base revenue adjustments are shown in <b>Exhibit JP-1</b> .   |
| 4  | Q | PLEASE EXPLAIN EXHIBIT JP-1.                                                             |
| 5  | Α | First, I determined an adjustment to test-year sales by comparing the average kWh        |
| 6  |   | per customer for the four prior fiscal years (line 5) and during the test year (line 6). |
| 7  |   | The comparisons were made separately for Residential (column 2) and C&I (column 3)       |
| 8  |   | customers. As shown on line 7, Residential customers used 199 kWh less electricity       |
| 9  |   | per customer less electricity during the test year. C&I electricity usage was 8,717 kWh  |
| 10 |   | less electricity per customer in the test year.                                          |
| 11 |   | Second, to correct for the abnormally low average usage, I adjusted test-year            |
| 12 |   | sales based on the average kWh per Residential and C&I customer of 10,417 and            |
| 13 |   | 166,471 kWh per customer, which are consistent with the historical averages. The         |
| 14 |   | specific adjustment shown in MWhs (line 10) is the product of (i) the difference         |
| 15 |   | between the historical average and test-year kWh per customer (line 7) and (ii) the      |
| 16 |   | test-year number of customers (line 9). This resulted in increased energy sales of       |
| 17 |   | 95,294 MWh and 464,629 MWh to Residential and C&I customers, respectively, which         |
| 18 |   | total 559,924 MWh (line 10).                                                             |
| 19 |   | Third, I then determined the impact on base revenues by quantifying the                  |
| 20 |   | average base revenues per MWh for both Residential and C&I customers using AE's          |
| 21 |   | test-year average base revenues. The resulting adjustment to test-year base              |
| 22 |   | revenues is the product of the test-year sales adjustment (line 10) and the average      |

test-year base revenues per MWh (line 11).

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| 1  |   | The resulting base revenue adjustments were \$5.6 million and \$18.7 million,           |
|----|---|-----------------------------------------------------------------------------------------|
| 2  |   | respectively, for Residential and C&I customers. This results in a total test-year base |
| 3  |   | revenue adjustment of \$24.3 million (line 12).                                         |
| 4  | Q | HAVE YOU ADJUSTED THE TEST-YEAR BILLING DETERMINANTS                                    |
|    |   |                                                                                         |
| 5  |   | CONSISTENT WITH YOUR ADJUSTMENTS TO TEST-YEAR SALES?                                    |
| 6  | Α | No. As previously stated, AE refused to provide historical energy sales by customer     |
| 7  |   | class. Thus, I am unable to adjust the billing determinants by customer class           |
| 8  |   | consistent with my recommended test-year sales adjustment. However, before              |
| 9  |   | designing rates, AE must determine the adjusted billing units consistent with my sales  |
| 10 |   | adjustment. Otherwise, the proposed revenue requirement should be further reduced       |
| 11 |   | by \$24.3 million.                                                                      |
|    |   |                                                                                         |
| 12 | Q | IF AUSTIN ENERGY UNDERSTATED ITS TEST-YEAR BASE REVENUES BY                             |
| 13 |   | \$24.3 MILLION, DOES IT STILL REQUIRE A \$56.5 MILLION BASE REVENUE                     |
| 14 |   | ADJUSTMENT?                                                                             |
| 15 | Α | No. All other things being equal, restating test-year base revenues to reflect past     |
| 16 |   | average usage lowers the required base revenue increase by \$24.3 million.              |

# 4. CLASS COST-OF-SERVICE STUDY

| 1  | Q | HAS AUSTIN ENERGY FILED A CLASS COST-OF-SERVICE STUDY IN THIS                           |
|----|---|-----------------------------------------------------------------------------------------|
| 2  |   | PROCEEDING?                                                                             |
| 3  | Α | Yes.                                                                                    |
| 4  | Q | WHAT PROCEDURES ARE USED IN A COST-OF-SERVICE STUDY?                                    |
| 5  | Α | The basic procedure for conducting a CCOSS is fairly simple. First, we identify the     |
| 6  |   | different types of costs (functionalization), determine their primary causative factors |
| 7  |   | (classification), and then apportion each item of cost among the various rate classes   |
| 8  |   | (allocation). Adding up the individual pieces gives the total cost for each class.      |
| 9  |   | The over-arching principle is that costs should be allocated to the customers           |
| 10 |   | that cause them. This sends proper price signals and promotes efficiency. The           |
| 11 |   | allocation of costs to classes should also recognize that some customers (such as       |
| 12 |   | those with higher load factors) use the system more efficiently than others, and thus   |
| 13 |   | cause fewer costs. Of course, cost-based rates should also recognize that customers     |
| 14 |   | should not be allocated costs that they do not cause. For example, transmission-level   |
| 15 |   | customers should not be allocated distribution costs because these customers do not     |
| 16 |   | use the distribution system.                                                            |
| 17 |   | A more in-depth discussion of the procedures and key principles underlying a            |
| 18 |   | CCOSS is provided in <b>Appendix C</b> .                                                |
| 19 | Q | DOES AUSTIN ENERGY'S CLASS COST-OF-SERVICE STUDY GENERALLY                              |
| 20 |   | COMPORT WITH ACCEPTED INDUSTRY PRACTICE?                                                |
| 21 | Α | Yes. AE's CCOSS is structurally consistent with accepted industry practice. AE also     |



acknowledges that costs should be allocated based on cost-causation;<sup>7</sup> that is, rates
should reflect that some customers use the system more efficiently,<sup>8</sup> and that costbased rates are fair.<sup>9</sup>

However, there are *at least* five major areas where AE's CCOSS diverges from

accepted industry practice. They are:

- 1. Inclusion of Pass-Through Costs: AE included certain non-base rate, pass-through costs in its CCOSS. However, because AE is only changing base rates in this case and pass-through costs are not at issue, the pass-through costs should be removed from the CCOSS, with the exception of the Service Area Street Lighting, which is a separately defined customer class.
- 2. Production Demand-Related Costs: Despite being a strongly summer peaking utility within ERCOT, which is also strongly summer-peaking, AE uses the ERCOT-12CP method. All Texas vertically integrated IOUs use AED-4CP, a methodology that has been approved by the PUCT for decades and has also been used by AE in the past. Excerpts from recent PUCT Orders approving AED-4CP are included in Appendix D.<sup>10</sup>
- 3. Distribution Demand-Related Costs: AE uses 12-NCP to allocate these costs despite the fact that distribution facilities are sized to meet the maximum expected (peak) demand irrespective of when it occurs. Thus, consistent with cost causation, the non-coincident peak (1-NCP) method is more appropriate. The PUCT has consistently approved the class peak method to allocate distribution demand-related costs. The class peak method is also an accepted industry practice.

<sup>&</sup>lt;sup>10</sup> The terms AED-4CP and A&E/4CP are interchangeable and are both used in prior PUCT Orders.



<sup>&</sup>lt;sup>7</sup> Rate Filing Package at 13-14 ("For costs that cannot be directly assigned, an appropriate allocation methodology must be developed consistent with cost causation principles.")

<sup>&</sup>lt;sup>8</sup> For example: Austin Energy's Amendment to Base Rate Filing Package at 2 (May 31, 2022) ("Austin Energy is designing the new PRI-2 HLF class for customers who exhibit steady loads and therefore utilize system resources more efficiently. The new system of charges is being proposed because it advances the important rate-making objectives of fairness, economic efficiency, and revenue stability.").

<sup>&</sup>lt;sup>9</sup> *Id.* at 3 ("Cost-based rates are fair because the charges on the customer's bill are a more accurate representation of what it costs Austin Energy to provide services to that customer.").

- 1 **4. Primary Substation:** AE allocates a portion of the distribution substations and the primary distribution network (i.e., poles, lines, conductors, and 2 3 related facilities) to the High Load Factor Primary Voltage (Demand ≥ 20 4 MW) class. However, the entire class is served from adjacent distribution 5 substations through dedicated radial feeders, and therefore, the class does 6 not use AE's primary distribution network. No distribution network costs 7 are required to provide Primary Substation service. Accordingly, and 8 consistent with both cost causation and PUCT precedent, none of these 9 costs should be allocated to this class, with the exception of the costs of 10 dedicated radial feeders that connect the customers' equipment to the AE 11 system. 12 5. Loss Factors: AE uses the energy losses derived from its 2018 Loss Study 13 14
  - 5. Loss Factors: AE uses the energy losses derived from its 2018 Loss Study to restate both the CP and NCP demands and energy at the meter to the generation level. It is customary to use peak loss factors to restate the CP and NCP demands because, consistent with the laws of physics, losses are higher during peak demand periods than the average losses over the entire year. The peak demand losses are revealed in AE's 2018 Loss Study. Further, during my review of WP F-6.1.2, I determined that AE used the wrong energy loss factors. Accordingly, I have corrected them.
- Each of these flaws must be corrected before using the results of AE's CCOSS to determine both class revenue allocation and rate design.

# Pass-Through Costs

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- 23 Q WHAT PASS-THROUGH COSTS ARE INCLUDED IN AUSTIN ENERGY'S CLASS
- 24 **COST-OF-SERVICE STUDY?**
- 25 A The pass-through costs included in AE's CCOSS are shown in Table 3. Because Service Area Street Lighting is a separate defined customer class, and because the amount of costs allocated to this class will depend on the results of the CCOSS, I have not removed these pass-through costs.



| Table 3<br>Pass-Through Costs<br>(\$000)  |             |  |
|-------------------------------------------|-------------|--|
| Description                               | Amount      |  |
| Total Retail Electric Revenue Requirement | \$1,193,140 |  |
| Pass-Through Costs:                       |             |  |
| Recoverable Fuel and Purchased Power      | \$272,845   |  |
| Nacogdoches O&M                           | 13,421      |  |
| Nacogdoches Debt Service                  | 42,967      |  |
| Transmission by Others (FERC 565)         | 119,767     |  |
| ERCOT Administration Fees                 | 8,425       |  |
| Energy Efficiency Program                 | 26,649      |  |
| Green Building Program                    | 2,841       |  |
| Solar Rebate Program                      | 1,256       |  |
| Total Pass-Through Costs \$488,17         |             |  |
| Retail Base Revenue Requirement \$704,969 |             |  |
| Source: RFP Schedule A.                   |             |  |

# 1 Q WHY SHOULD THESE COSTS BE REMOVED FROM THE CLASS COST-OF-

### SERVICE STUDY?

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AE has stated that the pass-through costs are not at issue and are not subject to change in this base rate review.<sup>11</sup> Further, AE has stated that the allocation of the pass-through costs will have no impact on the CCOSS results.<sup>12</sup> However, the allocation of costs to the Service Area Street Lighting class will depend on how costs are allocated in the CCOSS, and how the resulting Service Area Street Lighting costs to serve are allocated to the other customer classes. Because the pass-through costs

<sup>&</sup>lt;sup>12</sup> AE Response to TIEC 3-1, subparts e, f, and g.



<sup>&</sup>lt;sup>11</sup> AE Response to TIEC 3-1, subpart f.

| 1  |      | will continuously change after base rates are set in this case, incorporating them in the |
|----|------|-------------------------------------------------------------------------------------------|
| 2  |      | CCOSS will skew the results in unintended ways over time.                                 |
| 3  | Q    | HAVE YOU REMOVED THE PASS-THROUGH COSTS FROM AUSTIN ENERGY'S                              |
| 4  |      | RATE FILING PACKAGE?                                                                      |
| 5  | Α    | Yes. Exhibit JP-2 is a compilation of RFP schedules in which the pass-through costs       |
| 6  |      | were removed. By removing the pass-through costs, except for Service Area Street          |
| 7  |      | Lighting, AE's proposed base revenue requirement would be approximately \$705             |
| 8  |      | million.                                                                                  |
| 9  | Allo | cation of Production Demand-Related Costs                                                 |
| 10 | Q    | WHAT PRINCIPLES GOVERN THE PROPER ALLOCATION OF PRODUCTION                                |
| 11 |      | DEMAND-RELATED COSTS?                                                                     |
| 12 | Α    | Cost causation should determine how all costs are allocated. For production demand-       |
| 13 |      | related costs, cost causation means analyzing the utility's load characteristics, which   |
| 14 |      | determine the amount of capacity required to meet the expected demand.                    |
| 15 | Q    | HOW IS AUSTIN ENERGY PROPOSING TO ALLOCATE PRODUCTION DEMAND-                             |
| 16 |      | RELATED COSTS IN ITS CLASS COST-OF-SERVICE STUDY?                                         |
| 17 | Α    | AE is proposing to use the ERCOT-12CP method. This method is a variation of the           |
| 18 |      | 12CP method except rather than measure demand coincident with the AE system               |
| 19 |      | peak (for each of the 12 months), the ERCOT-12CP method measures each class's             |
| 20 |      | monthly demand that occurs coincident with the ERCOT system peak.                         |
| 21 | Q    | IS THE ERCOT-12CP METHOD CONSISTENT WITH COST CAUSATION?                                  |
| 22 | Α    | No. Production demand-related costs should be allocated based on the demands that         |
| 23 |      | drive the need for production capacity costs. For example, a utility that experiences     |



its highest demands during the summer months needs to size its generation fleet to provide sufficient generation capacity to meet the expected summer peak. The average of each of its 12 monthly peaks will typically be much lower, so these non-summer month demands will be supplied as long as the summer peak demands can be satisfied. This means the 12 monthly peaks *are not causing* a need for generation capacity. Accordingly, for a summer-peaking utility, production demand-related costs should be allocated based on the annual (summer) system peak or, in the event that the summer peaks are similar, a proper allocation would be to use an average of the four summer peaks. In contrast, a utility that expects its peak demands to occur uniformly throughout the year would choose a method such as the 12CP to allocate production demand-related costs.

### IS AUSTIN ENERGY A SUMMER-PEAKING UTILITY?

Yes. There is no doubt that AE is a summer-peaking utility. This is demonstrated in **Exhibit JP-3**, page 1. Specifically, I have plotted the monthly system peak demands as a percentage of the annual system peak for the years 2017 through 2021. The peak months are shown in the blue and red bars.

As can be seen, AE has always been a summer-peaking utility, and it is projecting that it will remain summer peaking over the next five years.<sup>13</sup> This is no surprise because the ERCOT region is also a predominately summer-peaking system. This is demonstrated in **Exhibit JP-3**, page 2. Further, based on its own estimates, ERCOT is projected to remain summer peaking for the foreseeable future.<sup>14</sup>

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<sup>&</sup>lt;sup>14</sup> North American Electric Reliability Corporation, *2021 Long-Term Reliability Assessment*, December 2021 at 105.



<sup>&</sup>lt;sup>13</sup> AE Response to TIEC 5-6.

| 1                    | Q | DO THE AUSTIN ENERGY AND ERCOT LOAD CHARACTERISTICS SHOWN IN                                                                                                                                                                                                                                      |
|----------------------|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2                    |   | EXHIBIT JP-3 SUPPORT THE USE OF THE 12CP METHOD?                                                                                                                                                                                                                                                  |
| 3                    | Α | No.                                                                                                                                                                                                                                                                                               |
| 4                    | Q | HAS THE 12CP METHOD BEEN REJECTED IN TEXAS?                                                                                                                                                                                                                                                       |
| 5                    | Α | Yes. The PUCT specifically rejected 12CP in past investor-owned utility rate cases.                                                                                                                                                                                                               |
| 6                    |   | As early as the 1984 Gulf States Utilities Company rate case, the Commission stated:                                                                                                                                                                                                              |
| 7<br>8<br>9          |   | 72. The 12-CP method proposed by Cities' witness Lawton does not reflect GSU's system characteristics of a distinct summer peak, and should therefore be rejected <sup>15</sup>                                                                                                                   |
| 10                   |   | In a more recent decision, the ALJ recommended rejection of a utility's proposal to use                                                                                                                                                                                                           |
| 11                   |   | the 12CP method to allocate transmission costs stating:                                                                                                                                                                                                                                           |
| 12<br>13<br>14<br>15 |   | [Tt]he ALJs are not persuaded that SWEPCO's 12CP method should be implemented in this case. <i>The Company's proposed methodology for allocating transmission costs to retail customers does not reflect proper cost causation in this case, just as in its prior docket.</i> 16 (emphasis added) |
| 16                   |   | The Commission agreed with the ALJ stating:                                                                                                                                                                                                                                                       |
| 17                   |   | 286. SWEPCO is a summer-peaking utility.                                                                                                                                                                                                                                                          |
| 18<br>19<br>20       |   | 287. The electricity demands in the summer months are the primary drivers for the amount of transmission capacity needed for SWEPCO to provide reliable service.                                                                                                                                  |
| 21<br>22             |   | 288. SWEPCO's demands during the four summer months ranged from 4623 MW to 5149 MW, while no off-peak month had demand in excess of 4051 MW.                                                                                                                                                      |
|                      |   |                                                                                                                                                                                                                                                                                                   |

<sup>&</sup>lt;sup>16</sup> Application of Southwestern Electric Power Company for Authority to Change Rates; Docket No. 46449, Proposal For Decision at 323 (Sept. 22, 2017).



<sup>&</sup>lt;sup>15</sup> Application of Gulf States Utilities Company for Authority to Change Rates, Docket No. 5560, Revised Examiner's Report, Finding of Fact No. 72 (Jul. 13, 1984),

| 1<br>2<br>3                |               | transmission costs based primarily on peak demands in the four summer months. 17 (emphasis added)                                                                                                                                                                                                                                                               |
|----------------------------|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4                          | Q             | HAS AUSTIN ENERGY ALWAYS USED THE ERCOT-12CP METHOD TO                                                                                                                                                                                                                                                                                                          |
| 5                          |               | ALLOCATE PRODUCTION DEMAND-RELATED COSTS?                                                                                                                                                                                                                                                                                                                       |
| 6                          | Α             | No. Previously, Austin Energy used the AED-4CP method. <sup>18</sup> However, in its last base                                                                                                                                                                                                                                                                  |
| 7                          |               | rate review, which settled,19 AE proposed the change to the ERCOT-12CP method.                                                                                                                                                                                                                                                                                  |
| 8                          |               | AE's rationale for the change was that the ERCOT-12CP method is appropriate for a                                                                                                                                                                                                                                                                               |
| 9                          |               | regulated entity that operates in a centralized dispatched environment like the ERCOT                                                                                                                                                                                                                                                                           |
| 10                         |               | Nodal Market. <sup>20</sup>                                                                                                                                                                                                                                                                                                                                     |
|                            |               |                                                                                                                                                                                                                                                                                                                                                                 |
| 11                         | Q             | DOES AUSTIN ENERGY'S PARTICIPATION IN THE ERCOT NODAL MARKET                                                                                                                                                                                                                                                                                                    |
| 11<br>12                   | Q             | DOES AUSTIN ENERGY'S PARTICIPATION IN THE ERCOT NODAL MARKET JUSTIFY CHANGING FROM AED-4CP TO THE ERCOT-12CP METHOD OF                                                                                                                                                                                                                                          |
|                            | Q             |                                                                                                                                                                                                                                                                                                                                                                 |
| 12                         | <b>Q</b><br>A | JUSTIFY CHANGING FROM AED-4CP TO THE ERCOT-12CP METHOD OF                                                                                                                                                                                                                                                                                                       |
| 12<br>13                   |               | JUSTIFY CHANGING FROM AED-4CP TO THE ERCOT-12CP METHOD OF ALLOCATING PRODUCTION DEMAND-RELATED COSTS?                                                                                                                                                                                                                                                           |
| 12<br>13<br>14             |               | JUSTIFY CHANGING FROM AED-4CP TO THE ERCOT-12CP METHOD OF ALLOCATING PRODUCTION DEMAND-RELATED COSTS?  No. The primary benefit of AE's participation in the ERCOT Nodal Market is that AE                                                                                                                                                                       |
| 12<br>13<br>14<br>15       |               | JUSTIFY CHANGING FROM AED-4CP TO THE ERCOT-12CP METHOD OF ALLOCATING PRODUCTION DEMAND-RELATED COSTS?  No. The primary benefit of AE's participation in the ERCOT Nodal Market is that AE can use its physical generation capacity as a hedge against high market prices, but it                                                                                |
| 12<br>13<br>14<br>15<br>16 |               | JUSTIFY CHANGING FROM AED-4CP TO THE ERCOT-12CP METHOD OF ALLOCATING PRODUCTION DEMAND-RELATED COSTS?  No. The primary benefit of AE's participation in the ERCOT Nodal Market is that AE can use its physical generation capacity as a hedge against high market prices, but it can purchase from the ERCOT market when wholesale prices are below the cost of |

<sup>&</sup>lt;sup>20</sup> AE Response to NXP 1-7, Attachment NXP 1-7D at 23.



<sup>&</sup>lt;sup>17</sup> *Id.*, *Order* at 45-46 (Jan. 11, 2018). This ruling remains unchanged in the Docket No. 46449 *Order on Rehearing* at 46 (Mar. 19, 2018).

<sup>&</sup>lt;sup>18</sup> AE Response to NXP 1-7, Attachment NXP 1-7C at 39.

<sup>&</sup>lt;sup>19</sup> Austin Energy's Tariff Package: 2015 Cost of Service Study and Proposal to Change Base Electric Rates, Filing Approved Rates Ordinance, Joint Recommendation, Tariff Schedule and Notice of Effect on Rate Classes (Aug 31, 2016).

| 1  |   | generation fleet (as dispatched by ERCOT) is sold into the ERCOT energy market.          |
|----|---|------------------------------------------------------------------------------------------|
| 2  |   | The generator revenues are therefore used to offset the cost to serve load. As a result, |
| 3  |   | AE must still either build or contract for production demand-related capacity to serve   |
| 4  |   | its customers during high-cost periods in the ERCOT market, which have                   |
| 5  |   | predominantly aligned with high demand periods during the summer.                        |
| 6  | Q | IS THE EXPOSURE OF AUSTIN ENERGY CUSTOMERS TO HIGH MARKET                                |
| 7  |   | PRICES THE SAME YEAR ROUND?                                                              |
| 8  | Α | No. Exhibit JP-4 provides a compilation of the average locational marginal prices        |
| 9  |   | (LMPs) to serve AE's load during fiscal years 2016 through 2021 between 8am and          |
| 10 |   | 7pm, the hours when AE's monthly system peaks can occur. The compilation                 |
| 11 |   | excludes February 2021 because of the anomalous Winter Storm Uri event.                  |
| 12 |   | As can be seen, the highest average hourly LMPs occurred during the summer               |
| 13 |   | months in the mid to late afternoon. This is when AE's and ERCOT's annual system         |
| 14 |   | peaks typically occur. Notably, these high costs are not incurred year round, as         |
| 15 |   | inferred by AE's use of the ERCOT-12CP method. Therefore, AE's theory (that its          |
| 16 |   | generation fleet provides similar benefits year-round) is contradicted by the facts,     |
| 17 |   | which demonstrates that the generating capacity is primarily needed for summer peak      |
| 18 |   | conditions.                                                                              |
| 19 | Q | HOW SHOULD PRODUCTION DEMAND-RELATED COSTS BE ALLOCATED TO                               |
| 20 |   | CUSTOMER CLASSES?                                                                        |
| 21 | Α | I recommend the AED-4CP method. As noted, AED-4CP was previously used by AE.             |
| 22 |   | Further, as demonstrated in <b>Appendix D</b> , the PUCT has consistently approved AED-  |
| 23 |   | 4CP in rate cases involving vertically integrated electric utilities.                    |



### 1 Q DO ANY OF THE VERTICALLY INTEGRATED ELECTRIC UTILITIES REGULATED 2 BY THE PUCT OPERATE IN NODAL MARKETS, LIKE ERCOT? 3 Α Yes. The PUCT regulates three vertically integrated utilities that operate outside of 4 ERCOT and in competitive nodal markets: Entergy Texas, Inc. (ETI), Southwestern 5 Public Service Company (SPS), and Southwestern Electric Power Company 6 (SWEPCO). ETI operates in the Midcontinent Independent System Operator (MISO) 7 while SPS and SWEPCO operate within the Southwest Power Pool (SPP). Both MISO 8 and SPP operate nodal markets, just like ERCOT. Thus, just like Austin Energy, ETI, 9 SPS, and SWEPCO each purchase all of the electricity necessary to serve their loads 10 from a nodal market and sell all of their generation resources into the market. And, 11 ever since (and even prior to) the formation of the nodal markets, AED-4CP has been 12 the method approved by the PUCT to allocate production demand-related costs for 13 these utilities. 14 Therefore, AED-4CP is the proper allocation methodology for summer peaking 15 utilities, even when a vertically integrated utility is operating in a competitive wholesale 16 market (i.e., ERCOT, MISO, and SPP). 17 Q IS TEXAS THE ONLY STATE THAT UTILIZES THE AED-4CP METHODOLOGY TO **ALLOCATED PRODUCTION DEMAND COSTS?** 18 19 Α No. AED-4CP has been used for vertically integrated utilities in other nearby states 20 as well, for example, in Colorado and New Mexico. 21 Q PLEASE EXPLAIN THE AED-4CP METHOD. 22 Α AED-4CP is a variation of the Average and Excess method. Average and Excess is 23 one of several methodologies recognized in the National Association of Regulatory



1 Utility Commissioners' Cost Allocation Manual (NARUC CAM) that explicitly considers 2 energy usage in developing allocation factors. The AED allocation factors are derived 3 as follows: 4  $AED = (AD\% \times ASLF\%) + [ED\% \times (1-ASLF\%)]$ Where: 5 6 AD% = A class's share of Average Demand (or energy usage); 7 ED% = A class's share of Excess Demand, which is the difference between a class's Peak Demand and its Average Demand; 8 9 and ASLF% = Annual System Load Factor.21 10 11 Thus, the ASLF determines the weighting between Average Demand and Excess 12 Demand. 13 Q WHAT IS AVERAGE DEMAND (AD)? 14 The AD component of the AED allocation factors is the product of each class's percent Α 15 of average demand (i.e., energy consumption) and the ASLF%. This measures the 16 amount of capacity costs that would be incurred if the utility served the same size load 17 at a constant 100% load factor.<sup>22</sup> 18 WHAT IS EXCESS DEMAND (ED)? Q 19 The ED component of AED measures the relative variability of each class's load. The Α 20 greater a class's load variability, the greater the amount of load-following resources 21 (e.g., simple-cycle and combined-cycle gas turbines) needed to provide service.



<sup>&</sup>lt;sup>21</sup> NARUC CAM at 49-50 (Jan. 1992).

<sup>&</sup>lt;sup>22</sup> *Id.* 

| 1      |   | Under AED-4CP, ED is the higher of (1) the difference between a class's 4CP                                                                                 |
|--------|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2      |   | demand and its corresponding AD, or (2) zero. Thus, a class operating at a 100%                                                                             |
| 3      |   | load factor, or a class that is entirely off-peak, such as lighting, would have little or no                                                                |
| 4      |   | ED. Thus, ED recognizes two important cost drivers:                                                                                                         |
| 5<br>6 |   | <ul> <li>Off-peak loads do not contribute to a utility's capacity needs to the same<br/>degree as comparable on-peak loads.</li> </ul>                      |
| 7<br>8 |   | <ul> <li>Very high load factor loads are relatively flat, and for this reason they have<br/>much less variability than do low load factor loads.</li> </ul> |
| 9      | Q | HOW IS ANNUAL SYSTEM LOAD FACTOR DEFINED?                                                                                                                   |
| 10     | Α | ASLF is defined as the ratio of the average load over a designated period to the peak                                                                       |
| 11     |   | demand occurring in that period. <sup>23</sup>                                                                                                              |
| 12     | Q | HAVE YOU DERIVED THE AED-4CP DEMAND ALLOCATION FACTORS FOR                                                                                                  |
| 13     |   | AUSTIN ENERGY?                                                                                                                                              |
| 14     | Α | Yes. Exhibit JP-5 shows the derivation of the AED-4CP demand allocation factors.                                                                            |
| 15     |   | As explained later, both the average demand and 4CP demand shown in Exhibit JP-5                                                                            |
| 16     |   | were derived by applying peak demand loss factors to the corresponding metered                                                                              |
| 17     |   | quantities. Also, in applying AED-4CP, I used the annual system load factor to weight                                                                       |
| 18     |   | average demand and 1 minus the system annual load factor to weight excess demand,                                                                           |
| 19     |   | which is consistent with cost causation and PUCT precedent. <sup>24</sup>                                                                                   |
|        |   |                                                                                                                                                             |

<sup>&</sup>lt;sup>24</sup> AE's EXCEL Rate Filing Package workbook uses the 4CP average (rather than the annual) load factor to weight Average Demand. The use of 4CP average load factor has been specifically rejected by the PUCT. Docket No. 46449, *Order on Rehearing* at FoF 277-278 (Mar 19, 2018) ("[T]he Commission determined that the system load factor should be calculated by using the single annual coincident peak, rather than the average of four coincident peaks").



<sup>&</sup>lt;sup>23</sup> *Id.* at 81.

## Allocation of Distribution Demand-Related Costs

### 2 Q WHAT IS THE 12-NCP METHOD?

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The 12-NCP method is the average of the twelve monthly class (or non-coincident)

peak demands during the year. Thus, the 12-NCP method allocates distribution

demand-related costs in proportion to the average of each customer class's individual

peak demand (irrespective of when it occurs) in each of the twelve months.

# 7 Q WHY DOES AUSTIN ENERGY USE THE 12-NCP METHOD TO ALLOCATE 8 DISTRIBUTION PLANT AND RELATED EXPENSES?

A E recognizes that distribution facilities must be sized to meet the maximum expected (peak) demand. However, it uses 12-NCP to allocate distribution plant and related expenses, arguing that distribution capacity provides value and improves the ability to capture loads that occur throughout the year.<sup>25</sup>

### Q IS THE 12-NCP METHOD CONSISTENT WITH COST CAUSATION?

No. AE's rationale is contrary to cost causation. Distribution facilities have value because they are capable of serving load without interruption. To do so, they must be sized to meet the *maximum* expected demand. If AE planned distribution facilities to serve only the average 12-NCP load and not the peak (or 1-NCP) load, equipment would fail and customers would experience curtailments during peak demand periods, and AE would incur higher costs to replace the failed equipment. As a result, allocating costs to the classes on a 12-NCP basis is not consistent with cost-causation principles.

J.POLLOCK
INCORPORATED

<sup>&</sup>lt;sup>25</sup> AE Response to TIEC 3-1, subparts a and b.

| 1 <b>Q</b>                                                                 | DO OTHER ERCOT UTILITIES USE THE 12-NCP METHOD TO ALLOCATE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2                                                                          | DISTRIBUTION COSTS?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 3 A                                                                        | No. For example, both Oncor Electric Delivery Company (Oncor) and Texas-New                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 4                                                                          | Mexico Power Company (TNMP) use the 1-NCP method to allocate distribution plant                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 5                                                                          | and related expenses for the reasons I have described. With respect to Oncor, its cost                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 6                                                                          | allocation witness testified as follows in its 2017 rate case:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 7                                                                          | E. Demand Allocation Methodology - Distribution Costs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 8<br>9<br>10                                                               | Q. PLEASE DESCRIBE THE DEMAND ALLOCATION METHODOLOGY THAT YOU USED IN THE COST OF SERVICE STUDY FOR THE COMPANY'S DEMAND-RELATED DISTRIBUTION COSTS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 11<br>12<br>13<br>14<br>15<br>16<br>17<br>18<br>19<br>20                   | A. The demand allocation methodology used for the demand-related distribution costs in the Rate Class Cost of Service Study is based on the Non-Coincident Peak ("NCP") demand of each rate class occurring during the test year. The rate class NCP demand is simply the highest 15-minute aggregated demand for all the members of a given rate class. The individual rate class NCPs may or may not occur during the same period. For example, the greatest 15-minute demand for the Residential Rate Class and the Secondary Service Less Than or Equal to 10 kW Rate Class may be the same period, but the NCP for the Lighting Rate Class will most likely occur at some other time. The NCP demands for the test-year are shown on Workpaper II-I-2.2.                                                                                                                                                                                        |
| 21<br>22                                                                   | Q. WHY HAVE YOU SELECTED A NON-COINCIDENT PEAK DEMAND METHODOLOGY FOR DEMAND-RELATED DISTRIBUTION COSTS?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 23<br>24<br>25<br>26<br>27<br>28<br>29<br>30<br>31<br>32<br>33<br>34<br>35 | A. The Company must plan and construct its distribution system to serve the maximum load requirement of each individual retail and wholesale customer. As a result, the Company's investment in the distribution plant needed to serve each customer does not depend on the month or the time of day when such loads occur. The Company's distribution plant must be capable of delivering this maximum load whenever it is demanded by the customer. Of course, when the loads of individual customers are aggregated into a small number of rate classes, the Company and those customers benefit from the diversity of the constituent customers' individual loads. An NCP demand allocation method captures the cost causation associated with the maximum load of each rate class on the Company's distribution system. As such, this method best recognizes the contribution of each rate class to the annual cost of the distribution system. |



| 1<br>2<br>3 | Q. IS A NON-COINCIDENT PEAK METHODOLOGY THE MOST APPROPRIATE METHOD FOR ALLOCATING DEMAND-RELATED DISTRIBUTION COSTS? |
|-------------|-----------------------------------------------------------------------------------------------------------------------|
| 4           | A. Yes. As I have explained, the major objective of a cost allocation method                                          |
| 5           | is to reasonably and equitably share the benefits of diversity among the various                                      |
| 6           | rate classes. Additionally, the method selected should be fairly clear and                                            |
| 7           | understandable, should not require an unreasonable amount of input data, and                                          |
| 8           | should offer a reasonable degree of stability from year to year. The NCP                                              |
| 9           | method proposed by the Company for demand-related distribution costs                                                  |
| 10          | satisfies these criteria and was approved by the Commission in all of Oncor's                                         |
| 11          | unbundled rate cases Docket Nos. 22350, 35717, and 38929. It is the most                                              |
| 12          | equitable and reasonable approach for the Company for the following reasons:                                          |
| 13          | (1) it recognizes the maximum usage of each rate class during the year; (2) it                                        |
| 14          | is less susceptible to shifts in cost responsibility from year to year compared to                                    |
| 15          | other allocation methods (e.g., coincident peak, average and peak, energy)                                            |
| 16          | and, thus, provides more stable results; and (3) it yields simple, easy-to-                                           |
| 17          | calculate factors that are suitable for the allocation of all types of demand-                                        |
| 18          | related distribution costs. Since this method encompasses all of these                                                |
| 19          | important concepts of cost allocation, it is the most reasonable method for the                                       |
| 20          | Company to utilize in designing both Retail and Wholesale Delivery Service                                            |
| 21          | rates. <sup>26</sup>                                                                                                  |
| 22          | Similarly, TNMP's testimony on this issue in its last rate case was as follows:                                       |
| 23          | Q. WHAT TYPE OF DEMAND RELATED FACTORS DOES THE                                                                       |
| 24          | COMPANY'S CCOS USE?                                                                                                   |
| 25          | A. TNMP is proposing use of the unadjusted 4-Coincident Peak at source for                                            |
| 26          | the allocation factor for FERC Account 565. To allocate the distribution                                              |
| 27          | demand-related revenue requirement, the CCOS utilized the maximum non-                                                |
| 28          | coincident demands for each rate class for each month of the Test Year.                                               |
| 29          | * * *                                                                                                                 |
|             |                                                                                                                       |

<sup>&</sup>lt;sup>26</sup> Application of Oncor Electric Delivery Company LLC for Authority to Change Rates, Docket No. 46957, Direct Testimony of J. Michael Sherburne at 10-11 (Mar. 17, 2017). Footnote omitted.



| 2                                                                     |   | COSTS BASED ON ADJUSTED NON-COINCIDENT PEAK DEMAND IN [T]HIS CASE?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-----------------------------------------------------------------------|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4                                                                     |   | A. As noted by NARUC's Electric Utility Cost Allocation Manual:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 5<br>6<br>7<br>8<br>9<br>10<br>11<br>12<br>13<br>14<br>15<br>16<br>17 |   | Local area loads are the major factors in sizing distribution equipment. Consequently, customer-class non coincident demands (NCPs) and individual customer maximum demands are the load characteristics that are normally used to allocate the demand component of distribution facilities. The customer-class load characteristics used to allocate the demand component of distribution plant (whether customer class NCPs or the summation of individual customer maximum demands) depends on the load diversity that is present at the equipment to be allocated. The load diversity at distribution substations and primary feeders is usually high. For this reason, customer-class peaks are normally used for the allocation of these facilities. The facilities nearer the customer, such as secondary feeders and line transformers, have much lower load diversity. They are normally allocated according to the individual customer's maximum demands. |
| 18<br>19<br>20                                                        |   | In addition, the final orders in TNMP's last three rate cases (Docket No. 22349, Docket No. 36025, and Docket No. 38480) approved settlements using the non-coincident peak. <sup>27</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 21                                                                    |   | I agree with these observations.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 22                                                                    | Q | PLEASE SUMMARIZE YOUR RECOMMENDATION ON HOW DISTRIBUTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 23                                                                    |   | DEMAND-RELATED COSTS SHOULD BE ALLOCATED?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 24                                                                    | Α | Distribution demand-related costs should be allocated to customer classes using the                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 25                                                                    |   | 1-NCP method rather than the 12-NCP method proposed by AE. The latter method                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 26                                                                    |   | fails to reflect cost causation. Further, this practice is not used by other ERCOT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 27                                                                    |   | utilities.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                                                                       |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

Q. WHY IS TNMP PROPOSING TO ALLOCATE CERTAIN DISTRIBUTION

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<sup>&</sup>lt;sup>27</sup> Application of Texas-New Mexico for Authority to Change Rates, Docket No. 48401, Direct Testimony of Stacy R. Whitehurst at 10-12 (May 30, 2018). Footnotes omitted.



### 1 Q HAVE YOU DERIVED ALLOCATION FACTORS USING THE 1-NCP METHOD?

Yes. **Exhibit JP-6** shows the derivation of the 1-NCP class allocation factors applicable to secondary distribution costs. **Exhibit JP-7** shows the 1-NCP allocation factors applicable to distribution substations (columns 1 and 2) and other primary distribution costs (columns 3 and 4).

## Primary Substation Service

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### Q WHAT IS PRIMARY SUBSTATION SERVICE?

When a customer is connected directly to a utility-owned distribution substation (such that the utility does not have to invest in a distribution network of poles, lines, conductors, and related facilities to serve that customer), that customer receives Primary Substation service. This is in contrast to Primary Distribution service where the utility must invest in a distribution network to deliver electricity to the customer. Primary Substation service is, in essence, identical to transmission service except that the utility, rather than the customer, owns the equipment that transforms power from a transmission to a primary distribution voltage. **Appendix E** provides a more in-depth discussion of Primary Substation service. Like transmission customers, Primary Substation customers do not use AE's distribution network, and thus should not be allocated the costs associated with that network.

# Q IS PRIMARY SUBSTATION SERVICE RECOGNIZED IN AUSTIN ENERGY'S

### CLASS COST-OF-SERVICE STUDY?

A No. AE does not distinguish Primary Substation service from Primary Distribution service. In addition to allocating distribution substation costs to Primary Substation



| 1  |   | customers, AE also allocates to those customers plant and related costs associated               |
|----|---|--------------------------------------------------------------------------------------------------|
| 2  |   | with the following FERC accounts:                                                                |
| 3  |   | • 364 (Poles, Towers and Fixtures);                                                              |
| 4  |   | <ul> <li>365 (Overhead Conductors and Devices);</li> </ul>                                       |
| 5  |   | • 366 (Underground Conduit);                                                                     |
| 6  |   | <ul> <li>367 (Underground Conduit and Devices); and,</li> </ul>                                  |
| 7  |   | • 368 (Line Transformers).                                                                       |
| 8  |   | Thus, AE's CCOSS allocates to Primary Substation customers distribution costs that               |
| 9  |   | they do not impose on the system because they are directly connected to a distribution           |
| 10 |   | substation and not a primary distribution network.                                               |
| 11 | Q | HAS AUSTIN ENERGY IDENTIFIED THE CUSTOMER CLASSES OR CUSTOMERS                                   |
| 12 |   | THAT TAKE PRIMARY SUBSTATION SERVICE?                                                            |
| 13 | Α | Yes. I am advised by AE that all three High Load Factor Primary Voltage (≥ 20 MW)                |
| 14 |   | customers are directly connected to an AE distribution substation through dedicated              |
| 15 |   | radial feeders. In other words, they take Primary Substation service. Further, AE                |
| 16 |   | advises that some customers in the Primary ≥ 3 MW < 20 MW class also take Primary                |
| 17 |   | Substation service. However, AE would not provide information to identify customers              |
| 18 |   | or the portion of the load in this class that receives Primary Substation service. <sup>28</sup> |
| 19 | Q | IS THERE ANY PRECEDENT FOR RECOGNIZING PRIMARY SUBSTATION                                        |
| 20 |   | SERVICE FOR COSTING AND RATE DESIGN PURPOSES?                                                    |
| 21 | Α | Yes. This issue was litigated in a prior Oncor rate case. In that case, the PUCT                 |
| 22 |   | adopted the creation of a separate Primary Substation rate class in the compliance               |

<sup>&</sup>lt;sup>28</sup> AE Response to TIEC TC 2-1B; AE Response to TIEC 2-3.



| 1                                                  |   | CCOSS, and it approved a separate tariff for Primary Substation service. In approving                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------------------------------------------------|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2                                                  |   | the creation of a Primary Substation rate class, the PUCT stated:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 3                                                  |   | J. Creation of Primary Substation Rate Class                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 4<br>5<br>6<br>7<br>8<br>9<br>10<br>11<br>12<br>13 |   | The Commission disagrees with the ALJs' recommendation to deny Oncor's request to create a new primary substation rate class and approves the creation of a new primary-greater-than-10-kW substation tariff. This new service affects about 50 primary substation customers, mostly industrial customers, receiving voltage from, or near, a substation. These customers construct and maintain the distribution facilities themselves. The only distribution facilities required by Oncor to provide this service are the distribution substation facilities. Additionally, the service is virtually identical to the service provided to current wholesale customers from Oncor's existing XMFR tariff. Oncor's existing XMFR tariff. (emphasis added). |
| 14                                                 | Q | HOW CAN AUSTIN ENERGY'S CLASS COST-OF-SERVICE STUDY RECOGNIZE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 15                                                 |   | PRIMARY SUBSTATION SERVICE?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 16                                                 | Α | Delivering electricity to a Primary Substation customer means that AE is not required                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 17                                                 |   | to install an extensive distribution network consisting of primary (overhead and                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 18                                                 |   | underground) lines and conductors, and related facilities to serve that customer.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 19                                                 |   | Because a Primary Substation customer is connected directly to the substation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 20                                                 |   | through dedicated radial feeders, none of the costs of the primary distribution network                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 21                                                 |   | booked to FERC Account Nos. 364 through 368 and associated expenses are                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 22                                                 |   | allocable to this service, other than the actual costs of the feeders.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 23                                                 | Q | WHAT DO YOU RECOMMEND?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 24                                                 | Α | The CCOSS should be modified so that none of the costs associated with primary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 25                                                 |   | poles, lines and conductors downstream from the distribution substation are allocated                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 26                                                 |   | to the High Load Factor Primary Voltage (Demand ≥ 20 MW) class. To the extent                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

<sup>&</sup>lt;sup>29</sup> Application of Oncor Electric Delivery Company, LLC for Authority to Change Rates, Docket No. 35717, Order on Rehearing at 11 (Nov. 30, 2009).



- costs associated with the dedicated radial feeders can be identified, such costs should be directly assigned to this class. Because the feeder lines are relatively short, the exact cost should be minimal and have no significant impact on the CCOSS results.
- 4 Q HAVE YOU DERIVED REVISED ALLOCATION FACTORS TO RECOGNIZE
  5 PRIMARY SUBSTATION SERVICE?
- Yes. I removed the High Load Factor Primary Voltage (Demand ≥ 20 MW) class from
   the 1-NCP allocation factors used to allocate primary voltage poles, lines, conductors,
   and related facilities. The revised allocation factors are shown in Exhibit JP-7,
   columns 1-2 (1-NCP Primary Substation) and columns 3-4 (Primary Distribution).

#### **Loss Factors**

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- 11 Q WHAT ARE LOSS FACTORS, AND HOW ARE THEY USED IN CONDUCTING A
  12 CLASS COST-OF-SERVICE STUDY?
  - As explained in **Appendix C**, not all customers take service at the same delivery voltage. A utility incurs more losses to serve customers at lower delivery voltages. Thus, all of the customer sales volumes, both peak (demand) and annual energy measured at the meter, must be adjusted to one common voltage level (normally the generation level) in order to allocate costs equitably to the various classes of service on an electric power system. In that way, customers that take power and energy at various voltage levels are only responsible for the losses that they cause the system to incur. For example, if demand and energy allocation factors of all classes of service are adjusted to a common level, customers that take power at the transmission levels would not be allocated costs associated with losses that are incurred on the primary or secondary distribution levels.



| 1  | Q | WHAT IS A LOSS STUDY?                                                                      |
|----|---|--------------------------------------------------------------------------------------------|
| 2  | Α | A loss study determines the fixed and variable losses that occur when an electric utility  |
| 3  |   | generates and delivers electricity to retail customers. The output of a loss study         |
| 4  |   | consists of the peak (demand) and energy loss factors.                                     |
| 5  | Q | HAVE YOU REVIEWED THE LOSS STUDY USED BY AUSTIN ENERGY IN ITS                              |
| 6  |   | CLASS COST-OF-SERVICE STUDY?                                                               |
| 7  | Α | Yes. Austin Energy provided a Loss Study that was based on 2018 system loads.              |
| 8  | Q | DID AUSTIN ENERGY APPLY LOSS FACTORS TO RESTATE THE METERED                                |
| 9  |   | QUANTITIES TO THE GENERATION LEVEL?                                                        |
| 10 | Α | Yes. AE used its 2018 Loss Study to restate the CP and NCP demands and energy              |
| 11 |   | from the meter to the generation level. The latter quantities were then used to develop    |
| 12 |   | the demand and energy allocation factors used in its CCOSS.                                |
| 13 | Q | ARE THERE ANY PROBLEMS WITH HOW AUSTIN ENERGY USED ITS 2018                                |
| 14 |   | LOSS STUDY?                                                                                |
| 15 | Α | Yes. There are three problems. First, AE did not use the actual energy losses derived      |
| 16 |   | from its 2018 Loss Study. Instead, it quantified the energy losses by voltage level and    |
| 17 |   | spread these losses over the energy sales by voltage level to derive an implicit energy    |
| 18 |   | loss factor for each customer class.                                                       |
| 19 | Q | WHAT SHOULD AUSTIN ENERGY HAVE DONE INSTEAD?                                               |
| 20 | Α | The energy and demand loss factors should have been derived directly from the 2018         |
| 21 |   | Loss Study. The derivation of the energy and demand loss factors using the Loss            |
| 22 |   | Study is shown in <b>Exhibit JP-8</b> . Page 1 shows the derivation of the energy (columns |
| 23 |   | 1-2) and peak demand (columns 3-4) loss factors by voltage/service level. Page 2 is        |



| 1 | a summary of AE's 2018 Loss Study, with the addition of quantifying the peak demand |
|---|-------------------------------------------------------------------------------------|
| 2 | losses by voltage/service level.                                                    |

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#### WHAT IS THE SECOND PROBLEM WITH AUSTIN ENERGY'S LOSS FACTORS?

AE used its flawed energy loss factors to adjust the CP and NCP demands. In addition to the issues with AE's loss factor calculation, discussed above, AE should have used demand loss factors—not energy—for the CP and NCP adjustments. Demand losses (during peak demand periods) are actually higher than energy losses because losses are directly related to power flow, and more power is flowing during peak demand periods. Therefore, AE should have used the actual demand loss factors from its 2018 Loss Study to restate the CP and NCP demands from the meter to the generation level, not its flawed energy loss factors.

#### WHAT IS THE THIRD PROBLEM WITH AUSTIN ENERGY'S LOSS FACTORS?

As previously discussed, AE failed to distinguish between Primary Substation and Primary Distribution services in its CCOSS even though AE's Loss Study explicitly recognizes that there are lower demand and energy losses for Primary Substation than for Primary Distribution service.

Customers served from primary distribution lines also are served from AE distribution substations. Thus, it follows that the loss factors applicable to Primary Distribution service should also include the losses to provide Primary Substation service. In other words, AE incurs higher losses to deliver power and energy to a Primary Distribution customer than to a Primary Substation customer. Therefore, the CP and NCP demands and energy at the generation level are lower for Primary Substation service than for Primary Distribution service.



| 1  | Q | HAVE YOU APPLIED THE LOSS FACTORS THAT YOU DEVELOPED IN EXHIBIT                         |
|----|---|-----------------------------------------------------------------------------------------|
| 2  |   | JP-8 TO RESTATE THE METERED QUANTITIES TO THE GENERATION LEVEL?                         |
| 3  | Α | Yes. Exhibit JP-9 shows the derivation of the demand (CP, NCP) on pages 1 and 2,        |
| 4  |   | respectively, and energy (page 3) at the generation level for all customer classes. The |
| 5  |   | starting points were the corresponding quantities at the meter.                         |
| 6  |   | As previously stated, the High Load Factor Primary Voltage (Demand ≥ 20                 |
| 7  |   | MW) class is served entirely from the distribution substation. Accordingly, the lower   |
| 8  |   | distribution substation demand and energy loss factors were applied to the metered      |
| 9  |   | quantities in restating the CP, NCP and energy to the generation level. These restated  |
| 10 |   | quantities were then used to derive the allocation factors shown in Exhibits JP-6 and   |
| 11 |   | JP-7.                                                                                   |
| 12 | Q | WHAT DO YOU RECOMMEND?                                                                  |
| 13 | Α | I recommend that the demand and energy loss factors shown in Exhibit JP-9 should        |
| 14 |   | be used to restate all of the metered quantities to the generation level. Further,      |
| 15 |   | separate demand and energy loss factors should be applied to Primary Substation and     |
| 16 |   | primary line services, respectively.                                                    |
| 17 | Q | ARE THERE ANY OTHER RECOMMENDATIONS RESULTING FROM YOUR                                 |
| 18 |   | ANALYSIS OF AUSTIN ENERGY'S 2018 LOSS STUDY?                                            |
| 19 | Α | Yes. The Power Supply Adjustment (PSA) is a separate rider that recovers fuel and       |
| 20 |   | purchased power expenses as well as the expenses and debt service associated with       |
| 21 |   | AE's ownership of the Nacogdoches plant. Recognizing the differences in energy          |
| 22 |   | losses, AE has differentiated the PSA charges by delivery voltage. However, the PSA     |
| 23 |   | charges only recognize delivery service provided at transmission, primary, and          |



| 1                    |      | secondary voltages. They do not recognize lower losses provided to supply energy to                                                                                                                                                                                      |
|----------------------|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2                    |      | Primary Substation customers. Accordingly, PSA should be revised to include a                                                                                                                                                                                            |
| 3                    |      | separate Primary Substation Adjustment Factor.                                                                                                                                                                                                                           |
| 4                    | Q    | HAVE YOU DERIVED REVISED ADJUSTMENT FACTORS THAT ALSO                                                                                                                                                                                                                    |
| 5                    |      | RECOGNIZE PRIMARY SUBSTATION SERVICE?                                                                                                                                                                                                                                    |
| 6                    | Α    | Yes. Exhibit JP-10 shows the derivation of the Adjustment Factors that separately                                                                                                                                                                                        |
| 7                    |      | recognize Primary Substation and Primary Distribution services. The loss multipliers                                                                                                                                                                                     |
| 8                    |      | reflect the revised energy loss factors shown in Exhibit JP-8.                                                                                                                                                                                                           |
| 9                    | Revi | ised Class Cost-of-Service Study                                                                                                                                                                                                                                         |
| 10                   | Q    | HAVE YOU PREPARED A REVISED CLASS COST-OF-SERVICE STUDY                                                                                                                                                                                                                  |
| 11                   |      | INCORPORATING YOUR RECOMMENDATIONS?                                                                                                                                                                                                                                      |
| 12                   | Α    | Yes. Exhibit JP-11 is a revised CCOSS that incorporates each of the following                                                                                                                                                                                            |
| 13                   |      | recommendations:                                                                                                                                                                                                                                                         |
| 14                   |      | Pass-through costs, except for Service Area Street Lighting, are removed;                                                                                                                                                                                                |
| 15<br>16             |      | <ul> <li>Production demand-related costs are allocated using the AED-4CP<br/>method, rather than the ERCOT-12CP method;</li> </ul>                                                                                                                                       |
| 17<br>18             |      | <ul> <li>Distribution demand-related costs are allocated based on the class peak<br/>(1-NCP) method, rather than then 12-NCP method;</li> </ul>                                                                                                                          |
| 19<br>20<br>21       |      | <ul> <li>Primary Substation service is specifically recognized — no primary poles,<br/>lines or conductors were allocated to the High Load Factor Primary Voltage<br/>(Demand ≥ 20 MW) class; and</li> </ul>                                                             |
| 22<br>23<br>24<br>25 |      | <ul> <li>The CP and NCP demands were restated from the meter to the generation<br/>level using voltage/service level demand loss factors, and the revised<br/>energy loss factors were used to restate the energy from the meter to the<br/>generation level.</li> </ul> |
| 26                   |      | The revised study is based on AE's base revenue requirement.                                                                                                                                                                                                             |



| 1  | Q | HAVE YOU MADE ANY FURTHER CHANGES TO AUSTIN ENERGY'S CLASS                           |
|----|---|--------------------------------------------------------------------------------------|
| 2  |   | COST-OF-SERVICE STUDY?                                                               |
| 3  | Α | Yes. As previously discussed, I included Service Area Street Lighting as a separate  |
| 4  |   | customer class in TIEC's revised CCOSS. To the extent that AE requires other         |
| 5  |   | customer classes to subsidize this service, the base rate costs should be allocated  |
| 6  |   | only to those other customer classes that are specifically charged for Service Area  |
| 7  |   | Street Lighting in their rate schedules. The High Load Factor Primary, High Load     |
| 8  |   | Factor Transmission, and City and Customer-owned lighting customer classes are not   |
| 9  |   | charged for Service Area Street Lighting. Therefore, no Service Area Street Lighting |
| 10 |   | costs should be allocated to these classes.                                          |
| 11 | Q | WHAT DO THE REVISED CLASS COST-OF-SERVICE STUDY RESULTS                              |
|    | ~ |                                                                                      |
| 12 |   | DEMONSTRATE?                                                                         |
| 13 | Α | As discussed next, there are significant disparities between current base revenues   |
| 14 |   | and the base revenues required to move each customer class to cost.                  |

### 5. CLASS REVENUE ALLOCATION

| 1  | Q | WHAT IS CLASS REVENUE ALLOCATION?                                                          |
|----|---|--------------------------------------------------------------------------------------------|
| 2  | Α | Class revenue allocation is the process of determining how any base revenue change         |
| 3  |   | is apportioned to each customer class.                                                     |
| 4  | Q | HOW SHOULD ANY CHANGE IN BASE REVENUES APPROVED IN THIS DOCKET                             |
| 5  |   | BE APPORTIONED AMONG THE VARIOUS CUSTOMER CLASSES AUSTIN                                   |
| 6  |   | ENERGY SERVES?                                                                             |
| 7  | Α | Base revenues should reflect the actual cost of providing service to each customer         |
| 8  |   | class as closely as practicable. Regulators sometimes limit the immediate movement         |
| 9  |   | to cost based on principles of gradualism.                                                 |
| 10 | Q | WHAT IS THE PRINCIPLE OF GRADUALISM?                                                       |
| 11 | Α | Gradualism is a concept that is applied to avoid rate shock; that is, no class should      |
| 12 |   | receive an outsized or abrupt rate increase in a single adjustment. Thus, rates should     |
| 13 |   | move gradually to cost if moving rates immediately to cost would result in rate shock.     |
| 14 | Q | SHOULD THE RESULTS OF THE COST-OF-SERVICE STUDY BE THE PRIMARY                             |
| 15 |   | FACTOR IN DETERMINING HOW ANY BASE REVENUE CHANGE SHOULD BE                                |
| 16 |   | ALLOCATED?                                                                                 |
| 17 | Α | Yes. Cost-based rates are fair (because each class's rates reflect its cost to serve, no   |
| 18 |   | more and no less); they are efficient (because, when coupled with a cost-based rate        |
| 19 |   | design, customers are provided with the proper incentive to minimize their costs, which    |
| 20 |   | will, in turn, minimize the costs to the utility); they enhance revenue stability (because |
| 21 |   | changes in revenues due to changes in sales will translate into offsetting changes in      |



costs); and they encourage conservation (because cost-based rates will send the proper price signals to customers, thereby allowing customers to make rational consumption decisions). In addition, it may become harder to move rates toward cost over time if they are not sufficiently tracking cost-causation.

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### 5 Q DOES AUSTIN ENERGY'S PROPOSED CLASS REVENUE ALLOCATION 6 FOLLOW THESE PRINCIPLES?

A No. Table 4 compares the base rate increase required to move each customer class to cost under TIEC's revised CCOSS with AE's proposed base rate increase.

| Table 4 Required Vs. AE Proposed Base Rate Increase By Customer Class |                                             |                            |                                         |
|-----------------------------------------------------------------------|---------------------------------------------|----------------------------|-----------------------------------------|
| Customer Class                                                        | Required<br>Increase<br>per TIEC's<br>CCOSS | AE<br>Proposed<br>Increase | Proposed<br>Vs.<br>Required<br>Increase |
| Residential                                                           | 32.9%                                       | 17.6%                      | 53%                                     |
| Secondary < 10 kW                                                     | 11.1%                                       | 7.9%                       | 71%                                     |
| Secondary ≥ 10 kW < 300 kW                                            | -16.3%                                      | -6.3%                      | 39%                                     |
| Secondary ≥ 300 kW                                                    | -19.2%                                      | -3.6%                      | 19%                                     |
| Primary < 3 MW                                                        | 15.5%                                       | 8.4%                       | 54%                                     |
| Primary ≥ 3 MW < 20 MW                                                | -6.7%                                       | 5.0%                       | -75%                                    |
| HLF Primary ≥ 20 MW                                                   | -25.5%                                      | 11.9%                      | -47%                                    |
| Transmission                                                          | 39.4%                                       | 6.3%                       | 16%                                     |
| HLF Transmission > 20 MW                                              | -28.9%                                      | -4.0%                      | 14%                                     |
| Service Area Street Ltg.                                              | 69.9%                                       | 83.8%                      | 120%                                    |
| City-Owned Pvt. Out. Ltg.                                             | 65.5%                                       | 41.6%                      | 64%                                     |
| Customer-Owned Non-Met. Ltg.                                          | 62.7%                                       | 15.1%                      | 24%                                     |
| Customer-Owned Met. Ltg.                                              | 36.2%                                       | 29.1%                      | 80%                                     |
| Total                                                                 | 8.7%                                        | 8.7%                       | 100%                                    |
| Source: Exhibit JP-11 and WP G-10.2.                                  |                                             |                            |                                         |



As Table 4 demonstrates, AE's proposed class revenue allocation directionally moves all but two customer classes closer to cost. The notable exceptions are the Primary ≥ 3 MW < 20 MW and the High Load Factor Primary ≥ 20 MW classes. Based on TIEC's corrected CCOSS, these classes should receive base rate reductions rather than base rate increases.

#### WHAT DO YOU RECOMMEND?

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All customer classes should move to cost, unless it would cause an undue rate impact. If the City Council decides that the movement to cost should be balanced with the principle of gradualism, I recommend revising AE's proposed class revenue allocation to reduce the base rates for the two large Primary Voltage classes by *at least* 30% of the cost-based reductions. Assuming no change in the magnitude of AE's proposed base revenue increase, this recommendation would result in base rate reductions of 2% for the Primary  $\geq$  3 MW < 20 MW class and 7.7% for the High Load Factor Primary Voltage (Demand  $\geq$  20 MW) class.

This recommendation is consistent with AE's proposal for those classes that are currently above cost under AE's CCOSS, which range from 24% to 33% of the required rate decreases.

I also note that if rates are set above cost for Primary Substation customers, that should more than compensate for the minimal costs associated with AE's investment in the dedicated radial feeders used to provide Primary Substation service.

| 1 | Q | HOW WOULD YOUR GRADUALISM RECOMMENDATION CHANGE IF AUSTIN                            |
|---|---|--------------------------------------------------------------------------------------|
| 2 |   | ENERGY RECEIVES A LOWER BASE REVENUE INCREASE THAN IT IS                             |
| 3 |   | PROPOSING?                                                                           |
| 4 | Α | The base revenue requirement for these classes should be scaled back proportionally. |
| 5 |   | For example, if AE's authorized base revenue requirement is reduced from \$705       |
| 6 |   | million to \$677 million (a 50% reduction in the proposed base revenue increase of   |
| 7 |   | \$56.5), the recommended reductions for the Primary ≥ 3 MW < 20 MW and High Load     |
| 8 |   | Factor Primary Voltage (Demand ≥ 20 MW) classes should be approximately twice the    |
| 9 |   | above recommendation (i.e., 4% and 15.4%, respectively).                             |



#### 6. RATE DESIGN

#### Q WHAT RATE DESIGN ISSUE ARE YOU ADDRESSING?

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As discussed previously, AE provides Primary Substation service to the three customers in the Primary Voltage ≥ 20 MW >85% ALF class and some other primary voltage customers (which AE has refused to disclose). Thus, I address how a Primary Substation rate should be designed.

#### Q HOW SHOULD A PRIMARY SUBSTATION RATE BE DESIGNED?

Conceptually, the Primary Substation rate should be designed in a manner similar to the current Primary Voltage ≥ 20 MW >85% ALF rate schedule except that the Customer and Demand charges should reflect the customer and demand-related costs allocated to the High Load Factor Primary ≥ 20 MW customer class in TIEC's corrected CCOSS at AE's proposed revenue requirement. Table 5 provides an illustrative Primary Substation rate design assuming that the Primary High Load Factor (≥ 20 MW) class receives a 7.7% base revenue decrease, which would move the class 30% to cost.

| Table 5 Recommended Primary Substation Rate Design Assuming a 7.7% Base Revenue Decrease |                  |                        |                     |          |                  |
|------------------------------------------------------------------------------------------|------------------|------------------------|---------------------|----------|------------------|
|                                                                                          |                  | Current Rates Proposed |                     |          | ed Rates         |
| Description                                                                              | Billing<br>Units | Rate                   | Revenues<br>(\$000) | Rate     | Revenues (\$000) |
| Base Revenues                                                                            |                  |                        | \$33,906.1          |          | \$31,295.3       |
| Basic Charge                                                                             | 36               | \$11,000               | \$396.0             | \$11,000 | \$396.0          |
| Delivery Charge                                                                          | 2,279,600        | \$4.50                 | \$10,258.2          | N/A      | N/A              |
| Demand Charge                                                                            | 2,279,600        | \$10.20                | \$23,251.9          | \$13.56  | \$30,899.3       |



Table 5 uses "normalized" billing demands. I have assumed that these billing demands were adjusted to remove the impact of Winter Storm Uri. If that adjustment has not been made, then the billing demand is understated and the recommended Demand charge is overstated.

### WHAT CUSTOMERS SHOULD BE ELIGIBLE TO TAKE SERVICE ON THE PRIMARY SUBSTATION RATE?

The Primary Substation rate schedule should be available to all customers that take delivery service at or near a utility-owned distribution substation through dedicated radial feeders emanating from the substation. Based on this definition, all of the customers in the Primary Voltage  $\geq$  20 MW >85% ALF rate schedule would be eligible for the Primary Substation rate. In addition, a few of the customers on the Primary Voltage  $\geq$  3 MW and < 20 MW rate schedule also take Primary Substation service. As previously stated, AE would not disclose either the number of customers or loads served at Primary Substation in the Primary Voltage  $\geq$  3 MW and < 20 MW class. Nonetheless, if a Primary Substation rate schedule is approved, all Primary customers that are not currently taking service on the Primary Voltage  $\geq$  20 MW >85% ALF rate schedule that meet the eligibility requirements should be allowed to migrate to this rate.

#### Q DO YOU HAVE ANY FURTHER RECOMMENDATIONS?

20 A Yes. AE does not currently have a facilities charge that would allow customers to choose the delivery voltage at which service is provided.<sup>30</sup> AE should offer customers

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<sup>&</sup>lt;sup>30</sup> AE Response to TIEC 4-8.

#### Jeffry Pollock Direct Page 46

an opportunity to lease or purchase the radial feeders and transformation equipment in the distribution substations so that they may qualify for transmission service. There is ample precedent for similar facilities charges in the tariffs of other vertically integrated utilities in Texas.<sup>31</sup> Thus, I recommend that AE work with interested parties to develop a facilities charge tariff that provides an opportunity for a customer to transition to a higher level service that will allow the customer to better manage electricity costs. This tariff should be implemented at the same time as the new base rates approved in this review.

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<sup>&</sup>lt;sup>31</sup> For example, Entergy Texas, Inc.'s Additional Facilities Charge Rider.



### 7. CONCLUSION

| 1                    | Q | BASED ON YOUR FINDINGS AND RECOMMENDATIONS, WHAT ACTIONS                                                                                                                                                                                                                                                    |
|----------------------|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2                    |   | SHOULD THE CITY COUNCIL TAKE?                                                                                                                                                                                                                                                                               |
| 3                    | Α | The City Council should take the following actions:                                                                                                                                                                                                                                                         |
| 4                    |   | Reject the proposed \$56.5 million base revenue increase.                                                                                                                                                                                                                                                   |
| 5                    |   | <ul> <li>Order a base revenue increase not to exceed \$12.2 million.</li> </ul>                                                                                                                                                                                                                             |
| 6<br>7<br>8          |   | <ul> <li>Reject AE's CCOSS and adopt TIEC's revised study, which reflects both<br/>accepted industry practice and long-standing precedent in Texas.<br/>Specifically:</li> </ul>                                                                                                                            |
| 9                    |   | <ul> <li>Remove all pass-through costs, except for Service Area Street Lighting.</li> </ul>                                                                                                                                                                                                                 |
| 10                   |   | <ul> <li>Adopt AED-4CP to allocate production demand-related costs.</li> </ul>                                                                                                                                                                                                                              |
| 11<br>12             |   | <ul> <li>Adopt the 1-NCP method of allocating distribution demand-related<br/>costs.</li> </ul>                                                                                                                                                                                                             |
| 13                   |   | <ul> <li>Recognize Primary Substation service.</li> </ul>                                                                                                                                                                                                                                                   |
| 14                   |   | <ul> <li>Use the appropriate peak demand and energy loss factors.</li> </ul>                                                                                                                                                                                                                                |
| 15<br>16             |   | <ul> <li>Revise the Adjustment Factor in the PSA rate schedule to reflect the lower<br/>losses to provide Primary Substation service.</li> </ul>                                                                                                                                                            |
| 17<br>18<br>19       |   | <ul> <li>Move rates to cost or, alternatively, reduce base rates for the Primary ≥ 3<br/>MW &lt; 20 MW and High Load Factor Primary Voltage (Demand ≥ 20 MW)<br/>classes by at least 30% of the cost-based reduction.</li> </ul>                                                                            |
| 20<br>21<br>22<br>23 |   | <ul> <li>Implement a Primary Substation rate initially comprised of the customers<br/>currently taking service on the Primary Voltage ≥ 20 MW &gt; 85% ALF rate<br/>schedule. The rate should also be available to other Primary Voltage<br/>customers who also take Primary Substation service.</li> </ul> |
| 24<br>25<br>26       |   | <ul> <li>Work with interested parties to design a facilities charge rate to allow<br/>customers to lease or purchase distribution facilities and transition to a<br/>higher delivery voltage so they can better manage their electricity costs.</li> </ul>                                                  |
| 27                   | Q | DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?                                                                                                                                                                                                                                                                   |



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Yes.

#### **APPENDIX A**

#### **Qualifications of Jeffry Pollock**

| 2 | Α | Jeffry Pollock. My business mailing address is 12647 Olive Blvd., Suite 585, St. Louis, |
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#### 4 Q WHAT IS YOUR OCCUPATION AND BY WHOM ARE YOU EMPLOYED?

PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

5 A I am an energy advisor and President of J. Pollock, Incorporated.

#### 6 Q PLEASE STATE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.

I have a Bachelor of Science Degree in Electrical Engineering and a Master's Degree in Business Administration from Washington University. I have also completed a Utility Finance and Accounting course.

Upon graduation in June 1975, I joined Drazen-Brubaker & Associates, Inc. (DBA). DBA was incorporated in 1972 assuming the utility rate and economic consulting activities of Drazen Associates, Inc., active since 1937. From April 1995 to November 2004, I was a managing principal at Brubaker & Associates (BAI).

During my career, I have been engaged in a wide range of consulting assignments including energy and regulatory matters in both the United States and several Canadian provinces. This includes preparing financial and economic studies of investor-owned, cooperative and municipal utilities on revenue requirements, cost of service and rate design, tariff review and analysis, conducting site evaluations, advising clients on electric restructuring issues, assisting clients to procure and manage electricity in both competitive and regulated markets, developing and issuing requests for proposals (RFPs), evaluating RFP responses and contract negotiation and developing and presenting seminars on electricity issues.



| I have worked on various projects in 28 states and several Canadian provinces,       |
|--------------------------------------------------------------------------------------|
| and have testified before the Federal Energy Regulatory Commission, the Ontario      |
| Energy Board, and the state regulatory commissions of Alabama, Arizona, Arkansas,    |
| Colorado, Delaware, Florida, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky,     |
| Louisiana, Michigan, Minnesota, Mississippi, Missouri, Montana, New Jersey, New      |
| Mexico, New York, Ohio, Pennsylvania, South Carolina, Texas, Virginia, Washington,   |
| and Wyoming. I have also appeared before the City of Austin Electric Utility         |
| Commission, the Board of Public Utilities of Kansas City, Kansas, the Board of       |
| Directors of the South Carolina Public Service Authority (a.k.a. Santee Cooper), the |
| Bonneville Power Administration, Travis County (Texas) District Court, and the U.S.  |
| Federal District Court.                                                              |

### Q PLEASE DESCRIBE J. POLLOCK, INCORPORATED.

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J. Pollock assists clients to procure and manage energy in both regulated and competitive markets. The J. Pollock team also advises clients on energy and regulatory issues. Our clients include commercial, industrial and institutional energy consumers. J. Pollock is a registered broker and Class I aggregator in the State of Texas.



| LITHITY                             | ON BEHALF OF                                       | DOCKET         | TVDE           | CTATE / DDC//NCE | CURUEOT                                                                                                                                                       | DATE                  |
|-------------------------------------|----------------------------------------------------|----------------|----------------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| UTILITY DTE ELECTRIC COMPANY        | ON BEHALF OF Gerdau MacSteel. Inc.                 | U-20836        | TYPE<br>Direct | STATE / PROVINCE | SUBJECT Interruptible Supply Rider No. 10                                                                                                                     | <b>DATE</b> 5/19/2022 |
| DIE ELECTRIC COMPANY                | Gerdau MacSteel, Inc.                              | U-20836        | Direct         | MI               | Interruptible Supply Rider No. 10                                                                                                                             | 5/19/2022             |
| GEORGIA POWER COMPANY               | Georgia Association of Manufacturers               | 44160          | Direct         | GA               | CARES Program; Capacity Expansion<br>Plan; Cost Recovery of Retired Plant;<br>Additional Sum                                                                  | 5/6/2022              |
| EL PASO ELECTRIC COMPANY            | Freeport-McMoRan, Inc.                             | 52195          | Cross-Rebuttal | TX               | Rate 38; Class Cost-of-Service Study;<br>Revenue Allocation                                                                                                   | 11/19/2021            |
| SOUTHWESTERN PUBLIC SERVICE COMPANY | Occidental Permian Ltd.                            | 20-00238-UT    | Supplemental   | NM               | Responding to Seventh Bench Request<br>Order (Amended testimony filed on 11/15)                                                                               | 11/12/2021            |
| EL PASO ELECTRIC COMPANY            | Freeport-McMoRan, Inc.                             | 52195          | Direct         | TX               | Class Cost-of-Service Study; Class<br>Revenue Allocation; Rate 15 Design                                                                                      | 10/22/2021            |
| SOUTHWESTERN PUBLIC SERVICE COMPANY | Texas Industrial Energy Consumers                  | 51802          | Cross-Rebuttal | TX               | Cost Allocation; Production Tax Credits;<br>Radial Lines; Load Dispatching Expenses;<br>Uncollectible Expense; Class Revenue<br>Allocation; LGS-T Rate Design | 9/14/2021             |
| GEORGIA POWER COMPANY               | Georgia Association of Manufacturers               | 43838          | Direct         | GA               | Vogtle Unit 3 Rate Increase                                                                                                                                   | 9/9/2021              |
| SOUTHWESTERN PUBLIC SERVICE COMPANY | Occidental Permian Ltd.                            | 21-00172-UT    | Direct         | NM               | RPS Financial Incentive                                                                                                                                       | 9/3/2021              |
| SOUTHWESTERN PUBLIC SERVICE COMPANY | Texas Industrial Energy Consumers                  | 51802          | Direct         | TX               | Class Cost-of-Service Study; Class<br>Revenue Allocation; LGS-T Rate Design                                                                                   | 8/13/2021             |
| SOUTHWESTERN PUBLIC SERVICE COMPANY | Texas Industrial Energy Consumers                  | 51802          | Direct         | TX               | Schedule 11 Expenses; Jurisdictional Cost<br>Allocation; Abandoned Generation Assets                                                                          | 8/13/2021             |
| ENTERGY TEXAS, INC.                 | Texas Industrial Energy Consumers                  | 51997          | Direct         | TX               | Storm Restoration Cost Allocation and Rate Design                                                                                                             | 8/6/2021              |
| PECO ENERGY COMPANY                 | Philadelphia Area Industrial Energy Users Group    | R-2021-3024601 | Surrebuttal    | PA               | Class Cost-of-Service Study; Revenue<br>Allocation                                                                                                            | 8/5/2021              |
| PECO ENERGY COMPANY                 | Philadelphia Area Industrial Energy Users Group    | R-2021-3024601 | Rebuttal       | PA               | Class Cost-of-Service Study; Revenue<br>Allocation; Universal Service Costs                                                                                   | 7/22/2021             |
| SOUTHWESTERN PUBLIC SERVICE COMPANY | Occidental Permian Ltd.                            | 20-00238-UT    | Supplemental   | NM               | Settlement Support of Class Cost-of-<br>Service Study; Rate Desgin; Revenue<br>Requirement.                                                                   | 7/1/2021              |
| PECO ENERGY COMPANY                 | Philadelphia Area Industrial Energy Users Group    | R-2021-3024601 | Direct         | PA               | Class Cost-of-Service Study; Revenue<br>Allocation                                                                                                            | 6/28/2021             |
| DTE GAS COMPANY                     | Association of Businesses Advocating Tariff Equity | U-20940        | Rebuttal       | MI               | Allocation of Uncollectible Expense                                                                                                                           | 6/23/2021             |



| UTILITY                             | ON BEHALF OF                                       | DOCKET                | TYPE                   | STATE / PROVINCE | SUBJECT                                                                                                                                                                                     | DATE       |
|-------------------------------------|----------------------------------------------------|-----------------------|------------------------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| FLORIDA POWER & LIGHT COMPANY       | Florida Industrial Power Users Group               | 20210015-EI           | Direct                 | FL               | Four-Year Rate Plan; Reserve Surplus;<br>Solar Base Rate Adjustments; Class Cost-<br>of-Service Study; Class Revenue<br>Allocation; CILC/CDR Credits                                        | 6/21/2021  |
| ENTERGY ARKANSAS, LLC               | Arkansas Electric Energy Consumers, Inc.           | 20-067-U              | Surrebuttal            | AR               | Certificate of Environmental Compatibility and Public Need                                                                                                                                  | 6/17/2021  |
| SOUTHWESTERN PUBLIC SERVICE COMPANY | Occidental Permian Ltd.                            | 20-00238-UT           | Rebuttal               | NM               | Rate Design                                                                                                                                                                                 | 6/9/2021   |
| DTE GAS COMPANY                     | Association of Businesses Advocating Tariff Equity | U-20940               | Direct                 | MI               | Class Cost-of-Service Study; Rate Design                                                                                                                                                    | 6/3/2021   |
| SOUTHWESTERN ELECTRIC POWER COMPANY | Texas Industrial Energy Consumers                  | 51415                 | Supplemental<br>Direct | TX               | Retail Behind-The-Meter-Generation; Class<br>Cost of Service Study; Class Revenue<br>Allocation; LGS-T Rate Design; Time-of-<br>Use Fuel Rate                                               | 5/17/2021  |
| SOUTHWESTERN PUBLIC SERVICE COMPANY | Occidental Permian Ltd.                            | 20-00238-UT           | Direct                 | NM               | Class Cost-of-Service Study; Class<br>Revenue Allocation, LGS-T Rate Design,<br>TOU Fuel Charge                                                                                             | 5/17/2021  |
| ENTERGY ARKANSAS, LLC               | Arkansas Electric Energy Consumers, Inc.           | 20-067-U              | Direct                 | AR               | Certificate of Environmental Compatibility and Public Need                                                                                                                                  | 5/6/2021   |
| SOUTHWESTERN PUBLIC SERVICE COMPANY | Texas Industrial Energy Consumers                  | 51625                 | Direct                 | TX               | Fuel Factor Formula; Time Differentiated Costs; Time-of-Use Fuel Factor                                                                                                                     | 4/5/2021   |
| SOUTHWESTERN ELECTRIC POWER COMPANY | Texas Industrial Energy Consumers                  | 51415                 | Direct                 | TX               | ATC Tracker, Behind-The-Meter<br>Generation; Class Cost-of-Service Study;<br>Class Revenue Allocation; Large Lighting<br>and Power Rate Design; Synchronous Self-<br>Generation Load Charge | 3/31/2021  |
| ENTERGY TEXAS, INC.                 | Texas Industrial Energy Consumers                  | 51215                 | Direct                 | TX               | Certificate of Convenience and Necessity for the Liberty County Solar Facility                                                                                                              | 3/5/2021   |
| SOUTHWESTERN ELECTRIC POWER COMPANY | Texas Industrial Energy Consumers                  | 50997                 | Cross Rebuttal         | TX               | Rate Case Expenses                                                                                                                                                                          | 1/28/2021  |
| PPL ELECTRIC UTILITIES CORPORATION  | PPL Industrial Customer Alliance                   | M-2020-3020824        | Supplemental           | PA               | Energy Efficiency and Conservation Plan                                                                                                                                                     | 1/27/2021  |
| CENTRAL HUDSON GAS & ELECTRIC       | Multiple Intervenors                               | 20-E-0428 / 20-G-0429 | Rebuttal               | NY               | Distribution cost classification; revised<br>Electric Embedded Cost-of-Service Study;<br>revised Distribution Mains Study                                                                   | 1/22/2020  |
| MIDAMERICAN ENERGY COMPANY          | Tech Customers                                     | EPB-2020-0156         | Reply                  | IA               | Emissions Plan                                                                                                                                                                              | 1/21/2021  |
| SOUTHWESTERN ELECTRIC POWER COMPANY | Texas Industrial Energy Consumers                  | 50997                 | Direct                 | TX               | Disallowance of Unreasonable Mine<br>Development Costs; Amortization of Mine<br>Closure Costs; Imputed Capacity                                                                             | 1/7/2021   |
| CENTRAL HUDSON GAS & ELECTRIC       | Multiple Intervenors                               | 20-E-0428 / 20-G-0429 | Direct                 | NY               | Electric and Gas Embedded Cost of<br>Service; Class Revenue Allocation; Rate<br>Design; Revenue Decoupling Mechanism                                                                        | 12/22/2020 |
| NIAGARA MOHAWK POWER CORP.          | Multiple Intervenors                               | 20-E-0380 / 20-G-0381 | Rebuttal               | NY               | AMI Cost Allocation Framework                                                                                                                                                               | 12/16/2020 |



| UTILITY                                | ON BEHALF OF                                              | DOCKET                | TYPE         | STATE / PROVINCE | SUBJECT                                                                                                                                                                       | DATE       |
|----------------------------------------|-----------------------------------------------------------|-----------------------|--------------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| ENTERGY TEXAS, INC.                    | Texas Industrial Energy Consumers                         | 51381                 | Direct       | TX               | Generation Cost Recovery Rider                                                                                                                                                | 12/8/2020  |
| NIAGARA MOHAWK POWER CORP.             | Multiple Intervenors                                      | 20-E-0380 / 20-G-0381 | Direct       | NY               | Electric and Gas Embedded Cost of<br>Service; Class Revenue Allocation; Rate<br>Design; Earnings Adjustment Mechanism;<br>Advanced Metering Infrastructure Cost<br>Allocation | 11/25/2020 |
| LUBBOCK POWER & LIGHT                  | Texas Industrial Energy Consumers                         | 51100                 | Direct       | TX               | Test Year; Wholesale Transmission Cost of Service and Rate Design                                                                                                             | 11/6/2020  |
| CONSUMERS ENERGY COMPANY               | Association of Businesses Advocating Tariff Equity        | U-20889               | Direct       | MI               | Scheduled Lives, Cost Allocation and Rate Design of Securitization Bonds                                                                                                      | 10/30/2020 |
| CHEYENNE LIGHT, FUEL AND POWER COMPANY | HollyFrontier Cheyenne Refining LLC                       | 20003-194-EM-20       | Cross-Answer | WY               | PCA Tariff                                                                                                                                                                    | 10/16/2020 |
| SOUTHWESTERN PUBLIC SERVICE COMPANY    | Occidental Permian Ltd.                                   | 20-00143              | Direct       | NM               | RPS Incentives; Reassignment of non-<br>jurisdictional PPAs                                                                                                                   | 9/11/2020  |
| ROCKY MOUNTAIN POWER                   | Wyoming Industrial Energy Consumers                       | 20000-578-ER-20       | Cross        | WY               | Time-of-Use period definitions; ECAM<br>Tracking of Large Customer Pilot<br>Programs                                                                                          | 9/11/2020  |
| ROCKY MOUNTAIN POWER                   | Wyoming Industrial Energy Consumers                       | 20000-578-ER-20       | Direct       | WY               | Class Cost-of-Service Study; Time-of-Use<br>period definitions; Interruptible Service and<br>Real-Time Day Ahead Pricing pilot<br>programs                                    | 8/7/2020   |
| ENTERGY TEXAS, INC.                    | Texas Industrial Energy Consumers                         | 50790                 | Direct       | TX               | Hardin Facility Acquisition                                                                                                                                                   | 7/27/2020  |
| PHILADELPHIA GAS WORKS                 | Philadelphia Industrial and Commercial Gas<br>Users Group | 2020-3017206          | Surrebuttal  | PA               | Interruptible transportation tariff; Allocation of Distribution Mains; Universal Service and Energy Conservations; Gradualism                                                 | 7/24/2020  |
| CONSUMERS ENERGY COMPANY               | Association of Businesses Advocating Tariff Equity        | U-20697               | Rebuttal     | MI               | Energy Weighting, Treatment of<br>Interruptible Load; Allocation of Distribution<br>Capacity Costs; Allocation of CVR Costs                                                   | 7/14/2020  |
| PHILADELPHIA GAS WORKS                 | Philadelphia Industrial and Commercial Gas<br>Users Group | 2020-3017206          | Rebuttal     | PA               | Distribution Main Allocation; Design Day<br>Demand; Class Revenue Allocation;<br>Balancing Provisions                                                                         | 7/13/2020  |
| PECO ENERGY COMPANY                    | Philadelphia Area Industrial Energy Users Group           | 2020-3019290          | Rebuttal     | PA               | Network Integration Transmission Service Costs                                                                                                                                | 7/9/2020   |
| CONSUMERS ENERGY COMPANY               | Association of Businesses Advocating Tariff Equity        | U-20697               | Direct       | MI               | Class Cost-of-Service Study;Financial<br>Compensation Method; General<br>Interruptible Service Credit                                                                         | 6/24/2020  |
| PHILADELPHIA GAS WORKS                 | Philadelphia Industrial and Commercial Gas<br>Users Group | 2020-3017206          | Direct       | PA               | Class Cost-of-Service Study; Class<br>Revenue Allocation; Rate Design                                                                                                         | 6/15/2020  |
| CONSUMERS ENERGY COMPANY               | Association of Businesses Advocating Tariff Equity        | U-20650               | Rebuttal     | МІ               | Distribution Mains Classification and Allocation                                                                                                                              | 5/5/2020   |



| UTILITY                             | ON BEHALF OF                                                         | DOCKET          | TYPE       | STATE / PROVINCE | SUBJECT                                                                                                                                         | DATE       |
|-------------------------------------|----------------------------------------------------------------------|-----------------|------------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| GEORGIA POWER COMPANY               | Georgia Association of Manufacturers and<br>Georgia Industrial Group | 43011           | Direct     | GA               | Fuel Cost Recovery Natural Gas Price<br>Assumptions                                                                                             | 5/1/2020   |
| CONSUMERS ENERGY COMPANY            | Association of Businesses Advocating Tariff Equity                   | U-20650         | Direct     | MI               | Class Cost-of-Service Study;<br>Transportation Rate Design; Gas Demand<br>Response Pilot Program; Industry<br>Association Dues                  | 4/14/2020  |
| ROCKY MOUNTAIN POWER                | Wyoming Industrial Energy Consumers                                  | 90000-144-XI-19 | Direct     | WY               | Coal Retirement Studies and IRP<br>Scenarios                                                                                                    | 4/1/2020   |
| DTE GAS COMPANY                     | Association of Businesses Advocating Tariff Equity                   | U-20642         | Direct     | MI               | Class Cost-of-Service Study; Class<br>Revenue Allocation; Infrastructure<br>Recovery Mechanism; Industry Association<br>Dues                    | 3/24/2020  |
| SOUTHWESTERN PUBLIC SERVICE COMPANY | Texas Industrial Energy Consumers                                    | 49831           | Cross      | TX               | Radial Transmission Lines; Allocation of<br>Transmission Costs; SPP Administrative<br>Fees; Load Dispatching Expenses;<br>Uncollectible Expense | 3/10/2020  |
| SOUTHWESTERN PUBLIC SERVICE COMPANY | Occidental Permian Ltd.                                              | 19-00315-UT     | Direct     | NM               | Time-Differentiated Fuel Factor                                                                                                                 | 3/6/2020   |
| SOUTHERN PIONEER ELECTRIC COMPANY   | Western Kansas Industrial Electric Consumers                         | 20-SPEE-169-RTS | Direct     | KS               | Class Revenue Allocation                                                                                                                        | 3/2/2020   |
| SOUTHWESTERN PUBLIC SERVICE COMPANY | Texas Industrial Energy Consumers                                    | 49831           | Direct     | TX               | Schedule 11 Expenses; Depreciation<br>Expense (Rev. Req. Phase Testimony)                                                                       | 2/10/2020  |
| SOUTHWESTERN PUBLIC SERVICE COMPANY | Texas Industrial Energy Consumers                                    | 49831           | Direct     | TX               | Class-Cost-of-Service Study; Class<br>Revenue Allocation; Rate Design (Rate<br>Design Phase Testimony)                                          | 2/10/2020  |
| SOUTHWESTERN PUBLIC SERVICE COMPANY | Occidental Permian Ltd.                                              | 19-00134-UT     | Direct     | NM               | Renewable Portfolio Standard Rider                                                                                                              | 2/5/2020   |
| SOUTHWESTERN PUBLIC SERVICE COMPANY | Occidental Permian Ltd.                                              | 19-00170-UT     | Settlement | NM               | Settlement Support of Rate Design, Cost<br>Allocation and Revenue Requirement                                                                   | 1/20/2020  |
| SOUTHWESTERN ELECTRIC POWER COMPANY | Texas Industrial Energy Consumers                                    | 49737           | Direct     | TX               | Certificate of Convenience and Necessity                                                                                                        | 1/14/2020  |
| SOUTHWESTERN PUBLIC SERVICE COMPANY | Occidental Permian Ltd.                                              | 19-00170-UT     | Rebuttal   | NM               | Class Cost-of-Service Study; Class<br>Revenue Allocation                                                                                        | 12/20/2019 |
| ALABAMA POWER COMPANY               | Alabama Industrial Energy Consumers                                  | 32953           | Direct     | AL               | Certificate of Convenience and Necessity                                                                                                        | 12/4/2019  |
| SOUTHWESTERN PUBLIC SERVICE COMPANY | Occidental Permian Ltd.                                              | 19-00170-UT     | Direct     | NM               | Class Cost-of-Service Study; Class<br>Revenue Allocation; Rate Design                                                                           | 11/22/2019 |
| SOUTHWESTERN PUBLIC SERVICE COMPANY | Texas Industrial Energy Consumers                                    | 49616           | Cross      | TX               | Contest proposed changes in the Fuel Factor Formula                                                                                             | 10/17/2019 |
| GEORGIA POWER COMPANY               | Georgia Association of Manufacturers and<br>Georgia Industrial Group | 42516           | Direct     | GA               | Return on Equity; Capital Structure; Coal<br>Combustion Residuals Recovery; Class<br>Revenue Allocation; Rate Design                            | 10/17/2019 |



| UTILITY                                                                                 | ON BEHALF OF                                       | DOCKET                                         | TYPE             | STATE / PROVINCE | SUBJECT                                                                                                                                               | DATE       |
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| NEW YORK STATE ELECTRIC & GAS CORPORATION<br>and ROCHESTER GAS AND ELECTRIC CORPORATION | Multiple Intervenors                               | 19-E-0378 / 19-G-0379<br>19-E-0380 / 19-G-0381 | Rebuttal         | NY               | Electric and Gas Embedded Cost of<br>Service; Class Revenue Allocation; Rate<br>Design                                                                | 10/15/2019 |
| NEW YORK STATE ELECTRIC & GAS CORPORATION and ROCHESTER GAS AND ELECTRIC CORPORATION    | Multiple Intervenors                               | 19-E-0378 / 19-G-0379<br>19-E-0380 / 19-G-0381 | Direct           | NY               | Electric and Gas Embedded Cost of<br>Service; Class Revenue Allocation; Rate<br>Design; Amortization of Regulatory<br>Liabilties; AMI Cost Allocation | 9/20/2019  |
| AEP TEXAS INC.                                                                          | Texas Industrial Energy Consumers                  | 49494                                          | Cross-Rebuttal   | TX               | ERCOT 4CPs; Class Revenue Allocation;<br>Customer Support Costs                                                                                       | 8/13/2019  |
| AEP TEXAS INC.                                                                          | Texas Industrial Energy Consumers                  | 49494                                          | Direct           | TX               | Class Cost-of-Service Study; Class<br>Revenue Allocation; Rate Design;<br>Transmission Line Extensions                                                | 7/25/2019  |
| CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC                                                | Texas Industrial Energy Consumers                  | 49421                                          | Cross-Rebuttal   | TX               | Class Cost-of-Service Study                                                                                                                           | 6/19/2019  |
| CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC                                                | Texas Industrial Energy Consumers                  | 49421                                          | Direct           | TX               | Class Cost-of-Service Study; Rate Design;<br>Transmission Service Facilities Extensions                                                               | 6/6/2019   |
| SOUTHWESTERN PUBLIC SERVICE COMPANY                                                     | Texas Industrial Energy Consumers                  | 48973                                          | Direct           | TX               | Prudence of Solar PPAs, Imputed<br>Capacity, treatment of margins from Off-<br>System Sales                                                           | 5/21/2019  |
| CONSUMERS ENERGY COMPANY                                                                | Association of Businesses Advocating Tariff Equity | U-20322                                        | Rebuttal         | MI               | Classification of Distribution Mains;<br>Allocation of Working Gas in Storage and<br>Storage                                                          | 4/29/2019  |
| CONSUMERS ENERGY COMPANY                                                                | Association of Businesses Advocating Tariff Equity | U-20322                                        | Direct           | MI               | Class Cost-of-Service Study;<br>Transportation Rate Design                                                                                            | 4/5/2019   |
| SOUTHWESTERN ELECTRIC POWER COMPANY                                                     | Texas Industrial Energy Consumers                  | 49042                                          | Cross-Rebuttal   | TX               | Transmsision Cost Recovery Factor                                                                                                                     | 3/21/2019  |
| ENTERGY TEXAS, INC.                                                                     | Texas Industrial Energy Consumers                  | 49057                                          | Direct           | TX               | Transmsision Cost Recovery Factor                                                                                                                     | 3/18/2019  |
| DUKE ENERGY PROGRESS, LLC                                                               | Nucor Steel - South Carolina                       | 2018-318-E                                     | Direct           | SC               | Class Cost-of-Service Study, Class<br>Revenue Allocation, LGS Rate Design,<br>Depreciation Expense                                                    | 3/4/2019   |
| ENTERGY ARKANSAS, LLC                                                                   | Arkansas Electric Energy Consumers, Inc.           | 18-037                                         | Settlement       | AR               | Testimony in Support of Settlement                                                                                                                    | 3/1/2019   |
| ENERGY+ INC.                                                                            | Toyota Motor Manufacturing Canada                  | EB-2018-0028                                   | Updated Evidence | ON               | Class Cost-of-Service Study, Distribution and Standby Distribution Rate Design                                                                        | 2/15/2019  |
| ENTERGY ARKANSAS, LLC                                                                   | Arkansas Electric Energy Consumers, Inc.           | 18-037                                         | Surrebuttal      | AR               | Solar Energy Purchase Option Tariff                                                                                                                   | 2/14/2019  |
| SOUTHWESTERN PUBLIC SERVICE COMPANY                                                     | Texas Industrial Energy Consumers                  | 48847                                          | Direct           | TX               | Fuel Factor Formulas                                                                                                                                  | 1/11/2019  |
| ENTERGY ARKANSAS, LLC                                                                   | Arkansas Electric Energy Consumers, Inc.           | 18-037                                         | Direct           | AR               | Solar Energy Purchase Option Tariff                                                                                                                   | 1/10/2019  |
| CONSUMERS ENERGY COMPANY                                                                | Association of Businesses Advocating Tariff Equity | U-20165                                        | Direct           | MI               | Integrated Resources Plan; Projected Rate Impact, Risk Assessment; Early Retirement of Coal Units; Financial Compensation Mechanism                   | 10/15/2018 |



| UTILITY                             | ON BEHALF OF                                          | DOCKET          | TYPE             | STATE / PROVINCE | SUBJECT                                                                                                                     | DATE      |
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| CONSUMERS ENERGY COMPANY            | Association of Businesses Advocating Tariff<br>Equity | U-20134         | Rebuttal         | MI               | Class Cost-of-Service Study; Average<br>Historical Profile; Distribution Cost<br>Classification and Allocation; Rate Design | 10/1/2018 |
| ENERGY+ INC.                        | Toyota Motor Manufacturing Canada                     | EB-2018-0028    | Initial Evidence | ON               | Class Cost-of-Service Study, Distribution and Standby Distribution Rate Design                                              | 9/27/2018 |
| CONSUMERS ENERGY COMPANY            | Association of Businesses Advocating Tariff Equity    | U-20134         | Direct           | MI               | Investment Recovery Mechanism, Litigation surcharge, Class Cost-of-Service Study, Class Revenue Allocation, Rate Design     | 9/10/2018 |
| KANSAS GAS AND ELECTRIC COMPANY     | Occidental Chemical Corporation                       | 18-KG&E-303-CON | Rebuttal         | KS               | Benefits of the Interruptible Load Provided in the Special Contract                                                         | 8/29/2018 |
| TEXAS-NEW MEXICO POWER COMPANY      | Texas Industrial Energy Consumers                     | 48401           | Cross-Rebuttal   | TX               | 4CP Moderation Adjustment                                                                                                   | 8/28/2018 |
| ENTERGY TEXAS, INC.                 | Texas Industrial Energy Consumers                     | 48371           | Cross-Rebuttal   | TX               | Class Cost-of-Service Study; Schedule FERC                                                                                  | 8/16/2018 |
| TEXAS-NEW MEXICO POWER COMPANY      | Texas Industrial Energy Consumers                     | 48401           | Direct           | TX               | Tax Cuts and Jobs Act; Rider TCRF; 4CP Moderation Adjustment                                                                | 8/13/2018 |
| PECO ENERGY COMPANY                 | Philadelphia Area Industrial Energy Users Group       | 2018-3000164    | Surrebuttal      | PA               | Post Test-Year Adjustment; Tax Cuts and Jobs Act; Class Cost-of-Service Study; Distribution System Improvement Charge       | 8/8/2018  |
| ENTERGY TEXAS, INC.                 | Texas Industrial Energy Consumers                     | 48371           | Direct           | TX               | Revenue Requirements; Tax Cuts and Jobs Act; Riders                                                                         | 8/1/2018  |
| ENTERGY TEXAS, INC.                 | Texas Industrial Energy Consumers                     | 48371           | Direct           | TX               | Class Cost-of-Service Study; Firm,<br>Interruptible and Standby Rate Design                                                 | 8/1/2018  |
| PECO ENERGY COMPANY                 | Philadelphia Area Industrial Energy Users Group       | 2018-3000164    | Rebuttal         | PA               | Class Cost-of-Service Study; Class<br>Revenue Allocation                                                                    | 7/24/2018 |
| SOUTHWESTERN ELECTRIC POWER COMPANY | Texas Industrial Energy Consumers                     | 48233           | Cross-Rebuttal   | TX               | Allocation of TCJA reduction                                                                                                | 7/19/2018 |
| SOUTHWESTERN ELECTRIC POWER COMPANY | Texas Industrial Energy Consumers                     | 48233           | Direct           | TX               | Allocation of TCJA reduction                                                                                                | 7/5/2018  |
| PECO ENERGY COMPANY                 | Philadelphia Area Industrial Energy Users Group       | 2018-3000164    | Direct           | PA               | Post Test-Year Adjustment; Tax Cuts and<br>Jobs Act; Class Cost-of-Service Study;<br>Class Revenue Allocation               | 6/26/2018 |
| SOUTHWESTERN PUBLIC SERVICE COMPANY | Texas Industrial Energy Consumers                     | 47527           | Cross-Rebuttal   | TX               | Class Cost-of-Service Study; Revenue<br>Allocation                                                                          | 5/22/2018 |
| SOUTHWESTERN PUBLIC SERVICE COMPANY | Occidental Permian Ltd.                               | 17-00255-UT     | Rebuttal         | NM               | Class Cost-of-Service Study; Revenue<br>Allocation                                                                          | 5/2/2018  |
| ENTERGY ARKANSAS, INC.              | Arkansas Electric Energy Consumers, Inc.              | 17-041          | Stipulation      | AR               | Support of Stipulation                                                                                                      | 4/27/2018 |
| SOUTHWESTERN PUBLIC SERVICE COMPANY | Texas Industrial Energy Consumers                     | 47527           | Direct           | TX               | Present Base Revenues<br>Class Cost-of-Service Study; Class<br>Revenue Allocation; Rate Design                              | 4/25/2018 |



| UTILITY                                                                                                                  | ON BEHALF OF                                       | DOCKET                                                       | TYPE                       | STATE / PROVINCE | SUBJECT                                                                                                                                                    | DATE       |
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| SOUTHWESTERN PUBLIC SERVICE COMPANY                                                                                      | Texas Industrial Energy Consumers                  | 47527                                                        | Direct                     | TX               | Tax Cuts and Jobs Act; SPP Transmission<br>and Wheeling Costs; Depreciation Rate;<br>LLPPAs; Imputed Capacity; Off-System<br>Sales Margins                 | 4/25/2018  |
| SOUTHWESTERN PUBLIC SERVICE COMPANY                                                                                      | Occidental Permian Ltd.                            | 17-00255-UT                                                  | Direct                     | NM               | Class Cost-of-Service Study; Revenue<br>Requirements; Revenue Allocation                                                                                   | 4/13/2018  |
| ENTERGY ARKANSAS, INC.                                                                                                   | Arkansas Electric Energy Consumers, Inc.           | 17-041                                                       | Surrebuttal                | AR               | Certificate of Convenience and Necessity                                                                                                                   | 4/6/2018   |
| METROPOLITAN EDISON COMPANY; PENNSYLVANIA<br>ELECTRIC COMPANY, PENNSYLVANIA POWER<br>COMPANY AND WEST PENN POWER COMPANY | MEIUG, PICA and WPPII                              | 2017-2637855<br>2017-2637857<br>2017-2637858<br>2017-2637866 | Rebuttal                   | PA               | Recovery of NITS Charges                                                                                                                                   | 3/22/2018  |
| SOUTHWESTERN PUBLIC SERVICE COMPANY                                                                                      | Texas Industrial Energy Consumers                  | 46936                                                        | 2nd Supplemental<br>Direct | TX               | Support of Stipulation                                                                                                                                     | 3/2/2018   |
| CONSUMERS ENERGY COMPANY                                                                                                 | Association of Businesses Advocating Tariff Equity | U-18424                                                      | Direct                     | MI               | Class Cost of Service                                                                                                                                      | 2/28/2018  |
| ENTERGY ARKANSAS, INC.                                                                                                   | Arkansas Electric Energy Consumers, Inc.           | 17-041                                                       | Direct                     | AR               | Certificate of Convenience and Necessity                                                                                                                   | 2/23/2018  |
| SOUTHWESTERN ELECTRIC POWER COMPANY                                                                                      | Texas Industrial Energy Consumers                  | 47553                                                        | Direct                     | TX               | Off-System Sales Margins; Renewable<br>Energy Credits                                                                                                      | 2/20/2018  |
| SOUTHWESTERN ELECTRIC POWER COMPANY                                                                                      | Texas Industrial Energy Consumers                  | 47461                                                        | 2nd Supplemental<br>Direct | TX               | Certificate of Convenience and Necessity                                                                                                                   | 2/7/2018   |
| SOUTHWESTERN ELECTRIC POWER COMPANY                                                                                      | Texas Industrial Energy Consumers                  | 47461                                                        | Supplemental<br>Direct     | TX               | Certificate of Convenience and Necessity                                                                                                                   | 1/4/2018   |
| CENTRAL HUDSON GAS & ELECTRIC                                                                                            | Multiple Intervenors                               | 17-E-0459/G-0460                                             | Rebuttal                   | NY               | Electric and Gas Embedded Class Cost of<br>Service; Class Revenue Allocation; Gas<br>Rate Design; Revenue Decoupling<br>Mechanism                          | 12/18/2017 |
| SOUTHWESTERN PUBLIC SERVICE COMPANY                                                                                      | Occidental Permian Ltd.                            | 17-00044-UT                                                  | Supplemental<br>Direct     | NM               | Support of Unanimous Comprehensive Stipulation                                                                                                             | 12/11/2017 |
| SOUTHWESTERN ELECTRIC POWER COMPANY                                                                                      | Texas Industrial Energy Consumers                  | 47461                                                        | Direct                     | TX               | Certificate of Convenience and Necessity                                                                                                                   | 12/4/2017  |
| CENTRAL HUDSON GAS & ELECTRIC                                                                                            | Multiple Intervenors                               | 17-E-0459/G-0460                                             | Direct                     | NY               | Electric and Gas Embedded Class Cost of<br>Service; Class Revenue Allocation;<br>Customer Charges; Revenue Decoupling<br>Mechanism; Carbon Program and EAM | 11/21/2017 |
| SOUTHWESTERN PUBLIC SERVICE COMPANY                                                                                      | Occidental Permian Ltd.                            | 17-00044-UT                                                  | Direct                     | NM               | Certificate of Convenience and Necessity                                                                                                                   | 10/24/2017 |
| SOUTHWESTERN PUBLIC SERVICE COMPANY                                                                                      | Texas Industrial Energy Consumers                  | 46936                                                        | Cross-Rebuttal             | TX               | Certificate of Convenience and Necessity                                                                                                                   | 10/23/2017 |
| SOUTHWESTERN PUBLIC SERVICE COMPANY                                                                                      | Texas Industrial Energy Consumers                  | 46936                                                        | Supplemental<br>Direct     | TX               | Certificate of Convenience and Necessity                                                                                                                   | 10/6/2017  |



| UTILITY                                                                                | ON BEHALF OF                                       | DOCKET                | TYPE                   | STATE / PROVINCE | SUBJECT                                                                                                                                                    | DATE      |
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| KENTUCKY POWER COMPANY                                                                 | Kentucky League of Cities                          | 2017-00179            | Direct                 | KY               | Class Cost-of-Service Study; Class<br>Revenue Allocation                                                                                                   | 10/3/2017 |
| SOUTHWESTERN PUBLIC SERVICE COMPANY                                                    | Texas Industrial Energy Consumers                  | 46936                 | Direct                 | TX               | Certificate of Convenience and Necessity                                                                                                                   | 10/2/2017 |
| NIAGARA MOHAWK POWER CORP.                                                             | Multiple Intervenors                               | 17-E-0238 / 17-G-0239 | Rebuttal               | NY               | Electric/Gas Embedded Class Cost of<br>Service; Class Revenue Allocation;<br>Electric/Gas Rate Design                                                      | 9/15/2017 |
| CONSUMERS ENERGY COMPANY                                                               | Association of Businesses Advocating Tariff Equity | U-18322               | Rebuttal               | MI               | Class Cost-of-Service Study, Rate Design                                                                                                                   | 9/7/2017  |
| PENNSYLVANIA-AMERICAN WATER COMPANY                                                    | Pennsylvania-American Water Large Users Group      | R-2017-2595853        | Rebuttal               | PA               | Rate Design                                                                                                                                                | 8/31/2017 |
| NIAGARA MOHAWK POWER CORP.                                                             | Multiple Intervenors                               | 17-E-0238 / 17-G-0239 | Direct                 | NY               | Electric/Gas Embedded Class Cost of<br>Service; Class Revenue Allocation;<br>Electric/Gas Rate Design, Electric/Gas<br>Rate Modifiers, AMI Cost Allocation | 8/25/2017 |
| CONSUMERS ENERGY COMPANY                                                               | Association of Businesses Advocating Tariff Equity | U-18322               | Direct                 | MI               | Revenue Requirement, Class Cost-of-<br>Service Study, Rate Design                                                                                          | 8/10/2017 |
| FLORIDA POWER & LIGHT COMPANY, DUKE ENERGY<br>FLORIDA, LLC, AND TAMPA ELECTRIC COMPANY | Florida Industrial Power Users Group               | 170057                | Direct                 | FL               | Fuel Hedging Practices                                                                                                                                     | 8/10/2017 |
| SOUTHWESTERN ELECTRIC POWER COMPANY                                                    | Texas Industrial Energy Consumers                  | 46449                 | Cross-Rebuttal         | TX               | Class Revenue Allocation and Rate Design                                                                                                                   | 5/19/2017 |
| SOUTHWESTERN ELECTRIC POWER COMPANY                                                    | Texas Industrial Energy Consumers                  | 46449                 | Direct                 | TX               | Revenue Requirement, Class Cost-of-<br>Service Study, Class Revenue Allocation<br>and Rate Design                                                          | 4/25/2017 |
| KENTUCKY UTILITIES COMPANY                                                             | Kentucky League of Cities                          | 2016-00370            | Supplemental<br>Direct | KY               | Class Cost-of-Service Study; Class<br>Revenue Allocation                                                                                                   | 4/14/2017 |
| ENTERGY TEXAS, INC.                                                                    | Texas Industrial Energy Consumers                  | 46416                 | Direct                 | TX               | Certificate of Convenience and Necessity -<br>Montgomery County Power Station                                                                              | 3/31/2017 |
| SHARYLAND UTILITIES, L.P.                                                              | Texas Industrial Energy Consumers                  | 45414                 | Cross-Rebuttal         | TX               | Cost Allocation Issues; Class Revenue<br>Allocation                                                                                                        | 3/16/2017 |
| ENTERGY LOUISIANA, LLC                                                                 | Occidental Chemical Corporation                    | U-34283               | Direct*                | LA               | Approval to Construct Lake Charles Power Station                                                                                                           | 3/13/2017 |
| LOUISVILLE GAS AND ELECTRIC COMPANY                                                    | Louisville/Jefferson Metro Government              | 2016-00371            | Direct                 | KY               | Revenue Requirement Issues; Class Cost-<br>of-Service Study Electric/Gas; Class<br>Revenue Allocation Electric/Gas                                         | 3/3/2017  |
| KENTUCKY UTILITIES COMPANY                                                             | Kentucky League of Cities                          | 2016-00370            | Direct                 | KY               | Revenue Requirement Issues; Class Cost-<br>of-Service Study; Class Revenue Allocation                                                                      | 3/3/2017  |
| SHARYLAND UTILITIES, L.P.                                                              | Texas Industrial Energy Consumers                  | 45414                 | Direct                 | TX               | Class Cost-of-Service Study; Class<br>Revenue Allocation; Rate Design; TCRF<br>Allocation Factors; McAllen Division<br>Deferrals                           | 2/28/2017 |



| UTILITY                                                                           | ON BEHALF OF                                 | DOCKET                                       | TYPE           | STATE / PROVINCE | SUBJECT                                                                                                                                           | DATE       |
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| SOUTHWESTERN PUBLIC SERVICE COMPANY                                               | Texas Industrial Energy Consumers            | 46025                                        | Direct         | TX               | Long-Term Purchased Power Agreements                                                                                                              | 12/12/2016 |
| SOUTHWESTERN FOBEIC SERVICE COMPANY                                               | Texas industrial Energy Consumers            | 40023                                        | Direct         | 17               | Long-Term Furchased Fower Agreements                                                                                                              | 12/12/2010 |
| NORTHERN STATES POWER COMPANY                                                     | Xcel Large Industrials                       | 15-826                                       | Surrebuttal    | MN               | Settlement, Cost-of-Service Study, Class<br>Revenue Allocation, Interruptible Rates,<br>Renew-A-Source                                            | 10/18/2016 |
| NORTHERN STATES POWER COMPANY                                                     | Xcel Large Industrials                       | 15-826                                       | Rebuttal       | MN               | Class Cost-of-Service Study, Class<br>Revenue Allocation                                                                                          | 9/23/2016  |
| VICTORY ELECTRIC COOPERATION ASSOCIATION, INC.                                    | Western Kansas Industrial Electric Consumers | 16-VICE-494-TAR                              | Surrebuttal    | KS               | Formula-Based Rate Plan                                                                                                                           | 9/22/2016  |
| NATIONAL FUEL GAS DISTRIBUTION CORPORATION                                        | Multiple Intervenors                         | 16-G-0257                                    | Rebuttal       | NY               | Embedded Class Cost of Service; Class<br>Revenue Allocation; Rate Design                                                                          | 9/16/2016  |
| SOUTHWESTERN PUBLIC SERVICE COMPANY                                               | Texas Industrial Energy Consumers            | 45524                                        | Cross-Rebuttal | TX               | Class Cost-of-Service Study;                                                                                                                      | 9/7/2016   |
| METROPOLITAN EDISON COMPANY; PENNSYLVANIA<br>ELECTRIC COMPANY AND WEST PENN POWER | MEIUG, PICA and WPPII                        | 2016-2537349<br>2016-2537352<br>2016-2537359 | Surrebuttal    | PA               | Post-Test Year Sales Adjustment; Class<br>Cost-of-Service Study; Class Revenue<br>Allocation; Rate Design                                         | 8/31/2016  |
| VICTORY ELECTRIC COOPERATION ASSOCIATION, INC.                                    | Western Kansas Industrial Electric Consumers | 16-VICE-494-TAR                              | Direct         | KS               | Formula-Based Rate Plan                                                                                                                           | 8/30/2016  |
| WESTERN COOPERATIVE ELECTRIC ASSOCIATION, INC.                                    | Western Kansas Industrial Electric Consumers | 16-WSTE-496-TAR                              | Direct         | KS               | Formula-Based Rate Plan and Debt<br>Service Payments                                                                                              | 8/30/2016  |
| NATIONAL FUEL GAS DISTRIBUTION CORPORATION                                        | Multiple Intervenors                         | 16-G-0257                                    | Direct         | NY               | Embedded Class Cost of Service; Class<br>Revenue Allocation; Rate Design                                                                          | 8/26/2016  |
| METROPOLITAN EDISON COMPANY; PENNSYLVANIA<br>ELECTRIC COMPANY AND WEST PENN POWER | MEIUG, PICA and WPPII                        | 2016-2537349<br>2016-2537352<br>2016-2537359 | Rebuttal       | PA               | Class Cost-of-Service; Class Revenue<br>Allocation                                                                                                | 8/17/2016  |
| SOUTHWESTERN PUBLIC SERVICE COMPANY                                               | Texas Industrial Energy Consumers            | 45524                                        | Direct         | TX               | Revenue Requirement; Class Cost-of-<br>Service; Revenue Allocation; Rate Design                                                                   | 8/16/2016  |
| METROPOLITAN EDISON COMPANY; PENNSYLVANIA<br>ELECTRIC COMPANY AND WEST PENN POWER | MEIUG, PICA and WPPII                        | 2016-2537349<br>2016-2537352<br>2016-2537359 | Direct         | PA               | Post-Test Year Sales Adjustment; Class<br>Cost-of-Service Study; Class Revenue<br>Allocation; Rate Design                                         | 7/22/2016  |
| FLORIDA POWER & LIGHT COMPANY                                                     | Florida Industrial Power Users Group         | 160021                                       | Direct         | FL               | Multi-Year Rate Plan, Construction Work in<br>Progress; Cost of Capital; Class Revenue<br>Allocation; Class Cost-of-Service Study;<br>Rate Design | 7/7/2016   |
| CENTERPOINT ENERGY ARKANSAS GAS                                                   | Arkansas Gas Consumers, Inc.                 | 15-098-U                                     | Supplemental   | AR               | Support for Settlement Stipulation                                                                                                                | 7/1/2016   |
| MIDAMERICAN ENERGY COMPANY                                                        | Tech Customers                               | RPU-2016-0001                                | Direct         | IA               | Application of Advanced Ratemaking<br>Principles to Wind XI                                                                                       | 6/21/2016  |
| NORTHERN STATES POWER COMPANY                                                     | Xcel Large Industrials                       | 15-826                                       | Direct         | MN               | Class Cost-of-Service Study, Class<br>Revenue Allocation, Multi-Year Rate Plan,<br>Rate Design                                                    | 6/14/2016  |



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| CENTERPOINT ENERGY ARKANSAS GAS                                                                                                                                                                                      | Arkansas Gas Consumers, Inc.                                      | 15-098-U                                         | Surrebuttal     | AR               | Incentive Compensation, Class Cost-of-<br>Service Study, Class Revenue Allocation,<br>LCS-1 Rate Design                        | 6/7/2016   |
| SOUTHWESTERN PUBLIC SERVICE COMPANY                                                                                                                                                                                  | Occidental Permian Ltd.                                           | 15-00296-UT                                      | Direct          | NM               | Support of Stipulation                                                                                                         | 5/13/2016  |
| CHEYENNE LIGHT, FUEL AND POWER COMPANY                                                                                                                                                                               | Dyno Nobel, Inc. and<br>HollyFrontier Cheyenne Refining LLC       | 20003-146-ET-15                                  | Cross           | WY               | Large Power Contract Service Tariff                                                                                            | 4/15/2016  |
| CENTERPOINT ENERGY ARKANSAS GAS                                                                                                                                                                                      | Arkansas Gas Consumers, Inc.                                      | 15-098-U                                         | Direct          | AR               | Incentive Compensation, Class Cost-of-<br>Service Study, Class Revenue Allocation,<br>Act 725, Formula Rate Plan               | 4/14/2016  |
| CHEYENNE LIGHT, FUEL AND POWER COMPANY                                                                                                                                                                               | Dyno Nobel, Inc. and<br>HollyFrontier Cheyenne Refining LLC       | 20003-146-ET-15                                  | Direct          | WY               | Large Power Contract Service Tariff                                                                                            | 3/18/2016  |
| ENTERGY LOUISIANA, LLC, ENTERGY GULF STATES<br>LOUISIANA, L.L.C., AND ENTERGY LOUISIANA POWER,<br>LLC                                                                                                                | Occidental Chemical Corporation                                   | U-33770                                          | Cross-Answering | LA               | Approval to Construct St. Charles Power Station                                                                                | 2/26/2016  |
| NORTHERN INDIANA PUBLIC SERVICE COMPANY                                                                                                                                                                              | NLMK-Indiana                                                      | 44688                                            | Cross-Answering | IN               | Cost-of-Service Study, Rider 775                                                                                               | 2/16/2016  |
| ENTERGY LOUISIANA, LLC, ENTERGY GULF STATES<br>LOUISIANA, L.L.C., AND ENTERGY LOUISIANA POWER,<br>ILLC                                                                                                               | Occidental Chemical Corporation                                   | U-33770                                          | Direct          | LA               | Approval to Construct St. Charles Power Station                                                                                | 1/21/2016  |
| EL PASO ELECTRIC COMPANY                                                                                                                                                                                             | Freeport-McMoRan Copper & Gold, Inc.                              | 44941                                            | Cross-Rebuttal  | TX               | Class Cost-of-Service Study, Class<br>Revenue Allocation; Rate Design                                                          | 1/15/2016  |
| ENTERGY ARKANSAS, INC.                                                                                                                                                                                               | Arkansas Electric Energy Consumers, Inc.                          | 15-015                                           | Supplemental    | AR               | Support for Settlement Stipulation                                                                                             | 12/31/2015 |
| EL PASO ELECTRIC COMPANY                                                                                                                                                                                             | Freeport-McMoRan Copper & Gold, Inc.                              | 44941                                            | Direct          | TX               | Class Cost-of-Service Study, Class<br>Revenue Allocation; Rate Design                                                          | 12/11/2015 |
| ENTERGY ARKANSAS, INC.                                                                                                                                                                                               | Arkansas Electric Energy Consumers, Inc.                          | 15-015                                           | Surrebuttal     | AR               | Post-Test-Year Additions; Class Cost-of-<br>Service Study; Class Revenue Allocation;<br>Rate Design; Riders; Formula Rate Plan | 11/24/2015 |
| MID-KANSAS ELECTRIC COMPANY, LLC, PRAIRIE LAND ELECTRIC COOPERATIVE, INC., SOUTHERN PIONEER ELECTRIC COMPANY, THE VICTORY ELECTRIC COOPERATIVE ASSOCIATION, INC., AND WESTERN COOPERATIVE ELECTRIC ASSOCIATION, INC. | Western Kansas Industrial Electric Consumers                      | 16-MKEE-023                                      | Direct          | KS               | Formula Rate Plan for Distribution Utility                                                                                     | 11/17/2015 |
| ENTERGY TEXAS, INC.                                                                                                                                                                                                  | Texas Industrial Energy Consumers                                 | 45084                                            | Direct          | TX               | Transmission Cost Recovery Factor Revenue Increase.                                                                            | 11/17/2015 |
| GEORGIA POWER COMPANY                                                                                                                                                                                                | Georgia Industrial Group and Georgia Association of Manufacturers | 39638                                            | Direct          | GA               | Natural Gas Price Assumptions, IFR<br>Mechanism, Seasonal FCR-24 Rates,<br>Imputed Capacity                                    | 11/4/2015  |
| NEW YORK STATE ELECTRIC & GAS CORPORATION and ROCHESTER GAS AND ELECTRIC CORPORATION                                                                                                                                 | Multiple Intervenors                                              | 15-E-0283<br>15-G-0284<br>15-E-0285<br>15-G-0286 | Rebuttal        | NY               | Electric and Gas Embedded Class Cost-of-<br>Service Studies, Class Revenue Allocation                                          | 10/13/2015 |



| LITHITY                                                                              | ON BEHALF OF                                          | DOCKET                                           | TVDE                   | CTATE / DDOVING     | CUD IFOT                                                                                                          | DATE                  |
|--------------------------------------------------------------------------------------|-------------------------------------------------------|--------------------------------------------------|------------------------|---------------------|-------------------------------------------------------------------------------------------------------------------|-----------------------|
| UTILITY ENTERGY ARKANSAS, INC.                                                       | ON BEHALF OF Arkansas Electric Energy Consumers, Inc. | DOCKET<br>15-015                                 | TYPE<br>Direct         | STATE / PROVINCE AR | SUBJECT Post-Test-Year Additions; Class Cost-of-                                                                  | <b>DATE</b> 9/29/2015 |
| ENTERGT ARMANGAS, INC.                                                               | Arkansas Electric Energy Consumers, inc.              | 13-013                                           | Direct                 | AK                  | Service Study; Class Revenue Allocation;<br>Rate Design; Riders; Formula Rate Plan                                | 9/29/2013             |
| NEW YORK STATE ELECTRIC & GAS CORPORATION and ROCHESTER GAS AND ELECTRIC CORPORATION | Multiple Intervenors                                  | 15-E-0283<br>15-G-0284<br>15-E-0285<br>15-G-0286 | Direct                 | NY                  | Electric and Gas Embedded Class Cost-of-<br>Service Studies, Class Revenue Allocation,<br>Electric Rate Design    | 9/15/2015             |
| SHARYLAND UTILITIES                                                                  | Texas Industrial Energy Consumers                     | 44620                                            | Cross-Rebuttal         | TX                  | Transmission Cost Recovery Factor Class Allocation Factors.                                                       | 9/8/2015              |
| ENTERGY ARKANSAS, INC.                                                               | Arkansas Electric Energy Consumers, Inc.              | 14-118                                           | Surrebuttal            | AR                  | Proposed Acquisition of Union Power<br>Station Power Block 2 and Cost Recovery                                    | 8/21/2015             |
| SHARYLAND UTILITIES                                                                  | Texas Industrial Energy Consumers                     | 44620                                            | Direct                 | TX                  | Transmission Cost Recovery Factor Class<br>Allocation Factors                                                     | 8/7/2015              |
| PECO ENERGY COMPANY                                                                  | Philadelphia Area Industrial Energy Users Group       | 2015-2468981                                     | Surrebuttal            | PA                  | Class Cost-of-Service, Capacity<br>Reservation Rider                                                              | 8/4/2015              |
| WESTAR ENERGY INC. and<br>KANSAS GAS & ELECTRIC CO.                                  | Occidental Chemical Corporation                       | 15-WSEE-115-RTS                                  | Cross-Answering        | KS                  | Class Cost-of-Service Study, Revenue<br>Allocation                                                                | 7/22/2015             |
| PECO ENERGY COMPANY                                                                  | Philadelphia Area Industrial Energy Users Group       | 2015-2468981                                     | Rebuttal               | PA                  | Class Cost-of-Service, Class Revenue<br>Allocation, Rate Design, Capacity<br>Reservation Rider, Revenue Deoupling | 7/21/2015             |
| SOUTHWESTERN PUBLIC SERVICE COMPANY                                                  | Occidental Permian Ltd.                               | 15-00083                                         | Direct                 | NM                  | Long-Term Purchased Power Agreements                                                                              | 7/10/2015             |
| ENTERGY ARKANSAS, INC.                                                               | Arkansas Electric Energy Consumers, Inc.              | 15-014                                           | Surrebuttal            | AR                  | Solar Power Purchase Agreement                                                                                    | 7/10/2015             |
| WESTAR ENERGY INC. and<br>KANSAS GAS & ELECTRIC CO.                                  | Occidental Chemical Corporation                       | 15-WSEE-115-RTS                                  | Direct                 | KS                  | Class Cost-of-Service and Electric<br>Distrbution Grid Resiliency Program                                         | 7/9/2015              |
| ENTERGY TEXAS, INC.                                                                  | Texas Industrial Energy Consumers                     | 43958                                            | Supplemental<br>Direct | TX                  | Certificiate of Need for Union Power Station<br>Power Block 1                                                     | 7/7/2015              |
| ENTERGY ARKANSAS, INC.                                                               | Arkansas Electric Energy Consumers, Inc.              | 14-118                                           | Direct                 | AR                  | Proposed Acquisition of Union Power<br>Station Power Block 2 and Cost Recovery                                    | 7/2/2015              |
| PECO ENERGY COMPANY                                                                  | Philadelphia Area Industrial Energy Users Group       | 2015-2468981                                     | Direct                 | PA                  | Class Cost-of-Service, Class Revenue<br>Allocation, Rate Design, Capacity<br>Reservation Rider                    | 6/23/2015             |
| ENTERGY ARKANSAS, INC.                                                               | Arkansas Electric Energy Consumers, Inc.              | 15-014-U                                         | Direct                 | AR                  | Solar Power Purchase Agreement                                                                                    | 6/19/2015             |
| FLORIDA POWER & LIGHT COMPANY                                                        | Florida Industrial Power Users Group                  | 150075                                           | Direct                 | FL                  | Cedar Bay Power Purchase Agreement                                                                                | 6/8/2015              |
| SOUTHWESTERN PUBLIC SERVICE COMPANY                                                  | Texas Industrial Energy Consumers                     | 43695                                            | Cross-Rebuttal         | TX                  | Class Cost of Service Study; Class<br>Revenue Allocation                                                          | 6/8/2015              |



| UTILITY                                                                                                | ON BEHALF OF                                      | DOCKET       | TYPE           | STATE / PROVINCE | SUBJECT                                                                                                                                | DATE       |
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| FLORIDA POWER AND LIGHT COMPANY, DUKE<br>ENERGY FLORIDA, GULF POWER COMPANY, TAMPA<br>ELECTRIC COMPANY | Florida Industrial Power Users Group              | 140226       | Surrebuttal    | FL               | Opt-Out Provision                                                                                                                      | 5/20/2015  |
| SOUTHWESTERN PUBLIC SERVICE COMPANY                                                                    | Texas Industrial Energy Consumers                 | 43695        | Direct         | TX               | Post-Test Year Adjustments; Weather Normalization                                                                                      | 5/15/2015  |
| SOUTHWESTERN PUBLIC SERVICE COMPANY                                                                    | Texas Industrial Energy Consumers                 | 43695        | Direct         | TX               | Class Cost of Service Study; Class<br>Revenue Allocation                                                                               | 5/15/2015  |
| ENTERGY TEXAS, INC.                                                                                    | Texas Industrial Energy Consumers                 | 43958        | Direct         | TX               | Certificiate of Need for Union Power Station<br>Power Block 1                                                                          | 4/29/2015  |
| SOUTHWESTERN ELECTRIC POWER COMPANY                                                                    | Texas Industrial Energy Consumers                 | 42370        | Cross-Rebuttal | TX               | Allocation and recovery of Municipal Rate Case Expenses and the proposed Rate-Case-Expense Surcharge Tariff.                           | 1/27/2015  |
| WEST PENN POWER COMPANY                                                                                | West Penn Power Industrial Intervenors            | 2014-2428742 | Surrebuttal    | PA               | Class Cost-of-Service Study; Class<br>Revenue Allocation; Large Commercial and<br>Industrial Rate Design; Storm Damage<br>Charge Rider | 1/6/2015   |
| PENNSYLVANIA ELECTRIC COMPANY                                                                          | Penelec Industrial Customer Alliance              | 2014-2428743 | Surrebuttal    | PA               | Class Cost-of-Service Study; Class<br>Revenue Allocation; Large Commercial and<br>Industrial Rate Design; Storm Damage<br>Charge Rider | 1/6/2015   |
| METROPOLITAN EDISON COMPANY                                                                            | Med-Ed Industrial Users Group                     | 2014-2428745 | Surrebuttal    | PA               | Class Cost-of-Service Study; Class<br>Revenue Allocation; Large Commercial and<br>Industrial Rate Design; Storm Damage<br>Charge Rider | 1/6/2015   |
| WEST PENN POWER COMPANY                                                                                | West Penn Power Industrial Intervenors            | 2014-2428742 | Rebuttal       | PA               | Class Cost-of-Service Study; Class<br>Revenue Allocation; Large Commercial and<br>Industrial Rate Design; Storm Damage<br>Charge Rider | 12/18/2014 |
| PENNSYLVANIA ELECTRIC COMPANY                                                                          | Penelec Industrial Customer Alliance              | 2014-2428743 | Rebuttal       | PA               | Class Cost-of-Service Study; Class<br>Revenue Allocation; Large Commercial and<br>Industrial Rate Design; Storm Damage<br>Charge Rider | 12/18/2014 |
| METROPOLITAN EDISON COMPANY                                                                            | Med-Ed Industrial Users Group                     | 2014-2428745 | Rebuttal       | PA               | Class Cost-of-Service Study; Class<br>Revenue Allocation; Large Commercial and<br>Industrial Rate Design; Storm Damage<br>Charge Rider | 12/18/2014 |
| PUBLIC SERVICE COMPANY OF COLORADO                                                                     | Colorado Healthcare Electric Coordinating Council | 14AL-0660E   | Cross          | CO               | Clean Air Clean Jobs Act Rider;<br>Transmission Cost Adjustment                                                                        | 12/17/2014 |
| WEST PENN POWER COMPANY                                                                                | West Penn Power Industrial Intervenors            | 2014-2428742 | Direct         | PA               | Class Cost-of-Service Study; Class<br>Revenue Allocation, Rate Design, Partial<br>Services Rider; Storm Damage Rider                   | 11/24/2014 |



| UTILITY                            | ON BEHALF OF                                      | DOCKET                | TYPE        | STATE / PROVINCE | SUBJECT                                                                                                                                                         | DATE       |
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| PENNSYLVANIA ELECTRIC COMPANY      | Penelec Industrial Customer Alliance              | 2014-2428743          | Direct      | PA               | Class Cost-of-Service Study; Class<br>Revenue Allocation, Rate Design, Partial<br>Services Rider; Storm Damage Rider                                            | 11/24/2014 |
| METROPOLITAN EDISON COMPANY        | Med-Ed Industrial Users Group                     | 2014-2428745          | Direct      | PA               | Class Cost-of-Service Study; Class<br>Revenue Allocation, Rate Design, Partial<br>Services Rider; Storm Damage Rider                                            | 11/24/2014 |
| CENTRAL HUDSON GAS & ELECTRIC      | Multiple Intervenors                              | 14-E-0318 / 14-G-0319 | Direct      | NY               | Class Cost-of-Service Study; Class<br>Revenue Allocation (Electric)                                                                                             | 11/21/2014 |
| PUBLIC SERVICE COMPANY OF COLORADO | Colorado Healthcare Electric Coordinating Council | 14AL-0660E            | Direct      | СО               | Clean Air Clean Jobs Act Rider; Electric<br>Commodity Adjustment Incentive<br>Mechanism                                                                         | 11/7/2014  |
| FLORIDA POWER AND LIGHT COMPANY    | Florida Industrial Power Users Group              | 140001-E              | Direct      | FL               | Cost-Effectiveness and Policy Issues<br>Surrounding the Investment in Working<br>Gas Production Facilities                                                      | 9/22/2014  |
| ROCKY MOUNTAIN POWER               | Wyoming Industrial Energy Consumers               | 20000-446-ER14        | Surrebuttal | WY               | Class Cost-of-Service, Rule 12 (Line Extension Policy)                                                                                                          | 9/19/2014  |
| INDIANA MICHIGAN POWER COMPANY     | I&M Industrial Group                              | 44511                 | Direct      | IN               | Clean Energy Solar Pilot Project, Solar<br>Power Rider and Green Power Rider                                                                                    | 9/17/2014  |
| ROCKY MOUNTAIN POWER               | Wyoming Industrial Energy Consumers               | 20000-446-ER14        | Cross       | WY               | Class Cost-of-Service Study; Rule 12 Line Extension                                                                                                             | 9/5/2014   |
| VARIOUS UTILITIES                  | Florida Industrial Power Users Group              | 140002-EI             | Direct      | FL               | Energy Efficiency Cost Recovery Opt-Out<br>Provision                                                                                                            | 9/5/2014   |
| NORTHERN STATES POWER COMPANY      | Xcel Large Industrials                            | E-002/GR-13-868       | Surrebuttal | MN               | Nuclear Depreciation Expense, Monticello<br>EPU/LCM Project, Class Cost-of-Service<br>Study, Class Revenue Allocation, Fuel<br>Clause Rider Reform, Rate Design | 8/4/2014   |
| ROCKY MOUNTAIN POWER               | Wyoming Industrial Energy Consumers               | 20000-446-ER14        | Direct      | WY               | Class Cost-of-Service Study, Rule 12 Line Extension                                                                                                             | 7/25/2014  |
| DUKE ENERGY FLORIDA                | NRG Florida, LP                                   | 140111 and 140110     | Direct      | FL               | Cost-Effectiveness of Proposed Self Build<br>Generating Projects                                                                                                | 7/14/2014  |
| NORTHERN STATES POWER COMPANY      | Xcel Large Industrials                            | E-002/GR-13-868       | Rebuttal    | MN               | Class Cost-of-Service Study, Class<br>Revenue Allocation                                                                                                        | 7/7/2014   |
| PPL ELECTRIC UTILITIES CORPORATION | PP&L Industrial Customer Alliance                 | 2013-2398440          | Rebuttal    | PA               | Energy Efficiency Cost Recovery                                                                                                                                 | 7/1/2014   |
| NORTHERN STATES POWER COMPANY      | Xcel Large Industrials                            | E-002/GR-13-868       | Direct      | MN               | Revenue Requirements, Fuel Clause Rider,<br>Class Cost-of-Service Study, Rate Design<br>and Revenue Allocation                                                  | 6/5/2014   |
| PPL ELECTRIC UTILITIES CORPORATION | PP&L Industrial Customer Alliance                 | 2013-2398440          | Direct      | PA               | Energy Efficiency Cost Recovery                                                                                                                                 | 5/23/2014  |



| UTILITY                                   | ON BEHALF OF                                                                       | DOCKET                       | TYPE                        | STATE / PROVINCE | SUBJECT                                                                                                                                    | DATE       |
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| SOUTHWESTERN PUBLIC SERVICE COMPANY       | Texas Industrial Energy Consumers                                                  | 42042                        | Direct                      | TX               | Transmission Cost Recovery Factor                                                                                                          | 4/24/2014  |
| ENTERGY TEXAS, INC.                       | Texas Industrial Energy Consumers                                                  | 41791                        | Cross                       | TX               | Class Cost-of-Service Study and Rate<br>Design                                                                                             | 1/31/2014  |
| ENTERGY TEXAS, INC.                       | Texas Industrial Energy Consumers                                                  | 41791                        | Direct                      | TX               | Revenue Requirements, Fuel<br>Reconciliation; Cost Allocation Issues; Rate<br>Design Issues                                                | 1/10/2014  |
| DUQUESNE LIGHT COMPANY                    | Duquesne Industrial Intervenors                                                    | R-2013-2372129               | Supplemental<br>Surrebuttal | PA               | Class Cost-of-Sevice Study                                                                                                                 | 12/13/2013 |
| DUQUESNE LIGHT COMPANY                    | Duquesne Industrial Intervenors                                                    | R-2013-2372129               | Surrebuttal                 | PA               | Class Cost-of-Service Study; Cash<br>Working Capital; Miscellaneous General<br>Expense; Uncollectable Expense; Class<br>Revenue Allocation | 12/9/2013  |
| DUQUESNE LIGHT COMPANY                    | Duquesne Industrial Intervenors                                                    | R-2013-2372129               | Rebuttal                    | PA               | Rate L Transmission Service; Class<br>Revenue Allocation                                                                                   | 11/26/2013 |
| ENTERGY TEXAS, INC.<br>ITC HOLDINGS CORP. | Texas Industrial Energy Consumers                                                  | 41850                        | Direct                      | TX               | Rate Mitigation Plan; Conditions re Transfer of Control of Ownership                                                                       | 11/6/2013  |
| SHARYLAND UTILITIES                       | Texas Industrial Energy Consumers and Atlas<br>Pipeline Mid-Continent WestTex, LLC | 41474                        | Cross-Rebuttal              | TX               | Customer Class Definitions; Class<br>Revenue Allocation; Allocation of TTC<br>costs                                                        | 11/4/2013  |
| MIDAMERICAN ENERGY COMPANY                | Deere & Company                                                                    | RPU-2013-0004                | Surrebuttal                 | IA               | Class Cost-of-Service Study; Class<br>Revenue Allocation; Depreciation Surplus                                                             | 11/4/2013  |
| DUQUESNE LIGHT COMPANY                    | Duquesne Industrial Intervenors                                                    | R-2013-2372129               | Direct                      | PA               | Class Cost-of-Service, Class Revenue<br>Allocations                                                                                        | 11/1/2013  |
| PUBLIC SERVICE ENERGY AND GAS             | New Jersey Large Energy Users Coalition                                            | EO13020155 and<br>GO13020156 | Direct                      | NJ               | Energy Strong                                                                                                                              | 10/28/2013 |
| GEORGIA POWER COMPANY                     | Georgia Industrial Group and<br>Georgia Association of Manufacturers               | 36989                        | Direct                      | GA               | Depreciation Expense, Alternate Rate Plan,<br>Return on Equity, Class Cost-of-Service<br>Study, Class Revenue Allocation, Rate<br>Design   | 10/18/2013 |
| SHARYLAND UTILITIES                       | Texas Industrial Energy Consumers and Atlas<br>Pipeline Mid-Continent WestTex, LLC | 41474                        | Direct                      | TX               | Regulatory Asset Cost Recovery; Class<br>Cost-of-Service Study, Class Revenue<br>Allocation, Rate Design                                   | 10/18/2013 |
| MIDAMERICAN ENERGY COMPANY                | Deere & Company                                                                    | RPU-2013-0004                | Rebuttal                    | IA               | Class Cost-of-Service Study                                                                                                                | 10/1/2013  |
| FLORIDA POWER AND LIGHT COMPANY           | Florida Industrial Power Users Group                                               | 130007                       | Direct                      | FL               | Environmental Cost Recovery Clause                                                                                                         | 9/13/2013  |
| MIDAMERICAN ENERGY COMPANY                | Deere & Company                                                                    | RPU-2013-0004                | Direct                      | IA               | Class Cost-of-Service Study, Class<br>Revenue Allocation, Depreciation, Cost<br>Recovery Clauses, Revenue Sharing,<br>Revenue True-up      | 9/10/2013  |
| SOUTHWESTERN PUBLIC SERVICE COMPANY       | Occidental Permian Ltd.                                                            | 12-00350-UT                  | Rebuttal                    | NM               | RPS Cost Rider                                                                                                                             | 9/9/2013   |



| UTILITY                                             | ON BEHALF OF                                 | DOCKET          | TYPE                   | STATE / PROVINCE | SUBJECT                                                                                                                                             | DATE      |
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| WESTAR ENERGY INC. and KANSAS GAS & ELECTRIC CO.    | Occidental Chemical Corporation              | 13-WSEE-629-RTS | Cross-Answering        | KS               | Cost Allocation Methodology                                                                                                                         | 9/5/2013  |
| SOUTHWESTERN PUBLIC SERVICE COMPANY                 | Occidental Permian Ltd.                      | 12-00350-UT     | Direct                 | NM               | Class Cost-of-Service Study                                                                                                                         | 8/22/2013 |
| WESTAR ENERGY INC. and<br>KANSAS GAS & ELECTRIC CO. | Occidental Chemical Corporation              | 13-WSEE-629-RTS | Direct                 | KS               | Class Revenue Allocation.                                                                                                                           | 8/21/2013 |
| ENTERGY TEXAS, INC.                                 | Texas Industrial Energy Consumers            | 41437           | Direct                 | TX               | Avoided Cost; Standby Rate Design                                                                                                                   | 8/14/2013 |
| MID-KANSAS ELECTRIC COMPANY, LLC                    | Western Kansas Industrial Electric Consumers | 13-MKEE-699     | Direct                 | KS               | Class Revenue Allocation                                                                                                                            | 8/12/2013 |
| MID-KANSAS ELECTRIC COMPANY, LLC                    | Western Kansas Industrial Electric Consumers | 13-MKEE-447     | Supplemental           | KS               | Testimony in Support of Settlement                                                                                                                  | 8/9/2013  |
| MID-KANSAS ELECTRIC COMPANY, LLC                    | Western Kansas Industrial Electric Consumers | 13-MKEE-447     | Supplemental           | KS               | Modification Agreement                                                                                                                              | 7/24/2013 |
| TAMPA ELECTRIC COMPANY                              | Florida Industrial Power Users Group         | 130040          | Direct                 | FL               | GSD-IS Consolidation, GSD and IS Rate<br>Design, Class Cost-of-Service Study,<br>Planned Outage Expense, Storm Damage<br>Expense                    | 7/15/2013 |
| MID-KANSAS ELECTRIC COMPANY, LLC                    | Western Kansas Industrial Electric Consumers | 13-MKEE-452     | Supplemental           | KS               | Testimony in Support of Nonunanimous<br>Settlement                                                                                                  | 6/28/2013 |
| JERSEY CENTRAL POWER & LIGHT COMPANY                | Gerdau Ameristeel Sayreville, Inc.           | ER12111052      | Direct                 | NJ               | Cost of Service Study for GT-230 KV<br>Customers; AREP Rider                                                                                        | 6/14/2013 |
| MID-KANSAS ELECTRIC COMPANY, LLC                    | Western Kansas Industrial Electric Consumers | 13-MKEE-447     | Direct                 | KS               | Wholesale Requirements Agreement;<br>Process for Excemption From Regulation;<br>Conditions Required for Public Interest<br>Finding on CCN spin-down | 5/14/2013 |
| MID-KANSAS ELECTRIC COMPANY, LLC                    | Western Kansas Industrial Electric Consumers | 13-MKEE-452     | Cross                  | KS               | Formula Rate Plan for Distribution Utility                                                                                                          | 5/10/2013 |
| MID-KANSAS ELECTRIC COMPANY, LLC                    | Western Kansas Industrial Electric Consumers | 13-MKEE-452     | Direct                 | KS               | Formula Rate Plan for Distribution Utility                                                                                                          | 5/3/2013  |
| ENTERGY TEXAS, INC.<br>ITC HOLDINGS CORP.           | Texas Industrial Energy Consumers            | 41223           | Direct                 | TX               | Public Interest of Proposed Divestiture of ETI's Transmission Business to an ITC Holdings Subsidiary                                                | 4/30/2013 |
| NORTHERN STATES POWER COMPANY                       | Xcel Large Industrials                       | 12-961          | Surrebuttal            | MN               | Depreciation; Used and Useful; Cost<br>Allocation; Revenue Allocation                                                                               | 4/12/2013 |
| NORTHERN STATES POWER COMPANY                       | Xcel Large Industrials                       | 12-961          | Rebuttal               | MN               | Class Revenue Allocation.                                                                                                                           | 3/25/2013 |
| NORTHERN STATES POWER COMPANY                       | Xcel Large Industrials                       | 12-961          | Direct                 | MN               | Depreciation; Used and Useful; Property<br>Tax; Cost Allocation; Revenue Allocation;<br>Competitive Rate & Property Tax Riders                      | 2/28/2013 |
| ENTERGY TEXAS, INC.                                 | Texas Industrial Energy Consumers            | 38951           | Second<br>Supplemental | TX               | Competitive Generation Service Tariff                                                                                                               | 2/1/2013  |



| UTILITY                                             | ON BEHALF OF                                 | DOCKET              | TYPE                            | STATE / PROVINCE | SUBJECT                                                                                                                                               | DATE       |
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| ENTERGY TEXAS, INC.                                 | Texas Industrial Energy Consumers            | 38951               | Second<br>Supplemental          | TX               | Competitive Generation Service Tariff                                                                                                                 | 1/11/2013  |
| SOUTHWESTERN ELECTRIC POWER COMPANY                 | Texas Industrial Energy Consumers            | 40443               | Cross Rebuttal                  | TX               | Cost Allocation and Rate Design                                                                                                                       | 1/10/2013  |
| SOUTHWESTERN ELECTRIC POWER COMPANY                 | Texas Industrial Energy Consumers            | 40443               | Direct                          | TX               | Application of the Turk Plant Cost-Cap;<br>Revenue Requirements; Class Cost-of-<br>Service Study; Class Revenue Allocation;<br>Industrial Rate Design | 12/10/2012 |
| FLORIDA POWER AND LIGHT COMPANY                     | Florida Industrial Power Users Group         | 120015              | Corrected Supplemental Rebuttal | FL               | Support for Non-Unanimous Settlement                                                                                                                  | 11/13/2012 |
| FLORIDA POWER AND LIGHT COMPANY                     | Florida Industrial Power Users Group         | 120015              | Corrected Supplemental Direct   | FL               | Support for Non-Unanimous Settlement                                                                                                                  | 11/13/2012 |
| NIAGARA MOHAWK POWER CORP.                          | Multiple Intervenors                         | 12-E-0201/12-G-0202 | Rebuttal                        | NY               | Electric and Gas Class Cost-of-Service Studies.                                                                                                       | 9/25/2012  |
| NIAGARA MOHAWK POWER CORP.                          | Multiple Intervenors                         | 12-E-0201/12-G-0202 | Direct                          | NY               | Electric and Gas Class Cost-of-Service<br>Study; Revenue Allocation; Rate Design;<br>Historic Demand                                                  | 8/31/2012  |
| MID-KANSAS ELECTRIC COMPANY, LLC                    | Western Kansas Industrial Electric Consumers | 12-MKEE-650-TAR     | Direct                          | KS               | Transmission Formula Rate Plan                                                                                                                        | 7/31/2012  |
| WESTAR ENERGY INC. and<br>KANSAS GAS & ELECTRIC CO. | Occidental Chemical Corporation              | 12-WSEE-651-TAR     | Direct                          | KS               | TDC Tariff                                                                                                                                            | 7/30/2012  |
| FLORIDA POWER AND LIGHT COMPANY                     | Florida Industrial Power Users Group         | 120015              | Direct                          | FL               | Class Cost-of-Service Study, Revenue<br>Allocation, and Rate Design                                                                                   | 7/2/2012   |
| LONE STAR TRANSMISSION, LLC                         | Texas Industrial Energy Consumers            | 40020               | Direct                          | TX               | Revenue Requirement, Rider AVT                                                                                                                        | 6/21/2012  |
| ENTERGY TEXAS, INC.                                 | Texas Industrial Energy Consumers            | 39896               | Cross                           | TX               | Class Cost-of-Service Study, Revenue<br>Allocation, and Rate Design                                                                                   | 4/13/2012  |
| ENTERGY TEXAS, INC.                                 | Texas Industrial Energy Consumers            | 39896               | Direct                          | TX               | Revenue Requirements, Class Cost-of-<br>Service Study, Revenue Allocation, and<br>Rate Design                                                         | 3/27/2012  |
| ENTERGY TEXAS, INC.                                 | Texas Industrial Energy Consumers            | 38951               | Supplemental<br>Rebuttal        | TX               | Competitive Generation Service Issues                                                                                                                 | 2/24/2012  |
| ENTERGY TEXAS, INC.                                 | Texas Industrial Energy Consumers            | 38951               | Supplemental<br>Direct          | TX               | Competitive Generation Service Issues                                                                                                                 | 2/10/2012  |
| AEP TEXAS CENTRAL COMPANY                           | Texas Industrial Energy Consumers            | 39722               | Direct                          | тх               | Carrying Charge Rate Applicable to the Additional True-Up Balance and Tax Balances                                                                    | 11/4/2011  |
| GULF POWER COMPANY                                  | Florida Industrial Power Users Group         | 110138-EI           | Direct                          | FL               | Cost Allocation and Storm Reserve                                                                                                                     | 10/14/2011 |
| CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC            | Texas Industrial Energy Consumers            | 39504               | Direct                          | TX               | Carrying Charge Rate Applicable to the Additional True-Up Balance and Taxes                                                                           | 9/12/2011  |



| UTILITY                                  | ON BEHALF OF                        | DOCKET          | TYPE           | STATE / PROVINCE | SUBJECT                                                                                                                                                 | DATE      |
|------------------------------------------|-------------------------------------|-----------------|----------------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| AEP TEXAS NORTH COMPANY                  | Texas Industrial Energy Consumers   | 39361           | Cross-Rebuttal | TX               | Energy Efficiency Cost Recovery Factor                                                                                                                  | 8/10/2011 |
| AEP TEXAS CENTRAL COMPANY                | Texas Industrial Energy Consumers   | 39360           | Cross-Rebuttal | TX               | Energy Efficiency Cost Recovery Factor                                                                                                                  | 8/10/2011 |
| ONCOR ELECTRIC DELIVERY COMPANY, LLC     | Texas Industrial Energy Consumers   | 39375           | Direct         | TX               | Energy Efficiency Cost Recovery Factor                                                                                                                  | 8/2/2011  |
| ALABAMA POWER COMPANY                    | Alabama Industrial Energy Consumers | 31653           | Direct         | AL               | Renewable Purchased Power Agreement                                                                                                                     | 7/28/2011 |
| AEP TEXAS NORTH COMPANY                  | Texas Industrial Energy Consumers   | 39361           | Direct         | TX               | Energy Efficiency Cost Recovery Factor                                                                                                                  | 7/26/2011 |
| AEP TEXAS CENTRAL COMPANY                | Texas Industrial Energy Consumers   | 36360           | Direct         | TX               | Energy Efficiency Cost Recovery Factor                                                                                                                  | 7/20/2011 |
| ENTERGY TEXAS, INC.                      | Texas Industrial Energy Consumers   | 39366           | Direct         | TX               | Energy Efficiency Cost Recovery Factor                                                                                                                  | 7/19/2011 |
| CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC | Texas Industrial Energy Consumers   | 39363           | Direct         | TX               | Energy Efficiency Cost Recovery Factor                                                                                                                  | 7/15/2011 |
| NORTHERN STATES POWER COMPANY            | Xcel Large Industrials              | E002/GR-10-971  | Surrebuttal    | MN               | Depreciation; Non-Asset Margin Sharing;<br>Step-In Increase; Class Cost-of-Service<br>Study; Class Revenue Allocation; Rate<br>Design                   | 5/26/2011 |
| NORTHERN STATES POWER COMPANY            | Xcel Large Industrials              | E002/GR-10-971  | Rebuttal       | MN               | Classification of Wind Investment                                                                                                                       | 5/4/2011  |
| NORTHERN STATES POWER COMPANY            | Xcel Large Industrials              | E002/GR-10-971  | Direct         | MN               | Surplus Depreciation Reserve, Incentive<br>Compensation, Non-Asset Trading Margin<br>Sharing, Cost Allocation, Class Revenue<br>Allocation, Rate Design | 4/5/2011  |
| ROCKY MOUNTAIN POWER                     | Wyoming Industrial Energy Consumers | 20000-381-EA-10 | Direct         | WY               | 2010 Protocols                                                                                                                                          | 2/11/2011 |



#### **APPENDIX C**

#### Procedures for Conducting a Class Cost-of-Service Study

#### WHAT PROCEDURES ARE USED IN A COST-OF-SERVICE STUDY?

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The basic procedure for conducting a CCOSS is fairly simple. First, we identify the different types of costs (functionalization), determine their primary causative factors (classification), and then apportion each item of cost among the various rate classes (allocation). Adding up the individual pieces gives the total cost for each class.

Identifying the utility's different levels of operation is a process referred to as functionalization. The utility's investments and expenses are separated into production, transmission, distribution, and other functions. To a large extent, this is done in accordance with the Uniform System of Accounts developed by the Federal Energy Regulatory Commission (FERC).

Once costs have been functionalized, the next step is to identify the primary causative factor (or factors). This step is referred to as classification. Costs are classified as demand-related, energy-related or customer-related. Demand (or capacity) related costs vary with peak demand, which is measured in kilowatts (kW). This includes production, transmission, and some distribution investment and related fixed Operation and Maintenance (O&M) expenses. As explained later, peak demand determines the amount of capacity needed for reliable service. Energy-related costs vary with the production of energy, which is measured in kilowatt-hours (kWh). Energy-related costs include fuel and variable O&M expense. Customer-related costs vary directly with the number of customers and include expenses such as meters, service drops, billing, and customer service.



| Each functionalized and classified cost must then be allocated to the various         |
|---------------------------------------------------------------------------------------|
| customer classes. This is accomplished by developing allocation factors that reflect  |
| the percentage of the total cost that should be paid by each class. The allocation    |
| factors should reflect cost causation; that is, the degree to which each class caused |
| the utility to incur the cost.                                                        |

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## WHAT KEY PRINCIPLES ARE RECOGNIZED IN A CLASS COST-OF-SERVICE STUDY?

A properly conducted CCOSS recognizes two key cost-causation principles. First, customers are served at different delivery voltages. This affects the amount of investment the utility must make to deliver electricity to the meter. Second, since cost causation is also related to how electricity is used, both the timing and rate of energy consumption (*i.e.*, demand) are critical. Because electricity cannot be stored for any significant time period, a utility must acquire sufficient generation resources and construct the required transmission facilities to meet the maximum projected demand, including a reserve margin as a contingency against forced and unforced outages, severe weather, and load forecast error. Customers that use electricity during the critical peak hours cause the utility to invest in generation and transmission facilities.

# Q WHAT FACTORS CAUSE THE PER-UNIT COSTS TO DIFFER AMONG CUSTOMER CLASSES?

Factors that affect the per-unit cost include whether a customer's usage is constant or fluctuating (load factor), whether the utility must invest in transformers and distribution systems to provide the electricity at lower voltage levels, the amount of electricity that



a customer uses, and the quality of service (e.g., firm or non-firm). In general, industrial consumers are less costly to serve on a per-unit basis because they:

operate at higher load factors;

- · take service at higher delivery voltages; and
- use more electricity per customer.

Further, non-firm service is a lower quality of service than firm service. Thus, non-firm service is less costly per unit than firm service for customers that otherwise have the same characteristics. This explains why some customers pay lower average rates than others.

For example, the difference in the losses incurred to deliver electricity at the various delivery voltages is a reason why the per-unit energy cost to serve is not the same for all customers. More losses occur to deliver electricity at distribution voltage (either primary or secondary) than at transmission voltage, which is generally the level at which industrial customers take service. This means that the cost per kWh is lower for a transmission customer than a distribution customer. The cost to deliver a kWh at primary distribution, though higher than the per-unit cost at transmission, is lower than the delivered cost at secondary distribution.

In addition to lower losses, transmission customers do not use the distribution system. Instead, transmission customers construct and own their own distribution systems. Thus, distribution system costs are not allocated to transmission level customers who do not use that system. Distribution customers, by contrast, require substantial investments in these lower voltage facilities to provide service. Secondary distribution customers require more investment than primary distribution customers. This results in a different cost to serve each type of customer.



Two other cost drivers are efficiency and size. These drivers are important 2 because most fixed costs are allocated on either a demand or customer basis.

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Efficiency can be measured in terms of load factor. Load factor is the ratio of average demand (i.e., energy usage divided by the number of hours in the period) to peak demand. A customer that operates at a high load factor is more efficient than a lower load factor customer because it requires less capacity for the same amount of energy. For example, assume that two customers purchase the same amount of energy, but one customer has an 80% load factor and the other has a 40% load factor. The 40% load factor customers would have twice the peak demand of the 80% load factor customers, and the utility would therefore require twice as much capacity to serve the 40% load factor customer as the 80% load factor. Said differently, the fixed costs to serve a high load factor customer are spread over more kWh usage than for a low load factor customer.



## **APPENDIX D**

## **Public Utility Commission of Texas Orders**

| Utility                             | Docket No. | Order Date    | Begins on Pg. No. |
|-------------------------------------|------------|---------------|-------------------|
| Entergy Texas, Inc.                 | 39896      | Nov. 2, 2012  | 72                |
| Southwestern Public Service Company | 43695      | Feb. 23, 2016 | 74                |
| Southwestern Electric Power Company | 46449      | Mar. 19, 2018 | 77                |



### **PUC DOCKET NO. 39896 SOAH DOCKET NO. 473-12-2979**

| § | PUBLIC UTILITY COMMISSION |
|---|---------------------------|
| § |                           |
| § | OF TEXAS                  |
| § |                           |
| § |                           |
|   | \$ \$ \$ \$ \$ \$ \$      |

#### ORDER ON REHEARING

This Order addresses the application of Entergy Texas, Inc. for authority to change rates, reconcile fuel costs, and defer costs for the transition to the Midwest Independent System Operator (MISO). In its application, Entergy requested approval of an increase in annual baserate revenues of approximately \$111.8 million (later lowered to \$104.8 million), proposed tariff schedules, including new riders to recover costs related to purchased-power capacity and renewable-energy credit requirements, requested final reconciliation of its fuel costs, and requested waivers to the rate-filing package requirements.

On July 6, 2012, the State Office of Administrative Hearings (SOAH) administrative law judges (ALJs) issued a proposal for decision in which they recommended an overall rate increase for Entergy of \$28.3 million resulting in a total revenue requirement of approximately \$781 million. The ALJs also recommended approving total fuel costs of approximately \$1.3 billion. The ALJs did not recommend approving the renewable-energy credit rider and the Commission earlier removed the purchased-power capacity rider as an issue to be addressed in this docket. On August 8, 2012, the ALJs filed corrections to the proposal for decision based on the exceptions and replies of the parties. Except as discussed in this Order, the Commission adopts the proposal for decision, as corrected, including findings of fact and conclusions of law.

Parties filed motions for rehearing on September 25 and October 4, 2012 and filed replies to the motions for rehearing on October 15, 2012. The Commission considered the motions for

<sup>&</sup>lt;sup>1</sup> Supplemental Preliminary Order at 2, 3 (Jan. 19, 2012).

<sup>&</sup>lt;sup>2</sup> Letter from SOAH judges to PUC (Aug. 8, 2012).

PUC Docket No. 39896 SOAH Docket No. 473-12-2979

#### **Order on Rehearing**

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- 177. ETI's test-year expense for renewable energy credits, \$623,303, is reasonable and necessary and should be included in base rates.
- 178. Municipal Franchise Fees (MFF) is a rental expense paid by utilities for the right to use public rights-of-way to locate its facilities within municipal limits.
- 179. ETI is an integrated utility system. ETI's facilities located within municipal limits benefit all customers, whether the customers are located inside or outside of the municipal limits.
- 180. Because all customers benefit from ETI's rental of municipal right-of-way, municipal franchise fees should be charged to all customers in ETI's service area, regardless of geographic location.
- 181. It is reasonable and consistent with the Public Utility Regulatory Act (PURA) § 33.008(b) that MFF be allocated to each customer class on the basis of in-city kilowatt hour (kWh) sales, without an adjustment for the MFF rate in the municipality in which a given kWh sale occurred.
- 182. The same reasons for allocating and collecting MFF as set out in Finding of Fact Nos. 178-181 also apply to the allocation and collection of Miscellaneous Gross Receipts Taxes. The company's proposed allocation of these costs to all retail customer classes based on customer class revenues relative to total revenues is appropriate.
- 182A. ETI's proposed gross plant-based allocator is an appropriate method for allocating the Texas franchise tax.
- 183. The Average and Excess (A&E) 4CP method for allocating capacity-related production costs, including reserve equalization payments, to the retail classes is a standard methodology and the most reasonable methodology.
- 184. The A&E 4CP method for allocating transmission costs to the retail classes is standard and the most reasonable methodology.
- 185. ETI appropriately followed the rate class revenue requirements from its cost of service study to allocate costs among customer classes. ETI's revenue allocation properly sets rates at each class's cost of service.

### PUC DOCKET NO. 43695 SOAH DOCKET NO. 473-15-1556

APPLICATION OF SOUTHWESTERN § PUBLIC UTILITY COMMISSION

PUBLIC SERVICE COMPANY FOR §

AUTHORITY TO CHANGE RATES § OF TEXAS

#### ORDER ON REHEARING

This order addresses the application of Southwestern Public Service Company (SPS) for authority to change its Texas retail rates, filed on December 8, 2014. SPS originally sought a \$64.75 million increase to its Texas retail revenue requirement. SPS subsequently reduced its requested increase to \$58.85 million and then further lowered its request to a \$42.07 million increase.<sup>1</sup>

A hearing on the merits was held over seven days at the State Office of Administrative Hearings (SOAH). On October 12, 2015, the SOAH administrative law judges (ALJs) filed their proposal for decision (PFD) in which they recommended a Texas retail revenue requirement increase of \$1.2 million. In response to parties' exceptions and replies to the PFD, on November 20, 2015, the SOAH ALJs filed a letter making changes to the PFD, including clarifying that they were recommending a \$14.4 million increase to SPS's Texas retail revenue requirement.

Except as discussed in this order, the Commission adopts the PFD as modified, including findings of fact and conclusions of law. The Commission's decisions result in a Texas retail base-rate revenue requirement of \$509,395,343, which is a decrease of \$4,025,973 from SPS's present Commission-authorized Texas retail base-rate revenue requirement. Finding of Fact 237A is modified to reflect the Commission-authorized decrease to SPS's Texas retail revenue requirement. New findings of fact 19A through 19K are added to reflect issuance of the PFD and filings and events thereafter. The Commission incorporates by reference the abbreviations table provided in the PFD.

<sup>&</sup>lt;sup>1</sup> Southwestern Public Service Co. (SPS) Initial Brief on the Revenue Requirement (Rev.) at 17 (Jul. 24, 2015); Proposal for Decision (PFD) at 27 (Oct. 12, 2015).

#### Small General Service

350. SPS's proposal to an increase the customer charge from \$12.67 per month to \$12.70 per month for the Small General Service customers is reasonable and reflects the actual customer-related cost for the Small General Service class.

### Secondary General Service

351. SPS's proposed rate design for the Secondary General Service class is reasonable.

#### Primary General Service

- 352. Both Staff's and SPS's cost of service studies indicate that rates based on cost are higher for the Secondary General Service class than the Primary General Service class.
- 353. The rate differentials between the demand rates of the Secondary General Service class and the Primary General Service Class at other vertically integrated utilities in Texas are similar to the differentials between those two classes in SPS's cost of service study.
- 354. A widespread ratchet on Primary General Service customers may cause unreasonable adverse bill impacts on customers with significant off-peak seasonal loads or smaller customers in that class.
- 355. A demand ratchet would produce improper pricing signals for seasonal customers that have significantly higher loads during the off-peak non-summer months than during the summer months.
- 356. A demand ratchet may present difficulties for smaller Primary General Service customers that are similar to the kW demand billing difficulties for some Secondary General Service customers that the Rule of 80 is designed to assist.
- 357. It is not reasonable to establish a demand ratchet for Primary General Service customers.
- 358. It is not reasonable for SPS to adjust its revenue distribution by pooling the production, transmission, and primary capacity costs for the Primary General Service and Secondary General Service classes and allocating them according to billing demand.
- 359. It is reasonable and consistent with cost causation principles to allocate production and transmission capacity costs according to AED-4CP, and allocate primary distribution

PUC Docket No. 43695 SOAH Docket No. 473-15-1556 **Order on Rehearing** 

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capacity costs for the Primary General Service and Secondary General Service classes separately to each class according to non-coincident peak demand.

#### LGS-T

- 360. SPS should not be required to present a primary transformation or primary substation service class or rate in its next rate case because such a class or rate is unnecessary.
- 361. It is inappropriate for the Commission to make decisions in this proceeding regarding rate classes for a future rate case.
- 362. SPS's current approach of leasing individual substations at replacement cost directly assigns substation costs to the very large customers that use each substation and is reasonable.
- 363. SPS's approach ensures that all costs from remote substations are recovered from the LGS-T customers that use them, and thus comports with cost causation principles.

## <u>Collection of Account 908 – Customer Assistance Expenses and Account 912 – Demonstration and Selling Expenses</u>

- 364. Major account representatives are a service SPS makes available to its customers and is therefore a customer-related cost.
- 365. It is reasonable for SPS to recover part of this cost from the Secondary General Service class through a service availability charge and the rest through energy and demand charges.

## Rule of 80 vs. Rule of 70

- 366. It is not appropriate or reasonable to revise Tariff Sheets Nos. IV-18, IV-175, and IV-182 to change the Rule of 80 to a Rule of 70.
- 367. Neither the Rule of 80 nor the Rule of 70 accounts for the timing of low load customers' maximum demand, so both could allow for billing reductions for usage during system peaks.
- 368. Moving from the Rule of 80 to the Rule of 70 will have a significant effect on the number of low load factor customers, including municipal customers, that will have to pay full demand charges.

## PUC DOCKET NO. 46449 SOAH DOCKET NO. 473-17-1764

2018 MAR 19 PM 3: 18

APPLICATION OF SOUTHWESTERN §
ELECTRIC POWER COMPANY FOR AUTHORITY TO CHANGE RATES §

PUBLIC UTILITY COMMISSION

OF TEXAS

#### **ORDER ON REHEARING**

This order addresses the application of Southwestern Electric Power Company (SWEPCO) for authority to change its rates, filed on December 16, 2016. SWEPCO originally sought a \$69 million increase to its Texas retail revenue requirement, primarily to reflect investments in environmental controls. However, SWEPCO also proposed a significant modification to the manner in which its transmission costs should be recovered. In addition, SWEPCO sought additional cost recovery for vegetation management, rate-case expenses, and a regulatory asset for certain costs under the Southwest Power Pool's open-access tariff.

A hearing on the merits was held between June 5 and June 15, 2017 at the State Office of Administrative Hearings (SOAH). On September 22, 2017, the SOAH administrative law judges (ALJs) filed their proposal for decision (PFD) in which they recommended a Texas retail revenue requirement increase of approximately \$51 million. The SOAH ALJs rejected SWEPCO's new method to recover transmission costs and recommended granting its requested rate-case expenses, and regulatory asset. In response to parties' exceptions and replies to the PFD, on November 8, 2017, the SOAH ALJs filed a letter making changes to the PFD.

Except as discussed in this order, the Commission adopts the PFD as modified, including findings of fact and conclusions of law. The Commission's decisions result in a Texas retail base-rate revenue requirement of \$369,234,023, which is an increase of \$50,001,133 from SWEPCO's present Commission-authorized Texas retail base-rate revenue requirement. New findings of fact 17A through 17J are added to address the procedural history of this docket after the close of the evidentiary record at SOAH. The Commission incorporates by reference the abbreviations table provided in the PFD.

42<sup>5</sup>

Appendix D

Order on Rehearing

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SOAH Docket No. 473-17-1764

PUC Docket No. 46449

- 274. The use of 10 years of data is more sensitive to weather patterns during the test year.
- 275. The weather-normalization adjustment should be applied to adjust billing units and allocation factors for a 10-year weather-normalization period, based on the class billing determinants and external allocation factors used to calculate rates using a 10-year weathernormalization period.

#### Jurisdictional Cost Allocation

276. SWEPCO's proposal to base the jurisdictional allocation of transmission capacity costs on the 12 Coincident Peak (12CP) methodology is reasonable and consistent with Commission precedent.

#### Cost Allocation

## Allocation of Production Costs

- 277. SWEPCO allocates production costs to various classes under the average and excess Demand-4 coincident peak (A&E-4CP) methodology. This methodology allocates a percentage of costs, equal to the system load factor, based on average demand, and the remainder of those costs based on excess demand.
- 278. In SPS Docket No. 43695, the only Commission docket in which this issue has been litigated, the Commission determined that the system load factor should be calculated by using the single annual coincident peak, rather than the average of four coincident peaks.
- 279. SWEPCO used the single coincident peak in calculating its system load factor for Schedule O-1.6.
- 280. The use of the annual coincident peak in calculating system load factor is consistent with the definition of load factor in the Commission's rules.
- 281. The use of the annual coincident peak for calculating system load factor is consistent with SWEPCO's generation and transmission planning.
- 282. The use of the annual coincident peak for calculating system load factor is consistent with the National Association of Regulatory Commissioners (NARUC) manual.
- 283. The use of the annual coincident peak for calculating system load factor is consistent with SPP planning.

## **APPENDIX E**

## **Primary Substation Service**

| 1  | Q | WHAT IS PRIMARY SUBSTATION SERVICE?                                                         |
|----|---|---------------------------------------------------------------------------------------------|
| 2  | Α | Primary Substation service is provided when a customer takes service directly at a          |
| 3  |   | utility-owned distribution substation. Under these circumstances, the customer does         |
| 4  |   | not receive service from a distribution network.                                            |
| 5  | Q | HOW IS PRIMARY SUBSTATION SERVICE DIFFERENT FROM OTHER TYPES OF                             |
| 6  |   | DELIVERY SERVICES?                                                                          |
| 7  | Α | Examples of other types of electric delivery services are:                                  |
| 8  |   | 1. Transmission;                                                                            |
| 9  |   | 2. Primary Distribution; and                                                                |
| 10 |   | 3. Secondary Distribution.                                                                  |
| 11 | Q | PLEASE ELABORATE ON THE DISTINCTIONS BETWEEN THE VARIOUS TYPES                              |
| 12 |   | OF ELECTRIC DELIVERY SERVICE.                                                               |
| 13 | Α | A transmission-level customer takes service directly from the transmission system.          |
| 14 |   | This means that the customer owns all of the transformation equipment, as well as the       |
| 15 |   | lower voltage distribution facilities used to deliver electricity throughout the customer's |
| 16 |   | grid.                                                                                       |
| 17 |   | In contrast to transmission service, primary distribution service requires that             |
| 18 |   | the utility own not only the transformation equipment to step power down from               |
|    |   |                                                                                             |
| 19 |   | transmission to distribution level, but also a network of primary poles, lines, conductors  |



Thus, Primary Distribution service requires the utility to invest in hundreds, or even thousands, of miles of distribution wires and related facilities. As electricity is delivered through the distribution system, the utility incurs more losses. Because of the necessity of providing additional wires, related facilities, and the incurrence of greater losses, Primary Distribution service is more costly to provide than either Transmission or Primary Substation service.

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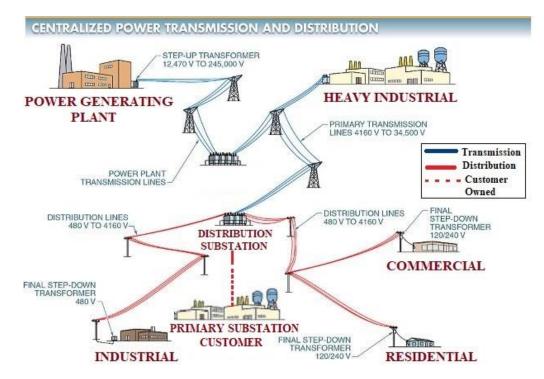
12

Q

All of these same facilities are also required to provide Secondary Distribution service. In addition, electricity is further stepped down before reaching the meter. Thus, a utility incurs additional facilities and losses to provide Distribution service (be it Primary or Secondary).

## IS PRIMARY SUBSTATION SERVICE DIFFERENT FROM OTHER TYPES OF DISTRIBUTION DELIVERY SERVICES?

13 A Yes. Primary Substation service is clearly distinguishable, as illustrated below.





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| Unlike Transmission service, a Primary Substation customer does not own the initial       |
|-------------------------------------------------------------------------------------------|
| transformation equipment located at the substation where electricity is stepped down      |
| from transmission voltage (in excess of 60,000 volts) to a distribution voltage.          |
| However, a Primary Substation customer takes service directly from a utility-owned        |
| distribution substation - typically from dedicated radial feeders - and owns all of the   |
| other distribution facilities required for service. The ownership of private distribution |
| lines distinguishes a Primary Substation customer from a Primary or Secondary             |
| Distribution customer. The customer provides its own distribution wires service, not      |
| the utility. Thus, Primary Substation service is distinct from both Transmission and      |
| Primary Distribution service, and is designed to recover the costs that a customer        |
| imposes on the system, namely transmission and primary substation costs, but not          |
| distribution costs.                                                                       |



## **APPENDIX F**

## **Discovery Responses Relied Upon in Direct Testimony**

| Discovery Response                            | Reference Location in Testimony | Begins on Page No. |
|-----------------------------------------------|---------------------------------|--------------------|
| AE Response to TIEC 3-5                       | Footnote 3                      | 83                 |
| AE Response to TIEC 3-6                       | Table 1                         | 84                 |
| AE Response to SCPC 2-3, Attachment D         | Footnote 5                      | 85                 |
| AE Objection to TIEC 4-10                     | Footnote 6                      | 87                 |
| AE Response to TIEC 3-1                       | Footnotes 11, 12, 25            | 90                 |
| AE Response to TIEC 5-6                       | Footnote 13                     | 92                 |
| AE Response to NXP 1-7, Attachment C          | Footnote 18                     | 93                 |
| AE Response to NXP 1-7, Attachment D          | Footnote 20                     | 95                 |
| AE Response to TIEC Technical Conference 2-1B | Footnote 28                     | 97                 |
| AE Response to TIEC 2-3                       | Footnote 28                     | 98                 |
| AE Response to TIEC 4-8                       | Footnote 30                     | 99                 |



Jeffry Pollock
Direct
Austin Energy's Response to TIEC's Third RFI

TIEC 3-5: Provide a copy of Austin Energy's analysis of the impact of Winter Storm Uri

on its test-year energy sales and base revenues.

ANSWER: No responsive document exists. There was no impact on Austin Energy's test year

energy sales and base revenues from Winter Storm Uri. Energy sales are weather normalized and current rates are applied to the weather normalized sales to

calculate test year revenues.

Prepared by: JHO

Sponsored by: Grant Rabon

TIEC 3-6: Provide a schedule showing the number of customers, energy sales, and base revenues by customer class for fiscal years 2017 through 2020.

ANSWER: See tables below.

| # of Customers              | FY2017  | FY2018   | FY2019  | FY2020  |
|-----------------------------|---------|----------|---------|---------|
| Residential                 | 421,752 | 433,411  | 443,792 | 454,616 |
| Secondary 1                 | 32,231  | 32,789   | 33,245  | 33,807  |
| Secondary 2                 | 16,539  | 17,935   | 18, 139 | 18,151  |
| Secondary 3                 | 1,946   | 835      | 842     | 839     |
| Primary 1                   | 75      | 79       | 80      | 80      |
| Primary 2                   | 22      | 25       | 27      | 28      |
| Lighting                    | 82      | 78       | 78      | 82      |
| Contract/TES/Trans/Highload | 54      | 52       | 55      | 56      |
| Total                       | 472,701 | 485, 204 | 496,258 | 507,660 |

| kWh in millions             | FY2017 | FY2018 | FY2019 | FY2020 |
|-----------------------------|--------|--------|--------|--------|
| Residential                 | 4,354  | 4,613  | 4,577  | 4,722  |
| Secondary 1                 | 309    | 313    | 319    | 304    |
| Secondary 2                 | 2,303  | 2,766  | 2,749  | 2,561  |
| Secondary 3                 | 2,800  | 2,372  | 2,442  | 2,293  |
| Primary 1                   | 317    | 374    | 299    | 313    |
| Primary 2                   | 758    | 780    | 853    | 842    |
| Lighting                    | 57     | 57     | 57     | 57     |
| Contract/TES/Trans/Highload | 2,086  | 2,134  | 2,150  | 2,170  |
| Total                       | 12,983 | 13,410 | 13,446 | 13,262 |

| Base Revenue in thousands   | FY2017  | FY2018  | FY2019  | FY2020  |
|-----------------------------|---------|---------|---------|---------|
| Residential                 | 247,936 | 277,358 | 273,641 | 276,690 |
| Secondary 1                 | 21,297  | 21,879  | 22,356  | 21,741  |
| Secondary 2                 | 123,510 | 146,453 | 146,482 | 138,303 |
| Secondary 3                 | 126,971 | 105,389 | 108,247 | 102,684 |
| Primary 1                   | 8,719   | 10,339  | 8,015   | 8,145   |
| Primary 2                   | 18,355  | 18,522  | 18,975  | 19,025  |
| Lighting                    | 1,336   | 1,337   | 1,327   | 1,156   |
| Contract/TES/Trans/Highload | 50,462  | 48,036  | 49,551  | 49,762  |
| Total                       | 598,586 | 629,313 | 628,594 | 617,507 |

Prepared by: MG

Sponsored by: Monica Gonzalez

Austin Energy's Response to SCPC's Second RFI

SCPC 2-3: Please produce all analyses or assessments conducted since 2018, of the economics of continued operation of the Fayette power plant—i.e., all retirement or alternatives studies or unit disposition analyses., Please provide including all underlying modeling files or workbooks—conducted by or for Austin Energy, including, but not limited to, any studies conducted to determine how to comply with any current or impending environmental regulations. Please provide all such workpapers in their native electronic format with formulas intact.

ANSWER:

Austin Energy performed analyses for the purposes of resource planning and potential rate impacts using scenarios that included assumptions of discontinued operations at Fayette. Financial forecasts between 2019 and 2022 have been based on Austin Energy retiring units at Fayette. Austin Energy has no other available studies or analyses related to the economics of continued operations of the Fayette power plant that have been conducted since 2018. See attachments for the financial forecasts and Austin Energy's Resource Planning Results:

Attachment SCPC 2-3A: FY 2020 Budget Fund Summary

Attachment SCPC 2-3B: FY 2021 Budget Fund Summary

Attachment SCPC 2-3C: FY 2022 Budget Fund Summary

Attachment SCPC 2-3D: Resource Planning Scenarios Results Update

Austin Energy participated in negotiations with LCRA on potential strategies for Austin Energy's exit of operations at the Fayette power plant. As a part of those negotiations, Austin Energy and LCRA entered into a Non-Disclosure Agreement (NDA) which prevents the release of studies and analyses associated with those negotiations.

There are no current studies with regard to current or impending environmental regulations.

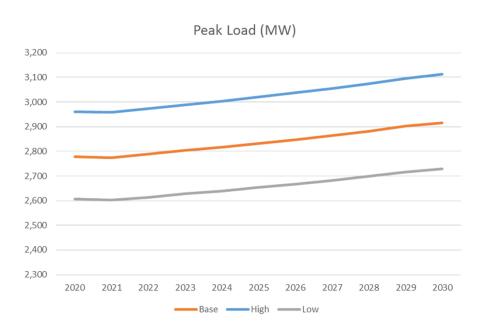
Prepared by: MD

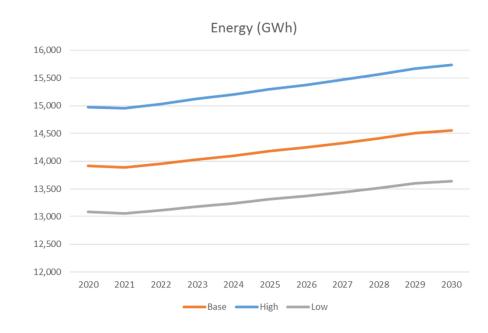
Sponsored by: Erika Bierschbach

Jeffry Pollock Direct Page 86 Attachment SCPC 2-3D Page 35 of 55



## **AE Load Forecast**





- Load forecast from AE finance
  - Statistically Adjusted End-use (SAE) model is used for residential and commercial sales forecast
  - Industrial energy forecast is based on an econometric model
- Peak load grows by 0.4% and energy by 0.4% in the next 10 years
- High and low forecast based on weather sensitivity



Confidential 35

AUSTIN ENERGY'S 2022 BASE RATE REVIEW **§ BEFORE THE CITY OF AUSTIN** 

§ §

IMPARTIAL HEARING EXAMINER

## AUSTIN ENERGY'S OBJECTION TO TEXAS INDUSTRIAL ENERGY CONSUMERS' FOURTH REQUEST FOR INFORMATION

Austin Energy files this Objection to Texas Industrial Energy Consumers' ("TIEC") Fourth Request for Information ("RFI"), and respectfully shows as follows:

### I. PROCEDURAL HISTORY

TIEC served its Fourth RFI to Austin Energy on May 27, 2022. Pursuant to the 2022 Austin Energy Base Rate Review Procedural Guidelines § F(2)(g), this objection is timely filed.

Counsel for Austin Energy and TIEC conducted good faith negotiations that failed to resolve the issues. While Austin Energy will continue to negotiate with TIEC regarding this and any future objections, Austin Energy files this objection for preservation of its legal rights under the established procedures. To the extent any agreement is subsequently reached, Austin Energy will withdraw such objection.

## II. GENERAL OBJECTIONS

Austin Energy generally objects to these RFIs to the extent they are irrelevant.

#### III. SPECIFIC OBJECTION

TIEC 4-5: Provide a copy of Austin Energy's most recent short/long-term electricity sales and peak load forecast.

#### Objection:

Austin Energy objects to this Request to the extent it requests Austin Energy's most recent short/long-term electricity sales and peak load forecast. The Request seeks information that is neither relevant to the issues presented in this matter nor is reasonably calculated to lead to the discovery of admissible evidence. Pursuant to the 2022 Austin Energy Base Rate Review Procedural Guidelines § F(1)(a), "[d]iscovery is limited to relevant information that is not unduly prejudicial. In other words, Participants can ask for information related to the Rate Filing Package." As indicated in Austin Energy's Base Rate Filing Package, Austin Energy is proposing changes to its base electric rates based on a 2021 Test Year in this proceeding. Austin Energy's base rates as proposed in its 2022 Base Rate Filing Package were developed to reflect an embedded cost of service analysis based on a 2021 Test Year. Therefore, Austin Energy's most recent short/long-term electricity sales and peak load forecast have no relevance to the 2022 Base Rate Review. Thus, this request seeks information outside the scope of this proceeding.

- TIEC 4-10: Provide a schedule showing each of the following metrics for Austin Energy over the past five years and projected for the next five years:
  - a) Debt service coverage ratio.
  - b) City transfer.
  - c) The amount of cash available to fund construction.

### Objection:

Austin Energy objects to this Request to the extent it requests a schedule showing Austin Energy's debt service coverage ratio, city transfer, and the amount of cash available to fund construction projected for the next five years. The Request seeks information that is neither relevant to the issues presented in this matter nor is reasonably calculated to lead to the discovery of admissible evidence. Pursuant to the 2022 Austin Energy Base Rate Review Procedural Guidelines § F(1)(a), "[d]iscovery is limited to relevant information that is not unduly prejudicial. In other words, Participants can ask for information related to the Rate Filing Package." As indicated in Austin Energy's Base Rate Filing Package, Austin Energy is proposing changes to its base electric rates based on a 2021 Test Year in this proceeding. Austin Energy's base rates as proposed in its 2022 Base Rate Filing Package were developed to reflect an embedded cost of service analysis based on a 2021 Test Year. Therefore, projections for the next five years of Austin Energy's debt service coverage ratio, city transfer, and the amount of cash available to fund construction have no relevance to the 2022 Base Rate Review. Thus, this request seeks information outside the scope of this proceeding.

## IV. PRAYER

WHEREFORE, PREMISES CONSIDERED, Austin Energy requests this objection be sustained. Austin Energy also requests any other relief to which it may show itself justly entitled.

Respectfully submitted,

LLOYD GOSSELINK ROCHELLE & TOWNSEND, P.C.

816 Congress Avenue, Suite 1900

Austin, Texas 78701

(512) 322-5800

(512) 472-0532 (Fax)

THOMAS L. BROCATO State Bar No. 03039030 tbrocato@lglawfirm.com TAYLOR P. DENISON State Bar No. 24116344 tdenison@lglawfirm.com

ATTORNEYS FOR THE CITY OF AUSTIN D/B/A AUSTIN ENERGY

## **CERTIFICATE OF SERVICE**

I hereby certify that a true and correct copy of this pleading has been served on all parties and the Impartial Hearing Examiner on June 6, 2022, in accordance with the 2022 Austin Energy Base Rate Review Procedural Guidelines.

THOMAS L. BROCATO

### TIEC 3-1: Referring to Schedule G-6:

- a. Explain the rationale and provide documents supporting the use of the 12NCP method to allocate distribution plant and related expenses, including in your response why Austin Energy proposes this method despite the fact that the Public Utility Commission of Texas (PUC) has approved the use of 1NCP to allocate these costs for other ERCOT utilities.
- b. Explain the rationale and provide documents supporting the use of the 12NCP method to allocate load dispatch expense, including in your response why Austin Energy proposes this method despite the fact that the PUC has approved the use of 1NCP to allocate these expenses for other ERCOT utilities.
- c. Please provide every reason upon which Austin Energy relies for using ERCOT 12CP to allocate production demand costs rather than using A&E/4CP as approved by the PUC for non-ERCOT vertically integrated utilities in Texas.
- d. Please provide every reason upon which Austin Energy relies for using ERCOT 12CP to allocate production demand costs rather than the Austin Energy System 12CP.
- e. Explain the rationale for allocating ERCOT Administration Fees on the NEFL allocator.
- f. Explain the rationale for recovering production energy-related costs allocated to customer classes equipped with demand meters through the demand charge rather than the energy charge.
- g. Explain the rationale for allocating energy efficiency program and service area street lighting costs to all customer classes using the Rev Req x COA Lights allocator. How are these allocations consistent with the following provision in the Primary Voltage ≥ 20 MW and Transmission customer classes: Charges for Service Area Lighting (SAL) and Energy Efficiency Services (EES) do not apply under this rate schedule.
- h. Provide workpapers showing the derivation of and explain the basis for the Key Acct allocator.
- i. Explain how the use of the Key Acct allocator reflects the benefits from economic development.

#### **ANSWER**:

a. The NCP allocation method recognizes that distribution infrastructure is sized to meet the localized maximum demands on the system. These localized demands are best measured by class non-coincident peaks. Use of a 12NCP method recognizes that distribution capacity provides value to customers throughout the year – not just during the peak hour or the summer peak months. Because the NCP is calculated at the class level, off peak or seasonal customers may not be fully accounted for in a 1NCP calculation. Use of a 12NCP calculation improves the ability to capture these loads.

- b. The NCP allocation method recognizes that load dispatch is a fixed cost on the system. Use of a 12NCP method recognizes that load dispatch provides value to customers throughout the year not just during the peak hour or the summer peak months. Because the NCP is calculated at the class level, off peak or seasonal customers may not be fully accounted for in a 1NCP calculation. Use of a 12NCP calculation improves the ability to capture these loads.
- c. See Austin Energy's Response to NXP 1-8.
- d. See Austin Energy's Response to NXP 1-8.
- e. This cost is completely recovered through the Regulatory Charge, rather than base rates. Thus, regardless of how this cost is allocated in the Base Rate Review, it will have no impact on base rates.
- f. All costs that are identified as production energy-related in the Base Rate Filing Package are recovered in a pass-through charge and, therefore, are outside the scope for this Base Rate Review. Thus, Austin Energy is not aware of any production energy-related costs that are recovered through base demand charges.
- g. The energy efficiency program and service area street lighting costs are recovered through the Community Benefit Charge. Thus, regardless of how this cost is allocated in the Base Rate Review, it will have no impact on base rates.
  - Also, please see Austin Energy's Response in Technical Conference #2 (time stamp 51:20 to 54:07) via the following link: https://austintx.new.swagit.com/videos/174228
- h. See Work Paper D-1.2.4.1. The key account allocator has been developed based on the estimated time of key accounts staff associated with assisting each customer class.
- i. Economic development covers a number of activities to assist with creating, attracting and retaining small and large businesses in Austin. One of the goals is to increase jobs and investment in Austin with programs that support business expansion and attraction. These activities accrue to the benefit of local businesses. Thus, the key account allocator aligns the cost responsibility for supporting these activities with the businesses served by Austin Energy.

Prepared by: GR

Sponsored by: Grant Rabon

Austin Energy's Response to TIEC's Fifth RFI

TIEC 5-6: Does Austin Energy project that it will not be a summer-peaking system within

the next five years? If so, provide supporting documents.

ANSWER: Throughout its ten-year planning horizon, Austin Energy projects that it will still

peak in the summers, including within the next five years.

Prepared by: SC

Sponsored by: Erika Bierschbach

Austin Energy's Response to NXP's First RFI

NXP 1-7: Refer to page 60 of AE's Base Rate Filing Package. Please identify each of the

Production- Demand cost allocation methods that AE has reviewed in the past. For each method reviewed, describe all shortfalls AE identified with the method.

<u>ANSWER:</u> See the following attachments:

Attachment NXP 1-7A: White Paper 3 – Revenue Requirement and Cost of Service

Attachment NXP 1-7B: PIC 3 Presentation Final Revised 030311

Attachment NXP 1-7C: PUCT Testimony

Attachment NXP 1-7D: 2016 Report to Council Final

Prepared by: GR

Sponsored by: Grant Rabon

Jeffry Pollock Direct Page 94

- 1 The sub-functionalized and classified production costs were allocated to each of the
- 2 12 customer classes.

#### PLEASE DESCRIBE THE ALLOCATION OF COSTS TO THE VARIOUS 3 Q.

4 CUSTOMER CLASSES.

5 A. All production, demand-related costs associated with generation resources were allocated to each customer class using the AED-4CP allocation method. Production 6 7 demand-related costs associated with Energy Efficiency Programs were allocated based on the total class revenue requirement. Energy-related costs were allocated to 9 each customer class based on Net Energy For Load ("NEFL"), net of GreenChoice 10 subscriptions. The cost of GreenChoice attributable to subscriptions was allocated 11

based on a projection of the normalized energy consumption for GreenChoice

12 subscribers in each customer class.

#### 13 Q. PLEASE DESCRIBE THE ALLOCATION OF PRODUCTION DEMAND-

14 RELATED COSTS USING THE AED-4CP ALLOCATION METHOD.

15 A. The AED-4CP allocation method is a variation of the AED method. AED is a widely 16 used production demand-related cost allocation method and is described in the 17 NARUC manual. Under the AED method, the electricity usage characteristics of 18 each customer class are evaluated to determine class "average demand" and class 19 "excess demand." Average demand (measured in kW) is a measure of the demand a 20 class places on the system over the course of the year. Average demand is calculated 21 by dividing annual customer class electricity usage (measured in kWh) by the typical 22 number of hours in a year (i.e., 8,760 hours). Mathematically, as an allocator of 23 costs, average demand is equivalent to energy. Excess demand measures the 24 difference between the customer class's annual maximum demand and its annual PUC DOCKET NO. 40627 DIRECT TESTIMONY OF JOSEPH A. MANCINELLI 39

Austin Energy's Response to NXP's First RFI

NXP 1-7: Refer to page 60 of AE's Base Rate Filing Package. Please identify each of the

Production- Demand cost allocation methods that AE has reviewed in the past. For each method reviewed, describe all shortfalls AE identified with the method.

<u>ANSWER:</u> See the following attachments:

Attachment NXP 1-7A: White Paper 3 – Revenue Requirement and Cost of Service

Attachment NXP 1-7B: PIC 3 Presentation Final Revised 030311

Attachment NXP 1-7C: PUCT Testimony

Attachment NXP 1-7D: 2016 Report to Council Final

Prepared by: GR

Sponsored by: Grant Rabon

Cost of Service analysis applies the methodology approved by the City Council in 2012, with the exception of the allocator of generation production costs. For these specific costs, Austin Energy recommends using the ERCOT Twelve Coincident Peak (ERCOT 12CP) methodology. This is an appropriate methodology for a regulated entity like Austin Energy that operates in a centralized dispatched environment like the ERCOT Nodal Market.

Costs allocated by customer class are shown in Figure 2.2. In the first numeric column, the figure identifies the share of the total revenue requirement allocated to each customer class. The second numeric column presents the projected revenues under current rates from each customer class. The difference between these columns is the excess or deficit for each class relative to cost of service. The final column shows the percentage adjustment — either up or down — required to bring that class to cost of service.

Figure 2.2 Existing Base Rate Changes Needed to Meet Total Cost of Service by Customer Class

| Customer Class                         | Total Cost of<br>Service <sup>(1)</sup><br>(\$) | Existing Base Rates<br>and Test Year Pass-<br>Through Rates <sup>(1)</sup><br>(\$) | Excess/<br>(Deficient)<br>Revenue <sup>(2)</sup><br>(\$) | Increase/<br>(Decrease)<br>Needed to<br>Meet Cost of<br>Service<br>(%) |
|----------------------------------------|-------------------------------------------------|------------------------------------------------------------------------------------|----------------------------------------------------------|------------------------------------------------------------------------|
| Residential                            | 527,473,323                                     | 474,062,283                                                                        | (53,411,041)                                             | 11.3                                                                   |
| Secondary Voltage <10 kW               | 32,241,755                                      | 31,458,282                                                                         | (783,472)                                                | 2.5                                                                    |
| Secondary Voltage 10 - <300 kW         | 241,019,337                                     | 283,339,669                                                                        | 42,320,332                                               | (14.9)                                                                 |
| Secondary Voltage ≥300 kW              | 220,057,525                                     | 238,491,828                                                                        | 18,434,303                                               | (7.7)                                                                  |
| Primary Voltage <3 MW                  | 42,224,997                                      | 46,257,714                                                                         | 4,032,717                                                | (8.7)                                                                  |
| Primary Voltage 3 - <20 MW             | 47,471,430                                      | 52,185,478                                                                         | 4,714,048                                                | (9.0)                                                                  |
| Primary Voltage ≥20 MW                 | 87,271,333                                      | 89,945,727                                                                         | 2,674,394                                                | (3.0)                                                                  |
| Transmission Voltage                   | 1,317,596                                       | 2,146,390                                                                          | 828,794                                                  | (38.6)                                                                 |
| Transmission Voltage ≥ 20 MW @ 85% aLF | 13,863,814                                      | 13,517,421                                                                         | (346,394)                                                | 2.6                                                                    |
| Service Area Street Lighting           | N/A                                             | N/A                                                                                | N/A                                                      | N/A                                                                    |
| City-Owned Private Outdoor Lighting    | 3,776,457                                       | 2,884,834                                                                          | (891,623)                                                | 30.9                                                                   |
| Customer Owned Non-Metered Lighting    | 114,954                                         | 108,555                                                                            | (6,399)                                                  | 5.9                                                                    |
| Customer Owned Metered Lighting        | 394,788                                         | 303,428                                                                            | <u>(91,360)</u>                                          | 30.1                                                                   |
| Total                                  | 1,217,227,310                                   | 1,234,701,609                                                                      | 17,474,299                                               | (1.4)                                                                  |

Notes:

1) Excludes Customer Assistance Program funding.

2) Only shows base revenue differences and none of the impacts of pass-through charges.

The table demonstrates that the Residential customer class is well below cost of service, by \$53.4 million (11.3 percent), while certain non-commercial customer classes are above cost of service. The greatest differential in dollar terms is for the Secondary Voltage class from 10 to 300 kW, at \$42.3 million above cost of service. Chapter 5, Cost of Service, discusses the cost allocation methodologies used to assign costs to specific classes of customers and also includes Austin Energy's proposal for allocating the \$17.5 million in excess revenues across the customer classes.

Jeffry Pollock
Direct
Page 97
Technical Conference #2 Follow Up

TIEC TC 2-1B: In its response to TIEC TC 1-2, Austin Energy stated that customers in the

Primary Voltage Over 3 MW and Over 20 MW classes take delivery service directly from Austin Energy-owned distribution substations: Confirm that all of the Primary Voltage Over 3 MW and less than 20 MW customers are served directly from Austin Energy owned distribution substations. If not confirmed, list the customers who are not served directly from Austin

Energy owned distribution substations.

ANSWER: Not confirmed.

Austin Energy's Response to TIEC's Second RF1

TIEC 2-3: For each Primary Voltage customer between 3 MW and up to 20 MW:

- a. Provide an electrical one-line diagram showing the interconnection of Austin Energy and the customer's electrical facilities.
- b. Provide the hourly load data in live EXCEL format.

#### ANSWER:

Austin Energy filed a Notice of Procedural Guidelines Section C(2) Ruling on May 27, 2022 because the City of Austin Law Department determined that responsive Austin Energy information is considered either confidential competitive information, confidential critical infrastructure information, or confidential customer information which Austin Energy cannot legally disclose.

Prepared by: TPD

Sponsored by: Thomas Brocato

Austin Energy's Response to TIEC's Fourth RFI

TIEC 4-8: Does Austin Energy have a facilities charge applicable to customers that lease

electrical equipment from Austin Energy? If so, provide the rate, terms, and

conditions of any such facilities charge.

ANSWER: No.

Prepared by: WS / MM

Sponsored by: Brian Murphy

# AUSTIN ENERGY Adjustment to Test-Year Sales and Base Revenues Fiscal Year 2021

### Commercial

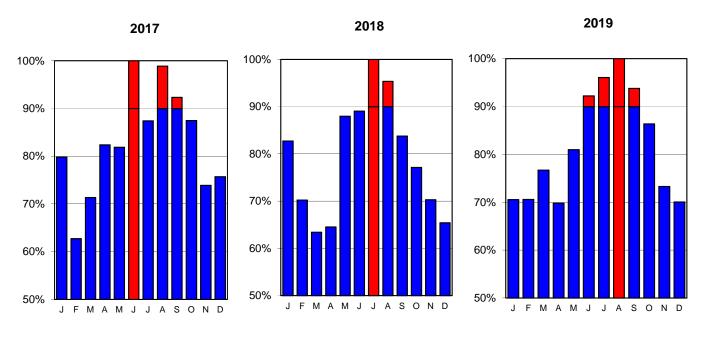
| Line | Fiscal Year                          | Total        | Residential | & Industrial | Reference                  |
|------|--------------------------------------|--------------|-------------|--------------|----------------------------|
|      |                                      | (1)          | (2)         | (3)          | (4)                        |
|      | Average kWh Per Customer             |              |             |              |                            |
| 1    | FY 2017                              |              | 10,323      | 168,526      |                            |
| 2    | FY 2018                              |              | 10,645      | 168,994      | AE Response to             |
| 3    | FY 2019                              |              | 10,314      | 168,193      | TIEC 3-6                   |
| 4    | FY 2020                              |              | 10,387      | 160,172      |                            |
| 5    | FY 2017 through FY 2020              |              | 10,417      | 166,471      | Avg. Lines 1-4             |
| 6    | FY 2021 (Test Year)                  | _            | 10,218      | 157,754      | AE Response to TIEC 3-6    |
| 7    | Historical Average Vs. Test Year     | _            | 199         | 8,717        | Line 6 - Line 5            |
| 8    | Percent Difference                   |              | -1.9%       | -5.2%        | Line 7 ÷ Line 6            |
| 9    | Number of Customers                  | 531,346      | 478,047     | 53,299       | RFP Schedule<br>WP F-6.1   |
| 10   | Test Year Sales Adj. (MWh)           | 559,924      | 95,294      | 464,629      | Line 7 x Line 9 ÷ 1000     |
| 11   | FY 2017-20 Avg. Base Revenues (\$/MV | Vh)          | \$58.86     | \$40.26      | AE Response to<br>TIEC 3-6 |
| 12   | Test Year Base Revenue Adjustment    | \$24,315,067 | \$5,609,179 | \$18,705,888 | Line 10 x<br>Line 11       |

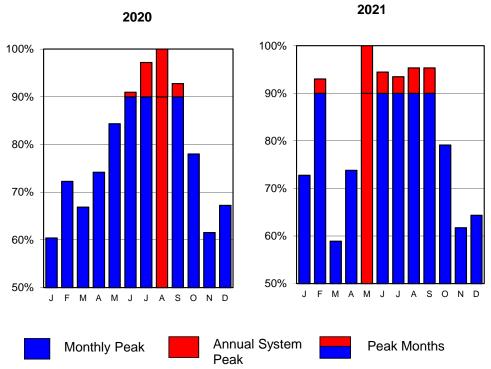
## **AUSTIN ENERGY**

## Base Revenue Requirement <u>Test Year Ended September 30, 2021</u>

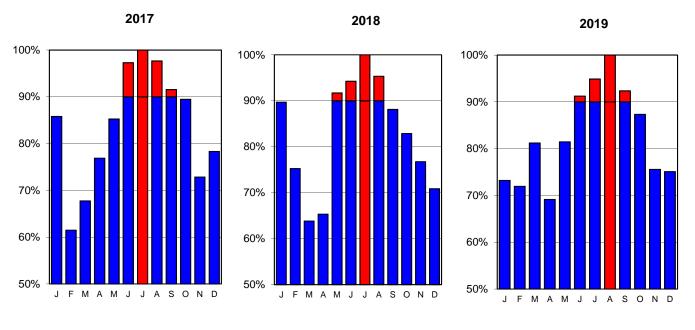
| Line | Description                         | Total<br>Company | Non-Electric<br>Adjustment<br>Transfer | Total Electric  | Known &<br>Measurable | Adjusted<br>Total<br>Texas |
|------|-------------------------------------|------------------|----------------------------------------|-----------------|-----------------------|----------------------------|
|      |                                     | (1)              | (2)                                    | (3)             | (4)                   | (5)                        |
| 1    | Non-Recoverable Fuel Cost           | \$2,660,877      | \$0                                    | \$2,660,877     | (\$665,044)           | \$1,995,834                |
| 2    | Non-Fuel O&M                        | \$517,174,874    | (\$754,067)                            | \$516,420,808   | (\$17,322,877)        | \$499,097,931              |
| 3    | Total O&M                           | \$519,835,752    | (\$754,067)                            | \$519,081,685   | (\$17,987,920)        | \$501,093,765              |
| 4    | Depreciation & Amortization         | \$268,470,823    | (\$9,961,371)                          | \$258,509,452   | (\$111,743,752)       | \$146,765,700              |
| 5    | Taxes Other Than Income Taxes       | \$1,943,325      | \$0                                    | \$1,943,325     | \$0                   | \$1,943,325                |
| 6    | Other Expenses                      | \$33,247,101     | (\$18,713,593)                         | \$14,533,507    | (\$7,554,037)         | \$6,979,470                |
| 7    | Total Expenses (before Return)      | \$823,497,000    | (\$29,429,031)                         | \$794,067,969   | (\$137,285,710)       | \$656,782,259              |
|      | Return                              |                  |                                        |                 |                       |                            |
| 8    | Debt Service                        | \$116,278,964    | (\$17,842,507)                         | \$98,436,456    | \$1,567,890           | \$100,004,346              |
| 9    | Non-Nuclear Decommissioning         | \$8,000,000      | \$0                                    | \$8,000,000     | \$0                   | \$8,000,000                |
| 10   | General Fund Transfer               | \$114,000,000    | \$0                                    | \$114,000,000   | \$7,000,000           | \$121,000,000              |
| 11   | Internally Generated Funds          | \$198,693,044    | (\$12,258,563)                         | \$186,434,481   | (\$66,616,839)        | \$119,817,642              |
| 12   | Sub-Total                           | \$436,972,007    | (\$30,101,070)                         | \$406,870,937   | (\$58,048,949)        | \$348,821,988              |
|      | Less:                               |                  |                                        |                 |                       |                            |
| 13   | Depreciation & Amortization         | (\$268,470,823)  | \$9,961,371                            | (\$258,509,452) | \$111,743,752         | (\$146,765,700)            |
| 14   | Interest and Dividend Income        | (\$2,966,885)    | \$0                                    | (\$2,966,885)   | (\$1,303,431)         | (\$4,270,316)              |
| 15   | Contribution in Aid of Construction | (\$41,398,937)   | \$0                                    | (\$41,398,937)  | (\$2,229,044)         | (\$43,627,981)             |
| 16   | Sub-Total                           | (\$312,836,645)  | \$9,961,371                            | (\$302,875,274) | \$108,211,278         | (\$194,663,996)            |
| 17   | Cash Flow Return Requested          | \$124,135,363    | (\$20,139,700)                         | \$103,995,663   | \$50,162,329          | \$154,157,992              |
| 18   | Total Cost of Service               | \$947,632,362    | (\$49,568,731)                         | \$898,063,632   | (\$87,123,381)        | \$810,940,251              |
| 19   | Less Other (Non-Rate) Revenue       | (\$138,572,805)  | \$29,890,394                           | (\$108,682,412) | \$2,711,138           | (\$105,971,273)            |
| 20   | Total Base Revenue Requirement      | \$809,059,557    | (\$19,678,337)                         | \$789,381,220   | (\$84,412,243)        | \$704,968,978              |

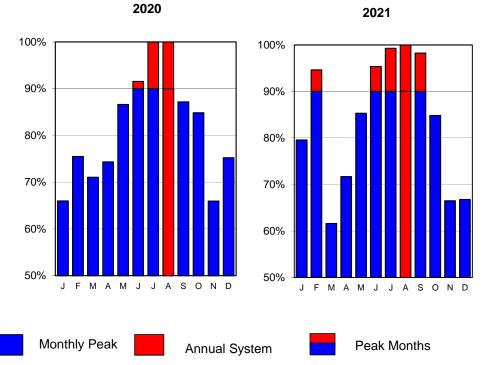
# AUSTIN ENERGY Austin Energy Peak Demands as a Percent of the Annual System Peak Demand for the Fiscal Years 2017 through 2021





# AUSTIN ENERGY ERCOT Peak Demands as a Percent of the Annual System Peak Demand for the Fiscal Years 2017 through 2021





**AUSTIN ENERGY** 

# Compilation of Load Zone Locational Marginal Prices Fiscal Years 2016 Through 2021 (Excluding Winter Storm Uri)

**Hour Ending** 

| Month     |                                                                              | 8am                                                                                                           |                                                                                                                                                                                                | 9am                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                       | 10am                                                                                       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| November  | \$                                                                           | 35.98                                                                                                         | \$                                                                                                                                                                                             | 37.71                                                                                                                                                                                                                 | \$                                                                                                                                                                                                                                                                                                    | 37.84                                                                                      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| December  | \$                                                                           | 30.53                                                                                                         | \$                                                                                                                                                                                             | 33.93                                                                                                                                                                                                                 | \$                                                                                                                                                                                                                                                                                                    | 43.87                                                                                      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|           | January February March April May June July August September October November | January \$ February \$ March \$ April \$ May \$ June \$ July \$ August \$ September \$ October \$ November \$ | (1)  January \$ 58.46  February \$ 26.63  March \$ 42.28  April \$ 25.83  May \$ 24.15  June \$ 20.98  July \$ 26.58  August \$ 28.21  September \$ 31.89  October \$ 26.79  November \$ 35.98 | (1)  January \$ 58.46 \$ February \$ 26.63 \$ March \$ 42.28 \$ April \$ 25.83 \$ May \$ 24.15 \$ June \$ 20.98 \$ July \$ 26.58 \$ August \$ 28.21 \$ September \$ 31.89 \$ October \$ 26.79 \$ November \$ 35.98 \$ | (1) (2)  January \$ 58.46 \$ 42.82  February \$ 26.63 \$ 26.98  March \$ 42.28 \$ 27.96  April \$ 25.83 \$ 37.54  May \$ 24.15 \$ 24.89  June \$ 20.98 \$ 21.20  July \$ 26.58 \$ 25.94  August \$ 28.21 \$ 28.88  September \$ 31.89 \$ 31.46  October \$ 26.79 \$ 24.83  November \$ 35.98 \$ 37.71 | (1) (2)  January \$ 58.46 \$ 42.82 \$ February \$ 26.63 \$ 26.98 \$  March \$ 42.28 \$ 27.96 \$  April \$ 25.83 \$ 37.54 \$  May \$ 24.15 \$ 24.89 \$  June \$ 20.98 \$ 21.20 \$  July \$ 26.58 \$ 25.94 \$  August \$ 28.21 \$ 28.88 \$  September \$ 31.89 \$ 31.46 \$  October \$ 26.79 \$ 24.83 \$  November \$ 35.98 \$ 37.71 \$ | (1) (2) (3)  January \$ 58.46 \$ 42.82 \$ 32.52  February \$ 26.63 \$ 26.98 \$ 34.57  March \$ 42.28 \$ 27.96 \$ 31.54  April \$ 25.83 \$ 37.54 \$ 34.42  May \$ 24.15 \$ 24.89 \$ 24.06  June \$ 20.98 \$ 21.20 \$ 22.81  July \$ 26.58 \$ 25.94 \$ 26.62  August \$ 28.21 \$ 28.88 \$ 28.55  September \$ 31.89 \$ 31.46 \$ 32.92  October \$ 26.79 \$ 24.83 \$ 25.38  November \$ 35.98 \$ 37.71 \$ 37.84 | (1) (2) (3)  January \$ 58.46 \$ 42.82 \$ 32.52 \$  February \$ 26.63 \$ 26.98 \$ 34.57 \$  March \$ 42.28 \$ 27.96 \$ 31.54 \$  April \$ 25.83 \$ 37.54 \$ 34.42 \$  May \$ 24.15 \$ 24.89 \$ 24.06 \$  June \$ 20.98 \$ 21.20 \$ 22.81 \$  July \$ 26.58 \$ 25.94 \$ 26.62 \$  August \$ 28.21 \$ 28.88 \$ 28.55 \$  September \$ 31.89 \$ 31.46 \$ 32.92 \$  October \$ 26.79 \$ 24.83 \$ 25.38 \$  November \$ 35.98 \$ 37.71 \$ 37.84 \$ | (1) (2) (3) (4)  January \$ 58.46 \$ 42.82 \$ 32.52 \$ 31.00  February \$ 26.63 \$ 26.98 \$ 34.57 \$ 34.22  March \$ 42.28 \$ 27.96 \$ 31.54 \$ 25.77  April \$ 25.83 \$ 37.54 \$ 34.42 \$ 40.05  May \$ 24.15 \$ 24.89 \$ 24.06 \$ 24.92  June \$ 20.98 \$ 21.20 \$ 22.81 \$ 25.78  July \$ 26.58 \$ 25.94 \$ 26.62 \$ 29.96  August \$ 28.21 \$ 28.88 \$ 28.55 \$ 32.50  September \$ 31.89 \$ 31.46 \$ 32.92 \$ 34.22  October \$ 26.79 \$ 24.83 \$ 25.38 \$ 27.14  November \$ 35.98 \$ 37.71 \$ 37.84 \$ 33.35 | (1) (2) (3) (4)  January \$ 58.46 \$ 42.82 \$ 32.52 \$ 31.00 \$  February \$ 26.63 \$ 26.98 \$ 34.57 \$ 34.22 \$  March \$ 42.28 \$ 27.96 \$ 31.54 \$ 25.77 \$  April \$ 25.83 \$ 37.54 \$ 34.42 \$ 40.05 \$  May \$ 24.15 \$ 24.89 \$ 24.06 \$ 24.92 \$  June \$ 20.98 \$ 21.20 \$ 22.81 \$ 25.78 \$  July \$ 26.58 \$ 25.94 \$ 26.62 \$ 29.96 \$  August \$ 28.21 \$ 28.88 \$ 28.55 \$ 32.50 \$  September \$ 31.89 \$ 31.46 \$ 32.92 \$ 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\$ 43.63 \$ 61.15 \$ 106.06 \$ 117.70 \$ 96.90  July \$ 26.58 \$ 25.94 \$ 26.62 \$ 29.96 \$ 34.05 \$ 44.71 \$ 51.04 \$ 69.90 \$ 149.10 \$ 180.66  August \$ 28.21 \$ 28.88 \$ 28.55 \$ 32.50 \$ 38.37 \$ 43.39 \$ 156.54 \$ 586.22 \$ 914.11 \$ 832.52  September \$ 31.89 \$ 31.46 \$ 32.92 \$ 34.22 \$ 38.95 \$ 45.86 \$ 77.19 \$ 121.98 \$ 202.86 \$ 301.47  October \$ 26.79 \$ 24.83 \$ 25.38 \$ 27.14 \$ 30.56 \$ 43.84 \$ 52.32 \$ 77.55 \$ 123.29 \$ 92.07  November \$ 35.98 \$ 37.71 \$ 37.84 \$ 33.35 \$ 31.88 \$ 32.61 \$ 33.87 \$ 33.09 \$ 32.83 \$ 35.58 | (1) (2) (3) (4) (5) (6) (7) (8) (9) (10)  January \$ 58.46 \$ 42.82 \$ 32.52 \$ 31.00 \$ 28.35 \$ 29.68 \$ 23.57 \$ 22.30 \$ 21.81 \$ 23.20 \$ February \$ 26.63 \$ 26.98 \$ 34.57 \$ 34.22 \$ 24.00 \$ 29.40 \$ 23.51 \$ 28.56 \$ 26.76 \$ 28.41 \$ March \$ 42.28 \$ 27.96 \$ 31.54 \$ 25.77 \$ 27.80 \$ 27.20 \$ 28.31 \$ 26.52 \$ 28.06 \$ 34.78 \$ April \$ 25.83 \$ 37.54 \$ 34.42 \$ 40.05 \$ 30.28 \$ 33.33 \$ 32.99 \$ 46.33 \$ 87.32 \$ 89.24 \$ May \$ 24.15 \$ 24.89 \$ 24.06 \$ 24.92 \$ 28.24 \$ 33.41 \$ 43.26 \$ 62.90 \$ 77.73 \$ 102.31 \$ June \$ 20.98 \$ 21.20 \$ 22.81 \$ 25.78 \$ 59.01 \$ 43.63 \$ 61.15 \$ 106.06 \$ 117.70 \$ 96.90 \$ July \$ 26.58 \$ 25.94 \$ 26.62 \$ 29.96 \$ 34.05 \$ 44.71 \$ 51.04 \$ 69.90 \$ 149.10 \$ 180.66 \$ August \$ 28.21 \$ 28.88 \$ 28.55 \$ 32.50 \$ 38.37 \$ 43.39 \$ 156.54 \$ 586.22 \$ 914.11 \$ 832.52 \$ September \$ 31.89 \$ 31.46 \$ 32.92 \$ 34.22 \$ 38.95 \$ 45.86 \$ 77.19 \$ 121.98 \$ 202.86 \$ 301.47 \$ October \$ 26.79 \$ 24.83 \$ 25.38 \$ 27.14 \$ 30.56 \$ 43.84 \$ 52.32 \$ 77.55 \$ 123.29 \$ 92.07 \$ November \$ 35.98 \$ 37.71 \$ 37.84 \$ 33.35 \$ 31.88 \$ 32.61 \$ 33.87 \$ 33.09 \$ 32.83 \$ 35.58 \$ | (1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11)  January \$ 58.46 \$ 42.82 \$ 32.52 \$ 31.00 \$ 28.35 \$ 29.68 \$ 23.57 \$ 22.30 \$ 21.81 \$ 23.20 \$ 38.71  February \$ 26.63 \$ 26.98 \$ 34.57 \$ 34.22 \$ 24.00 \$ 29.40 \$ 23.51 \$ 28.56 \$ 26.76 \$ 28.41 \$ 27.61  March \$ 42.28 \$ 27.96 \$ 31.54 \$ 25.77 \$ 27.80 \$ 27.20 \$ 28.31 \$ 26.52 \$ 28.06 \$ 34.78 \$ 29.99  April \$ 25.83 \$ 37.54 \$ 34.42 \$ 40.05 \$ 30.28 \$ 33.33 \$ 32.99 \$ 46.33 \$ 87.32 \$ 89.24 \$ 89.43  May \$ 24.15 \$ 24.89 \$ 24.06 \$ 24.92 \$ 28.24 \$ 33.41 \$ 43.26 \$ 62.90 \$ 77.73 \$ 102.31 \$ 46.65  June \$ 20.98 \$ 21.20 \$ 22.81 \$ 25.78 \$ 59.01 \$ 43.63 \$ 61.15 \$ 106.06 \$ 117.70 \$ 96.90 \$ 70.93  July \$ 26.58 \$ 25.94 \$ 26.62 \$ 29.96 \$ 34.05 \$ 44.71 \$ 51.04 \$ 69.90 \$ 149.10 \$ 180.66 \$ 95.76  August \$ 28.21 \$ 28.88 \$ 28.55 \$ 32.50 \$ 38.37 \$ 43.39 \$ 156.54 \$ 586.22 \$ 914.11 \$ 832.52 \$ 259.62  September \$ 31.89 \$ 31.46 \$ 32.92 \$ 34.22 \$ 38.95 \$ 45.86 \$ 77.19 \$ 121.98 \$ 202.86 \$ 301.47 \$ 98.79  October \$ 26.79 \$ 24.83 \$ 25.38 \$ 27.14 \$ 30.56 \$ 43.84 \$ 52.32 \$ 77.55 \$ 123.29 \$ 92.07 \$ 49.93  November \$ 35.98 \$ 37.71 \$ 37.84 \$ 33.35 \$ 31.88 \$ 32.61 \$ 33.87 \$ 33.09 \$ 32.83 \$ 35.58 \$ 93.47 | (1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11)  January \$ 58.46 \$ 42.82 \$ 32.52 \$ 31.00 \$ 28.35 \$ 29.68 \$ 23.57 \$ 22.30 \$ 21.81 \$ 23.20 \$ 38.71 \$ February \$ 26.63 \$ 26.98 \$ 34.57 \$ 34.22 \$ 24.00 \$ 29.40 \$ 23.51 \$ 28.56 \$ 26.76 \$ 28.41 \$ 27.61 \$ March \$ 42.28 \$ 27.96 \$ 31.54 \$ 25.77 \$ 27.80 \$ 27.20 \$ 28.31 \$ 26.52 \$ 28.06 \$ 34.78 \$ 29.99 \$ April \$ 25.83 \$ 37.54 \$ 34.42 \$ 40.05 \$ 30.28 \$ 33.33 \$ 32.99 \$ 46.33 \$ 87.32 \$ 89.24 \$ 89.43 \$ May \$ 24.15 \$ 24.89 \$ 24.06 \$ 24.92 \$ 28.24 \$ 33.41 \$ 43.26 \$ 62.90 \$ 77.73 \$ 102.31 \$ 46.65 \$ June \$ 20.98 \$ 21.20 \$ 22.81 \$ 25.78 \$ 59.01 \$ 43.63 \$ 61.15 \$ 106.06 \$ 117.70 \$ 96.90 \$ 70.93 \$ July \$ 26.58 \$ 25.94 \$ 26.62 \$ 29.96 \$ 34.05 \$ 44.71 \$ 51.04 \$ 69.90 \$ 149.10 \$ 180.66 \$ 95.76 \$ August \$ 28.21 \$ 28.88 \$ 28.55 \$ 32.50 \$ 38.37 \$ 43.39 \$ 156.54 \$ 586.22 \$ 914.11 \$ 832.52 \$ 259.62 \$ September \$ 31.89 \$ 31.46 \$ 32.92 \$ 34.22 \$ 38.95 \$ 45.86 \$ 77.19 \$ 121.98 \$ 202.86 \$ 301.47 \$ 98.79 \$ October \$ 26.79 \$ 24.83 \$ 25.38 \$ 27.14 \$ 30.56 \$ 43.84 \$ 52.32 \$ 77.55 \$ 123.29 \$ 92.07 \$ 49.93 \$ November \$ 35.98 \$ 37.71 \$ 37.84 \$ 33.35 \$ 31.88 \$ 32.61 \$ 33.87 \$ 33.09 \$ 32.83 \$ 35.58 \$ 93.47 \$ |

**Source:** AE Response to NXP 1-10.

# AUSTIN ENERGY Derivation of AED-4CP Allocation Factors <u>Test Year Ended September 30, 2021</u>

| Line | Description          | Total     | Residential | Secondary<br>< 10 kW | Secondary<br>≥ 10 < 300 kW | Secondary<br>≥ 300 kW | Primary<br>< 3 MW | Primary<br>≥ 3 < 20 MW | High Load<br>Factor<br>Primary<br>> 20 MW | Transmission | High Load<br>Factor<br>Transmission<br>≥ 20 MW | Service Area<br>Street<br>Lighting | Customer-<br>Owned<br>Private<br>Outdoor<br>Lighting | Customer-<br>Owned<br>Non-Metered<br>Lighting | Customer-<br>Owned<br>Metered<br>Lighting |
|------|----------------------|-----------|-------------|----------------------|----------------------------|-----------------------|-------------------|------------------------|-------------------------------------------|--------------|------------------------------------------------|------------------------------------|------------------------------------------------------|-----------------------------------------------|-------------------------------------------|
|      |                      | (1)       | (2)         | (3)                  | (4)                        | (5)                   | (6)               | (7)                    | (8)                                       | (9)          | (10)                                           | (11)                               | (12)                                                 | (13)                                          | (14)                                      |
| 1    | Hours in Year        | 8,760     |             |                      |                            |                       |                   |                        |                                           |              |                                                |                                    |                                                      |                                               |                                           |
| 2    | 4-CP Production      | 2,708,913 | 1,225,224   | 55,862               | 576,034                    | 374,047               | 53,299            | 127,059                | 199,268                                   | 8,880        | 28,852                                         | 0                                  | 0                                                    | 0                                             | 561                                       |
| 3    | Average              | 1,594,189 | 587,599     | 36,316               | 327,282                    | 270,583               | 39,263            | 116,889                | 179,579                                   | 3,124        | 26,328                                         | 5,108                              | 1,316                                                | 212                                           | 590                                       |
| 4    | Excess               | 1,061,561 | 637,625     | 19,546               | 248,752                    | 103,463               | 14,036            | 10,170                 | 19,689                                    | 5,756        | 2,524                                          | 0                                  | 0                                                    | 0                                             | 0                                         |
| 5    | Base Rate Allocation |           |             |                      |                            |                       |                   |                        |                                           |              |                                                |                                    |                                                      |                                               |                                           |
| 6    | Average allocation   |           | 20.6423%    | 1.2758%              | 11.4974%                   | 9.5056%               | 1.3793%           | 4.1063%                | 6.3086%                                   | 0.1097%      | 0.9249%                                        | 0.1794%                            | 0.0462%                                              | 0.0074%                                       | 0.0207%                                   |
| 7    | Excess allocation    |           | 26.4263%    | 0.8101%              | 10.3095%                   | 4.2880%               | 0.5817%           | 0.4215%                | 0.8160%                                   | 0.2386%      | 0.1046%                                        | 0.0000%                            | 0.0000%                                              | 0.0000%                                       | 0.0000%                                   |
| 8    | AED-4CP              | =         | 47.0686%    | 2.0859%              | 21.8069%                   | 13.7936%              | 1.9610%           | 4.5278%                | 7.1246%                                   | 0.3483%      | 1.0295%                                        | 0.1794%                            | 0.0462%                                              | 0.0074%                                       | 0.0207%                                   |

|    |                 | PROD       |
|----|-----------------|------------|
|    |                 | System     |
|    |                 | 1CP        |
| 9  | 1 CP (MW)       | 2,773      |
| 10 | System load MWh | 13,604,154 |
| 11 | 1CP Load Factor | 56.00%     |

AUSTIN ENERGY

Derivation of 1-NCP Secondary Distribution Allocation Factors

<u>Test Year Ended September 30, 2021</u>

| Line | Customer Class                        | Amount    | Factors   |
|------|---------------------------------------|-----------|-----------|
|      |                                       | (1)       | (2)       |
| 1    | Residential                           | 1,408,554 | 55.0923%  |
| 2    | Secondary < 10 kW                     | 91,634    | 3.5840%   |
| 3    | Secondary ≥ 10 < 300 kW               | 612,811   | 23.9687%  |
| 4    | Secondary ≥ 300 kW                    | 421,340   | 16.4797%  |
| 5    | Primary < 3 MW                        | -         | 0.0000%   |
| 6    | Primary ≥ 3 < 20 MW                   | -         | 0.0000%   |
| 7    | High Load Factor Primary > 20 MW      | -         | 0.0000%   |
| 8    | Transmission                          | -         | 0.0000%   |
| 9    | High Load Factor Transmission ≥ 20 MW | -         | 0.0000%   |
| 10   | Service Area Street Lighting          | 13,499    | 0.5280%   |
| 11   | City-Owned Private Outdoor Lighting   | 4,012     | 0.1569%   |
| 12   | Customer-Owned Non-Metered Lighting   | 647       | 0.0253%   |
| 13   | Customer-Owned Metered Lighting       | 4,217     | 0.1650%   |
| 14   | Total                                 | 2,556,715 | 100.0000% |

**Source:** AE Rate Filing Package WP F-6.1 and Exhibit JP-9.

# **AUSTIN ENERGY**

# Derivation of 1-NCP Primary Substation and Primary Distribution Allocation Factors <u>Test Year Ended September 30, 2021</u>

|      | _                                     | Primary Su | ubstation | Primary Di | stribution |
|------|---------------------------------------|------------|-----------|------------|------------|
| Line | Customer Class                        | Units      | Factors   | Units      | Factors    |
|      |                                       | (1)        | (2)       | (3)        | (4)        |
| 1    | Residential                           | 1,408,554  | 47.4418%  | 1,408,554  | 50.9101%   |
| 2    | Secondary < 10 kW                     | 91,634     | 3.0863%   | 91,634     | 3.3120%    |
| 3    | Secondary ≥ 10 < 300 kW               | 612,811    | 20.6402%  | 612,811    | 22.1491%   |
| 4    | Secondary ≥ 300 kW                    | 421,340    | 14.1912%  | 421,340    | 15.2287%   |
| 5    | Primary < 3 MW                        | 63,291     | 2.1317%   | 63,291     | 2.2875%    |
| 6    | Primary ≥ 3 < 20 MW                   | 146,745    | 4.9425%   | 146,745    | 5.3039%    |
| 7    | High Load Factor Primary > 20 MW      | 202,266    | 6.8126%   | -          | 0.0000%    |
| 8    | Transmission                          | -          | 0.0000%   | -          | 0.0000%    |
| 9    | High Load Factor Transmission ≥ 20 MW | -          | 0.0000%   | -          | 0.0000%    |
| 10   | Service Area Street Lighting          | 13,499     | 0.4547%   | 13,499     | 0.4879%    |
| 11   | City-Owned Private Outdoor Lighting   | 4,012      | 0.1351%   | 4,012      | 0.1450%    |
| 12   | Customer-Owned Non-Metered Lighting   | 647        | 0.0218%   | 647        | 0.0234%    |
| 13   | Customer-Owned Metered Lighting       | 4,217      | 0.1420%   | 4,217      | 0.1524%    |
| 14   | Total                                 | 2,969,017  | 100.0000% | 2,766,750  | 100.0000%  |

**Source:** AE Rate Filing Package WP F-6.1 and Exhibit JP-9.

# AUSTIN ENERGY Derivation of Energy and Demand Loss Factors <u>Test Year Ended September 30, 2021</u>

|        |                     | Test Year End<br>At Meter |                       | Test Year Pe<br>At Meter ( |                       |
|--------|---------------------|---------------------------|-----------------------|----------------------------|-----------------------|
| Line   | Voltage/Service     | Amount                    | Percent               | Amount                     | Percent               |
|        |                     | (1)                       | (2)                   | (3)                        | (4)                   |
| 1      | Transmission        | 254,902                   | 1.9090%               | 31                         | 1.2375%               |
| 2      | Substation          | 1,547,739                 | 11.5912%              | 193                        | 7.5931%               |
| 3      | Primary Lines       | 1,333,707                 | 9.9883%               | 167                        | 6.5596%               |
| 4      | Total Primary       | 2,881,446                 | 21.5795%              | 359                        | 14.1527%              |
| 5<br>6 | Secondary<br>Total  | 10,216,366<br>13,352,714  | 76.5115%<br>100.0000% | 2,148<br>2,539             | 84.6097%<br>100.0000% |
|        | Voltage/Service     | Energy Flow               | Loss<br>Factor        | Load Flow                  | Loss<br>Factor        |
| 7      | Source              | 13,950,713                |                       | 2,878                      |                       |
| 8      | Transmission Losses | 167,275                   |                       | 55                         |                       |
| 9      | Transmission Load   | 13,783,438                | 1.01214               | 2,823                      | 1.01936               |
| 10     | Transmission Sales  | 254,640                   |                       | 34                         |                       |
| 11     | Into Substations    | 13,528,798                |                       | 2,790                      |                       |
| 12     | Substation Losses   | 56,646                    |                       | 14                         |                       |
| 13     | Substation Load     | 13,472,152                | 1.01639               | 2,776                      | 1.02447               |
| 14     | Substation Sales    | 1,546,145                 |                       | 207                        |                       |
| 15     | Into Primary Lines  | 11,926,007                |                       | 2,569                      |                       |
| 16     | Primary Line Losses | 107,401                   |                       | 38                         |                       |
| 17     | Into Primary Lines  | 11,818,606                | 1.02563               | 2,531                      | 1.03970               |
| 18     | Primary Line Sales  | 1,332,334                 |                       | 179                        |                       |
| 19     | Into Secondary      | 10,486,272                |                       | 2,352                      |                       |
| 20     | Secondary Losses    | 280,427                   |                       | 46                         |                       |

**Source:** AE Rate Filing Package WP F-6.1.2, AE 2018 Loss Study.

# AUSTIN ENERGY Summary of AE's 2018 Loss Study

| Line                 | ТҮРЕ                                                                                                                             | ANNUAL<br>ENERGY<br>LOSSES<br>(MWh)(2)              | % OF<br>AE ENERGY<br>AVAILABLE | DEMAND<br>LOSSES AT<br>PEAK<br>(MW)      | % OF<br>AE PEAK<br>DEMAND |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|--------------------------------|------------------------------------------|---------------------------|
|                      |                                                                                                                                  | (1)                                                 | (2)                            | (3)                                      | (4)                       |
| 1                    | Transmission 345 kV                                                                                                              | 18,183                                              | 0.13%                          | 6.37                                     | 0.22%                     |
| 2                    | Transmission 138 kV                                                                                                              | 143,383                                             | 1.03%                          | 46.70                                    | 1.62%                     |
| 3                    | Transmission 69 kV                                                                                                               | 5,710                                               | 0.04%                          | 1.59                                     | 0.06%                     |
| 4                    | Distribution                                                                                                                     | 164,047                                             | 1.18%                          | 51.53                                    | 1.79%                     |
| 5                    | Distribution Line Losses                                                                                                         | 107,401                                             | 0.77%                          | 37.61                                    | 1.31%                     |
| 6<br>7               | <b>Distribution Substation:</b> Core Winding                                                                                     | 25,076<br>31,570                                    | 0.18%<br>0.23%                 | 2.86<br>11.06                            | 0.10%<br>0.38%            |
| 8                    | Secondary                                                                                                                        | 259,656                                             | 1.86%                          | 46.37                                    | 1.66%                     |
| 9                    | Other                                                                                                                            | 20,771                                              | 0.15%                          | 0.00                                     | 0.15%                     |
| 10                   | TOTALS                                                                                                                           | 611,750                                             | 4.39%                          | 152.56                                   | 5.30%                     |
| 11<br>12<br>13<br>14 | 2018 Annual Net Available for Sale (MWh) 2018 Annual Energy Sales (MWh) ANNUAL SYSTEM LOSSES (MWh) SYSTEM LOSSES AS A % OF SALES | 13,950,713<br>13,338,963<br><b>611,750</b><br>4.59% |                                | 2,878<br>2,725<br><b>152.56</b><br>5.60% |                           |

# AUSTIN ENERGY Derivation of Loss-Adjusted Coincident Peak <u>Test Year Ended September 30, 2021</u>

|      |            |             |                      |                            |                       |                   |                        | High Load       |              | High Load            |                    | Customer-<br>Owned  | Customer-               | Customer-           |
|------|------------|-------------|----------------------|----------------------------|-----------------------|-------------------|------------------------|-----------------|--------------|----------------------|--------------------|---------------------|-------------------------|---------------------|
|      |            |             |                      |                            |                       |                   |                        | Factor          |              | Factor               | Service Area       | Private             | Owned                   | Owned               |
| Line | Month      | Residential | Secondary<br>< 10 kW | Secondary<br>≥ 10 < 300 kW | Secondary<br>≥ 300 kW | Primary<br>< 3 MW | Primary<br>≥ 3 < 20 MW | Primary > 20 MW | Transmission | Transmission ≥ 20 MW | Street<br>Lighting | Outdoor<br>Lighting | Non-Metered<br>Lighting | Metered<br>Lighting |
|      |            | (1)         | (2)                  | (3)                        | (4)                   | (5)               | (6)                    | (7)             | (8)          | (9)                  | (10)               | (11)                | (12)                    | (13)                |
|      | Meter      |             |                      |                            |                       |                   |                        |                 |              |                      |                    |                     |                         |                     |
| 1    | Oct-20     | 1,047,546   | 33,728               | 376,096                    | 281,784               | 43,695            | 111,451                | 189,846         | 3,191        | 27,897               | -                  | -                   | -                       | 388                 |
| 2    | Nov-20     | 336,778     | 24,608               | 277,869                    | 281,375               | 38,637            | 116,693                | 180,429         | 2,861        | 26,454               | 132                | 29                  | 5                       | 366                 |
| 3    | Dec-20     | 694,347     | 57,133               | 411,057                    | 324,945               | 44,450            | 108,330                | 172,623         | 2,620        | 24,743               | 4,311              | 866                 | 139                     | 922                 |
| 4    | Jan-21     | 849,118     | 63,233               | 425,060                    | 300,556               | 36,637            | 103,925                | 174,509         | 2,402        | 25,082               | 5,101              | 1,026               | 165                     | 734                 |
| 5    | Feb-21     | 905,547     | 60,052               | 404,924                    | 283,964               | 34,579            | 100,927                | 170,047         | 2,401        | 23,891               | 1,808              | 452                 | 72                      | 472                 |
| 6    | Mar-21     | 620,402     | 25,495               | 267,825                    | 213,727               | 28,628            | 105,633                | 182,539         | 2,291        | 26,689               | -                  | -                   | -                       | 291                 |
| 7    | Apr-21     | 879,260     | 37,341               | 406,915                    | 310,275               | 42,244            | 114,092                | 185,230         | 67           | 27,353               | -                  | -                   | -                       | 674                 |
| 8    | May-21     | 946,681     | 44,404               | 475,670                    | 339,982               | 45,756            | 113,269                | 188,045         | 2,451        | 28,157               | -                  | -                   | -                       | 492                 |
| 9    | Jun-21     | 1,184,173   | 49,202               | 520,289                    | 354,826               | 53,582            | 119,623                | 194,701         | 3,234        | 28,857               | -                  | -                   | -                       | 520                 |
| 10   | Jul-21     | 1,183,107   | 53,848               | 549,088                    | 356,272               | 50,115            | 116,353                | 192,696         | 3,260        | 28,159               | -                  | -                   | -                       | 506                 |
| 11   | Aug-21     | 1,150,981   | 56,746               | 554,060                    | 363,042               | 51,835            | 118,245                | 194,445         | 3,331        | 27,921               | -                  | -                   | -                       | 607                 |
| 12   | Sep-21     | 1,102,606   | 50,885               | 549,043                    | 336,556               | 49,523            | 134,610                | 196,189         | 25,021       | 28,278               | -                  | -                   | -                       | 483                 |
|      | Generation |             |                      |                            |                       |                   |                        |                 |              |                      |                    |                     |                         |                     |
| 13   | Oct-20     | 1,111,029   | 35,772               | 398,888                    | 298,861               | 45,429            | 115,875                | 194,492         | 3,253        | 28,437               | _                  | -                   | -                       | 411                 |
| 14   | Nov-20     | 357,187     | 26,099               | 294,708                    | 298,427               | 40,171            | 121,325                | 184,844         | 2,916        | 26,966               | 140                | 30                  | 5                       | 388                 |
| 15   | Dec-20     | 736,426     | 60,596               | 435,968                    | 344,638               | 46,214            | 112,630                | 176,847         | 2,671        | 25,222               | 4,572              | 919                 | 148                     | 978                 |
| 16   | Jan-21     | 900,576     | 67,065               | 450,819                    | 318,770               | 38,092            | 108,050                | 178,779         | 2,449        | 25,567               | 5,411              | 1,088               | 175                     | 779                 |
| 17   | Feb-21     | 960,425     | 63,691               | 429,463                    | 301,173               | 35,952            | 104,933                | 174,208         | 2,448        | 24,353               | 1,917              | 479                 | 77                      | 501                 |
| 18   | Mar-21     | 658,000     | 27,040               | 284,055                    | 226,680               | 29,764            | 109,826                | 187,006         | 2,335        | 27,206               | -                  | -                   | -                       | 309                 |
| 19   | Apr-21     | 932,545     | 39,604               | 431,575                    | 329,078               | 43,921            | 118,621                | 189,763         | 68           | 27,882               | -                  | -                   | -                       | 714                 |
| 20   | May-21     | 1,004,051   | 47,095               | 504,497                    | 360,586               | 47,572            | 117,765                | 192,647         | 2,498        | 28,702               | -                  | -                   | -                       | 522                 |
| 21   | Jun-21     | 1,255,935   | 52,184               | 551,819                    | 376,329               | 55,709            | 124,371                | 199,465         | 3,297        | 29,416               | -                  | -                   | -                       | 552                 |
| 22   | Jul-21     | 1,254,805   | 57,111               | 582,364                    | 377,862               | 52,104            | 120,971                | 197,412         | 3,323        | 28,705               | -                  | -                   | -                       | 536                 |
| 23   | Aug-21     | 1,220,732   | 60,185               | 587,637                    | 385,043               | 53,892            | 122,939                | 199,203         | 3,396        | 28,461               | -                  | -                   | -                       | 644                 |
| 24   | Sep-21     | 1,169,425   | 53,968               | 582,315                    | 356,952               | 51,489            | 139,953                | 200,990         | 25,505       | 28,826               | -                  | -                   | -                       | 512                 |

Source: AE Rate Filing Package WP F-6.1, F-6.1.2, Exhibit JP-8.

# AUSTIN ENERGY Derivation of Loss-Adjusted Non-Coincident Peak <u>Test Year Ended September 30, 2021</u>

|      |            |             |                      |                            |                       |                   |                        | High Load<br>Factor |              | High Load<br>Factor  | Service Area       | Customer-<br>Owned<br>Private | Customer-<br>Owned      | Customer-<br>Owned  |
|------|------------|-------------|----------------------|----------------------------|-----------------------|-------------------|------------------------|---------------------|--------------|----------------------|--------------------|-------------------------------|-------------------------|---------------------|
| Line | Month      | Residential | Secondary<br>< 10 kW | Secondary<br>≥ 10 < 300 kW | Secondary<br>≥ 300 kW | Primary<br>< 3 MW | Primary<br>≥ 3 < 20 MW | Primary > 20 MW     | Transmission | Transmission ≥ 20 MW | Street<br>Lighting | Outdoor<br>Lighting           | Non-Metered<br>Lighting | Metered<br>Lighting |
|      |            | (1)         | (2)                  | (3)                        | (4)                   | (5)               | (6)                    | (7)                 | (8)          | (9)                  | (10)               | (11)                          | (12)                    | (13)                |
|      | Meter      |             |                      |                            |                       |                   |                        |                     |              |                      |                    |                               |                         |                     |
| 1    | Oct-20     | 1,065,972   | 54,831               | 439,429                    | 345,897               | 51,099            | 130,564                | 191,376             | 3,285        | 28,806               | 11,197             | 2,536                         | 406                     | 3,583               |
| 2    | Nov-20     | 698,734     | 44,566               | 363,992                    | 314,616               | 42,818            | 119,719                | 184,571             | 3,484        | 27,477               | 10,332             | 2,239                         | 358                     | 3,350               |
| 3    | Dec-20     | 788,271     | 59,134               | 424,966                    | 330,578               | 46,158            | 116,282                | 181,377             | 25,771       | 26,654               | 11,479             | 2,306                         | 371                     | 2,784               |
| 4    | Jan-21     | 948,305     | 63,233               | 425,060                    | 300,556               | 38,313            | 111,880                | 184,925             | 4,114        | 26,945               | 10,678             | 2,147                         | 345                     | 2,576               |
| 5    | Feb-21     | 1,261,506   | 86,398               | 469,519                    | 342,332               | 43,749            | 112,235                | 180,589             | 4,521        | 26,862               | 12,728             | 3,181                         | 510                     | 3,770               |
| 6    | Mar-21     | 671,959     | 43,751               | 327,551                    | 267,064               | 31,073            | 116,316                | 184,600             | 3,876        | 26,734               | 9,361              | 2,297                         | 370                     | 3,922               |
| 7    | Apr-21     | 935,852     | 41,062               | 428,809                    | 328,903               | 46,177            | 125,329                | 187,472             | 2,497        | 27,748               | 10,646             | 2,958                         | 476                     | 3,976               |
| 8    | May-21     | 1,085,960   | 50,077               | 494,302                    | 367,241               | 50,405            | 131,861                | 191,305             | 19,916       | 28,977               | 12,382             | 3,512                         | 567                     | 3,785               |
| 9    | Jun-21     | 1,265,062   | 56,304               | 570,394                    | 397,265               | 60,874            | 138,693                | 196,319             | 41,533       | 29,198               | 12,420             | 3,783                         | 610                     | 3,053               |
| 10   | Jul-21     | 1,283,551   | 53,848               | 569,453                    | 375,730               | 52,689            | 137,816                | 195,731             | 3,362        | 28,923               | 10,512             | 3,179                         | 514                     | 2,134               |
| 11   | Aug-21     | 1,287,600   | 59,261               | 577,796                    | 388,437               | 56,966            | 140,717                | 197,435             | 40,115       | 28,964               | 10,736             | 3,068                         | 495                     | 3,467               |
| 12   | Sep-21     | 1,328,071   | 53,410               | 549,377                    | 349,978               | 49,690            | 141,142                | 196,962             | 41,967       | 28,723               | 9,109              | 2,327                         | 378                     | 3,850               |
|      | Generation |             |                      |                            |                       |                   |                        |                     |              |                      |                    |                               |                         |                     |
| 13   | Oct-20     | 1,130,572   | 58,154               | 466,059                    | 366,859               | 53,127            | 135,747                | 196,060             | 3,349        | 29,364               | 11,875             | 2,689                         | 431                     | 3,800               |
| 14   | Nov-20     | 741,078     | 47,267               | 386,050                    | 333,682               | 44,517            | 124,471                | 189,087             | 3,551        | 28,009               | 10,958             | 2,374                         | 379                     | 3,553               |
| 15   | Dec-20     | 836,041     | 62,717               | 450,720                    | 350,611               | 47,991            | 120,897                | 185,815             |              | 27,170               | 12,175             | 2,446                         | 393                     | 2,953               |
| 16   | Jan-21     | 1,005,773   | 67,065               | 450,819                    | 318,770               | 39,834            | 116,321                | 189,451             | 4,194        | 27,466               | 11,325             | 2,277                         | 366                     | 2,732               |
| 17   | Feb-21     | 1,337,955   | 91,634               | ,                          | 363,078               | 45,486            | 116,690                | 185,009             | •            | 27,382               | 13,499             | 3,374                         | 541                     | 3,999               |
| 18   | Mar-21     | 712,681     | 46,402               | ,                          | 283,249               | 32,307            | 120,933                | 189,118             | *            | 27,251               | 9,929              | 2,436                         | 392                     | 4,160               |
| 19   | Apr-21     | 992,566     | 43,551               | 454,795                    | 348,835               | 48,010            | 130,304                | 192,060             |              | 28,286               | 11,291             | 3,137                         | 505                     | 4,217               |
| 20   | May-21     | 1,151,770   | 53,112               |                            | 389,497               | 52,406            | 137,095                | 195,987             | 20,302       | 29,538               | 13,132             | 3,725                         | 602                     | 4,015               |
| 21   | Jun-21     | 1,341,727   | 59,716               | 604,961                    | 421,340               | 63,291            | 144,198                | 201,123             |              | 29,763               | 13,173             | 4,012                         | 647                     | 3,237               |
| 22   | Jul-21     | 1,361,336   | 57,111               | 603,963                    | 398,500               | 54,780            | 143,287                | 200,520             |              | 29,483               | 11,149             | 3,371                         | 545                     | 2,264               |
| 23   | Aug-21     | 1,365,631   | 62,852               | 612,811                    | 411,977               | 59,227            | 146,303                | 202,266             |              | 29,525               | 11,386             | 3,254                         | 525                     | 3,677               |
| 24   | Sep-21     | 1,408,554   | 56,646               |                            | 371,187               | 51,663            | 146,745                | 201,782             |              | 29,279               | 9,661              | 2,468                         | 401                     | 4,083               |
|      |            |             |                      |                            |                       |                   |                        |                     |              |                      |                    |                               |                         |                     |

**Source:** AE Rate Filing Package WP F-6.1, F-6.1.2, Exhibit JP-8.

AUSTIN ENERGY
Derivation of Loss-Adjusted Energy
<u>Test Year Ended September 30 2021</u>

|      |            |             |            |               |             |            |             | High Load         |              | High Load              |                        | Customer-<br>Owned | Customer-            | Customer-        |               |
|------|------------|-------------|------------|---------------|-------------|------------|-------------|-------------------|--------------|------------------------|------------------------|--------------------|----------------------|------------------|---------------|
|      |            |             | Secondary  | Secondary     | Secondary   | Primary    | Primary     | Factor<br>Primary |              | Factor<br>Transmission | Service Area<br>Street | Private<br>Outdoor | Owned<br>Non-Metered | Owned<br>Metered |               |
| Line | Month      | Residential | < 10 kW    | ≥ 10 < 300 kW | ≥ 300 kW    | < 3 MW     | ≥ 3 < 20 MW | > 20 MW           | Transmission | ≥ 20 MW                | Lighting               | Lighting           | Lighting             | Lighting         | Total         |
|      |            | (1)         | (2)        | (3)           | (4)         | (5)        | (6)         | (7)               | (8)          | (9)                    | (10)                   | (11)               | (12)                 | (13)             | (14)          |
|      | Meter      |             |            |               |             |            |             |                   |              |                        |                        |                    |                      |                  |               |
| 1    | Oct-20     | 375,026,046 | 23,332,310 | 213,963,621   | 192,798,312 | 29,170,033 | 85,159,844  | 134,720,470       | 2,087,119    | 19,790,557             | 3,885,827              | 880,012            | 140,886              | 449,411          | 1,081,404,448 |
| 2    | Nov-20     | 291,786,712 | 20,715,235 | 178,568,101   | 173,513,451 | 24,926,321 | 78,784,337  | 127,731,585       | 2,143,357    | 18,838,664             | 3,915,065              | 848,333            | 135,510              | 398,910          | 922,305,581   |
| 3    | Dec-20     | 338,563,479 | 24,206,041 | 199,771,169   | 185,739,554 | 28,127,758 | 78,537,414  | 129,412,787       | 1,886,778    | 18,667,167             | 4,652,392              | 934,746            | 150,230              | 380,542          | 1,011,030,058 |
| 4    | Jan-21     | 373,216,846 | 25,717,367 | 200,810,466   | 175,461,733 | 23,319,656 | 77,024,573  | 130,192,792       | 1,720,510    | 18,722,608             | 4,266,987              | 857,838            | 137,785              | 373,486          | 1,031,822,646 |
| 5    | Feb-21     | 355,332,526 | 24,696,836 | 191,104,959   | 159,703,966 | 21,399,288 | 66,654,164  | 80,959,197        | 1,529,291    | 13,932,698             | 3,615,399              | 903,567            | 144,853              | 402,205          | 920,378,950   |
| 6    | Mar-21     | 297,696,033 | 21,484,700 | 170,238,787   | 147,644,524 | 18,797,147 | 79,055,956  | 125,144,703       | 1,641,622    | 18,352,137             | 3,279,490              | 804,603            | 129,492              | 407,958          | 884,677,152   |
| 7    | Apr-21     | 321,067,706 | 22,090,084 | 204,240,235   | 179,607,815 | 26,614,733 | 79,712,456  | 127,126,481       | 1,240,965    | 18,714,518             | 3,358,801              | 933,258            | 150,331              | 396,148          | 985,253,532   |
| 8    | May-21     | 378,440,703 | 25,809,180 | 241,305,667   | 201,905,599 | 30,259,254 | 85,605,616  | 135,450,637       | 1,717,577    | 19,797,854             | 3,276,853              | 1,030,351          | 166,462              | 385,099          | 1,125,150,852 |
| 9    | Jun-21     | 511,337,283 | 28,362,749 | 274,330,328   | 211,600,939 | 35,790,283 | 89,999,178  | 135,481,793       | 6,405,209    | 20,073,909             | 3,073,267              | 1,059,689          | 170,978              | 406,347          | 1,318,091,953 |
| 10   | Jul-21     | 551,536,188 | 28,407,112 | 287,620,156   | 212,572,391 | 32,850,472 | 93,277,595  | 142,003,907       | 2,210,329    | 20,742,235             | 2,805,882              | 934,697            | 151,204              | 369,685          | 1,375,481,852 |
| 11   | Aug-21     | 574,642,901 | 31,001,797 | 300,928,670   | 222,739,780 | 35,343,161 | 95,139,537  | 143,835,290       | 2,183,142    | 20,802,090             | 3,283,572              | 977,219            | 157,676              | 474,983          | 1,431,509,817 |
| 12   | Sep-21     | 515,887,746 | 26,062,909 | 257,714,653   | 185,988,567 | 28,750,519 | 89,407,993  | 135,679,019       | 2,269,458    | 19,432,321             | 3,046,953              | 778,339            | 126,401              | 462,259          | 1,265,607,135 |
|      |            |             |            |               |             |            |             |                   |              |                        |                        |                    |                      |                  |               |
|      | Generation |             |            |               |             |            |             |                   |              |                        |                        |                    |                      |                  |               |
| 13   | Oct-20     | 395,205,982 | 24,587,808 | 225,476,881   | 203,172,678 | 29,917,605 | 87,342,328  | 136,928,761       | 2,112,448    | 20,030,734             | 4,094,922              | 927,365            | 148,467              | 473,594          | 1,130,419,575 |
| 14   | Nov-20     | 307,487,587 | 21,829,910 | 188,176,748   | 182,850,110 | 25,565,135 | 80,803,429  | 129,825,317       | 2,169,369    | 19,067,290             | 4,125,732              | 893,981            | 142,802              | 420,375          | 963,357,786   |
| 15   | Dec-20     | 356,781,386 | 25,508,554 | 210,520,741   | 195,734,093 | 28,848,619 | 80,550,179  | 131,534,077       | 1,909,676    | 18,893,711             | 4,902,735              | 985,045            | 158,314              | 401,018          | 1,056,728,146 |
| 16   | Jan-21     | 393,299,430 | 27,101,203 | 211,615,962   | 184,903,228 | 23,917,294 | 78,998,566  | 132,326,867       | 1,741,390    | 18,949,825             | 4,496,591              | 903,998            | 145,199              | 393,583          | 1,078,793,137 |
| 17   | Feb-21     | 374,452,766 | 26,025,759 | 201,388,208   | 168,297,544 | 21,947,711 | 68,362,383  | 82,286,252        | 1,547,850    | 14,101,785             | 3,809,942              | 952,188            | 152,648              | 423,847          | 963,748,882   |
| 18   | Mar-21     | 313,714,886 | 22,640,779 | 179,399,238   | 155,589,191 | 19,278,882 | 81,082,010  | 127,196,031       | 1,661,544    | 18,574,858             | 3,455,958              | 847,898            | 136,460              | 429,910          | 924,007,646   |
| 19   | Apr-21     | 338,344,175 | 23,278,739 | 215,230,284   | 189,272,409 | 27,296,818 | 81,755,334  | 129,210,295       | 1,256,026    | 18,941,637             | 3,539,536              | 983,476            | 158,421              | 417,465          | 1,029,684,614 |
| 20   | May-21     | 398,804,380 | 27,197,957 | 254,290,187   | 212,770,024 | 31,034,740 | 87,799,525  | 137,670,897       | 1,738,422    | 20,038,121             | 3,453,178              | 1,085,794          | 175,420              | 405,821          | 1,176,464,464 |
| 21   | Jun-21     | 538,852,049 | 29,888,933 | 289,091,886   | 222,987,064 | 36,707,520 | 92,305,685  | 137,702,563       | 6,482,943    | 20,317,526             | 3,238,638              | 1,116,710          | 180,179              | 428,213          | 1,379,299,907 |
| 22   | Jul-21     | 581,214,033 | 29,935,682 | 303,096,831   | 224,010,789 | 33,692,367 | 95,668,122  | 144,331,586       | 2,237,154    | 20,993,962             | 2,956,865              | 984,993            | 159,340              | 389,578          | 1,439,671,302 |
| 23   | Aug-21     | 605,564,105 | 32,669,986 | 317,121,469   | 234,725,279 | 36,248,939 | 97,577,782  | 146,192,988       | 2,209,636    | 21,054,543             | 3,460,259              | 1,029,803          | 166,160              | 500,541          | 1,498,521,493 |
| 24   | Sep-21     | 543,647,370 | 27,465,339 | 271,582,130   | 195,996,505 | 29,487,340 | 91,699,349  | 137,903,023       | 2,297,000    | 19,668,151             | 3,210,908              | 820,221            | 133,203              | 487,132          | 1,324,397,670 |
|      |            |             |            |               |             |            |             |                   |              |                        |                        |                    |                      |                  |               |

**Source:** AE Rate Filing Package WP F-6.1, F-6.1.2, Exhibit JP-8.

# AUSTIN ENERGY Revised PSA Adjustment Factor <u>Test Year Ended September 30, 2021</u>

| Line | Delivery Voltage | Energy at<br>Meter<br>(kWh) | Energy at<br>Generation<br>(kWh) | Loss<br>Multiplier | Loss<br>Factor |
|------|------------------|-----------------------------|----------------------------------|--------------------|----------------|
|      |                  | (1)                         | (2)                              | (3)                | (4)            |
| 1    | Secondary        | 10,216,365,913              | 10,766,102,700                   | 1.05381            | 1.00760        |
| 2    | Primary          | 1,333,707,288               | 1,367,887,663                    | 1.02563            | 0.98065        |
| 3    | Substation       | 1,547,738,660               | 1,573,108,657                    | 1.01639            | 0.97182        |
| 4    | Transmission     | 254,902,115                 | 257,995,601                      | 1.01214            | 0.96775        |
| 5    | Total            | 13,352,713,976              | 13,965,094,622                   | 1.04586            | 1.00000        |

**Source:** AE Rate Filing Package WP F-6.1, F-6.1.2, Exhibit JP-9.

# **AUSTIN ENERGY**

# TIEC's Revised Class Cost-of-Service Study <u>Test Year Ended September 30, 2021</u>

|          |                                        |                           |                           |                     |                          |                         |                    |                        |                    |                  |                              |                    |                   | Customer-       |               |                           |
|----------|----------------------------------------|---------------------------|---------------------------|---------------------|--------------------------|-------------------------|--------------------|------------------------|--------------------|------------------|------------------------------|--------------------|-------------------|-----------------|---------------|---------------------------|
|          |                                        |                           |                           | 0                   | Secondary                | Secondary               | Delen and Make and |                        | High Load          |                  | Transmission                 | 0                  | City-Owned        | Owned Non-      | Customer-     |                           |
| 1 !      | - Description                          | Took Voor                 | Residential               | Secondary           | Voltage ≥ 10 <<br>300 kW | voitage ≥ 300<br>kW     | Primary Voltage I  |                        | > 20 MW            | Tunnamianian     | Voltage ≥ 20<br>MW @ 85% aLF | Service Area       | Private Outdoor   | Metered         | Owned Metered | Tatal                     |
| Lin      | e Description                          | Test Year                 |                           | Voltage < 10 kW     |                          |                         | < 3 MW             | ≥ 3 < 20 MW            |                    | Transmission     |                              |                    | Lighting          | Lighting        | Lighting      | Total                     |
| 1        | Production                             | (1)                       | (2)                       | (3)                 | (4)                      | (5)                     | (6)                | (7)                    | (8)                | (9)              | (10)                         | (11)               | (12)              | (13)            | (14)          | (15)                      |
| 2        | Demand Related                         | 289,051,211               | 136,052,342               | 6,029,179           | 63,033,044               | 39,870,569              | 5,668,326          | 13,087,619             | 20,593,742         | 1,006,795        | 2,975,787                    | 518,675            | 133,670           | 21,521          | 59,942        | 289,051,211               |
| 3        | Energy Related                         | 0                         | 0                         | 0                   | 0                        | 0                       | 0                  | 0                      | 0                  | 0                | 0                            | 0                  | 0                 | 0               | 0             | 0                         |
| 4<br>5   | Other<br>ERCOT Administration Fees     | 0                         | 0                         | 0                   | 0                        | 0                       | 0                  | 0                      | 0                  | 0                | 0                            | 0                  | 0                 | 0               | 0             | 0                         |
|          | Energy Efficiency Programs             | 0                         | 0                         | 0                   | 0                        | 0                       | 0                  | 0                      | 0                  | 0                | 0                            | 0                  | 0                 | 0               | -             | 0                         |
|          |                                        | 0                         | 0                         | 0                   | 0                        | 0                       | 0                  | 0                      | 0                  | 0                | 0                            | 0                  | 0                 | 0               | 0             | 0                         |
| 7        | Total Production                       | 289,051,211               | 136,052,342               | 6,029,179           | 63,033,044               | 39,870,569              | 5,668,326          | 13,087,619             | 20,593,742         | 1,006,795        | 2,975,787                    | 518,675            | 133,670           | 21,521          | 59,942        | 289,051,211               |
|          | Transmission                           |                           |                           |                     |                          |                         |                    |                        |                    |                  |                              |                    |                   |                 |               |                           |
| 8        | Demand Related                         | 0                         | 0                         | 0                   | 0                        | 0                       | 0                  | 0                      | 0                  | 0                | 0                            | 0                  | 0                 | 0               |               | 0                         |
| 9        | Total Transmission                     | 0                         | 0                         | 0                   | 0                        | 0                       | 0                  | 0                      | 0                  | 0                | 0                            | 0                  | 0                 | 0               | 0             | 0                         |
|          | Distribution                           |                           |                           |                     |                          |                         |                    |                        |                    |                  |                              |                    |                   |                 |               |                           |
| 10       | Demand Related Primary - Subs, not P&C | 20 265 617                | 18,628,306                | 1,211,865           | 8,104,503                | E E72 277               | 837,025            | 1 040 716              | 2,674,999          | 0                | 0                            | 178,526            | 53,062            | 9 EG1           | 55,776        | 39,265,617                |
| 11<br>12 |                                        | 39,265,617<br>112,755,973 | 57,404,135                | 3,734,428           | 24,974,467               | 5,572,277<br>17,171,274 | 2,579,338          | 1,940,716<br>5,980,423 | 2,674,999          | 0                | 0                            | 550,136            | 163,512           | 8,561<br>26,382 |               | 112,755,973               |
| 13       |                                        | 34,276,790                | 18,883,887                | 1,228,492           | 8,215,698                | 5,648,729               | 0                  | 0                      | 0                  | 0                | 0                            | 180,975            | 53,790            | 8,679           |               | 34,276,790                |
| 14       |                                        | 23,549,497                | 11,225,448                | 592,253             | 7,420,269                | 4,124,067               | 0                  | 0                      | 0                  | 0                | 0                            | 117,032            | 29,825            | 4,803           |               | 23,549,497                |
| 15       | Services<br>Load Dispatch              | (1,639,245)<br>22,441,466 | (1,088,256)<br>10,646,630 | (45,554)<br>692,617 | (319,631)<br>4,631,964   | (177,646)<br>3,184,722  | 0<br>478,385       | 0<br>1,109,177         | 0<br>1,528,841     | 0                | 0                            | (4,582)<br>102,033 | (1,131)<br>30,326 | (182<br>4,893   |               | (1,639,245)<br>22,441,466 |
| 10       | Load Dispatch                          | 230,650,098               | 115,700,151               | 7,414,101           | 53,027,270               | 35,523,424              | 3,894,748          | 9,030,317              | 4,203,840          | 0                | 0                            | 1,124,120          | 329,384           | 53,136          |               | 230,650,098               |
|          |                                        |                           |                           |                     |                          |                         |                    |                        |                    |                  |                              |                    |                   |                 |               |                           |
| 17       | Customer Related<br>Meters             | 12,532,928                | 10,578,853                | 1,250,298           | 633,725                  | 28,409                  | 2.985              | 971                    | 108                | 26,955           | 8,985                        | 0                  | 0                 | 0               | 1.639         | 12,532,928                |
| 17       | Weters                                 | 12,002,920                | 10,570,055                | 1,230,230           | 033,723                  | 20,409                  | 2,903              | 371                    | 100                | 20,933           | 0,903                        | · ·                | 0                 | 0               | 1,000         | 12,552,520                |
|          | Direct Assignments                     |                           |                           |                     |                          |                         |                    |                        |                    |                  |                              |                    |                   | _               |               |                           |
| 18       | City-Owned Lighting                    | 18,187,268                | 0                         | 0                   | 0                        | 0                       | 0                  | 0                      | 0                  | 0                | 0                            | 15,104,884         | 3,082,384         | 0               | 0             | 18,187,268                |
| 19       | Total Distribution                     | 261,370,294               | 126,279,003               | 8,664,399           | 53,660,995               | 35,551,832              | 3,897,733          | 9,031,287              | 4,203,948          | 26,955           | 8,985                        | 16,229,004         | 3,411,768         | 53,136          | 351,249       | 261,370,294               |
| 00       | Customer                               |                           |                           |                     |                          |                         |                    |                        |                    |                  |                              |                    |                   |                 |               |                           |
| 20<br>21 | Customer Related Customer Accounting   | 59,936,087                | 53,916,416                | 3,921,413           | 1,987,606                | 89,100                  | 9,361              | 3,045                  | 338                | 338              | 113                          | 0                  | 0                 | 0               | 8,355         | 59,936,087                |
| 22       |                                        | 53,020,079                | 47,695,016                |                     | 1,758,257                | 78,819                  | 8,281              | 2,694                  | 299                | 299              | 100                          | ő                  | 0                 | 0               |               | 53,020,079                |
| 23       |                                        | 27,644,929                | 24,868,415                |                     | 916,764                  | 41,096                  | 4,318              | 1,405                  | 156                | 156              | 52                           | 0                  | 0                 | 0               | -,            | 27,644,929                |
| 24       |                                        | 7,933,019<br>6.013.360    | 7,337,262<br>26.145       | 133,978<br>481.069  | 351,548                  | 110,231                 | 0<br>313.741       | 0<br>810.496           | 470.644            | 0 257            | 0<br>27.452                  | 0                  | 0                 | 0               | -             | 7,933,019                 |
| 25       | Key Accounts                           | 154,547,473               | 133,843,254               | 9,814,096           | 810,496<br>5,824,671     | 2,990,993<br>3,310,239  | 335,700            | 817,640                | 470,611<br>471,405 | 82,357<br>83,151 | 27,452<br>27,717             | 0                  | 0                 | 0               |               | 6,013,360<br>154,547,473  |
|          | Others                                 |                           |                           |                     |                          |                         |                    |                        |                    |                  |                              |                    |                   |                 |               |                           |
| 26       | Other<br>Economic Development          | 0                         | 0                         | 0                   | 0                        | 0                       | 0                  | 0                      | 0                  | 0                | 0                            | 0                  | 0                 | 0               | 0             | 0                         |
| 27       | Total Customer                         | 154,547,473               | 133,843,254               | 9,814,096           | 5,824,671                | 3,310,239               | 335,700            | 817,640                | 471,405            | 83,151           | 27,717                       | 0                  | 0                 | 0               | 19,601        | 154,547,473               |
| 28       | Total Cost of Service                  | 704,968,978               | 396,174,600               | 24,507,673          | 122,518,710              | 78,732,640              | 9,901,759          | 22,936,546             | 25,269,094         | 1,116,901        | 3,012,489                    | 16,747,679         | 3,545,437         | 74,658          | 430,791       | 704,968,978               |
|          | Adjustment to Redistribute Service     | Area Street Lin           | htina                     |                     |                          |                         |                    |                        |                    |                  |                              |                    |                   |                 |               |                           |
| 29       |                                        | (16,747,679)              | 0                         | 0                   | 0                        | 0                       | 0                  | 0                      | 0                  | 0                | 0                            | (16,747,679)       | 0                 | 0               | 0             | (16,747,679)              |
|          | Street Lighting - Redistributed        | 16,747,679                | 10,116,051                | 625,787             | 3,128,433                | 2,010,385               | 252,835            | 585,669                | 0                  | 28,519           | 0                            | 0                  | 0                 | 0               | 0             | 16,747,679                |
| 31       | Adjusted Total Cost of Service         | 704,968,978               | 406,290,651               | 25,133,460          | 125,647,142              | 80,743,025              | 10,154,593         | 23,522,216             | 25,269,094         | 1,145,420        | 3,012,489                    | 0                  | 3,545,437         | 74,658          | 430,791       | 704,968,978               |

# **AUSTIN ENERGY 2022 BASE RATE REVIEW**

888

# BEFORE THE CITY OF AUSTIN HEARING EXAMINER

Workpapers to the

Direct Testimony and Exhibits

of

**Jeffry Pollock** 

On Behalf of

**Texas Industrial Energy Consumers** 

June 22, 2022



# AUSTIN ENERGY BASE RATE FILING PACKAGE

**April 18, 2022** 







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# 1 INTRODUCTION

The Base Rate Filing Package includes this Report from Austin Energy, the municipally owned electric utility of the City of Austin (City) and presents the cost of service study (Cost of Service Study) and proposal to change base rates to the Austin City Council (City Council). The Base Rate Filing Package also includes the cost of service schedules and work papers, schedule of rates, and associated appendices. The goal of the Base Rate Filing Package is to inform the public and the City Council about Austin Energy's current financial status and explain the data, calculations, and rationale used to develop the proposed base rates.

Austin Energy's Base Rate Filing Package compares the base revenue requirement needed to satisfy Austin Energy's financial obligations in the test year ending September 30, 2021, adjusted for known and measurable changes, with the revenue generated by its current base rates, which were previously set using the historical test year ending September 30, 2014. Austin Energy then calculated the difference between these two balances to determine the proposed changes in Austin Energy's base rates.

Base rates are designed to recover Austin Energy's electric utility costs, such as operations and maintenance, debt service, and other related costs that are not recovered through "pass-through" rates including the Power Supply Adjustment (PSA), Community Benefit Charges (CBC), Regulatory Charge and miscellaneous other fees (e.g., connection fees), in a manner that reflects the basis for Austin Energy incurring these costs and aligns with the goals and objectives of the utility, community, and City Council.

Austin Energy, with external consultants, conducted an extensive analysis of the cost of service to determine that the test year base revenue requirement is \$686.8 million, which is the level of revenues that can be expected to meet ongoing operating and debt cost obligations. Known and measurable adjustments to test year data and pass-through charges were made to the revenue requirement and results in the need for an overall base revenue increase of \$48.2 million.



This updated base revenue requirement is 7.6 percent more than the revenue that would be generated by the current base rates at adjusted Test Year sales. Based on this increased revenue requirement, Austin Energy is proposing an increase to its base rates. Additionally, the Cost of Service Study results suggest that changes to the current rate class structures are warranted. Specifically, Austin Energy proposes increased fixed cost recovery and a significant update to residential rate design. Finally, Austin Energy presents its detailed proposals on how to allocate the revenue requirement and spread the revenue increase among customer classes.

# 1.1 Need for 2022 Austin Energy Base Rate Review

In 2012, City Council adopted an ordinance requiring Austin Energy to review its rates and update its Cost of Service Study at least once every five years. While City Council adjusted Austin Energy's base electric rates in January 2017, those adjustments were based on data from a 2014 historical test year. Subsequently, Austin Energy performed a revenue adequacy review, based on Fiscal Year (FY) 2019 test year, and determined a base rate update was not required at that time. However, the revenue adequacy review showed that a base rate increase may be required before the next mandated review. In 2022, Austin Energy conducted a new Cost of Service Study. The new study uses an adjusted test year of FY 2021 to determine the revenue requirement.

Austin Energy faces the challenge of designing new rates that allow the utility to continue to safely deliver clean, affordable, reliable energy and excellent customer service. Austin Energy must ensure its continued financial stability by updating its rate structures in alignment with its

Published April 2022

Base Rate Filing Package | 6

<sup>&</sup>lt;sup>1</sup> See, City of Austin Ordinance No. 20120607-055, Part 12, (June 7, 2012). See also, City of Austin Fiscal Year 2015-2016 Approved Budget, Austin Energy Financial Policy No. 17, (Sept. 10, 2015), Vol. II, pg. 783.

# Austin Energy Electric Cost of Service and Rate Design

Schedule G-7 Adjustment Clauses

| No. | Description                                                         | Reference    | Test Year             | Allocator            |    | Residential |    | secondary tage < 10 kW | Secondary<br>Voltage ≥ 10 <<br>300 kW |    | econdary<br>age ≥ 300 kW |    | ary Voltage < Pr<br>3 MW | imary Voltage ≥<br>3 < 20 MW |    | ary Voltage ≥<br>MW @ 85%<br>aLF |
|-----|---------------------------------------------------------------------|--------------|-----------------------|----------------------|----|-------------|----|------------------------|---------------------------------------|----|--------------------------|----|--------------------------|------------------------------|----|----------------------------------|
|     |                                                                     |              | (A)                   | (B)                  |    | (C)         |    | (D)                    | (E)                                   |    | (F)                      |    | (G)                      | (H)                          |    | (1)                              |
| 1   | Power Supply Adjustment                                             |              |                       |                      |    |             |    |                        |                                       |    |                          |    |                          |                              |    |                                  |
| 2   | Fuel and Purchase Power Costs                                       |              |                       |                      |    |             |    |                        |                                       |    |                          |    |                          |                              |    |                                  |
| 3   | Recoverable Fuel Costs (including Nacogdoches O&M and debt service) | Schedule G-6 | \$ 329,232,528        | NEFL                 | \$ | 121,249,889 | \$ | 7,493,792 \$           | 67,533,986                            | \$ | 55,834,299               | \$ | 8,094,708 \$             | 24,098,567                   | \$ | 37,359,604                       |
| 4   |                                                                     |              |                       | -                    |    |             |    |                        |                                       |    |                          |    |                          |                              |    |                                  |
| 5   | Sub-Total                                                           |              | \$ 329,232,528        |                      | \$ | 121,249,889 | \$ | 7,493,792 \$           | 67,533,986                            | \$ | 55,834,299               | \$ | 8,094,708 \$             | 24,098,567                   | \$ | 37,359,604                       |
| 6   |                                                                     |              |                       |                      |    |             |    |                        |                                       |    |                          |    |                          |                              |    |                                  |
| 7   | Service Area Street Lighting Recoverable Fuel and Purchase Power    |              |                       |                      |    |             |    |                        |                                       |    |                          |    |                          |                              |    |                                  |
| 8   | Service Area Street Lighting                                        | Col. (L)     | (1,054,006)           | COA Street Lights    |    | -           |    | -                      | -                                     |    | -                        |    | -                        | -                            |    | -                                |
| 9   | Adjusted Fuel and Purchase Power Costs                              |              |                       |                      |    |             |    |                        |                                       |    |                          |    |                          |                              |    |                                  |
| 11  | Recoverable Fuel Costs                                              | Line 3 + 8   | \$ 328,178,522        |                      | ė  | 121,249,889 | ċ  | 7,493,792 \$           | 67,533,986                            | ċ  | 55,834,299               | ċ  | 8,094,708 \$             | 24,098,567                   | ċ  | 37,359,604                       |
| 12  | Necoverable Fuel Costs                                              | Lille 3 + 6  | \$ 320,170,322        |                      | ۶  | 121,245,005 | Ş  | 7,455,752 \$           | 07,333,360                            | Ş  | 33,034,233               | Ş  | 6,054,706 \$             | 24,056,307                   | Ş  | 37,333,004                       |
|     | Sub-Total                                                           |              | \$ 328,178,522        | •                    | Ċ  | 121,249,889 | Ś  | 7,493,792 \$           | 67,533,986                            | Ś  | 55,834,299               | Ċ  | 8,094,708 \$             | 24,098,567                   | Ċ  | 37,359,604                       |
| 14  | Jub-Total                                                           |              | J J20,170,J22         |                      | ب  | 121,243,003 | Ļ  | 7,433,732 \$           | 07,555,560                            | Ļ  | 33,634,233               | ب  | 8,034,708 \$             | 24,038,307                   | Ų  | 37,333,004                       |
|     | Power Supply Adjustment                                             |              |                       |                      |    |             |    |                        |                                       |    |                          |    |                          |                              |    |                                  |
|     | Recoverable Fuel Costs                                              | Line 11      | \$ 328,178,522        |                      | ¢  | 121,249,889 | ¢  | 7,493,792 \$           | 67,533,986                            | Ġ  | 55,834,299               | ¢  | 8,094,708 \$             | 24,098,567                   | Ś  | 37,359,604                       |
| 17  | Portion Recovered in Base Rate                                      | Manual       | y 520,170,522<br>-    |                      | Y  | 121,243,003 | Y  | 7,455,752 Ş            | - 07,555,500                          | Y  | 33,034,233               | Y  | 0,054,700 \$             | 24,030,307                   | Y  | 37,333,004                       |
| 18  | Net to be Recovered in the Power Supply Adjustment                  | Widifidal    | \$ 328,178,522        | •                    | Ś  | 121,249,889 | Ś  | 7,493,792 \$           | 67,533,986                            | Ś  | 55,834,299               | Ś  | 8,094,708 \$             | 24,098,567                   | Ś  | 37,359,604                       |
| 19  | The to be necovered in the Forest Supply Adjustinent                |              | Ų 020,170,02 <u>1</u> |                      | *  | 111,11,000  | *  | ,,.55,,52 ¢            | 07,555,555                            | *  | 33,03 1,233              | *  | 0,05 .,. 00              | ,050,507                     | *  | 07,000,000                       |
| 20  |                                                                     |              |                       |                      |    |             |    |                        |                                       |    |                          |    |                          |                              |    |                                  |
|     | Regulatory                                                          |              |                       |                      |    |             |    |                        |                                       |    |                          |    |                          |                              |    |                                  |
| 22  | Expenses Eligible to be Recovered in Regulatory                     |              |                       |                      |    |             |    |                        |                                       |    |                          |    |                          |                              |    |                                  |
|     | Transmission of Electricity by Others (FERC 565)                    | Schedule G-3 | \$ 119,767,164        | 4CP-ERCOT Peak       | Ś  | 55,395,356  | Ś  | 2,525,648 \$           | 26,043,881                            | Ś  | 16,911,551               | Ś  | 2,390,675 \$             | 5,699,135                    | Ś  | 9,070,845                        |
|     | ERCOT Administration Fees                                           | Schedule G-2 | 8,452,410             | NEFL                 | •  | 3,112,857   | •  | 192,389                | 1,733,805                             |    | 1,433,438                |    | 207,816                  | 618,684                      |    | 959,136                          |
|     | Sub-Total                                                           |              | \$ 128,219,574        |                      | Ś  |             | Ś  | 2,718,037 \$           |                                       | \$ | 18,344,989               | Ś  | 2,598,491 \$             | 6,317,819                    | Ś  | 10,029,981                       |
| 26  |                                                                     |              | 7,,                   |                      | *  | ,,          | *  | _,,, +                 | ,,                                    | •  |                          | *  | _, +                     | 0,02.,020                    | *  |                                  |
|     | Portion Recovered in Service Area Street Lighting                   |              |                       |                      |    |             |    |                        |                                       |    |                          |    |                          |                              |    |                                  |
|     | Transmission of Electricity by Others (FERC 565)                    | Col. (L)     | \$ -                  | COA Street Lights    | \$ | _           | \$ | - \$                   | -                                     | \$ | _                        | \$ | - \$                     | _                            | \$ | -                                |
|     | ERCOT Administration Fees                                           | Col. (L)     | (27,060)              | COA Street Lights    | •  | _           | •  | - '                    | _                                     |    | _                        | •  | - '                      | _                            | •  | -                                |
|     | Sub-Total                                                           | ( )          | \$ (27,060)           |                      | Ś  | -           | Ś  | - \$                   | -                                     | Ś  | -                        | Ś  | - \$                     | -                            | Ś  |                                  |
| 31  |                                                                     |              | , , ,                 |                      | •  |             |    | •                      |                                       |    |                          |    | •                        |                              |    |                                  |
| 32  | Net to be Recovered in Regulatory                                   |              |                       |                      |    |             |    |                        |                                       |    |                          |    |                          |                              |    |                                  |
|     | Transmission of Electricity by Others (FERC 565)                    | Line 23 + 28 | \$ 119,767,164        |                      | \$ | 55,395,356  | \$ | 2,525,648 \$           | 26,043,881                            | \$ | 16,911,551               | \$ | 2,390,675 \$             | 5,699,135                    | \$ | 9,070,845                        |
| 34  | ERCOT Administration Fees                                           | Line 24 + 29 | 8,425,351             |                      |    | 3,112,857   |    | 192,389                | 1,733,805                             |    | 1,433,438                |    | 207,816                  | 618,684                      |    | 959,136                          |
| 35  | Sub-Total                                                           |              | \$ 128,192,515        | •                    | \$ | 58,508,213  | \$ | 2,718,037 \$           | 27,777,686                            | \$ | 18,344,989               | \$ | 2,598,491 \$             | 6,317,819                    | \$ | 10,029,981                       |
| 36  |                                                                     |              |                       |                      |    |             |    |                        |                                       |    |                          |    |                          |                              |    |                                  |
| 37  |                                                                     |              |                       |                      |    |             |    |                        |                                       |    |                          |    |                          |                              |    |                                  |
| 38  | Community Benefit                                                   |              |                       |                      |    |             |    |                        |                                       |    |                          |    |                          |                              |    |                                  |
| 39  | Expenses Eligible to be Recovered in Community Benefit              |              |                       |                      |    |             |    |                        |                                       |    |                          |    |                          |                              |    |                                  |
| 40  | Recovered Service Area Street Lighting                              | Schedule G-6 | \$ 19,527,588         | Rev Req x COA Lights | \$ | 9,833,400   | \$ | 600,184 \$             | 3,644,644                             | \$ | 2,664,533                | \$ | 353,334 \$               | 919,491                      | \$ | 1,227,570                        |
| 41  | Energy Efficiency Programs                                          | Schedule G-2 | 30,745,700            | Rev Req x COA Lights |    | 15,482,443  |    | 944,974                | 5,738,402                             |    | 4,195,242                |    | 556,315                  | 1,447,716                    |    | 1,932,779                        |
|     | Sub-Total                                                           |              | \$ 50,273,288         |                      | \$ | 25,315,844  | \$ | 1,545,158 \$           | 9,383,046                             | \$ | 6,859,775                | \$ | 909,649 \$               | 2,367,207                    | \$ | 3,160,349                        |
| 43  |                                                                     |              |                       |                      |    |             |    |                        |                                       |    |                          |    |                          |                              |    |                                  |
| 44  | Portion Recovered in Service Area Street Lighting                   |              |                       |                      |    |             |    |                        |                                       |    |                          |    |                          |                              |    |                                  |
|     | Service Area Street Lighting                                        | Manual       | \$ -                  | COA Street Lights    | \$ | -           | \$ | - \$                   | -                                     | \$ | -                        | \$ | - \$                     | -                            | \$ | -                                |
|     | Energy Efficiency Programs                                          | Col. (L)     |                       | COA Street Lights    |    | -           |    | -                      | -                                     |    | -                        |    | -                        | -                            |    |                                  |
|     | Sub-Total                                                           |              | \$ -                  |                      | \$ | -           | \$ | - \$                   | -                                     | \$ | -                        | \$ | - \$                     | -                            | \$ | -                                |
| 48  |                                                                     |              |                       |                      |    |             |    |                        |                                       |    |                          |    |                          |                              |    |                                  |
|     | Net to be Recovered in Community Benefit                            |              |                       |                      |    |             |    |                        |                                       |    |                          |    |                          |                              |    |                                  |
| 50  | Service Area Street Lighting                                        | Line 40 + 45 | \$ 19,527,588         |                      | \$ | 9,833,400   | \$ | 600,184 \$             |                                       | \$ | 2,664,533                | \$ | 353,334 \$               | 919,491                      | \$ | 1,227,570                        |
|     | Energy Efficiency Programs                                          | Line 41 + 46 | 30,745,700            | •                    |    | 15,482,443  |    | 944,974                | 5,738,402                             |    | 4,195,242                |    | 556,315                  | 1,447,716                    |    | 1,932,779                        |
| 52  | Sub-Total                                                           |              | \$ 50,273,288         |                      | \$ | 25,315,844  | \$ | 1,545,158 \$           | 9,383,046                             | \$ | 6,859,775                | \$ | 909,649 \$               | 2,367,207                    | \$ | 3,160,349                        |

#### Austin Energy Electric Cost of Service and Rate Design

Schedule G-7

Schedule G-7
Adjustment Clauses

|          |                                                                     | _   |                  | Volt | ransmission<br>tage ≥ 20 MW |     | ervice Area  | City-Owned<br>Private Outdoor |    | tomer-Owned    | Cu | stomer-Owned     |    |                          |
|----------|---------------------------------------------------------------------|-----|------------------|------|-----------------------------|-----|--------------|-------------------------------|----|----------------|----|------------------|----|--------------------------|
| No.      | Description                                                         | Tra | nsmission        | (    | @ 85% aLF                   | Str | eet Lighting | Lighting                      |    | Lighting       | Me | etered Lighting  |    | Total                    |
| 1        | Power Supply Adjustment                                             |     | (1)              |      | (K)                         |     | (L)          | (M)                           |    | (N)            |    | (0)              |    | (P)                      |
| 2        | Fuel and Purchase Power Costs                                       |     |                  |      |                             |     |              |                               |    |                |    |                  |    |                          |
| 3        | Recoverable Fuel Costs (including Nacogdoches O&M and debt service) | \$  | 644,484          | Ś    | 5,432,020                   | Ś   | 1,054,006    | \$ 271,632                    | Ś  | 43,734         | Ś  | 121,808          | Ś  | 329,232,528              |
| 4        |                                                                     | •   | ,                | •    | 0,10=,0=0                   | -   | _,,          | ,                             | -  | ,              | 7  | ,                | •  | ,,                       |
| 5        | Sub-Total                                                           | \$  | 644,484          | \$   | 5,432,020                   | \$  | 1,054,006    | \$ 271,632                    | \$ | 43,734         | \$ | 121,808          | \$ | 329,232,528              |
| 6        |                                                                     |     |                  |      |                             |     |              |                               |    |                |    |                  |    |                          |
| 7        | Service Area Street Lighting Recoverable Fuel and Purchase Power    |     |                  |      |                             |     |              |                               |    |                |    |                  |    |                          |
| 8        | Service Area Street Lighting                                        |     | -                |      | -                           |     | (1,054,006)  | -                             |    | -              |    | -                |    | (1,054,006)              |
| 9        |                                                                     |     |                  |      |                             |     |              |                               |    |                |    |                  |    |                          |
| 10       | Adjusted Fuel and Purchase Power Costs                              |     |                  |      |                             |     |              |                               |    |                |    |                  |    |                          |
| 11       | Recoverable Fuel Costs                                              | \$  | 644,484          | \$   | 5,432,020                   | \$  | -            | \$ 271,632                    | \$ | 43,734         | \$ | 121,808          | \$ | 328,178,522              |
| 12       |                                                                     | _   |                  |      |                             | _   |              |                               | _  |                | _  |                  | _  |                          |
|          | Sub-Total                                                           | \$  | 644,484          | \$   | 5,432,020                   | Ş   | -            | \$ 271,632                    | Ş  | 43,734         | Ş  | 121,808          | \$ | 328,178,522              |
| 14       |                                                                     |     |                  |      |                             |     |              |                               |    |                |    |                  |    |                          |
| 15       | Power Supply Adjustment                                             |     |                  |      | F 400 000                   |     |              | 4 274 522                     |    | 42.724         |    | 424.000          |    | 222 472 522              |
| 16       | Recoverable Fuel Costs                                              | \$  | 644,484          | \$   | 5,432,020                   | \$  | -            | \$ 271,632                    | \$ | 43,734         | \$ | 121,808          | \$ | 328,178,522              |
| 17<br>18 | Portion Recovered in Base Rate                                      | \$  | 644,484          | ć    | 5,432,020                   | ć   |              | \$ 271,632                    | ć  | 43,734         | Ļ  | 121,808          | \$ | 328,178,522              |
| 19       | Net to be Recovered in the Power Supply Adjustment                  | ş   | 044,404          | ð    | 3,432,020                   | Þ   | -            | \$ 271,032                    | ş  | 43,734         | Ģ  | 121,606          | ş  | 320,170,322              |
| 20       |                                                                     |     |                  |      |                             |     |              |                               |    |                |    |                  |    |                          |
| 21       | Regulatory                                                          |     |                  |      |                             |     |              |                               |    |                |    |                  |    |                          |
| 22       | Expenses Eligible to be Recovered in Regulatory                     |     |                  |      |                             |     |              |                               |    |                |    |                  |    |                          |
| 23       | Transmission of Electricity by Others (FERC 565)                    | \$  | 401,199          | Ś    | 1,303,506                   | Ś   | -            | \$ -                          | \$ | _              | \$ | 25,368           | Ś  | 119,767,164              |
| 24       | ERCOT Administration Fees                                           |     | 16,546           | •    | 139,457                     |     | 27,060       | 6,974                         | 7  | 1,123          |    | 3,127            | *  | 8,452,410                |
| 25       | Sub-Total                                                           | \$  | 417,745          | \$   | 1,442,962                   | Ś   | 27,060       |                               | Ś  | 1,123          |    |                  | \$ | 128,219,574              |
| 26       |                                                                     | ·   | , -              | •    | , ,                         |     | ,            |                               | •  | , -            | •  | -,               |    | -, -,-                   |
| 27       | Portion Recovered in Service Area Street Lighting                   |     |                  |      |                             |     |              |                               |    |                |    |                  |    |                          |
| 28       | Transmission of Electricity by Others (FERC 565)                    | \$  | -                | \$   | -                           | \$  | -            | \$ -                          | \$ | -              | \$ | -                | \$ | -                        |
| 29       | ERCOT Administration Fees                                           |     | -                |      | -                           |     | (27,060)     | -                             |    | -              |    | -                |    | (27,060)                 |
| 30       | Sub-Total                                                           | \$  | -                | \$   | -                           | \$  | (27,060)     | \$ -                          | \$ | -              | \$ | -                | \$ | (27,060)                 |
| 31       |                                                                     |     |                  |      |                             |     |              |                               |    |                |    |                  |    |                          |
| 32       | Net to be Recovered in Regulatory                                   |     |                  |      |                             |     |              |                               |    |                |    |                  |    |                          |
| 33       | Transmission of Electricity by Others (FERC 565)                    | \$  | 401,199          | \$   | 1,303,506                   | \$  | -            |                               | \$ |                | \$ |                  | \$ | 119,767,164              |
| 34       | ERCOT Administration Fees                                           |     | 16,546           |      | 139,457                     |     | -            | 6,974                         |    | 1,123          |    | 3,127            |    | 8,425,351                |
| 35       | Sub-Total                                                           | \$  | 417,745          | \$   | 1,442,962                   | \$  | -            | \$ 6,974                      | \$ | 1,123          | \$ | 28,495           | \$ | 128,192,515              |
| 36       |                                                                     |     |                  |      |                             |     |              |                               |    |                |    |                  |    |                          |
| 37       |                                                                     |     |                  |      |                             |     |              |                               |    |                |    |                  |    |                          |
| 38       | Community Benefit                                                   |     |                  |      |                             |     |              |                               |    |                |    |                  |    |                          |
| 39       | Expenses Eligible to be Recovered in Community Benefit              |     | 25 722           |      | 464505                      |     |              | 4 74 400                      |    | 2 4 2 4        |    | 40.574           |    | 40 507 500               |
| 40       | Recovered Service Area Street Lighting                              | \$  | 35,723           | \$   | 164,585                     | \$  | -            | \$ 71,429                     | \$ | 2,124          |    |                  | \$ | 19,527,588               |
| 41<br>42 | Energy Efficiency Programs Sub-Total                                | Ś   | 56,244<br>91.967 | ć    | 259,135<br>423,719          | ċ   | <del></del>  | 112,463<br>\$ 183,892         | ċ  | 3,344<br>5.468 |    | 16,644<br>27,215 | ċ  | 30,745,700<br>50,273,288 |
| 42       | Sub-Total                                                           | Ş   | 91,967           | Ş    | 423,/19                     | Ş   | -            | \$ 165,692                    | Ş  | 5,468          | Ş  | 27,215           | Ş  | 50,273,288               |
| 44       | Portion Recovered in Service Area Street Lighting                   |     |                  |      |                             |     |              |                               |    |                |    |                  |    |                          |
| 45       | Service Area Street Lighting                                        | \$  |                  | \$   |                             | \$  | -            | \$ -                          | \$ |                | \$ | -                | ¢  |                          |
| 46       | Energy Efficiency Programs                                          | Ý   |                  | Ţ    |                             | Ÿ   |              | · -                           | Ţ  |                | Ţ  | -                | Ÿ  | _                        |
| 47       | Sub-Total                                                           | Ś   |                  | Ś    |                             | Ś   |              | \$ -                          | Ś  |                | Ś  | -                | Ś  |                          |
| 48       |                                                                     | Ý   |                  | Y    |                             | Ψ.  |              | Ŧ .                           | Ý  |                | 7  |                  | ~  |                          |
| 49       | Net to be Recovered in Community Benefit                            |     |                  |      |                             |     |              |                               |    |                |    |                  |    |                          |
| 50       | Service Area Street Lighting                                        | \$  | 35,723           | \$   | 164,585                     | \$  |              | \$ 71,429                     | \$ | 2,124          | \$ | 10,571           | \$ | 19,527,588               |
|          | Energy Efficiency Programs                                          | •   | 56,244           |      | 259,135                     |     |              | 112,463                       |    | 3,344          |    | 16,644           |    | 30,745,700               |
|          | Sub-Total                                                           | \$  | 91,967           | \$   | 423,719                     | \$  | -            |                               | \$ | 5,468          |    |                  | \$ | 50,273,288               |
|          |                                                                     |     |                  | -    |                             | •   |              | ,                             |    |                |    |                  |    |                          |

TIEC 3-5: Provide a copy of Austin Energy's analysis of the impact of Winter Storm Uri on its test-year energy sales and base revenues.

ANSWER: No responsive document exists. There was no impact on Austin Energy's test year energy sales and base revenues from Winter Storm Uri. Energy sales are weather normalized and current rates are applied to the weather normalized sales to calculate test year revenues.

Prepared by: JHO

Sponsored by: Grant Rabon



Austin Energy's retail customers, as well as the Electric Reliability Council of Texas (ERCOT) and the Texas Reliability Entity<sup>24</sup> fees.

 Community Benefit Charges – These charges recover costs associated with funding service area street lighting,<sup>25</sup> CAP, and Austin Energy's Energy Efficiency Service programs.

# 4.3 Test Year Adjustments

Austin Energy has made several adjustments to the FY 2021 data to reflect known and measurable changes, to normalize operations, and including annualization of financial and operating conditions. Adjustments consider costs and revenues that are influenced by one-time events, abnormal operating conditions, changes to costs since completion of the fiscal year, or other events not reflected in the FY 2021 financial data. Adjustments related to changes in cost structure, customers, or other factors are limited to items that are known, measurable, and inservice by the time rates become effective. Table 4-B lists the adjustments made to FY 2021 financial results by major categories for both revenue and expense, where positive amounts raise the revenue requirement and negative amounts (those in parentheses) lower the revenue requirement. Adjustments that have no effect on the revenue requirement are generally reflective of the transfer of dollars between FERC accounts and are not shown in Table 4-B, but can be reviewed in Appendix C, which provides a summary of the adjustments by FERC account

<sup>&</sup>lt;sup>24</sup> Texas Reliability Entity (Texas RE) is a non-profit corporation that is the Regional Entity for the ERCOT interconnection, pursuant to its Delegation Agreement with the North American Electric Reliability Corporation, which was approved by the Federal Energy Regulatory Commission. Texas RE's mission is to assure effective and efficient reduction of risks to the reliability and security of the bulk power system within the ERCOT Interconnection.

<sup>&</sup>lt;sup>25</sup> The pass-through charge for Service Area Lighting is assessed only to customers inside the City limits and is designed to recover the cost associated with providing street light service within the City of Austin.



and a description. <sup>26</sup> Supporting documentation for these adjustments is included in the cost of service model in the form of work papers, which include the calculations and assumptions used to determine the adjustments.

<sup>&</sup>lt;sup>26</sup> See, Schedule D and associated work papers in Appendix C: Austin Energy 2021 Electric System Rate Study.

SCPC 2-3: Please produce all analyses or assessments conducted since 2018, of the economics of continued operation of the Fayette power plant—i.e., all retirement or alternatives studies or unit disposition analyses., Please provide including all underlying modeling files or workbooks—conducted by or for Austin Energy, including, but not limited to, any studies conducted to determine how to comply with any current or impending environmental regulations. Please provide all such workpapers in their native electronic format with formulas intact.

ANSWER:

Austin Energy performed analyses for the purposes of resource planning and potential rate impacts using scenarios that included assumptions of discontinued operations at Fayette. Financial forecasts between 2019 and 2022 have been based on Austin Energy retiring units at Fayette. Austin Energy has no other available studies or analyses related to the economics of continued operations of the Fayette power plant that have been conducted since 2018. See attachments for the financial forecasts and Austin Energy's Resource Planning Results:

Attachment SCPC 2-3A: FY 2020 Budget Fund Summary

Attachment SCPC 2-3B: FY 2021 Budget Fund Summary

Attachment SCPC 2-3C: FY 2022 Budget Fund Summary

Attachment SCPC 2-3D: Resource Planning Scenarios Results Update

Austin Energy participated in negotiations with LCRA on potential strategies for Austin Energy's exit of operations at the Fayette power plant. As a part of those negotiations, Austin Energy and LCRA entered into a Non-Disclosure Agreement (NDA) which prevents the release of studies and analyses associated with those negotiations.

There are no current studies with regard to current or impending environmental regulations.

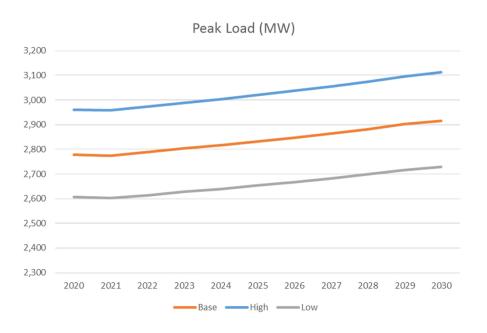
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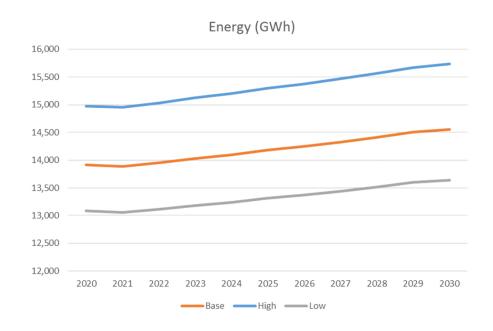
Prepared by: MD

Sponsored by: Erika Bierschbach

749/36/8417578

# **AE Load Forecast**





- Load forecast from AE finance
  - Statistically Adjusted End-use (SAE) model is used for residential and commercial sales forecast
  - Industrial energy forecast is based on an econometric model
- Peak load grows by 0.4% and energy by 0.4% in the next 10 years
- High and low forecast based on weather sensitivity



Confidential 35

§ §

IMPARTIAL HEARING EXAMINER

# AUSTIN ENERGY'S OBJECTION TO TEXAS INDUSTRIAL ENERGY CONSUMERS' FOURTH REQUEST FOR INFORMATION

Austin Energy files this Objection to Texas Industrial Energy Consumers' ("TIEC") Fourth Request for Information ("RFI"), and respectfully shows as follows:

#### I. PROCEDURAL HISTORY

TIEC served its Fourth RFI to Austin Energy on May 27, 2022. Pursuant to the 2022 Austin Energy Base Rate Review Procedural Guidelines § F(2)(g), this objection is timely filed.

Counsel for Austin Energy and TIEC conducted good faith negotiations that failed to resolve the issues. While Austin Energy will continue to negotiate with TIEC regarding this and any future objections, Austin Energy files this objection for preservation of its legal rights under the established procedures. To the extent any agreement is subsequently reached, Austin Energy will withdraw such objection.

#### II. GENERAL OBJECTIONS

Austin Energy generally objects to these RFIs to the extent they are irrelevant.

#### III. SPECIFIC OBJECTION

TIEC 4-5: Provide a copy of Austin Energy's most recent short/long-term electricity sales and peak load forecast.

#### Objection:

Austin Energy objects to this Request to the extent it requests Austin Energy's most recent short/long-term electricity sales and peak load forecast. The Request seeks information that is neither relevant to the issues presented in this matter nor is reasonably calculated to lead to the discovery of admissible evidence. Pursuant to the 2022 Austin Energy Base Rate Review Procedural Guidelines § F(1)(a), "[d]iscovery is limited to relevant information that is not unduly prejudicial. In other words, Participants can ask for information related to the Rate Filing Package." As indicated in Austin Energy's Base Rate Filing Package, Austin Energy is proposing changes to its base electric rates based on a 2021 Test Year in this proceeding. Austin Energy's base rates as proposed in its 2022 Base Rate Filing Package were developed to reflect an embedded cost of service analysis based on a 2021 Test Year. Therefore, Austin Energy's most recent short/long-term electricity sales and peak load forecast have no relevance to the 2022 Base Rate Review. Thus, this request seeks information outside the scope of this proceeding.

TIEC 4-10: Provide a schedule showing each of the following metrics for Austin Energy over the past five years and projected for the next five years:

- a) Debt service coverage ratio.
- b) City transfer.
- c) The amount of cash available to fund construction.

#### Objection:

Austin Energy objects to this Request to the extent it requests a schedule showing Austin Energy's debt service coverage ratio, city transfer, and the amount of cash available to fund construction projected for the next five years. The Request seeks information that is neither relevant to the issues presented in this matter nor is reasonably calculated to lead to the discovery of admissible evidence. Pursuant to the 2022 Austin Energy Base Rate Review Procedural Guidelines § F(1)(a), "[d]iscovery is limited to relevant information that is not unduly prejudicial. In other words, Participants can ask for information related to the Rate Filing Package." As indicated in Austin Energy's Base Rate Filing Package, Austin Energy is proposing changes to its base electric rates based on a 2021 Test Year in this proceeding. Austin Energy's base rates as proposed in its 2022 Base Rate Filing Package were developed to reflect an embedded cost of service analysis based on a 2021 Test Year. Therefore, projections for the next five years of Austin Energy's debt service coverage ratio, city transfer, and the amount of cash available to fund construction have no relevance to the 2022 Base Rate Review. Thus, this request seeks information outside the scope of this proceeding.

#### IV. PRAYER

WHEREFORE, PREMISES CONSIDERED, Austin Energy requests this objection be sustained. Austin Energy also requests any other relief to which it may show itself justly entitled.

Respectfully submitted,

LLOYD GOSSELINK ROCHELLE & TOWNSEND, P.C.

816 Congress Avenue, Suite 1900

Austin, Texas 78701

(512) 322-5800

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# ATTORNEYS FOR THE CITY OF AUSTIN D/B/A AUSTIN ENERGY

### **CERTIFICATE OF SERVICE**

I hereby certify that a true and correct copy of this pleading has been served on all parties and the Impartial Hearing Examiner on June 6, 2022, in accordance with the 2022 Austin Energy Base Rate Review Procedural Guidelines.

THOMAS L. BROCATO



- 7. **Be as simple and understandable as practical.** Reducing the number of tiers for inside City residential customers is simpler. For commercial customers, combining the current Electric Delivery Charges with the Demand Charges also simplifies the rate structure. <sup>50</sup>
- 8. **Process should be transparent, including public involvement.** For the 2016 rate review, an open, transparent, and rigorous process was implemented that mimics the process before the PUCT. The 2022 rate review follows a similar process.
- 9. **Adhere to laws and regulations.** The proposed rate structure upholds the financial policies adopted by the City Council for Austin Energy and complies with all relevant statutes.
- 10. **Stable customer bills.** By increasing the customer charge and flattening the tiers, the proposed rate structure lessens the swing in the customer's bill from non-summer to summer months and increases the likelihood that Austin Energy may be able to delay the next base rate increase (all else equal) because increases in base-rate costs will be better aligned with increases in base revenues.

# 7.5.1 Weather-Based Volatility in Revenues

Under the current residential rate design, fixed customer costs and demand costs are included in the energy rates. One issue with including fixed costs in energy rates is that revenues under energy rates are volatile because they are subject to weather fluctuations. Under the

Published April 2022

Base Rate Filing Package | 116

<sup>&</sup>lt;sup>50</sup> Under the industry-standard rate design terminology followed by Austin Energy, a "demand charge" or "demand rate" is a charge or rate based on the rate at which electric energy is delivered to or by a system at a given instant during the billing cycle.





existing rate structure, Austin Energy will under-recover its costs if it experiences a mild summer, for example, and energy sales are lower than average.

Figure 7-35 shows the impact of weather on base rate revenues utilizing Austin Energy's FY 2023 – FY 2027 forecast developed for budget planning using FY 2022 estimates.

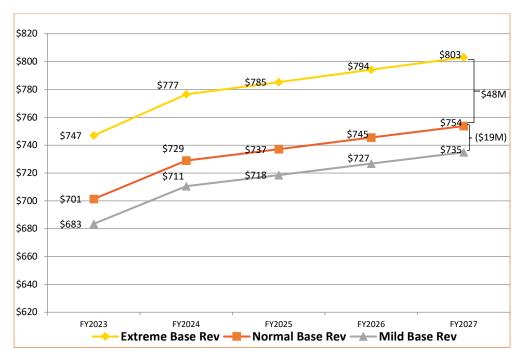


Figure 7-35: Forecasted Base-Rate Revenues (millions) Under Normal, Extreme, and Mild Weather, FY2023 to FY2027

Under the current residential rate structure with the \$10 customer charge, actual revenues can fall within an envelope that covers a range of almost \$70 million above and below expected revenues. The proposed rate design reduces this variation by (1) increasing the customer charge, and (2) flattening the tiers, both of which lessen the susceptibility of base revenues to weather fluctuations. Currently, a mild summer can cause Austin Energy to meaningfully under-recover its costs because reduced energy consumption will increase the proportion of energy consumed in tiers 1 and 2 and decrease the proportion of energy consumed in tiers 4 and 5. A hotter than expected summer will have the opposite impact, resulting in more revenues than expected.



# 2 OVERVIEW OF BASE RATE FILING PACKAGE

Austin Energy is requesting adjustments to its base rates for three primary reasons. First, the utility's financial health is deteriorating due to increases in the costs of providing electric service that are not recovered through existing rates. Second, Austin Energy needs to revise its rate design, especially for residential customers, to stabilize revenues and more equitably recover its costs. Finally, without adjusting base rates, Austin Energy will be at risk of violating its Financial Policies adopted by the City Council.

Austin Energy's Base Rate Filing Package compares the revenue requirement needed to satisfy Austin Energy's financial obligations incurred in the test year ending September 30, 2021 with the revenue generated by the rates that were previously set using the historical test year ending September 30, 2014. Austin Energy then calculated the difference between these two balances to determine the proposed changes in Austin Energy's base rate revenue requirement. The analysis shows that Austin Energy's total revenue requirement, based on a 2021 test year with certain known and measurable adjustments, is \$1.2 billion. The difference between the total revenue requirement and the base rate revenue requirement is the costs of the pass-through charges including PSA, Regulatory Charge, and CBC, which are not included in base rates. Austin Energy's current base rates would be expected to generate \$638.6 million under normalized conditions, resulting in a revenue deficiency of \$48.2 million or 7.6 percent. The revenue requirements are shown in Table 4-C and discussed further in Chapter 4.

The revenue requirement is allocated to customer classes based on how each class uses electricity. This process distributes costs fairly based on how much it costs the utility to serve each customer class. Chapter 5 describes the technical process of allocating the revenue requirement to the various customer classes and the results from Austin Energy's analysis.

The cost of service for each customer class is developed from the revenue requirement by a series of allocations. First, costs are functionalized into categories related to production, transmission, distribution, and customer. Then, costs in each function are sub-functionalized, or classified, into groups, such as demand-related, energy-related, or customer-related, based on the nature of the costs. Some costs can be directly assigned to a function or subfunction. For



costs that cannot be directly assigned, an appropriate allocation methodology must be developed consistent with cost causation principles. Finally, the sub-functionalized costs are allocated among customer classes in a manner that is consistent with how each class uses the electric system, such that the customers who cause Austin Energy to incur the costs are assigned the costs in the Cost of Service Study. Austin Energy's costs incurred to serve each class during the Test Year are shown in Table 5-O.

The Cost of Service Study demonstrates that the residential customer class is well below cost of service, by \$76.5 million, while certain commercial customer classes are above cost of service. The customer class above cost of service by the greatest differential in dollar terms is Secondary Voltage  $\geq 10 < 300$  kW, at \$28 million above cost of service. Chapter 5, Cost Allocation, discusses the cost allocation methodologies used to assign costs to specific classes of customers.

The Cost of Service Study results indicate that adjustments are needed to align all classes with their total cost of service. Austin Energy's proposed revenue requirement is designed to move classes toward their cost of service without producing unacceptably large customer impacts. Austin Energy applies a gradual approach to address cost of service imbalances. Austin Energy uses the results in Table 5-O as the foundation for developing the class revenue distribution in Chapter 6 and proposed base rates in Chapter 7.

Class revenue distribution, described in Chapter 6, is the process of determining the target revenue to recover from each customer class in rate design. There is not a single process or policy regarding class revenue distribution that is appropriate for all utilities. Thus, Austin Energy's process has been developed to balance the various objectives of the utility, including equity, affordability, cost causation, and gradualism. This process recognizes moving customers towards cost of service and funding discounts for State of Texas facilities, local school districts, and military facilities.

Rate design is the process of creating charges to recover the target revenue requirement assigned to each customer class. Because there are any number of ways to design rates to recover a given level of revenues, analysts and policymakers often identify a set of objectives or criteria



to evaluate alternative rate structures. Austin Energy's rate-making principles can be found in sub-section 7.5. Rate design sends price signals to customers to promote desirable behavior.

In this proceeding, Austin Energy proposes maintaining the vast majority of the base rate structures currently in place. However, the residential rate structure has some unsustainable weaknesses that require modification to secure the long-term financial stability of Austin Energy and ensure a workable rate design. The proposed rate design includes reducing the number and steepness of the residential tiers and increasing the customer charge. By setting the customer charge at cost, future rate increases may be either deferred or reduced. Additionally, raising the customer charge helps mitigate increasing costs associated with customer growth.

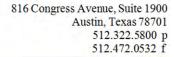
In designing rates, Austin Energy considers many factors including the results of a Cost of Service Study, the priorities of the community and City Council, and the economic health of the utility. For each class, rates may deviate from the costs shown in the Cost of Service Study to meet various social and policy objectives.

The Cost of Service Study demonstrates that certain customer classes are contributing revenues that significantly deviate from cost of service. Because the size of that deviation is large for the residential customer class, moving all customer classes immediately to cost of service would result in rate shock for certain customers in classes far below cost of service. Instead, good utility rate design practice suggests that a more gradual approach to achieving full cost of service across all customer classes remains an appropriate direction for Austin Energy to pursue. This approach moves customer classes closer to cost of service.

# **2.1** Summary of Proposed Rates

Chapter 7 explains the proposed rate structure changes that allows Austin Energy to recover its revenue requirements in a manner that provides greater stability while adhering to the principles used in developing the rates:

Reducing the number of Residential rate tiers from five to three, flattening the tiers,
 and increasing customer charge to better recover fixed costs;



lglawfirm.com



Mr. Brocato's Direct Line: (512) 322-5857 Email: tbrocato@lglawfirm.com

May 31, 2022

#### VIA EMAIL

Rate Review Administrator rate.filings2022@austinenergy.com

RE: Amendment to Austin Energy's Base Rate Filing Package

Attached please find an Amendment to Austin Energy's 2022 Base Rate Filing Package submitted on April 18, 2022. This Amendment proposes a new rate class for qualified high load factor commercial customers. The new class, titled "PRI-2 High Load Factor (HLF)" class, will be available to customers who take service at primary voltage at a load level greater than or equal to 3 megawatts (MW), but less than 20 MW, and whose monthly average load factor during the course of the year meets or exceeds 85 percent.

Along with this letter, Austin Energy is submitting a narrative describing the PRI-2 HLF class, new tariff language and a workpaper. A copy of these materials will be posted on the Rate Review Website, located at:

https://www.austintexas.gov/cityclerk/postings/ae 2022 base rate review.htm.

In order to allow for review of the Amendment, each participant or group of aligned participants may ask a total of 5 discovery requests related to the Amendment. Each question, subpart, request for production, and request for admission will count as a separate request. The discovery deadline for asking questions solely related to the Amendment will be extended until 12:00 p.m. on June 8. The discovery deadline for all other issues will remain June 1. Austin Energy will respond in writing to discovery requests related to the Amendment 7 days after the discovery request is submitted to the Rate Review Administrator. In addition, participants may submit position statements related solely to the Amendment no later than 12:00 p.m. on June 22. The deadline for submitting position statements on all other issues will remain June 15. Austin Energy will submit an updated procedural schedule detailing these changes.

Sincerely,

Thomas L. Brocato

749/36/8403984 Attachments

# AMENDMENT TO AUSTIN ENERGY'S BASE RATE FILING PACKAGE

May 31, 2022







# AMENDMENT TO AUSTIN ENERGY'S 2022 BASE RATE FILING PACKAGE

The purpose of this Amendment is to incorporate a new type of rate class into Austin Energy's Base Rate Filing Package, filed on April 18, 2022. Austin Energy is proposing a new High Load Factor Primary Voltage tariff that will be available to customers who take service at primary voltage at a load level greater than or equal to 3 megawatts (MW) but less than 20 MW (PRI-2), and whose monthly average load factor during the course of the year meets or exceeds 85 percent. This new system of charges creates a new rate class of Austin Energy customers, the PRI-2 High Load Factor (HLF) class. All else equal, the creation of the new PRI-2 HLF rate class is not expected to lead to any changes in the level of base rate revenues that Austin Energy would recover. In other words, the changes made in this Amendment are "revenue neutral" with regard to base rates. For all rate classes, the rates proposed in Austin Energy's initial Base Rate Filing Package filed on April 18, 2022 are unaffected by this Amendment.

Austin Energy is designing the new PRI-2 HLF class for customers who exhibit steady loads and therefore utilize system resources more efficiently. The new system of charges is being proposed because it advances the important rate-making objectives of fairness, economic efficiency, and revenue stability.

<sup>&</sup>lt;sup>1</sup> Load factor is a measure of how efficiently a customer uses Austin Energy's electric system. Load factor is calculated as average demand divided by peak demand.



The new rate design advances the objective of fairness in two ways. First, it promotes consistency across rate classes. Currently, Austin Energy offers a high-load factor rate option to primary customers at a load size above 20 MW. The new charges for PRI-2 HLF customers make the same rate option available to primary customers at lower load levels but with similar load profiles. Second, fairness is also advanced because the PRI-2 HLF rate design will be closer to the unit costs for the PRI-2 HLF class, which means the demand charge and the customer charge assessed under the proposed rates will be closer to cost of service. Cost-based rates are fair because the charges on the customer's bill are a more accurate representation of what it costs Austin Energy to provide services to that customer.

Under the PRI-2 HLF rate option, economic efficiency is also advanced, by incentivizing customers to flatten their daily load curves, which promotes the efficient use of the overall system. A load curve is a plot of the level of a customer's load through the course of the day. A customer with a flat load curve exhibits a high load factor. Recognizing customers with high load factors with a distinct system of charges can incentivize primary-voltage customers to flatten their load shapes, which can also shift demand away from high cost, capacity-constrained peak times. Both behavioral responses can increase Austin Energy's system-wide load factor.

Finally, the PRI-2 HLF rate option promotes revenue stability for Austin Energy by reducing reliance on energy rates to recover capacity and customer costs (i.e., fixed costs). The new rate design aligns with one of the key issues to be addressed in this rate review: the need for systems of charges that promote Austin Energy's financial health by eliminating rate designs that cause customer bill instability and induce volatility in revenues and revenue erosion. The PRI-2 HLF rate design, described below, accomplishes this by increasing base rate cost recovery under the demand charge and the customer charges and decreasing cost recovery under the energy charge.

It is important to note that the PRI-2 HLF class's exemption from energy efficiency programs and energy efficiency charges is consistent with the treatment of Austin Energy's PRI-4 HLF rate class by recognizing that larger customers generally have sophisticated energy

#### TIEC 3-1: Referring to Schedule G-6:

- a. Explain the rationale and provide documents supporting the use of the 12NCP method to allocate distribution plant and related expenses, including in your response why Austin Energy proposes this method despite the fact that the Public Utility Commission of Texas (PUC) has approved the use of 1NCP to allocate these costs for other ERCOT utilities.
- b. Explain the rationale and provide documents supporting the use of the 12NCP method to allocate load dispatch expense, including in your response why Austin Energy proposes this method despite the fact that the PUC has approved the use of 1NCP to allocate these expenses for other ERCOT utilities.
- c. Please provide every reason upon which Austin Energy relies for using ERCOT 12CP to allocate production demand costs rather than using A&E/4CP as approved by the PUC for non-ERCOT vertically integrated utilities in Texas.
- d. Please provide every reason upon which Austin Energy relies for using ERCOT 12CP to allocate production demand costs rather than the Austin Energy System 12CP.
- e. Explain the rationale for allocating ERCOT Administration Fees on the NEFL allocator.
- f. Explain the rationale for recovering production energy-related costs allocated to customer classes equipped with demand meters through the demand charge rather than the energy charge.
- g. Explain the rationale for allocating energy efficiency program and service area street lighting costs to all customer classes using the Rev Req x COA Lights allocator. How are these allocations consistent with the following provision in the Primary Voltage ≥ 20 MW and Transmission customer classes: Charges for Service Area Lighting (SAL) and Energy Efficiency Services (EES) do not apply under this rate schedule.
- h. Provide workpapers showing the derivation of and explain the basis for the Key Acct allocator.
- i. Explain how the use of the Key Acct allocator reflects the benefits from economic development.

#### ANSWER:

a. The NCP allocation method recognizes that distribution infrastructure is sized to meet the localized maximum demands on the system. These localized demands are best measured by class non-coincident peaks. Use of a 12NCP method recognizes that distribution capacity provides value to customers throughout the year – not just during the peak hour or the summer peak months. Because the NCP is calculated at the class level, off peak or seasonal customers may not be fully accounted for in a 1NCP calculation. Use of a 12NCP calculation improves the ability to capture these loads.

- b. The NCP allocation method recognizes that load dispatch is a fixed cost on the system. Use of a 12NCP method recognizes that load dispatch provides value to customers throughout the year not just during the peak hour or the summer peak months. Because the NCP is calculated at the class level, off peak or seasonal customers may not be fully accounted for in a 1NCP calculation. Use of a 12NCP calculation improves the ability to capture these loads.
- c. See Austin Energy's Response to NXP 1-8.
- d. See Austin Energy's Response to NXP 1-8.
- e. This cost is completely recovered through the Regulatory Charge, rather than base rates. Thus, regardless of how this cost is allocated in the Base Rate Review, it will have no impact on base rates.
- f. All costs that are identified as production energy-related in the Base Rate Filing Package are recovered in a pass-through charge and, therefore, are outside the scope for this Base Rate Review. Thus, Austin Energy is not aware of any production energy-related costs that are recovered through base demand charges.
- g. The energy efficiency program and service area street lighting costs are recovered through the Community Benefit Charge. Thus, regardless of how this cost is allocated in the Base Rate Review, it will have no impact on base rates.
  - Also, please see Austin Energy's Response in Technical Conference #2 (time stamp 51:20 to 54:07) via the following link: https://austintx.new.swagit.com/videos/174228
- h. See Work Paper D-1.2.4.1. The key account allocator has been developed based on the estimated time of key accounts staff associated with assisting each customer class.
- i. Economic development covers a number of activities to assist with creating, attracting and retaining small and large businesses in Austin. One of the goals is to increase jobs and investment in Austin with programs that support business expansion and attraction. These activities accrue to the benefit of local businesses. Thus, the key account allocator aligns the cost responsibility for supporting these activities with the businesses served by Austin Energy.

Prepared by: GR

Sponsored by: Grant Rabon

TIEC 5-6: Does Austin Energy project that it will not be a summer-peaking system within

the next five years? If so, provide supporting documents.

ANSWER: Throughout its ten-year planning horizon, Austin Energy projects that it will still

peak in the summers, including within the next five years.

Prepared by: SC

Sponsored by: Erika Bierschbach



2021 Long-Term Reliability Assessment

**December 2021** 



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# **Preface**

Electricity is a key component of the fabric of modern society and the Electric Reliability Organization (ERO) Enterprise serves to strengthen that fabric. The vision for the ERO Enterprise, which is comprised of the North American Electric Reliability Corporation (NERC) and the six Regional Entities (RE), is a highly reliable and secure North American bulk power system (BPS). Our mission is to assure the effective and efficient reduction of risks to the reliability and security of the grid.

## Reliability | Resilience | Security

Because nearly 400 million citizens in North America are counting on us

The North American BPS is made up of six RE boundaries as shown in the map and corresponding table below. The multicolored area denotes overlap as some load-serving entities (LSE) participate in one RE while associated Transmission Owners/Operators participate in another. A map and list of the assessment areas can be found in the Regional Assessments section.



| MRO      | Midwest Reliability Organization     |
|----------|--------------------------------------|
| NPCC     | Northeast Power Coordinating Council |
| RF       | ReliabilityFirst                     |
| SERC     | SERC Reliability Corporation         |
| Texas RE | Texas Reliability Entity             |
| WECC     | WECC                                 |



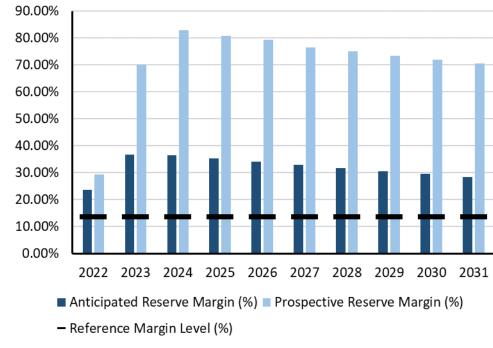
# Texas RE-ERCOT

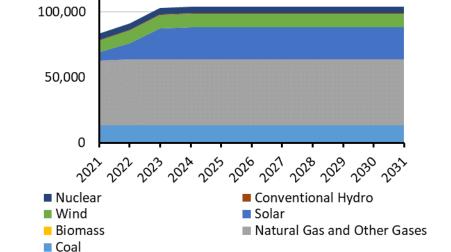
The Electric Reliability Council of Texas (ERCOT) is the ISO for the ERCOT Interconnection and is located entirely in the state of Texas; it operates as a single BA. It also performs financial settlement for the competitive wholesale bulk-power market and administers retail switching for nearly 8 million premises in competitive choice areas. ERCOT is governed by a board of directors and subject to oversight by the Public Utility Commission of Texas and the Texas Legislature.

ERCOT is a summer-peaking RE that covers approximately 200,000 square miles, connects over 46,500 miles of transmission lines, has over 710 generation units, and serves more than 25 million people. Lubbock Power & Light joins the ERCOT grid on June 1, 2021. Texas RE is responsible for the RE functions described in the *Energy Policy Act of 2005* for the ERCOT RE.

| Demand, Resources, and Reserve Margins (MW) |        |        |        |        |        |        |        |        |        |        |
|---------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Quantity                                    | 2022   | 2023   | 2024   | 2025   | 2026   | 2027   | 2028   | 2029   | 2030   | 2031   |
| Total Internal Demand                       | 78,665 | 80,000 | 80,907 | 81,632 | 82,354 | 83,076 | 83,782 | 84,481 | 85,179 | 85,861 |
| Demand Response                             | 2,033  | 2,033  | 2,033  | 2,033  | 2,033  | 2,033  | 2,033  | 2,033  | 2,033  | 2,033  |
| Net Internal Demand                         | 76,633 | 77,968 | 78,875 | 79,599 | 80,322 | 81,043 | 81,749 | 82,449 | 83,146 | 83,828 |
| Additions: Tier 1                           | 12,075 | 23,927 | 25,031 | 25,031 | 25,031 | 25,031 | 25,031 | 25,031 | 25,031 | 25,031 |
| Additions: Tier 2                           | 4,696  | 26,420 | 37,041 | 37,503 | 37,666 | 37,666 | 37,666 | 37,666 | 37,666 | 37,666 |
| Additions: Tier 3                           | 4,378  | 15,856 | 25,005 | 29,021 | 29,141 | 29,141 | 29,141 | 29,141 | 29,141 | 29,141 |
| Net Firm Capacity Transfers                 | 210    | 210    | 210    | 210    | 210    | 210    | 210    | 210    | 210    | 210    |
| Existing-Certain and Net Firm Transfers     | 82,764 | 82,719 | 82,672 | 82,675 | 82,678 | 82,681 | 82,679 | 82,682 | 82,685 | 82,688 |
| Anticipated Reserve Margin (%)              | 23.76% | 36.78% | 36.55% | 35.31% | 34.10% | 32.91% | 31.76% | 30.64% | 29.55% | 28.50% |
| Prospective Reserve Margin (%)              | 29.38% | 70.17% | 83.02% | 80.86% | 79.44% | 76.52% | 74.99% | 73.51% | 72.06% | 70.66% |
| Reference Margin Level (%)                  | 13.75% | 13.75% | 13.75% | 13.75% | 13.75% | 13.75% | 13.75% | 13.75% | 13.75% | 13.75% |

150,000





Planning Reserve Margins

Existing and Tier 1 Resources

## Highlights

- Texas RE-ERCOT's ARM is above the Reference Margin Level (13.75%) throughout the assessment period. The ARM increases significantly for the summers of 2022 and 2023 due to the expected addition of nearly 20,000 MW of new capacity, most of which is solar generation.
- The continuing penetration of wind and solar is increasing the risk of tight operating reserves during hours other than the daily peak load hour. This issue is most acute for the summer season, but the spring can also be impacted since this is the peak unit maintenance season when planned outages are at their highest for the year.
- In the wake of the February 2021 cold weather event, new state legislation institutes grid and institutional reforms to address extreme weather events. Additionally, ERCOT and its market participants are managing corrective actions that cover inter-industry coordination, emergency preparedness/communications, market design, weatherization, identification of critical natural gas facilities, and generator performance, among others.

|                    | Texas RE-ERCOT Fuel Composition (MW) |         |         |         |         |         |         |         |         |         |
|--------------------|--------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Fuel               | 2022                                 | 2023    | 2024    | 2025    | 2026    | 2027    | 2028    | 2029    | 2030    | 2031    |
| Coal               | 13,568                               | 13,568  | 13,568  | 13,568  | 13,568  | 13,568  | 13,568  | 13,568  | 13,568  | 13,568  |
| Natural Gas        | 50,198                               | 50,198  | 50,198  | 50,198  | 50,198  | 50,198  | 50,198  | 50,198  | 50,198  | 50,198  |
| Biomass            | 163                                  | 163     | 163     | 163     | 163     | 163     | 163     | 163     | 163     | 163     |
| Solar              | 12,533                               | 23,397  | 24,501  | 24,501  | 24,501  | 24,501  | 24,501  | 24,501  | 24,501  | 24,501  |
| Wind               | 9,462                                | 10,451  | 10,451  | 10,451  | 10,451  | 10,451  | 10,451  | 10,451  | 10,451  | 10,451  |
| Conventional Hydro | 474                                  | 474     | 474     | 474     | 474     | 474     | 474     | 474     | 474     | 474     |
| Nuclear            | 4,973                                | 4,973   | 4,973   | 4,973   | 4,973   | 4,973   | 4,973   | 4,973   | 4,973   | 4,973   |
| Total MW           | 91,371                               | 103,223 | 104,327 | 104,327 | 104,327 | 104,327 | 104,327 | 104,327 | 104,327 | 104,327 |

#### Texas RE-ERCOT Assessment

#### **Planning Reserve Margins**

The summer ARM is above the Reference Margin Level (13.75%) for the first five years of the assessment period (2021–2025). The ARM increases significantly for the summers of 2022 and 2023 due to the expected addition of 19,579 MW of Tier 1 capacity additions, most of which is solar.

#### Non-Peak Hour Risk, Energy Assurance, Probabilistic Based Assessments

The continuing penetration of wind and solar is increasing the risk of tight operating reserves during hours other than the daily peak load hour. This issue is most acute for the summer season, but the spring can also be impacted since this is the peak unit maintenance season when planned outages are at their highest for the year. To examine this risk more closely, there were evaluations of the seasonal occurrences of low levels of frequency-responsive operating reserves for each hour. This retrospective analysis was intended to supplement the summer 2021 probabilistic loss of load study conducted for the *NERC 2021 Summer Reliability Assessment*. The study indicated that the hour endings 3:00–6:00 p.m. local time had the highest summer operating reserves risk for the last several years. These findings help refine the scope of energy assurance risk assessment and associated analysis tools.

Finally, ERCOT continues to refine the probabilistic version of its seasonal assessment of resource adequacy report, which calculates the risk of insufficient "capacity available for operating reserves" for a range of hours on the expected summer peak load day.

#### **Demand**

Forecasted compound annual growth rate for summer peak demand for 2021–2030 is 1.2%. This is lower than the previous forecast that included a 1.6% compound annual growth rate for 2020–2029. This reduction is not surprising due to the lingering impacts of COVID-19 on the Texas economy. Summer peak demand for the western-most weather zone (which encompasses the metropolitan area of Odessa and Midland) is projected to increase by 3.1% over the same time period. This increase reflects continued robust oil and natural gas exploration activity in this area (though this growth is less than last year, which was 3.9%). The peak demand for the North weather zone, which includes the cities of Lubbock and Wichita Falls, is projected to only marginally increase. This area appears to be lagging in economic growth compared to the rest of Texas RE-ERCOT.

#### **Demand Side Management**

Most of the demand-side resources available are dispatchable in the form of "non-controllable load resources providing responsive reserve service" and procured and deployable emergency resources, referred to in this section as ERCOT ERS. Responsive reserves is an ancillary service for controlling

system frequency. It is provided by industrial loads and is procured on an hourly basis in the day-ahead market. Reserves are dispatched by automatic trip based on under-frequency relay settings (59.7 Hz) or manual dispatch instruction within 10 minutes. ERCOT ERS consists of 10-minute and 30-minute ramp DR and distributed generation designed to be deployed in the late stages of a grid emergency prior to shedding involuntary firm load. It is procured for three four-month periods per year. ERCOT ERS may be deployed at any time once an energy emergency alert is declared. The remaining dispatchable DR available is from the transmission and distribution service provider's load management programs. These programs provide price incentives for voluntary load reductions from commercial, industrial (and most recently) residential loads during energy emergency alert events. These programs are available for the months of June through September from 1:00–7:00 p.m. local time weekdays (except holidays) and are deployed concurrently with ERCOT ERS via instruction pursuant to agreements between ERCOT and the transmission and distribution service providers.

#### **Distributed Energy Resources**

The formal definition of distributed generation is as follows: an electrical generating facility located at a Customer's point of delivery (point of common coupling) 10 MW or less and connected at a voltage less than or equal to 60 kV that may be connected in parallel operation to the utility system. Distributed generators include energy storage resources as well. Over the last few years, ERCOT has instituted a new generation resource taxonomy. Distributed generators are now distinguished by whether they are transmission or distribution-connected, whether they fully participate in the ERCOT market or just get paid for exported energy (settlement-only generators), and whether they are registered or not registered with ERCOT. Distributed generators that register are modelled and dispatched in transmission planning studies similarly to transmission-connected resources. For DERs not participating in those markets, ERCOT relies on member transmissions/distribution service providers to provide information about individual DERs on their systems for shorter-term reliability and economic impact studies, typically a one- to six-year time frame.

Currently in use is a logistic (or "S-curve") technology penetration model for forecasting the growth of rooftop solar capacity. The actual year-end quantity of rooftop solar PV reported for 2020 matched the moderate growth scenario projection, so that curve was used for the 5- and 10-year growth projections reported in the LTRA. For the moderate scenario, the installed capacity by 2030 is 5,861 MW. To estimate the capacity contribution of rooftop PV during summer and winter peak load hours, ERCOT used hourly output profiles for years 2017–2020 developed by a contractor for urban/rural rooftop PV sites throughout Texas RE-ERCOT.

#### Generation

Capacity growth is expected to be dominated by solar for at least the next two to three years, and as solar installed capacity increases, there will be larger solar ramps due to diurnal solar patterns and climatological variations, leading to more instances where regulation service is exhausted. In anticipation of this growth in the solar fleet beginning June 1, 2021, ERCOT incorporated an intra-hour solar forecast into the dispatch process to obtain non-wind, non-solar resources in anticipation of solar ramps. This change will take the burden off regulation service to cover the five-minute gain or loss of generation resulting from variations in solar irradiance. This change will also aid in reducing frequency recovery duration following events that occur during times with significant solar up and down ramps. ERCOT incorporated a similar intra-hour wind forecast into the dispatch process in December 2018.

ERCOT is currently conducting several transmission planning studies directly related to increasing renewable penetration on the system. The ongoing South Texas Stability Assessment is evaluating the stability-related needs for the Lower Rio Grande Valley area, which is subject to both import constraints under peak load conditions and export constraints under high IBR output conditions. The ongoing Long-Term West Texas Export Special Study is evaluating potential transmission improvements to increase transfer capability from renewable-rich areas in West Texas to urban demand centers further east. Transfers from West Texas are currently limited by both voltage and dynamic stability constraints as well as thermal constraints closer to demand centers.

#### **Energy Storage**

There are currently 552 MW of installed energy storage resources that are modeled in ERCOT systems. This number includes 295 MW that are synchronized to the grid but not yet approved for commercial operations by ERCOT. The majority of the installed energy storage projects have limited duration energy capability. The amount of battery energy storage capacity is expected to increase dramatically over the next several years. A large portion of these energy storage resources are expected to participate in the ancillary services market, specifically to provide responsive reserve service, which is a frequency response type of ancillary service. ERCOT is in the process of hiring a vendor to conduct studies to investigate and determine if there are reliability reasons that require them to establish limits on the amount of responsive reserve service that can be provided by a single resource or a group of resources of a technology type.

#### **Capacity Transfers**

ERCOT coordinates with neighboring grids through coordination plans, last updated in 2019, that cover dc tie emergency operations, procedures for generators that can switch between grids, and

block load transfers (groups of loads that are transferred to a neighboring grid for service on a temporary basis).

The most noteworthy development was the October 2020 retirement of the Oklaunion coal-fired plant. This plant served firm contracts in SPP via the ERCOT North dc tie. Since all the firm contracts associated with the plant have terminated, ERCOT is now able to curtail the tie exports to zero MW in an emergency condition instead of having to honor exports associated with firm transactions. Otherwise, tie flows with SPP have not been materially impacted by the Oklaunion retirement.

#### **Transmission**

The recently updated ERCOT Transmission Project and Information Tracking List (March 2021) includes the addition or upgrade of 2,147 circuit miles of 138-kV and 345-kV transmission circuits and 13,807 MVA of 345/138 kV transformer capacity that are planned between 2021 and 2026.

The Delaware Basin comprises an eight-county area in West Texas and is experiencing much of the aforementioned load growth. In 2019, a five-stage roadmap for potential 345 kV transmission improvements that may be needed to support continued load growth in the Delaware Basin was completed. Forecasted peak demand for the Delaware Basin will surpass the level identified for the first stage of improvements identified in the Delaware Basin Load Integration Study by Summer 2023. A second 345 kV circuit from Bakersfield Station to Big Hill Station with connections at Cedar Canyon Station, Noelke Station, and Schneeman Draw Station is recommended, currently under review, and projected to be in-service prior to the 2023 summer peak.

The Freeport area, south of Houston and adjacent to the Gulf of Mexico, is highly industrialized. Several industrial load additions, including the Freeport LNG export facility, are either under construction or have been proposed. Transmission projects, totaling \$117 million, have already been completed in 2016 and 2017. In December 2017, the Freeport Master Plan project was approved. Among other improvements, the project will add a 48-mile 345 kV double-circuit transmission line from Bailey to Jones Creek, which is expected to be in-service by the end of 2021.

There are over 1,000 MW of expected industrial load additions under construction in the Corpus Christi North Shore area. In June 2020, the Corpus Christi North Shore Transmission Improvement Project was approved to meet reliability needs resulting from these load additions. Planned improvements include a new 345-kV Angstrom substation looped into the 345 kV transmission line from Whitepoint to STP, a new 345/138 kV Naismith substation, two new 345/138 kV transformers at Naismith, an additional 345/138 kV transformer at Whitepoint, approximately 36 total miles of new

345 kV transmission lines from Angstrom to Grissom and from Angstrom to Naismith, and approximately 28 circuit miles of 138 kV transmission line additions and upgrades. All these upgrades are expected to be in-service prior to the 2024 summer peak.

**Reliability Issues** 

The Texas Panhandle area is continuing to experience significantly more interest from wind and solar generation developers than what was initially planned for the area. Stability challenges and weak system strength are expected to continue to be significant constraints for Panhandle export. The additional export circuit associated with the integration of Lubbock Power & Light into ERCOT is expected to alleviate some of the congestion.

West Texas has experienced rapid growth in IBRs. Voltage and dynamic stability constraints associated with large-scale power transfers from West Texas to urban demand centers further east are expected to continue. ERCOT has implemented a generic transmission constraint to manage stability limits in operations and is conducting a Long-Term West Texas Export Special Study to evaluate potential transmission improvements to cost-effectively mitigate the constraints.

South Texas, including the Lower Rio Grande Valley, has also experienced substantial wind and solar generation development activity. Transmission reliability studies have identified multiple stability constraints within the South Texas area. Generic transmission constraints are used to manage stability limits in operations. As generation development continues in the area, ERCOT will perform system reliability analysis, evaluate tools to manage the constraints, and evaluate transmission projects to cost-effectively mitigate the constraints.

Winter Storm Uri

There was a historic loss of generation during winter storm Uri (February 14–20, 2021). The causes and time line for the loss of generation are documented in a public report.<sup>61</sup>

In addition to new legislation recently signed into Texas law that institutes grid and institutional reforms to address extreme weather events, ERCOT and its market participants are managing an "emergency actions list" <sup>62</sup> comprised of 124 action items that cover inter-industry coordination, emergency preparedness/communications, procedural reviews for operations and financial

settlements, market design, weatherization, identification of critical natural gas facilities, generator performance, and many others.

<sup>61</sup> http://www.ercot.com/content/wcm/lists/226521/ERCOT Winter Storm Generator Outages By Cause Updated Report 4.27.21.pdf

<sup>62</sup> http://www.ercot.com/content/wcm/key documents lists/27308/Emergency Conditions List 052821.xlsx

KeyCite Yellow Flag - Negative Treatment

Rehearing Granted in Part by In re Gulf States Utilities Co., Tex.P.U.C., September 7, 1984

10 Tex. P.U.C. Bull. 405, 1984 WL 274017 (Tex.P.U.C.)

#### Application of Gulf States Utilities Company for a Rate Increase

Docket No. 5560

Texas Public Utility Commission

July 13, 1984

#### \*1 REVISED EXAMINER'S REPORT

Before Miller, and Sifuentes, Hearings Examiners; Erwin, Ricketts, and Rosson, Commissioners.

BY THE COMMISSION: Miller, and Sifuentes, Hearings Examiners.

#### I. Procedural History

On January 6, 1984, Gulf States Utilities Company (GSU or the Company) filed a statement of intent to increase its rates within the unincorporated areas served by it. This application would result in a systemwide first-step annual revenue increase of \$161,000,000 or 27.8 percent over adjusted test year revenues recoverable under the existing rate schedules; and a systemwide second-step annual revenue increase of \$265,000,000 or 35.7 percent over the gross revenues recovered under the proposed first-step rate schedules, to be collected beginning January 1, 1985. The test year was July 1, 1982 through June 30, 1983.

A regional meeting to hear customer comments and protests regarding the proposed rate increases was held in Beaumont, Texas, on February 1, 1984.

Motions to intervene filed by the following entities were ruled upon:

| Intervenor  | <b>Date Motion Filed</b> | Date Motion Ruled Upon   |  |
|-------------|--------------------------|--------------------------|--|
| Cities      |                          |                          |  |
| Beaumont    | January 13, 1984         | Granted January 30, 1984 |  |
| Groves      | January 13, 1984         | Granted January 30, 1984 |  |
| Nederland   | January 13, 1984         | Granted January 30, 1984 |  |
| Port Arthur | January 13, 1984         | Granted January 30, 1984 |  |
| Port Neches | January 13, 1984         | Granted January 30, 1984 |  |
| China       | January 26, 1984         | Granted January 30, 1984 |  |
| Nome        | January 26, 1984         | Granted January 30, 1984 |  |
| Sour Lake   | January 26, 1984         | Granted January 30, 1984 |  |
| Ames        | February 3, 1984         | Denied February 14, 1984 |  |
|             |                          |                          |  |

- 54. The use of a coal car maintenance reserve reduces fluctuations in income and matches the expenses incurred with the events causing them. GSU's treatment of coal car maintenance expense is based upon detailed studies. It is therefore reasonable to allow this accounting treatment of coal car maintenance expenses to continue.
- 55. GSU has adequate internal cost controls in the area of fuel procurement.
- 56. The known, measurable, and reasonable operating expenses attributable to Big Cajun 2, Unit 3 should be included in GSU's revenue requirement despite the fact that this plant, which went into commercial operation on September 1, 1983, is not considered to be plant in service for this docket.
- 57. Estimated prospective salary increases are not known and measurable and should therefore be disallowed.
- 58. The preponderence of the evidence does not support a finding that GSU's management salary levels are unreasonable.
- \*117 59. The property insurance reserve, injuries and damages reserve, and safety achievement reserve represent the best balance of protection to both the ratepayer and the investor because they allow the Company to recover these liabilities based upon estimates of the average expenses to be incurred. The use of these reserves should therefore be allowed to continue.
- 60. Twenty percent of the dues paid by GSU to the Edison Electric Institute support legislative advocacy and should therefore be disallowed for ratemaking purposes. The remaining eighty percent of the dues support routine functions of the trade association, such as collecting, developing, analyzing, and disseminating information on virtually every phase of the generation, sale, distribution, and use of electricity. These activities foster professionalism among EEI's membership are therefore includable for ratemaking purposes.
- 61. GSU's leased Learjet is used as a tool to improve the productivity of senior management. The preponderence of the evidence establishes that the Learjet is a necessary business expense. However, the costs of the Learjet which are attributable to flights which do not benefit Texas ratepayers (such as to take GSU's chief executive officer to meetings of the boards of directors of other corporations on which he serves, for purposes related to GSU's museum, and to transport officers to meetings of various industry group and to meet with legislators) should be borne by the shareholders. Since this cost information was not presented, the examiner is unable to recommend a dollar adjustment to the cost of service relating to airplane expense.
- 62. It is appropriate to spread out the unamortized balance of the cancellation costs relating to the Blue Hills plants over a twelve month period in order to avoid over-recovery of this expense, even though this results in an extension of the previously approved amortization period by some nine months.
- 63. The depreciation rates recommended by staff witness Saathoff are based upon the original cost of GSU's plant in service and are computed on a straight line basis and are designed to fully depreciate GSU's plant in service during the assets' useful lives.
- 64. The recommended depreciation rates for generating units are based upon the best current estimate of the retirement dates for these units and incorporate a reasonable salvage value. The rates for transmission, distribution, and general plant accounts are appropriate because they are based on GSU's most recent depreciation study which was done in an acceptable manner. These rates are appropriate for regulatory purposes and should be adopted.
- 65. In future rate cases GSU should request depreciation rates based on its most recent generation plan and depreciation study.
- 66. GSU has met its P.U.R.A. Section 40 burden of proof to show that it is entitled to the revenue requirement recommended in Section VIII of this Examiner's Report and shown in column 5 of Examiner's Exhibit 1.
- \*118 67. It is necessary for GSU to perform a jurisdictional separation because it operates in more than one jurisdiction.

- 68. The jurisdictional allocation methodology proposed by GSU witness Beekman should be modified to give steam customers credit for the actual output of Louisiana Station No. 1 at the time of the relevant peak demand, rather than giving credit for its rated capacity of 123 MW.
- 69. The jurisdictional separation methodology recommended in Section IX.B. of this Examiner's Report fairly apportions the costs of providing utility service among the jurisdictions in which GSU operates and should therefore be adopted.
- 70. The Average and Excess methodology proposed by GSU witness Edwards to allocate production and transmission demand-related costs fairly allocates these costs and is reasonable because this method (1) recognizes the existence of more than one driving factor in cost causation; (2) is appropriate where the system load factor is high; (3) promotes consistency since it is used by GSU in support of its rate applications before the FERC and LPSC as well as the Texas PUC; and (4) avoids a "free-ride" for off-peak loads. It is therfore appropriate for GSU to continue to use this allocation methodology.
- 71. The Texas retail allocation methodology recommended in Section IX. C. of this Examiner's Report fairly apportions the costs of providing electric utility service to the various customer classes served by GSU and should therefore be adopted.
- 72. The 12-CP method proposed by Cities' witness Lawton does not reflect GSU's system characteristics of a distinct summer peak, and should therefore be rejected.
- 73. The composite A&E/4-CP method proposed by TIEC witness Pollock takes into account summer peak responsibility as a criterion of cost causation while still utilizing GSU's proposed A&E allocation methodology. Although intuitively appealing, it is a hybrid without theoretical support and should therefore be rejected.
- 74. The Average and Peak allocation method proposed by OPC witness Andersen and the Average Load Duration Curve Methodology proposed by staff witness Kol are intended to be proxies for a time-of-use allocation method. The preponderence of the evidence in the record established that a time-of-use methodology does not necessarily produce rational results. There is insufficienct evidence to support the proposition that a time-of-use analysis accurately reflects factors which caused generation and transmission plant to be built. Both the Average and Peak and ALDC allocation methodologies should be rejected because, without the theoretical underpinnings provided by time-of-use analysis, they have no support.
- 75. The preponderence of the evidence in the record established that both the Average and Peak and ALDC allocation methods double-count energy consumption in allocating demand-related costs.
- 76. In determining the amount of revenue which will actually be collected from each customer class the ultimate goal of setting the revenues allocated to each class equal to the costs allocated to each class and thereby achieving relative rates of return of unity is properly tempered by the principle of gradualism and the idea that rate decreases should be avoided because they would send incorrect price signals.
- \*119 77. The preponderence of credible evidence in the record clearly established that there is no additional risk associated with serving industrial customers.
- 78. GSU's proposed class revenue target guidelines are reasonable because they approach equalized rates of return for all customer classes, while at the same time avoiding excessive or insufficient increases for any class.
- 79. If the allocation method adopted by the Commission represents a radical departure from that currently used, setting class revenue targets to achieve relative rates of return of unity in this docket would most likely necessitate unreasonably large rate increases for some classes and rate decreases for other classes.
- 80. If an allocation method other than the A&E method is adopted, customer classes (if any) that, according to the new allocation method, have not borne their fair share in the past should be granted increases no more than one and one-half times the system average, and classes (if any) that have borne more than their fair share in the past should be granted increases no less than one-

half the system average. This would result in equitable treatment for all classes while moving gradually toward the ultimate goal of achieving unity in relative rates of return.

- 81. The fuel reconciliation treatment proposed by staff witnesses Neff and Kepner subtracts the over-recovery collected by GSU as of January 31, 1984 from GSU's allowed fuel costs, and then flows this amount through the cost of service allocation as any other cost. This treatment is reasonable for this docket since it approximately matches the amount to be refunded with the amount that was over-recovered, without becoming unduly burdensome or impractical.
- 82. It is reasonable to require the Commission staff, in GSU's next rate case or fuel proceeding, to file testimony to address the tracking approach to reconciliation which was urged by North Star Steel.
- 83. The following line loss factor multipliers recommended by North Star Steel witness Daniel accurately reflect the line losses attributable to the various voltage levels at which service is provided and should therefore be adopted:

| Voltage Level | Loss Multiplier |  |
|---------------|-----------------|--|
| Secondary     | 1.048800        |  |
| Primary       | 1.020298        |  |
| 34.5 kV       | 1.013759        |  |
| 69 kV         | .969545         |  |
| 138 kV        | .969551         |  |
| 230 kV        | .961537         |  |

- 84. The billing fuel factor should be multiplied by the loss multiplier to arrive at the energy charge which will appear in the tariff.
- 85. The preponderence of the evidence in the record established that there are numerous problems associated with marginal cost pricing.
- 86. A marginal cost based approach to rate design should not be adopted unless and until the Commission states that marginal cost studies should be used as the basis for designing electric rates.
- 87. The testimony of GSU witness Edwards supports a summer/winter differential of at least 1.53 cents per KWH. This differential should therefore be approved.
- \*120 88. The monthly residential customer charge should not include any "free" KWH. Eliminating the KWH included in the minimum bill encourages conservation and gives the smaller residential consumer a better opportunity to save money.
- 89. GSU's approach to standard LIS and LPS rates should be adopted.
- 90. Until more is known about the potential effects of time-of-use rates on GSU and its industrial customers, it would be imprudent to make them mandatory.
- 91. The optional residential time-of-use rate should be revised so that the average customer is financially indifferent to the standard rate and the optional time-of-use rate, except for the increased metering costs.
- 92. GSU's proposed optional time-of-use rates were all developed based upon a time of use allocation that is similar to the average and excess allocation method. It would not be reasonable to restructure the LIS-TOU and LPS-TOU rates as proposed by TIEC witness Pollock while the other TOU rates remain as proposed by GSU.

# State Office of Administrative Hearings



# Lesli G. Ginn Chief Administrative Law Judge

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**September 21, 2017** 

TO: Stephen Journeay, Director

Commission Advising and Docket Management

William B. Travis State Office Building

1701 N. Congress, 7th Floor Austin, Texas 78701

**RE:** SOAH Docket No. 473-17-1764

PUC Docket No. 46449

Application of Southwestern Electric Power Company for Authority to Change Rates

Enclosed is the Proposal for Decision (PFD) in the above-referenced case. By copy of this letter, the parties to this proceeding are being served with the PFD.

Please place this case on an open meeting agenda for the Commissioners' consideration. The deadline for this case is November 9, 2017. Please notify the undersigned Administrative Law Judges and the parties of the open meeting date, as well as the deadlines for filing exceptions to the PFD, replies to the exceptions, and requests for oral argument.

Sincerely,

Steven D. Arnold

Administrative Law Judge

Fernando Rodriguez

Administrative Law Judge

Pratibha J. Shenoy

Administrative Law Judge

Enclosure

xc: All Parties of Record

300 W. 15<sup>th</sup> Street, Suite 504, Austin, Texas 78701/ P.O. Box 13025, Austin, Texas 78711-3025 512.475.4993 (Main) 512.475.3445 (Docketing) 512.475.4994 (Fax) www.soah.texas.gov

## SOAH DOCKET NO. 473-17-1764 PUC DOCKET NO. 46449

| APPLICATION OF SOUTHWESTERN | § | BEFORE THE STATE OFFICE |
|-----------------------------|---|-------------------------|
| ELECTRIC POWER COMPANY FOR  | § |                         |
| AUTHORITY TO CHANGE RATES   | § | OF                      |
|                             | § |                         |
|                             | č | ADMINISTRATIVE HEARINGS |

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Staff rebuts the Company's argument that it is building transmission capacity for year-round reliability and, therefore, the 12CP method is more appropriate, by pointing out that the A&E/4CP allocator already incorporates year-round demands. Moreover, the Company's proposed 12CP allocation method simply ignores cost causation, which the Commission has repeatedly concluded is driven primarily by the summer peak.<sup>1119</sup>

Finally, with respect to CARD's proposal to replace the A&E/4CP method with the 4CP method, Staff notes its appreciation at CARD's attempt at a compromise. However, the fact remains that the Commission has repeatedly held that it prefers the A&E/4CP method.

## 7. ALJs' Analysis

SWEPCO's arguments the question of replacing the Commission's on historically-approved A&E/4CP methodology with the 12CP methodology it proposed here and in its last rate case, Docket No. 40443, brings to mind the old adage that "you can't hit a home run unless you come to the plate." While SWEPCO may be applauded by some for continuing to advocate a method it believes best fits its system (particularly with reference to the manner in which SPP allocates transmission costs), it is also true that, as TIEC states, "if there is one constant in Commission ratemaking, it is the use of the A&E/4CP methodology for the class allocation of both production and transmission costs." 1120 The ALJs concur with TIEC.

SWEPCO has not presented persuasive evidence in this case that there are dispositive facts, or any real facts, that are different today than they were when the Commission decided Docket No. 40443. The Company should be commended for candidly acknowledging the Commission's holding in its last case, as well as the SPS decision in Docket No. 43695, which was decided in February 2016. There, the Commission reached the same conclusion regarding the issue of the A&E/4CP methodology as is sought in this case by ETSWD, TCGA, TIEC, and

<sup>1119</sup> Staff Reply Brief at 45.

<sup>1120</sup> TIEC Initial Brief at 69.

Staff; namely, that the A&E/4CP method is appropriate for Texas summer-peaking utilities like SWEPCO and SPS, which is also in the SPP.

In this docket, SWEPCO did not distinguish the manner in which it builds and operates its transmission system from the manner in which it built and operated its system, and presented its case, in Docket No. 40443. Neither did SWEPCO adequately distinguish the manner in which the Commission addressed these same issues in SPS Docket No. 43695. As a result, the ALJs are not persuaded that SWEPCO's 12CP method should be implemented in this case. The Company's proposed methodology for allocating transmission costs to retail customers does not reflect proper cost causation in this case, just as in its prior docket.

Similarly, having recommended that the Commission reject the Company's proposal to shift all transmission revenue requirements to FERC jurisdiction by reference to the SPP OATT, the ALJs also recommend that the Commission reject the Company's attempt to "piggyback" on its SPP-FERC transmission cost jurisdictional proposal. The Company has not carried its burden of proof on this issue, and the ALJs recommend that the Commission order SWEPCO to follow the precedent in SWEPCO Docket No. 40443 and SPS Docket No. 43695, and further require SWEPCO to allocate its transmission costs allocated to Texas retail ratepayers based on the A&E/4CP methodology.

# C. Major Customer Account Representative Expense Allocation [Germane to Preliminary Order Issue Nos. 38 and 41]

A Major Customer Account Representative is a utility employee who provides services to large customers or to national chains and franchises that have multiple locations in the utility's service area. <sup>1121</sup> In this case, SWEPCO's Major Customer Account Representatives work with large commercial and industrial customers. OPUC witness Scott Palmer testified that the classes that utilize the services of SWEPCO's Major Customer Account Representatives are the Commercial (Electric Furnace, General Service Primary, Lighting and Power Primary, Lighting

OPUC Ex. 11 (Palmer Direct) at 16; OPUC Initial Brief at 101; SWEPCO Initial Brief at 171.

and Power Transmission) and Industrial (Large Lighting and Power Primary, Large Lighting and Power Transmission, Oil Field, Metal Melting Primary, Metal Melting Transmission and Metal Melting Secondary) classes. Based on the principle of cost causation recognized by the Commission in two relatively recent cases, Mr. Palmer recommends directly assigning Major Customer Account Representatives' costs to the classes that caused the expense. SWEPCO concurred with Mr. Palmer's proposed adjustment.

Mr. Palmer testified that the Company allocated a total of \$1,082,908 of Major Account Representative costs to various FERC accounts in SWEPCO's cost of service study. Of that amount, Mr. Palmer stated that \$774,887 is directly-attributable to SWEPCO billing and \$308,021 is attributable to AEPSC charges billed to SWEPCO during the test year. However, the bulk of the costs, approximately 82% in Accounts 901-905 and 907-908 related to customer accounting and customer service information. Mr. Palmer's investigation revealed that 68%-81% is allocated to the residential and (small) general service without demand customers.

Mr. Palmer also discovered that besides Accounts 901-905 and 907-908, approximately 8% of Major Account Representatives' costs (*i.e.*, the costs billed from AEPSC) were captured in Account 920, Administrative & General, while approximately 3% of costs are in employee pensions and benefits, with the remainder being spread across a number of distribution and administrative accounts. Mr. Palmer testified that the Company's treatment of Major Customer Representatives' costs is inappropriate and, based on recent Commission precedent, should be directly assigned to the classes that directly cause the expense. Mr. Palmer proposes to directly assign the Major Account Representatives' costs on the basis of customers, and because the Commercial class has 69 customers and the Industrial class has 68 customers, Mr. Palmer assigned each class 50% of the costs. Mr. Palmer made three exceptions. Within the Commercial class he excluded Cotton Gin, GS without demand, and GS with demand because these are not large customers and do not receive services from Major Account Representatives.

<sup>1122</sup> OPUC Ex. 11 (Palmer Direct) at 16.

<sup>&</sup>lt;sup>1123</sup> See SPS Docket No 43695 Order on Rehearing at FoFs 312-14; ETI Docket No. 39896 Order on Rehearing at 8.

## PUC DOCKET NO. 46449 SOAH DOCKET NO. 473-17-1764

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APPLICATION OF SOUTHWESTERN ELECTRIC POWER COMPANY FOR AUTHORITY TO CHANGE RATES

PUBLIC UTILITY COMMISSION

**OF TEXAS** 

#### **ORDER**

This order addresses the application of Southwestern Electric Power Company (SWEPCO) for authority to change its rates, filed on December 16, 2016. SWEPCO originally sought a \$69 million increase to its Texas retail revenue requirement, primarily to reflect investments in environmental controls. However, SWEPCO also proposed a significant modification to the manner in which its transmission costs should be recovered. In addition, SWEPCO sought additional cost recovery for vegetation management, rate-case expenses, and a regulatory asset for certain costs under the Southwest Power Pool's open-access tariff.

A hearing on the merits was held between June 5 and June 15, 2017 at the State Office of Administrative Hearings (SOAH). On September 22, 2017, the SOAH administrative law judges (ALJs) filed their proposal for decision (PFD) in which they recommended a Texas retail revenue requirement increase of approximately \$51 million. The SOAH ALJs rejected SWEPCO's new method to recover transmission costs and recommended granting its requested rate-case expenses, and regulatory asset. In response to parties' exceptions and replies to the PFD, on November 8, 2017, the SOAH ALJs filed a letter making changes to the PFD.

Except as discussed in this order, the Commission adopts the PFD as modified, including findings of fact and conclusions of law. The Commission's decisions result in a Texas retail base-rate revenue requirement of \$369,234,023, which is an increase of \$50,001,133 from SWEPCO's present Commission-authorized Texas retail base-rate revenue requirement. New findings of fact 17A through 17J are added to address the procedural history of this docket after the close of the evidentiary record at SOAH. The Commission incorporates by reference the abbreviations table provided in the PFD.



### Green Country Capacity Purchase

- 268. The request for proposals (RFP) that resulted in the signing of the Green Country PPA sought bids to supply up to 200 MW of capacity and associated energy for a term of three to five years beginning June 1, 2016. Potential bidders were notified by the issuance of a public news release, and the RFP documents were available on the SWEPCO web site. After evaluating the resulting proposals, an agreement was reached for capacity, energy, and related ancillary services from the Green Country Energy Facility.
- 269. As part of meeting its load-serving-entity obligation in the SPP, SWEPCO had no choice but to purchase capacity, as it would have otherwise been short of the required capacity under SPP planning criteria.
- 270. It was prudent for SWEPCO to enter into the Green Country PPA.

#### Weather Normalization

- Weather data are not randomly distributed by year. There can be weather trends, including both warming and cooling trends.
- 272. The use of a 30-year period for normalizing weather is not a reasonable means of capturing such trends.
- 273. The use of 10 years of data is a reasonable means of capturing such weather trends.
- 274. The use of 10 years of data is more sensitive to weather patterns during the test year.
- 275. The weather-normalization adjustment should be applied to adjust billing units and allocation factors for a 10-year weather-normalization period, based on the class billing determinants and external allocation factors used to calculate rates using a 10-year weather-normalization period.

#### Jurisdictional Cost Allocation

276. SWEPCO's proposal to base the jurisdictional allocation of transmission capacity costs on the 12 Coincident Peak (12CP) methodology is reasonable and consistent with Commission precedent.

## Cost Allocation

#### Allocation of Production Costs

- 277. SWEPCO allocates production costs to various classes under the average and excess Demand-4 coincident peak (A&E-4CP) methodology. This methodology allocates a percentage of costs, equal to the system load factor, based on average demand, and the remainder of those costs based on excess demand.
- 278. In SPS Docket No. 43695, the only Commission docket in which this issue has been litigated, the Commission determined that the system load factor should be calculated by using the single annual coincident peak, rather than the average of four coincident peaks.
- 279. SWEPCO used the single coincident peak in calculating its system load factor for Schedule O-1.6.
- 280. The use of the annual coincident peak in calculating system load factor is consistent with the definition of load factor in the Commission's rules.
- 281. The use of the annual coincident peak for calculating system load factor is consistent with SWEPCO's generation and transmission planning.
- 282. The use of the annual coincident peak for calculating system load factor is consistent with the National Association of Regulatory Commissioners (NARUC) manual.
- 283. The use of the annual coincident peak for calculating system load factor is consistent with SPP planning.
- 284. In using the A&E-4CP methodology, SWEPCO should calculate its system load factor using the single annual coincident peak.

### Class Cost Allocation of Transmission Costs

- 285. SWEPCO proposes to allocate transmission costs to retail classes based on the 12CP demand allocator.
- 286. SWEPCO is a summer-peaking utility.
- 287. The electricity demands in the summer months are the primary drivers for the amount of transmission capacity needed for SWEPCO to provide reliable service.

- 288. SWEPCO's demands during the four summer months ranged from 4623 MW to 5149 MW, while no off-peak month had demand in excess of 4051 MW.
- 289. The Commission has a longstanding policy of allocating transmission costs based primarily on peak demands in the four summer months.
- 290. SWEPCO has submitted the same position in support of the 12CP methodology in this case that it did in its prior case.
- 291. In Docket No. 40443, the Commission rejected SWEPCO's proposal to allocate transmission costs based on the 12CP methodology, and instead required SWEPCO to use the A&E/4CP methodology.
- 292. The A&E/4CP method for allocating transmission costs to the retail classes is standard and the most reasonable methodology.
- 293. SWEPCO should use the A&E/4CP method for allocating transmission costs to the retail classes.

## Major Customer Account Representative Expense

- 294. A major account representative is a utility employee who provides services either to large customers or to national chains.
- 295. During the test year, SWEPCO (total company) spent \$1,082,908 on major account representatives.
- 296. SWEPCO uses major account representatives to work with 69 large commercial and 68 industrial customers.
- 297. It is reasonable to allocate major-account-representatives expenses solely to the large commercial and industrial customers who benefit from that service.
- 298. Major account representative costs should not be assigned to residential and general-service customers who do not receive these services.
- 299. Allocating the costs of major-account-representatives to the large commercial and industrial customers is consistent with cost-causation principles.

- 300. Assigning a weighting factor reflecting the 69 large commercial and 68 industrial customers who receive the service is reasonable to properly allocate the costs of the majoraccount representatives to these classes.
- 301. Applying a new allocation factor to Account 908 that correctly reallocates major-account-representative costs to the Large Commercial and Industrial Classes is appropriate.
- 302. Allocating the \$369,336 (Texas retail) of major-account-representative expenses to the Large Commercial and Industrial Classes is reasonable.

#### Uncollectible Expense Allocation

- 303. Uncollectible expenses are caused by non-paying former customers, and the current customers in a particular class are not the cause of uncollectible expense created by other former members of that class.
- 304. No paying customer regardless of class contributed more to these costs than any other paying customer.
- 305. It is reasonable to allocate the uncollectible expenses broadly across all classes based on revenue.

#### Primary/Secondary Distribution Split for Accounts 364 and 365

- 306. SWEPCO proposes to allocate costs in FERC Accounts 364 and 365 between the primary and secondary distribution systems based on the "investment method," which splits the cost based on the investment used to provide primary and secondary distribution services.
- 307. Under the investment method, most poles are directly assigned to primary or secondary service. The number of connections associated with a pole is only taken into account in cases where a pole is shared by primary and secondary distribution facilities.
- 308. The investment method appropriately takes into account the total investment in the poles, rather than merely the number of poles or length of conductor.
- 309. The size and length of a pole used in the construction of distribution facilities depends on operational requirements specific to the particular installation involved, without regard to whether primary or secondary distribution facilities are under construction.

the filing of the tariff. The Commission shall by letter approve, modify, or reject each tariff sheet, effective the date of the letter.

- 12. The tariff sheets shall be deemed approved and shall become effective on the expiration of 20 days from the date of filing, in the absence of written notification of modification or rejection by the Commission. If any sheets are modified or rejected, SWEPCO shall file proposed revisions of those sheets in accordance with the Commission's letter within ten days of the date of that letter, and the review procedure set out above shall apply to the revised sheets.
- 13. Copies of all tariff-related filings shall be served on all parties of record.
- 14. All other motions, requests for entry of specific findings of fact and conclusions of law, and any other requests for general or specific relief, if not expressly granted, are denied.

Signed at Austin, Texas the

day of January 2018.

PUBLIC UTILITY COMMISSION OF TEXAS

DEANN T. WALKER, CHAIRMAN

BRANDY MARDY MARQUEZ, COMMISSIONER

**ARTHUR C. D'ANDREA, COMMISSIONER** 

## PUC DOCKET NO. 46449 SOAH DOCKET NO. 473-17-1764

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APPLICATION OF SOUTHWESTERN §
ELECTRIC POWER COMPANY FOR AUTHORITY TO CHANGE RATES §

PUBLIC UTILITY COMMISSION

OF TEXAS

#### ORDER ON REHEARING

This order addresses the application of Southwestern Electric Power Company (SWEPCO) for authority to change its rates, filed on December 16, 2016. SWEPCO originally sought a \$69 million increase to its Texas retail revenue requirement, primarily to reflect investments in environmental controls. However, SWEPCO also proposed a significant modification to the manner in which its transmission costs should be recovered. In addition, SWEPCO sought additional cost recovery for vegetation management, rate-case expenses, and a regulatory asset for certain costs under the Southwest Power Pool's open-access tariff.

A hearing on the merits was held between June 5 and June 15, 2017 at the State Office of Administrative Hearings (SOAH). On September 22, 2017, the SOAH administrative law judges (ALJs) filed their proposal for decision (PFD) in which they recommended a Texas retail revenue requirement increase of approximately \$51 million. The SOAH ALJs rejected SWEPCO's new method to recover transmission costs and recommended granting its requested rate-case expenses, and regulatory asset. In response to parties' exceptions and replies to the PFD, on November 8, 2017, the SOAH ALJs filed a letter making changes to the PFD.

Except as discussed in this order, the Commission adopts the PFD as modified, including findings of fact and conclusions of law. The Commission's decisions result in a Texas retail base-rate revenue requirement of \$369,234,023, which is an increase of \$50,001,133 from SWEPCO's present Commission-authorized Texas retail base-rate revenue requirement. New findings of fact 17A through 17J are added to address the procedural history of this docket after the close of the evidentiary record at SOAH. The Commission incorporates by reference the abbreviations table provided in the PFD.

425

- 274. The use of 10 years of data is more sensitive to weather patterns during the test year.
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## Primary/Secondary Distribution Split for Accounts 364 and 365

306. SWEPCO proposes to allocate costs in FERC Accounts 364 and 365 between the primary and secondary distribution systems based on the "investment method," which splits the cost based on the investment used to provide primary and secondary distribution services.

NXP 1-7: Refer to page 60 of AE's Base Rate Filing Package. Please identify each of the

Production- Demand cost allocation methods that AE has reviewed in the past. For each method reviewed, describe all shortfalls AE identified with the method.

<u>ANSWER:</u> See the following attachments:

Attachment NXP 1-7A: White Paper 3 – Revenue Requirement and Cost of Service

Attachment NXP 1-7B: PIC 3 Presentation Final Revised 030311

Attachment NXP 1-7C: PUCT Testimony

Attachment NXP 1-7D: 2016 Report to Council Final

Prepared by: GR

Sponsored by: Grant Rabon

- 1 The sub-functionalized and classified production costs were allocated to each of the
- 2 12 customer classes.

#### 3 Q. PLEASE DESCRIBE THE ALLOCATION OF COSTS TO THE VARIOUS

- 4 **CUSTOMER CLASSES.**
- 5 A. All production, demand-related costs associated with generation resources were
- 6 allocated to each customer class using the AED-4CP allocation method. Production
- 7 demand-related costs associated with Energy Efficiency Programs were allocated
- 8 based on the total class revenue requirement. Energy-related costs were allocated to
- 9 each customer class based on Net Energy For Load ("NEFL"), net of GreenChoice
- subscriptions. The cost of GreenChoice attributable to subscriptions was allocated
- 11 based on a projection of the normalized energy consumption for GreenChoice
- subscribers in each customer class.

## 13 Q. PLEASE DESCRIBE THE ALLOCATION OF PRODUCTION DEMAND-

- 14 RELATED COSTS USING THE AED-4CP ALLOCATION METHOD.
- 15 A. The AED-4CP allocation method is a variation of the AED method. AED is a widely
- used production demand-related cost allocation method and is described in the
- 17 NARUC manual. Under the AED method, the electricity usage characteristics of
- 18 each customer class are evaluated to determine class "average demand" and class
- 19 "excess demand." Average demand (measured in kW) is a measure of the demand a
- 20 class places on the system over the course of the year. Average demand is calculated
- 21 by dividing annual customer class electricity usage (measured in kWh) by the typical
- 22 number of hours in a year (i.e., 8,760 hours). Mathematically, as an allocator of
- 23 costs, average demand is equivalent to energy. Excess demand measures the
- difference between the customer class's annual maximum demand and its annual

PUC DOCKET NO. 40627

DIRECT TESTIMONY OF JOSEPH A. MANCINELLI

# FILING APPROVED RATES ORDINANCE, JOINT RECOMMENDATION, TARIFF SCHEDULE AND NOTICE OF EFFECT ON RATE CLASSES

§

Following the Austin City Council's August 29, 2016 approval of new retail electric rates, Austin Energy hereby files the final authorizing ordinance, the joint recommendation of parties to the Impartial Hearing Examiner review process, a "clean" copy of the new tariff schedule, written notice served to parties on August 30, 2016, and written notice pursuant to the Public Utility Regulatory Act §33.103(a) posted on the Austin City Clerk's website on August 30, 2016.

Respectfully submitted,

/s/Barksdale English
Barksdale English
Austin Energy
721 Barton Springs Road
Austin, TX 78704

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- 9. On July 22, 2016 intervenors were allowed to file Exceptions to the Report seeking reconsideration of issues by the IHE. Replies to Exceptions were filed on August 1, 2016 followed by the issuance of a Supplemental Report on August 5, 2016.
- 10. At the conclusion of a series of negotiations, the Signatories reached an agreement in principal on August 15, 2016.
- 11. The Signatories believe that a negotiated resolution of this matter is desirable and in the public interest because the result is reasonable under the circumstances, is supported by the evidence, will conserve the public's and the Signatories' resources, and will eliminate controversy.

#### II. SETTLEMENT PROVISIONS

The Signatories have reached agreement on the issues as set out below and agree that the City Council should adopt a rate ordinance consistent with this Recommendation.

- 12. **Application of Recommendation:** The terms of this Recommendation apply to rates charged by Austin Energy to customers throughout its service area. The provisions of this Recommendation shall become effective on January 1, 2017 unless stated otherwise below.
- 13. **Revenue Requirement:** The Signatories agree that base rates should be reduced by \$42,500,000 effective January 1, 2017.
- 14. **Cost Allocation/Revenue Spread:** Signatories agree that the \$42,500,000 base rate reduction is to be allocated in approximately the following manner:
  - \$5,500,000 to the Primary Voltage 4 ("P4") class;
  - \$5,000,000 to the Residential class;
  - \$1,000,000 to the Secondary Voltage 1 ("S1") class;
  - \$31,000,000 allocated to the remaining customer classes according to the revenue distribution proposed by Austin Energy in its direct and rebuttal case;

NXP 1-7: Refer to page 60 of AE's Base Rate Filing Package. Please identify each of the

Production- Demand cost allocation methods that AE has reviewed in the past. For each method reviewed, describe all shortfalls AE identified with the method.

<u>ANSWER:</u> See the following attachments:

Attachment NXP 1-7A: White Paper 3 – Revenue Requirement and Cost of Service

Attachment NXP 1-7B: PIC 3 Presentation Final Revised 030311

Attachment NXP 1-7C: PUCT Testimony

Attachment NXP 1-7D: 2016 Report to Council Final

Prepared by: GR

Sponsored by: Grant Rabon

Cost of Service analysis applies the methodology approved by the City Council in 2012, with the exception of the allocator of generation production costs. For these specific costs, Austin Energy recommends using the ERCOT Twelve Coincident Peak (ERCOT 12CP) methodology. This is an appropriate methodology for a regulated entity like Austin Energy that operates in a centralized dispatched environment like the ERCOT Nodal Market.

Costs allocated by customer class are shown in Figure 2.2. In the first numeric column, the figure identifies the share of the total revenue requirement allocated to each customer class. The second numeric column presents the projected revenues under current rates from each customer class. The difference between these columns is the excess or deficit for each class relative to cost of service. The final column shows the percentage adjustment — either up or down — required to bring that class to cost of service.

Figure 2.2
Existing Base Rate Changes Needed to Meet Total Cost of Service by Customer Class

| Customer Class                       | Total Cost of<br>Service <sup>(1)</sup><br>(\$) | Existing Base Rates<br>and Test Year Pass-<br>Through Rates <sup>(1)</sup><br>(\$) | Excess/<br>(Deficient)<br>Revenue <sup>(2)</sup><br>(\$) | Increase/<br>(Decrease)<br>Needed to<br>Meet Cost of<br>Service<br>(%) |
|--------------------------------------|-------------------------------------------------|------------------------------------------------------------------------------------|----------------------------------------------------------|------------------------------------------------------------------------|
| Residential                          | 527,473,323                                     | 474,062,283                                                                        | (53,411,041)                                             | 11.3                                                                   |
| Secondary Voltage <10 kW             | 32,241,755                                      | 31,458,282                                                                         | (783,472)                                                | 2.5                                                                    |
| Secondary Voltage 10 - <300 kW       | 241,019,337                                     | 283,339,669                                                                        | 42,320,332                                               | (14.9)                                                                 |
| Secondary Voltage ≥300 kW            | 220,057,525                                     | 238,491,828                                                                        | 18,434,303                                               | (7.7)                                                                  |
| Primary Voltage <3 MW                | 42,224,997                                      | 46,257,714                                                                         | 4,032,717                                                | (8.7)                                                                  |
| Primary Voltage 3 - <20 MW           | 47,471,430                                      | 52,185,478                                                                         | 4,714,048                                                | (9.0)                                                                  |
| Primary Voltage ≥20 MW               | 87,271,333                                      | 89,945,727                                                                         | 2,674,394                                                | (3.0)                                                                  |
| Transmission Voltage                 | 1,317,596                                       | 2,146,390                                                                          | 828,794                                                  | (38.6)                                                                 |
| Transmission Voltage≥20 MW @ 85% aLF | 13,863,814                                      | 13,517,421                                                                         | (346,394)                                                | 2.6                                                                    |
| Service Area Street Lighting         | N/A                                             | N/A                                                                                | N/A                                                      | N/A                                                                    |
| City-Owned Private Outdoor Lighting  | 3,776,457                                       | 2,884,834                                                                          | (891,623)                                                | 30.9                                                                   |
| Customer Owned Non-Metered Lighting  | 114,954                                         | 108,555                                                                            | (6,399)                                                  | 5.9                                                                    |
| Customer Owned Metered Lighting      | 394,788                                         | 303,428                                                                            | (91,360)                                                 | <u>30.1</u>                                                            |
| Total                                | 1,217,227,310                                   | 1,234,701,609                                                                      | 17,474,299                                               | (1.4)                                                                  |

Notes:

The table demonstrates that the Residential customer class is well below cost of service, by \$53.4 million (11.3 percent), while certain non-commercial customer classes are above cost of service. The greatest differential in dollar terms is for the Secondary Voltage class from 10 to 300 kW, at \$42.3 million above cost of service. Chapter 5, Cost of Service, discusses the cost allocation methodologies used to assign costs to specific classes of customers and also includes Austin Energy's proposal for allocating the \$17.5 million in excess revenues across the customer classes.

<sup>1)</sup> Excludes Customer Assistance Program funding.

 $<sup>{\</sup>bf 2)} \quad \hbox{Only shows base revenue differences and none of the impacts of pass-through charges}.$ 

- TIEC 4-7: Provide a schedule showing the hourly loads during the test-year for each of the following customer classes/subgroups:
  - a. Primary Voltage  $\geq 3 \text{ MW} < 20 \text{ MW}$ .
  - b. Primary Voltage  $\geq 3$  MW < 20 MW loads directly served from a distribution substation.
  - c. Primary Voltage  $\geq 20$  MW.

#### ANSWER:

- a. Please see Attachment TIEC 4-7A.
- b. Austin Energy filed a Notice of Procedural Guidelines Section C(2) Ruling on June 6, 2022 because the City of Austin Law Department determined that information responsive to TIEC 4-7(b) is considered either confidential competitive information, confidential critical infrastructure information, or confidential customer information which Austin Energy cannot legally disclose.
- c. Please see Attachment TIEC 4-7B.

Attachment TIEC 4-7A Attachment TIEC 4-7B

Prepared by: AAM

Sponsored by: Brian Murphy

# ELECTRIC UTILITY COST ALLOCATION MANUAL

January, 1992



## NATIONAL ASSOCIATION OF REGULATORY UTILITY COMMISSIONERS

1101 Vermont Avenue NW Washington, D.C. 20005 USA

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### B. Energy Weighting Methods

There is evidence that energy loads are a major determinant of production plant costs. Thus, cost of service analysis may incorporate energy weighting into the treatment of production plant costs. One way to incorporate an energy weighting is to classify part of the utility's production plant costs as energy-related and to allocate those costs to classes on the basis of class energy consumption. Table 4-4 shows allocators for the example utility for total energy, on-peak energy, and off-peak energy use.

In some cases, an energy allocator (annual KWH consumption or average demand) is used to allocate part of the production plant costs among the classes, but part or all of these costs remain classified as demand-related. Such methods can be characterized as partial energy weighting methods in that they take the first step of allocating some portion of production plant costs to the classes on the basis of their energy loads but do not take the second step of classifying the costs as energy-related.

### 1. Average and Excess Method

Objective: The cost of service analyst may believe that average demand rather than coincident peak demand is a better allocator of production plant costs. The average and excess method is an appropriate method for the analyst to use. The method allocates production plant costs to rate classes using factors that combine the classes' average demands and non-coincident peak (NCP) demands.

Data Requirements: The required data are: the annual maximum and average demands for each customer class and the system load factor. All production plant costs are usually classified as demand-related. The allocation factor consists of two parts. The first component of each class's allocation factor is its proportion of total average demand (or energy consumption) times the system load factor. This effectively uses an average demand or total energy allocator to allocate that portion of the utility's generating capacity that would be needed if all customers used energy at a constant 100 percent load factor. The second component of each class's allocation factor is called the "excess demand factor." It is the proportion of the difference between the sum of all classes' non-coincident peaks and the system average demand. The difference may be negative for curtailable rate classes. This component is multiplied by the remaining proportion of production plant -- i.e., by 1 minus the system load factor -- and then added to the first component to obtain the "total allocator." Table 4-10A shows the derivation of the allocation factors and the resulting allocation of production plant costs using the average and excess method.

TABLE 4-10A

### CLASS ALLOCATION FACTORS AND ALLOCATED PRODUCTION PLANT REVENUE REQUIREMENT USING THE AVERAGE AND EXCESS METHOD

| Class<br>Rate | Demand<br>Allocation<br>Factor -<br>NCP MW | Average<br>Demand<br>(MW) | Excess<br>Demand<br>(NCP MW -<br>Avg. MW) | Average Demand Component of Alloc. Factor | Excess Demand Component of Alloc. Factor | Total<br>Allocation<br>Factor<br>(%) | Class<br>Production<br>Plant<br>Revenue<br>Requirement |
|---------------|--------------------------------------------|---------------------------|-------------------------------------------|-------------------------------------------|------------------------------------------|--------------------------------------|--------------------------------------------------------|
| DOM           | 5,357                                      | 2,440                     | 2,917                                     | 17.95                                     | 18.51                                    | 36.46                                | 386,683,685                                            |
| LSMP          | 5,062                                      | 2,669                     | 2,393                                     | 19.64                                     | 15.18                                    | 34.82                                | 369,289,317                                            |
| LP            | 3,385                                      | 2,459                     | 926                                       | 18.09                                     | 5.88                                     | 23.97                                | 254,184,071                                            |
| AG&P          | 572                                        | 254                       | 318                                       | 1.87                                      | 2.02                                     | 3.89                                 | 41,218,363                                             |
| SL            | 126                                        | - 58                      | 68                                        | 0.43                                      | 0.43                                     | 0.86                                 | 9,101,564                                              |
| TOTAL         | 14,502                                     | 7,880                     | 6,622                                     | 57.98                                     | 42.02                                    | 100.00                               | \$1,060,476,000                                        |

Notes:

The system load factor is 57.98 percent, calculated by dividing the average demand of 7,880 MW by the system coincident peak demand of 13,591 MW. This example shows production plant classified as demand-related.

Some columns may not add to indicated totals due to rounding.

If your objective is -- as it should be using this method --to reflect the impact of average demand on production plant costs, then it is a mistake to allocate the excess demand with a coincident peak allocation factor because it produces allocation factors that are identical to those derived using a CP method. Rather, use the NCP to allocate the excess demands.

The example on Table 4-10B illustrates this problem. In the example, the excess demand component of the allocation factor for the Street Lighting and Outdoor Lighting (SL/OL) class is negative and reduces the class's allocation factor to what it would be if a single CP method were used in the first place. (See third column of Table 4-3.)

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# ELECTRIC UTILITY COST ALLOCATION MANUAL

January, 1992



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customer's average monthly contribution to the sum of the average monthly maximum demands of all customers.

As with the NCP method, data for individual customers such as municipal or cooperative systems is usually readily available by delivery point. The maximum peak demands of individual or groups of retail customers are not available since many retail loads are not demand metered. See Table 5-6 for sample application of monthly average NCP allocation methodology.

### **TABLE 5-6**

### EXAMPLE OF MONTHLY AVERAGE NCP DEMAND ALLOCATION

| Customer group NCP demand total(MW)             | 4778   |
|-------------------------------------------------|--------|
| System NCP demand total*                        | 150347 |
| Customer group monthly average NCP demand ratio | .03178 |

\* Assuming a coincidence factor of .95 for the system, NCP for system CP monthly demands as shown in Table 5-1 would total 150347 MW.

### 6. Average and Excess Allocation Method

In contrast to the various peak demand allocation methods which assign costs based entirely on peak demand responsibility, under the average and excess demand allocation method (A&E) transmission costs are divided into two parts for allocation purposes on both demand and energy based on the system load factor (the ratio of the average load over a designated period to the peak demand occurring in that period). As such, the A&E method emphasizes or recognizes the extent of the use of capacity resulting in allocation of an increasing proportion of capacity costs to a customer group as its load factor increases. This theory implies that a utility's capacity serves a dual function -- while system peak demands establish the level of capacity, providing continuous service creates additional incentive for such capacity costs. Use of the A&E method for allocating transmission costs is typically employed for consistency when production costs are allocated on the same basis.

Because the A&E method does not recognize the coincident peak contribution of a customer group's load, the data necessary to perform the calculation is limited to the energy consumption and maximum (non-coincident) demand for a given period.

The first half of the formula, the "average" component representing the customer group's average energy consumption, allocates transmission costs on an energy use or average demand basis. The second half of the formula, the "excess" component is derived from the difference between the customer group's maximum non-coincident peak

### PUC DOCKET NO. 46449 SOAH DOCKET NO. 473-17-1764

2010 MAR 19 PM 3: 18

APPLICATION OF SOUTHWESTERN §
ELECTRIC POWER COMPANY FOR
AUTHORITY TO CHANGE RATES §

PUBLIC UTILITY COMMISSION

OF TEXAS

### ORDER ON REHEARING

This order addresses the application of Southwestern Electric Power Company (SWEPCO) for authority to change its rates, filed on December 16, 2016. SWEPCO originally sought a \$69 million increase to its Texas retail revenue requirement, primarily to reflect investments in environmental controls. However, SWEPCO also proposed a significant modification to the manner in which its transmission costs should be recovered. In addition, SWEPCO sought additional cost recovery for vegetation management, rate-case expenses, and a regulatory asset for certain costs under the Southwest Power Pool's open-access tariff.

A hearing on the merits was held between June 5 and June 15, 2017 at the State Office of Administrative Hearings (SOAH). On September 22, 2017, the SOAH administrative law judges (ALJs) filed their proposal for decision (PFD) in which they recommended a Texas retail revenue requirement increase of approximately \$51 million. The SOAH ALJs rejected SWEPCO's new method to recover transmission costs and recommended granting its requested rate-case expenses, and regulatory asset. In response to parties' exceptions and replies to the PFD, on November 8, 2017, the SOAH ALJs filed a letter making changes to the PFD.

Except as discussed in this order, the Commission adopts the PFD as modified, including findings of fact and conclusions of law. The Commission's decisions result in a Texas retail base-rate revenue requirement of \$369,234,023, which is an increase of \$50,001,133 from SWEPCO's present Commission-authorized Texas retail base-rate revenue requirement. New findings of fact 17A through 17J are added to address the procedural history of this docket after the close of the evidentiary record at SOAH. The Commission incorporates by reference the abbreviations table provided in the PFD.

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- 274. The use of 10 years of data is more sensitive to weather patterns during the test year.
- 275. The weather-normalization adjustment should be applied to adjust billing units and allocation factors for a 10-year weather-normalization period, based on the class billing determinants and external allocation factors used to calculate rates using a 10-year weather-normalization period.

### Jurisdictional Cost Allocation

276. SWEPCO's proposal to base the jurisdictional allocation of transmission capacity costs on the 12 Coincident Peak (12CP) methodology is reasonable and consistent with Commission precedent.

### Cost Allocation

### Allocation of Production Costs

- 277. SWEPCO allocates production costs to various classes under the average and excess Demand-4 coincident peak (A&E-4CP) methodology. This methodology allocates a percentage of costs, equal to the system load factor, based on average demand, and the remainder of those costs based on excess demand.
- 278. In SPS Docket No. 43695, the only Commission docket in which this issue has been litigated, the Commission determined that the system load factor should be calculated by using the single annual coincident peak, rather than the average of four coincident peaks.
- 279. SWEPCO used the single coincident peak in calculating its system load factor for Schedule O-1.6.
- 280. The use of the annual coincident peak in calculating system load factor is consistent with the definition of load factor in the Commission's rules.
- 281. The use of the annual coincident peak for calculating system load factor is consistent with SWEPCO's generation and transmission planning.
- 282. The use of the annual coincident peak for calculating system load factor is consistent with the National Association of Regulatory Commissioners (NARUC) manual.
- 283. The use of the annual coincident peak for calculating system load factor is consistent with SPP planning.

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| 1 2                                                | Transmission of Electricity by Others, and Account 587 Customer Installation Expense;                                                                                                                                                                                                                                                                                                                                                                                               |
|----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3<br>4                                             | <ul> <li>Rate classes taking Primary voltage service do not share in costs<br/>that apply only to Secondary service;</li> </ul>                                                                                                                                                                                                                                                                                                                                                     |
| 5<br>6<br>7                                        | <ul> <li>Rate classes taking Transmission voltage service, or Primary<br/>voltage service at or within one span of a substation, do not share<br/>in costs that apply only to service beyond substations;</li> </ul>                                                                                                                                                                                                                                                                |
| 8<br>9                                             | The Transmission rate class does not share in costs related to substation transformation; and                                                                                                                                                                                                                                                                                                                                                                                       |
| 10<br>11                                           | <ul> <li>Costs that apply only to Lighting Service are directly assigned to<br/>the Lighting Class.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                      |
| 12                                                 | D. Allocation                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 13                                                 | The fourth and final step in the Rate Class Cost of Service Study                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 14                                                 | allocation process is the actual allocation of all rate base and expense                                                                                                                                                                                                                                                                                                                                                                                                            |
| 15                                                 | items to the rate classes, using the factors developed in the third step as                                                                                                                                                                                                                                                                                                                                                                                                         |
| 16                                                 | described above. The Company proposes to allocate costs to the                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 17                                                 | following rate classes:                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 18<br>19<br>20<br>21<br>22<br>23<br>24<br>25<br>26 | <ol> <li>Residential Service,</li> <li>Secondary Service Less Than or Equal to 10 kW,</li> <li>Secondary Service Greater Than 10 kW,</li> <li>Primary Service Less Than or Equal to 10 kW,</li> <li>Primary Service Greater Than 10 kW – Distribution Line,</li> <li>Primary Service Greater Than 10 kW – Substation,</li> <li>Transmission Service,</li> <li>Lighting Service,</li> <li>Wholesale Substation Service, and</li> <li>Wholesale Distribution Line Service.</li> </ol> |
| 28<br>29                                           | These are the same rate classes that were approved in Docket No. 38929                                                                                                                                                                                                                                                                                                                                                                                                              |
| 30                                                 | and are included in Oncor's current Tariff for Retail Delivery Service and                                                                                                                                                                                                                                                                                                                                                                                                          |
| 31                                                 | Tariff for Transmission Service.                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 32                                                 | The summation of all of the allocations for each rate class yields                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 33                                                 | the cost to serve each rate class, including a return on investment in rate                                                                                                                                                                                                                                                                                                                                                                                                         |
| 34                                                 | base for each rate class. From this information, a revenue requirement, a                                                                                                                                                                                                                                                                                                                                                                                                           |
|                                                    | ,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

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rate of return, and unit costs can be determined for use in the rate design process. The proposed rate classes and the rate design process are described later in my direct testimony.

### E. Demand Allocation Methodology - Distribution Costs

- Q. PLEASE DESCRIBE THE DEMAND ALLOCATION METHODOLOGY
   THAT YOU USED IN THE COST OF SERVICE STUDY FOR THE
   COMPANY'S DEMAND-RELATED DISTRIBUTION COSTS.
- 8 The démand allocation methodology used for the demand-related Α. 9 distribution costs in the Rate Class Cost of Service Study is based on the 10 Non-Coincident Peak ("NCP") demand of each rate class occurring during 11 the test year. The rate class NCP demand is simply the highest 15-minute 12 aggregated demand for all the members of a given rate class. 13 individual rate class NCPs may or may not occur during the same period. 14 For example, the greatest 15-minute demand for the Residential Rate 15 Class and the Secondary Service Less Than or Equal to 10 kW Rate 16 Class may be the same period, but the NCP for the Lighting Rate Class 17 will most likely occur at some other time. The NCP demands for the test-18 year are shown on Workpaper II-I-2.2.1
- 19 Q. WHY HAVE YOU SELECTED A NON-COINCIDENT PEAK DEMAND 20 METHODOLOGY FOR DEMAND-RELATED DISTRIBUTION COSTS?
- 21 Α. The Company must plan and construct its distribution system to serve the 22 maximum load requirement of each individual retail and wholesale 23 customer. As a result, the Company's investment in the distribution plant 24 needed to serve each customer does not depend on the month or the time 25 of day when such loads occur. The Company's distribution plant must be 26 capable of delivering this maximum load whenever it is demanded by the 27 customer. Of course, when the loads of individual customers are 28 aggregated into a small number of rate classes, the Company and those

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<sup>&</sup>lt;sup>1</sup> The associated allocation factors are shown on the following Schedules: II-I-1-DIST; II-I-2-DIST; II-I-1-MET; II-I-2-MET; II-I-1-TBILLTDCS; and II-I-2-TBILLTDCS.

- customers benefit from the diversity of the constituent customers' individual loads. An NCP demand allocation method captures the cost causation associated with the maximum load of each rate class on the Company's distribution system. As such, this method best recognizes the contribution of each rate class to the annual cost of the distribution system.
- 7 Q. IS A NON-COINCIDENT PEAK METHODOLOGY THE MOST 8 APPROPRIATE METHOD FOR ALLOCATING DEMAND-RELATED 9 DISTRIBUTION COSTS?
  - Yes. As I have explained, the major objective of a cost allocation method is to reasonably and equitably share the benefits of diversity among the various rate classes. Additionally, the method selected should be fairly clear and understandable, should not require an unreasonable amount of input data, and should offer a reasonable degree of stability from year to year. The NCP method proposed by the Company for demand-related distribution costs satisfies these criteria and was approved by the Commission in all of Oncor's unbundled rate cases - - Docket Nos. 22350, 35717, and 38929. It is the most equitable and reasonable approach for the Company for the following reasons: (1) it recognizes the maximum usage of each rate class during the year; (2) it is less susceptible to shifts in cost responsibility from year to year compared to other allocation . methods (e.g., coincident peak, average and peak, energy) and, thus, provides more stable results; and (3) it yields simple, easy-to-calculate factors that are suitable for the allocation of all types of demand-related distribution costs. Since this method encompasses all of these important concepts of cost allocation, it is the most reasonable method for the Company to utilize in designing both Retail and Wholesale Delivery Service rates.

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- 1 Q. ARE ANY "DIST" FUNCTION COSTS ALLOCATED USING A DEMAND
- 2 ALLOCATION METHODOLOGY OTHER THAN THE NCP
- 3 METHODOLOGY DESCRIBED ABOVE?
- 4 A. Yes. The costs recorded in Account 565, Transmission of Electricity by
- 5 Others, are allocated on the basis of Oncor's average 4-CP for retail loads
- 6 that are coincident to the ERCOT peak loads in the months of June -
- 7 September, as prescribed by Commission Substantive Rule 25.192.
- 8 Q. HOW WERE THE DEMAND DATA USED IN THE COST ALLOCATION
- 9 PROCESSES DEVELOPED?
- 10 A. Rate class demand data were developed in conjunction with the
- 11 Company's continuing program of load research, as described in the direct
- testimony of Company witness Mr. Darryl E. Nelson.

### F. Adjustments to Rate Class Revenue Requirements

- 14 Q. HAVE YOU MADE ANY ADJUSTMENTS TO THE RATE CLASS
- 15 REVENUE REQUIREMENTS CALCULATED IN THE RATE CLASS
- 16 COST OF SERVICE STUDY?

13

- 17 A: Yes, I have made adjustments to the revenue requirements for the various
- retail rate classes to: (i) allocate the adjustment to Other Revenue
- resulting from power factor billing as a credit to the retail rate classes and
- 20 (ii) allocate discretionary service charge revenue as a credit to the retail
- 21 rate classes and miscellaneous revenue as a credit to the retail and
- wholesale rate classes. These adjustments are described below.
- 23 Q. HOW DID YOU ALLOCATE THE COMPANY'S ADJUSTMENT TO
- 24 OTHER REVENUE RESULTING FROM POWER FACTOR BILLING?
- 25 A. As shown on Schedule II-I-2.1f, I allocated the proposed power factor
- revenue credit of \$17,591,505 to all retail rate classes, on the basis of
- 27 Total Distribution Plant Net, Excluding the Wholesale Rate Classes.
- 28 Q. IN THE DESIGN OF RETAIL DELIVERY SERVICE RATES, HOW DID
- 29 YOU ALLOCATE THE REVENUE RESULTING FROM DISCRETIONARY
- 30 SERVICE CHARGES AND FROM OTHER REVENUES?

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| 1  | A. | As shown on Schedule II-I-2.1f, I allocated the Discretionary Revenue as a  |  |  |  |  |  |  |
|----|----|-----------------------------------------------------------------------------|--|--|--|--|--|--|
| 2  |    | credit of \$17,704,366 as follows:                                          |  |  |  |  |  |  |
| 3  |    | (1) \$9,238,000 from the DIST function and \$541,452 from the TBILLTDCS     |  |  |  |  |  |  |
| 4  |    | function to all retail rate classes, on the basis of test year-end customer |  |  |  |  |  |  |
| 5  |    | count, and                                                                  |  |  |  |  |  |  |
| 6  |    | (2) \$7,924,914 from the MET function to all retail rate classes, on the    |  |  |  |  |  |  |
| 7  |    | basis of test year-end customer count weighted by meter investment.         |  |  |  |  |  |  |
| 8  | r  | As shown on Schedule II-I-2.1f, I allocated \$281,533 of                    |  |  |  |  |  |  |
| 9  | 45 | Miscellaneous Service Revenues-Other and \$5,159,884 of Other Electric      |  |  |  |  |  |  |
| 10 | 1  | Revenues to all rate classes on the basis of net distribution plant.        |  |  |  |  |  |  |
| 11 |    | - As shown on Schedule II-I-2.1f, I allocated \$9,471,419 of Rent from      |  |  |  |  |  |  |
| 12 |    | Property as a series of credits as follows:                                 |  |  |  |  |  |  |
| 13 |    | (1) \$8,422,022 from Pole Contacts and \$86,764 from Fiber Optics-          |  |  |  |  |  |  |
| 14 |    | Overhead allocated on the same basis as Account 364, Poles, Towers,         |  |  |  |  |  |  |
| 15 |    | and Fixtures,                                                               |  |  |  |  |  |  |
| 16 |    | (2) \$877,281 from Fiber Optics-Underground allocated on the same basis     |  |  |  |  |  |  |
| 17 |    | as Account 366, Underground Conduit,                                        |  |  |  |  |  |  |
| 18 |    | (3) \$5,000 from Third Party rentals allocated on the same basis as general |  |  |  |  |  |  |
| 19 |    | plant, and                                                                  |  |  |  |  |  |  |
| 20 |    | (4) \$80,352 from Right Of Way and Miscellaneous allocated on basis of      |  |  |  |  |  |  |
| 21 |    | distribution land and land rights.                                          |  |  |  |  |  |  |
| 22 |    | I also allocated \$147,065 of Forfeited Discounts to all retail rate        |  |  |  |  |  |  |
| 23 |    | classes based on the retail class cost of service revenue requirement,      |  |  |  |  |  |  |
| 24 |    | excluding Account 565 (Transmission of Electricity_by Others), as shown     |  |  |  |  |  |  |
| 25 |    | on Schedule II-I-2.1f.                                                      |  |  |  |  |  |  |
| 26 | Q. | HAVE YOU ESTABLISHED BASELINE VALUES TO BE USED IN                          |  |  |  |  |  |  |
| 27 |    | FUTURE ONCOR DISTRIBUTION COST RECOVERY FACTOR                              |  |  |  |  |  |  |
| 28 |    | ("DCRF") APPLICATIONS?                                                      |  |  |  |  |  |  |
| 29 | Α. | Yes. Please see last page of Rate Filing Package Schedule IV-J-7, Proof     |  |  |  |  |  |  |

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Sherburne – Direct Oncor Electric Delivery 2017 Rate Case

of Revenue Statement - - Baseline Values for Rider DCRF. This schedule

| P.U.C. | DOCKET NO. |  |
|--------|------------|--|
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### BEFORE THE PUBLIC UTILITY COMMISSION OF TEXAS

## APPLICATION OF TEXAS-NEW MEXICO POWER COMPANY FOR AUTHORITY TO CHANGE RATES

## PREPARED DIRECT TESTIMONY AND EXHIBITS OF STACY R. WHITEHURST

ON BEHALF OF TEXAS-NEW MEXICO POWER COMPANY

**MAY 30, 2018** 

### Q. WHY DID TNMP EXCLUDE ENERGY EFFICIENCY COST RECOVERY FACTOR (EECRF) REVENUES AND OPT-OUT COST?

A. TNMP excluded the EECRF revenues because the rates, revenues, and expenses are collected through a separate proceeding. TNMP reassigned Opt-Out revenues within the discretionary fee revenues because these revenues are used as an offset to the revenue requirement.

### 7 IV. CLASS COST OF SERVICE

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### Q. WHAT IS A COST ALLOCATION STUDY?

- A. A cost allocation study is a procedure whereby total revenue requirements are assigned (or allocated) to each group of customers with the same basic usage characteristics. Assignment of costs should reflect the reasonably incurred cost of providing service to each customer class. The National Association of Regulatory Utility Commissioners (NARUC) *Electric Utility Cost Allocation Manual* <sup>6</sup> outlines the purpose of the cost allocation study as follows:
  - To attribute costs to different categories of customers based on how those customers cause costs to be incurred;
  - To determine how costs will be received from customers within each customer class;
  - To calculate costs of individual types of service based on the costs each service requires the utility to expend; and,
  - To determine the revenue requirement.

### Q. PLEASE DESCRIBE HOW TNMP'S CLASS COST ALLOCATION STUDY IS PREPARED.

A. TNMP's class cost of service (CCOS) was developed using a four-step process.

First, each item included in TNMP's revenue requirement must be functionalized into one of the five required functions as defined in 16 TAC § 25.344: 1)

Transmission (TRAN); 2) Distribution (DIST); 3) Transmission and Distribution Utility Metering System Service (MET); 4) Transmission and Distribution Utility Billing System Service (TBILL); and 5) Transmission and Distribution Utility

<sup>&</sup>lt;sup>6</sup> Nat'l. Ass'n. of Regulatory Util. Comm'rs (NARUC). (1992). *Electric Utility Cost Allocation Manual*, page 12.

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Customer Service (TDCS). The rate filing package (RFP) provides a specific process for assigning costs and/or revenues to the different functions. TNMP witness Henry Monroy supports TNMP's Test Year revenue requirement and the functionalization into one of the five functions listed above.

The second step in the class cost of service is to classify each item that is to be included in TNMP's revenue requirement as either customer, demand, energy, revenue related, or a combination. Costs that are typically classified as customer or demand are those costs that are fixed. Costs, that are typically classified as energy or revenue related, are those costs that are variable, which is part of Schedule II-I.

### Q. WHAT IS THE THIRD STEP IN THE PROCESS FOR TNMP'S CCOS?

12 A. The third step in the CCOS is to develop allocation factors which assign costs 13 and revenues to the rate classes. To assign cost to the different rate classes, 14 allocation factors were created, and are shown in Schedule II-I-2.

### Q. WHAT TYPE OF CUSTOMER FACTORS DOES THE COMPANY'S CCOS USE IN SCHEDULE II-I?

17 A. TNMP is primarily using three types of customer factors: 1) year-end ESI ID counts; 2) weighted meter count by rate class; and 3) weighted AMS meter count by rate class. This is consistent with prior TNMP filings.

### Q. WHAT TYPE OF DEMAND RELATED FACTORS DOES THE COMPANY'S CCOS USE?

22 A. TNMP is proposing use of the unadjusted 4-Coincident Peak at source for the 23 allocation factor for FERC Account 565. To allocate the distribution demand-24 related revenue requirement, the CCOS utilized the maximum non-coincident 25 demands for each rate class for each month of the Test Year.

### Q. WHAT TYPE OF REVENUE RELATED FACTORS DOES THE COMPANY'S CCOS USE?

A. TNMP uses retail transmission and distribution revenues, which include customer charge, metering charge, distribution service charge, transmission cost recovery factor, and AMS surcharge.

### 1 Q. WHAT IS THE FINAL STEP IN PREPARING THE CCOS?

A. The final step in the CCOS is applying the allocators derived in the previous step, and shown in Schedule II-2, to all the base rate costs, expenses, and other revenues. TNMP proposes continued use of the same rate classes that have been used since TNMP's rates were unbundled in 2002.

## Q. DID TNMP PROPOSE TO ALLOCATE CERTAIN DISTRIBUTION COSTS TO THE DIFFERENT CLASSES USING NON-COINCIDENT DEMAND IN PRIOR RATE CASES?

9 A. No. In TNMP's 2008 rate case proceeding,<sup>7</sup> TNMP's witness utilized a minimum size study. In TNMP's 2010 rate case proceeding,<sup>8</sup> TNMP's witness utilized an A&E 4CP (average and excess four coincident peak).

## Q. WHY IS TNMP PROPOSING TO ALLOCATE CERTAIN DISTRIBUTION COSTS BASED ON ADJUSTED NON-COINCIDENT PEAK DEMAND IN HIS CASE?

15 A. As noted by NARUC's Electric Utility Cost Allocation Manual:

Local area loads are the major factors in sizing distribution equipment. Consequently, customer-class non coincident demands (NCPs) and individual customer maximum demands are the load characteristics that are normally used to allocate the demand component of distribution facilities. The customer-class load characteristics used to allocate the demand component of distribution plant (whether customer class NCPs or the summation of individual customer maximum demands) depends on the load diversity that is present at the equipment to be allocated. The load diversity at distribution substations and primary feeders is usually high. For this reason, customer-class peaks are normally used for the allocation of these facilities. The facilities nearer the customer, such as secondary feeders and line transformers, have much lower load diversity. They are normally allocated according to the individual customer's maximum demands.<sup>9</sup>

<sup>&</sup>lt;sup>7</sup> Application of Texas-New Mexico Power Company for Authority to Change Rates, Docket No. 36025 (Aug. 21, 2009).

Application of Texas-New Mexico Power Company for Authority to Change Rates, Docket No. 38480 (Jan 27, 2011).

<sup>&</sup>lt;sup>9</sup> *Id.*, at page 97.

In addition, the final orders in TNMP's last three rate cases (Docket No. 22349,<sup>10</sup>
Docket No. 36025,<sup>11</sup> and Docket No. 38480<sup>12</sup>) approved settlements using the non-coincident peak.

### Q. WHAT IS THE CLASS COSS OF SERVICE AT EQUALIZED RATES OF RETURN?

A. The following summarizes the revenue requirements for each customer class:

Table 2: Adjusted Revenue Requirement (Source: Schedule II-I-1)

| Description                        | Test Year<br>Revenue<br>Requirement<br>Total | Residential | Secondary<br>< 5 KW | Secondary<br>> 5 KW | Secondary<br>> 5 KW IDR | Primary   | Primary<br>IDR | Transmission | Lighting  | Total<br>TX-Retail |
|------------------------------------|----------------------------------------------|-------------|---------------------|---------------------|-------------------------|-----------|----------------|--------------|-----------|--------------------|
| Transmission                       |                                              |             |                     |                     |                         |           |                |              |           |                    |
|                                    |                                              |             |                     |                     | -                       |           |                |              |           |                    |
| Distribution                       | 236,062,375                                  | 118,574,488 | 1,843,337           | 67,851,215          | 10,495,503              | 6,742,584 | 9,078,418      | 18,364,455   | 3,112,376 | 236,062,375        |
| Metering                           | 27,551,962                                   | 18,061,227  | 1,108,536           | 6,061,441           | 127,906                 | 1,008,733 | 206,485        | 926,251      | 51,382    | 27,551,962         |
| Billing                            | 1,113,556                                    | 813,456     | 46,962              | 123,921             | 57,708                  | 7,220     | 37,402         | 25,179       | 1,707     | 1,113,556          |
| T&D Customer Service               | 3,916,016                                    | 2,091,066   | 126,509             | 686,336             | 51,276                  | 92,096    | 47,923         | 29,983       | 790,828   | 3,916,016          |
| Total Adjusted Revenue Requirement | 268,643,909                                  | 139,540,237 | 3,125,344           | 74,722,913          | 10,732,393              | 7,850,632 | 9,370,229      | 19,345,869   | 3,956,292 | 268,643,909        |
|                                    |                                              |             |                     |                     |                         |           |                |              |           |                    |
| Retail Test Year Revenues          |                                              | 115,958,870 | 2,899,042           | 74,506,878          | 10,219,672              | 6,458,102 | 9,197,150      | 14,508,805   | 3,611,902 | 237,360,418        |
| Change in Revenue Requirement      |                                              | 23,581,368  | 226,302             | 216,036             | 512,722                 | 1,392,531 | 173,079        | 4,837,064    | 344,390   | 31,283,491         |
| Percent Change                     |                                              | 20.336%     | 7.806%              | 0.290%              | 5.017%                  | 21.563%   | 1.882%         | 33.339%      | 9.535%    | 13.180%            |

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### Q. DOES THE SUMMARY SUGGEST THAT THE SYSTEM AVERAGE INCREASE IS 13.180%

11 A. Yes.

### Q. CAN YOU EXPLAIN WHY THE RESIDENTIAL CLASS APPEARS TO HAVE BEEN SUBSIDIZED BY THE NON-RESIDENTIAL CLASSES?

A. Yes. The settlement agreements in the last three rate cases have included the overall revenue requirement and a class allocation that has not fully reflected cost causation. By moving to cost based rates, the cross-subsidization would be eliminated all at one time.

### Q. IS TNMP REQUESTING THE COMMISSION MOVE TO RATES BASED ON FULL COST-CAUSATION?

Application of Texas-New Mexico Power for Approval of Unbundled Cost of Service Rate Pursuant to PURA §39.201 and Public Utility Commission Substantive Rule § 25.344, Docket No. 22349, Order (Oct. 3, 2001).

<sup>&</sup>lt;sup>11</sup> *Id.* 

<sup>&</sup>lt;sup>12</sup> *Id*.

A. Not at this time. TNMP's proposed rates would begin to move each customer class to cost-based rate over time, but not in one proceeding. The Commission has just approved a new rule, 16 TAC § 25.247, which establishes a mandatory rate review schedule for investor-owned utilities of every 48 months.<sup>13</sup> This new rule will likely require TNMP to file more frequent base rate cases, which could allow a gradual implementation of cost-based rates.

### Q. HAS TNMP CALCULATED AN ALTERNATIVE CLASS COST OF SERVICE?

 Yes. The following summarizes the revenue requirements for each customer class.

| Description                        | Test Year<br>Revenue<br>Requirement<br>Total | Residential | Secondary<br>< 5 KW | Secondary<br>> 5 KW | Secondary<br>> 5 KW IDR | Primary   | Primary<br>IDR | Transmission | Lighting  | Total<br>TX-Retail |
|------------------------------------|----------------------------------------------|-------------|---------------------|---------------------|-------------------------|-----------|----------------|--------------|-----------|--------------------|
| Transmission                       |                                              |             |                     |                     |                         | -         |                | -            | -         |                    |
| Distribution                       | 236.062.375                                  | 118.574.488 | 1,843,337           | 67.851.215          | 10,495,503              | 6.742.584 | 9.078.418      | 18.364.455   | 3.112.376 | 236,062,375        |
| Metering                           | 27.551.962                                   | 18.061.227  | 1,108,536           | 6.061.441           | 127.906                 | 1.008.733 | 206.485        | 926,251      | 51,382    | 27,551,962         |
| Billing                            | 1,113,556                                    | 813,456     | 46,962              | 123,921             | 57,708                  | 7,220     | 37,402         | 25,179       | 1,707     | 1,113,556          |
| T&D Customer Service               | 3,916,016                                    | 2,091,066   | 126,509             | 686,336             | 51,276                  | 92,096    | 47,923         | 29,983       | 790,828   | 3,916,016          |
| Account 565 Adjustment             |                                              | (656,748)   |                     | 2,625,477           |                         | (115,789) | 115,789        | (1,968,730)  |           | -                  |
| Total Adjusted Revenue Requirement | 268,643,909                                  | 138,883,489 | 3,125,344           | 77,348,390          | 10,732,393              | 7,734,843 | 9,486,018      | 17,377,139   | 3,956,292 | 268,643,909        |
|                                    |                                              |             |                     |                     |                         |           |                |              |           |                    |
|                                    |                                              |             |                     |                     |                         |           |                |              |           |                    |

115,958,870

Table 3 Adjusted Revenue Requirement (Source: Schedule II-I-1 (ALT))

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Retail Test Year Revenues Change in Revenue Requir

Percent Change

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### Q. PLEASE EXPLAIN HOW TNMP DEVELOPED THE NEW CLASS COST OF SERVICE?

74,506,878

3.814%

10,219,672

5.017%

9,197,150

14,508,805

15 A. TNMP proposes to adjust the allocation of the FERC account 565 so no customer class gets more than 150% of the system increase, which equates to a 19.77% change.

### Q. WHY IS TNMP PROPOSING TO ADJUST THE FERC ACCOUNT 565 COMPARED TO ADJUSTING CERTAIN OTHER ALLOCATORS?

20 A. The major increase in several of the classes is due to change in the 4CP (4 coincident peak) allocations, based on TNMP's load study. The expense that is

<sup>&</sup>lt;sup>13</sup> Rulemaking Proceeding to Establish Filing Schedules for Investor-Owned Electric Utilities Operating Solely Inside ERCOT, Docket No. 47545, Order (Apr. 16, 2018). The new rule has several provisions which can extend a utility's time of filing a rate proceeding from every 48 months.

TIEC TC 2-1B:

In its response to TIEC TC 1-2, Austin Energy stated that customers in the Primary Voltage Over 3 MW and Over 20 MW classes take delivery service directly from Austin Energy-owned distribution substations: Confirm that all of the Primary Voltage Over 3 MW and less than 20 MW customers are served directly from Austin Energy owned distribution substations. If not confirmed, list the customers who are not served directly from Austin Energy owned distribution substations.

**ANSWER:** 

Not confirmed.

### TIEC 2-3: For each Primary Voltage customer between 3 MW and up to 20 MW:

- a. Provide an electrical one-line diagram showing the interconnection of Austin Energy and the customer's electrical facilities.
- b. Provide the hourly load data in live EXCEL format.

### ANSWER:

Austin Energy filed a Notice of Procedural Guidelines Section C(2) Ruling on May 27, 2022 because the City of Austin Law Department determined that responsive Austin Energy information is considered either confidential competitive information, confidential critical infrastructure information, or confidential customer information which Austin Energy cannot legally disclose.

Prepared by: TPD

Sponsored by: Thomas Brocato

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### PUC DOCKET NO. 35717 SOAH DOCKET NO. 473-08-3681

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APPLICATION OF ONCOR ELECTRIC DELIVERY COMPANY, LLC FOR AUTHORITY TO CHANGE RATES PUBLIC UTILITY COMMIS

**OF TEXAS** 

#### ORDER ON REHEARING

This Order addresses the application of Oncor Electric Delivery Company, LLC for authority to change its rates. On June 27, 2008, Oncor filed its first application with the Public Utility Commission of Texas for a rate change since it was unbundled on January 1, 2002. Oncor originally requested a total net increase of \$275 million, of which \$45 million represented the net increase associated with transmission service, and \$230 million represented the net increase associated with the retail delivery service. Oncor revised its revenue requirements on August 11, 2008, in its 45-day update to the rate filing package.\(^1\) As updated, Oncor's system-wide adjusted rate increase would yield \$253,468,000 of increased revenue.

On June 2, 2009, the State Office of Administrative Hearings (SOAH) administrative law judges (ALJs) issued a proposal for decision in which they recommended an overall rate increase for Oncor of \$30,274,392. The Commission adopts in part and rejects in part the proposal for decision issued by the ALJs in this proceeding, including the findings of fact and conclusions of law. For the reasons discussed in this Order, the Commission determines that Oncor's appropriate system-wide adjusted rates will lead to a revenue increase of \$115,061,510.<sup>2</sup>

### I. PROCEDURAL HISTORY

Oncor filed its petition and rate filing package on June 27, 2008. On July 1, 2008, the Commission referred this case to SOAH. An order was issued suspending the effective date of tariff changes and setting a prehearing conference. On August 6, 2008, the Commission filed a

<sup>&</sup>lt;sup>1</sup> Petition and Statement of Intent of Oncor Electric Delivery Company LLC (June 27, 2008), Oncor Initial Brief at 11 (March 4, 2009); Oncor Exhibits 1-6.

<sup>&</sup>lt;sup>2</sup> Description of Attendant Impacts and Number Running Schedules, Version 2, Scenario 1 (Aug. 10, 2009).

its concern over allowing ratepayers who reside outside of the Cities' jurisdiction to pay for franchise fees calculated in an agreement to which their city or municipality was not a party.

Finding of fact 133 is deleted and new finding of fact 133A is added to reflect the Commission's decisions regarding municipal franchise fees.

### I. Automated Meter Recovery

Regarding the issue of automated meter recovery, the ALJs determined that 41.82% of Oncor's investment in automated meters should not be recovered. Oncor requested the inclusion of \$93,185,786.07 in plant-in-service for its powerline carrier (PLC) and broadband-over-powerline carrier (BPL) meters. Commission Staff, ATOC, and Cities argued that Oncor's purchase and installation of automated meters between 2004 and the adoption of the advanced metering system (AMS) rule on May 30, 2007 was partly or entirely imprudent, and recommended disallowing all or part of that investment.

Oncor pointed to national and state legislative initiatives that Oncor believed supported and encouraged its deployment of advanced metering systems and Oncor's continued deployment of its PBL and PLC meters.<sup>33</sup> Additionally, Oncor cited a discussion among Commissioners Hudson, Parsley, and Smitherman at the Commission's May 8, 2007 Open Meeting in which the Commissioners strongly encouraged the deployment of BPL meters.<sup>34</sup> The Commission agrees with Oncor's position and finds that Oncor did have significant encouragement from the Commission in deploying both PLC and BPL meters. The Commission further finds that Oncor acted prudently and in accordance with the information they had at the time. Therefore, the Commission allows Oncor to recover the full costs of its BPL and PLC meters.

To give effect to the Commission's decisions regarding automated metering, findings of fact 141, 144, 145, 147, 149, 150, 151, 152 and 153 are deleted and new findings of fact 141A, 153A, and 153B are added. Additionally, conclusion of law 21 is deleted and new conclusion of law 21A is added to reflect the Commission's legal conclusion regarding the prudence standard

<sup>&</sup>lt;sup>33</sup> Oncor's Initial Post Hearing Brief at 192-3 (Mar. 27, 2009).

<sup>&</sup>lt;sup>34</sup> *Id.* at 199-200.

set out in Application of Gulf States Utilities for Authority to Change Rates, Docket No. 6525 (Oct. 15, 1986).

### J. Creation of Primary Substation Rate Class

The Commission disagrees with the ALJs' recommendation to deny Oncor's request to create a new primary substation rate class<sup>35</sup> and approves the creation of a new primary-greater-than-10-kW substation tariff. This new service affects about 50 primary substation customers, mostly industrial customers, receiving voltage from, or near, a substation. These customers construct and maintain the distribution facilities themselves. The only distribution facilities required by Oncor to provide this service are the distribution substation facilities. Additionally, the service is virtually identical to the service provided to current wholesale customers from Oncor's existing XMFR tariff. The Commission notes that Oncor implemented its current rates on September 17, 2009. Those rates reflect the Commission's August 31, 2009 Order which did not provide for the primary-greater-than-10-kW substation tariff. Therefore, rate adjustments required to reflect the Commission's decision on rehearing shall be prospective from the date of the final order in this proceeding. Findings of fact 155, 156 157, 158, 159, and 160 are deleted and new findings of fact 155A, 156A, 157A, 158A, 159A, 160A, and 160B are added to reflect the Commission's decisions regarding the creation of a new primary substation rate class.

### K. Cost Allocation - Direct Assignment of Cost to Wholesale Customers

The PFD indicates that Oncor should maintain data adequate for the direct assignment of costs to those wholesale classes and to prepare a cost-of-service study using direct assignment for those classes in its next rate case.<sup>36</sup> The Commission clarifies this point so as to order Oncor to maintain data adequate for direct assignment of costs to wholesale classes. However, the Commission believes that the direct assignment of such costs should be conducted in a broader forum than a rate-setting proceeding.

<sup>&</sup>lt;sup>35</sup> PFD at 214.

<sup>&</sup>lt;sup>36</sup> PFD at 223, 224.

Findings of fact 173 and 174 are deleted and replaced with new findings of fact 173A and 174A to clarify the Commission's position regarding direct assignment of costs to wholesale classes of customers.

In addition to the changes addressed above, the Commission notes that other minor, non-substantive corrections and modifications to the ALJs' proposed findings of fact and conclusions of law were made.

### III. FINDINGS OF FACT

### Introduction and Procedural History

- 1. Oncor Electric Delivery Company, LLC (Oncor), formerly TXU Electric Delivery Company, is an investor-owned electric utility within the Electric Reliability Council of Texas (ERCOT) system.
- 2. Oncor provides transmission and distribution electrical services in the northeast to central and west Texas, including the Dallas-Fort Worth Metroplex area. Oncor delivers electricity to three million meters that reach close to seven million consumers in 401 cities and 91 counties in Texas.
- 3. Oncor is the largest transmission and distribution utility (T&D) company in Texas and is the sixth largest T&D in the United States.
- 4. As part of the unbundling cost of service hearings, in 2001, Oncor's costs of services were separated for accounting purposes between its transmission and distribution functions and its rates were set among various classifications.
- 5. On February 25, 2007, Oncor's former parent company, TXU Corp., entered into an Agreement and Plan of Merger with Texas Energy Future Holding Limited Partnership (TEF) and Texas Energy Merger Sub Corp (Merger Sub) (the merger agreement).
- 6. Pursuant to the merger agreement, TEF acquired TXU Corp and changed TXU Corp.'s name to Energy Future Holdings Corporation (EFH).
- 7. Oncor became a wholly owned subsidiary of Oncor Electric Delivery Holdings Company LLC, which is a member of the EFH system of companies.

TIEC 4-8: Does Austin Energy have a facilities charge applicable to customers that lease

electrical equipment from Austin Energy? If so, provide the rate, terms, and

conditions of any such facilities charge.

ANSWER: No.

Prepared by: WS / MM

Sponsored by: Brian Murphy

#### **SECTION III RATE SCHEDULES**

Page 26.1

**ENTERGY TEXAS, INC.** 

Electric Service

Sheet No.: 47

Effective Date: 6-30-12

Revision No.: 13

Supersedes: AFC Effective 8-15-10 Schedule Consists of: Two Sheets

SCHEDULE AFC

#### ADDITIONAL FACILITIES CHARGE RIDER

#### I. DESCRIPTION

When the Customer requests and Company installs facilities other than those normally furnished for like levels of service to similar Customers ("Additional Facilities") or a Customer continues to benefit from Additional Facilities that were installed at the request of a prior Customer, the Customer will enter into an Agreement for Additional Facilities ("Agreement") with the Company and pay to the Company a net monthly charge based on the investment by Company in such Additional Facilities and the monthly percentages from either Option A or Option B below, as appropriate. At the execution of each Agreement, the Customer will have a one-time election to select either Option A or Option B for the definition of the monthly rate associated with Company's investment in the Additional Facilities. In the event Customer fails to execute the election acknowledgment of the Agreement, Customer shall be deemed to have elected Option A. Any subsequent capital additions, replacements, or modifications of the Additional Facilities will be treated as described in Option A and Option B below.

#### II. OPTION A

Customers that select Option A for the Additional Facilities must pay a net monthly Facilities Charge ("FC") of one and eleven hundredths percent (1.11%) per month of the installed cost of all Additional Facilities included in the Agreement.

#### III. OPTION B

Customers that select Option B for Additional Facilities must define in the Agreement the number of years (the "Recovery Term") that will define the appropriate monthly rates to be applied to the Company's investment. The Recovery Term cannot be longer than 10 years. The following table specifies the monthly percentages for application during the selected Recovery Term and any years following the Recovery Term. These percentages will apply monthly to the installed cost of all Additional Facilities included in the Agreement.

| Selected Recovery<br>Term (Years) | Monthly % During<br>Recovery Term | Monthly % Post-<br>Recovery Term |  |  |  |
|-----------------------------------|-----------------------------------|----------------------------------|--|--|--|
| 1                                 | 9.52%                             | 0.28%                            |  |  |  |
| 2                                 | 5.14%                             | 0.28%                            |  |  |  |
| 3                                 | 3.68%                             | 0.28%                            |  |  |  |
| 4                                 | 2.95%                             | 0.28%                            |  |  |  |
| 5                                 | 2.52%                             | 0.28%                            |  |  |  |
| 6                                 | 2.23%                             | 0.28%                            |  |  |  |
| 7                                 | 2.03%                             | 0.28%                            |  |  |  |
| 8                                 | 1.88%                             | 0.28%                            |  |  |  |
| 9                                 | 1.76%                             | 0.28%                            |  |  |  |
| 10                                | 1.67%                             | 0.28%                            |  |  |  |

### IV. SUBSEQUENT MODIFICATIONS, ADDITIONS AND REPLACEMENTS

Subsequent capital modifications and additions to Additional Facilities covered by an existing Option A Agreement shall be subject to the Option A rate as applied to the cost of the additions or modifications. At the Company's discretion, the subsequent capital modifications and additions shall be addressed either through an amendment to the existing Agreement or a new Agreement. Subsequent replacement of an Additional Facilities component currently subject to Option A will be subject to the Option A rate, as applied to the excess of the cost of replacement over the original installed cost of the replaced Additional Facilities. At the Company's discretion, the subsequent replacement shall be addressed either through an amendment to the existing Agreement or a new Agreement.

Subsequent capital modifications and additions to Additional Facilities covered by an existing Option B Agreement shall be subject to a new Option B Agreement covering the installed cost of such Additional Facilities, wherein Customer must select a Recovery Term that will define the appropriate monthly rate for application to such installed cost.

At the Company's discretion, subsequent replacement of an Additional Facilities component currently subject to Option B shall be subject to a new Agreement covering the installed cost of such replaced component. The Customer may select either Option A or Option B for the replacement. If the Agreement covering the replaced item remains in effect because there was not a total replacement of the Additional Facilities covered by the Agreement, the installed costs covered by such Agreement shall be reduced by the original cost of the replaced component. If the replacement occurs prior to the end of the Option B Recovery Term for the replaced component, the replacement installed cost shall be reduced by the salvage value of the replaced component, if any.

#### V. TERM OF AGREEMENT

#### A. OPTION A TERM

Where the Customer requesting the Additional Facilities has elected Option A, the term shall be from the Effective Date until the greater of (a) a period of ten (10) years, or (b) the period during which Customer receives electric service from Company. The "Original Term" of the Agreement shall be the 10-year period if Customer elects Option A. The "Secondary Term" shall be the period following the Original Term during which the Customer receives electric service from Company, irrespective of whether the Agreement for Electric Service has expired or is terminated.

In the event that a subsequent Customer succeeds the original Customer that requested the Additional Facilities and the subsequent Customer continues to benefit from the Additional Facilities, the subsequent Customer shall enter an Agreement to continue to pay the Facilities Charge under Option A if such was chosen by the original Customer. If Option A is applicable and the initial ten (10) year term from the Effective Date has not been satisfied, the subsequent Customer shall be obligated to enter an Agreement for a term equal to the greater of (a) the outstanding term of the original Customer's Agreement, or (b) the period during which the subsequent Customer receives electric service. If Option A is applicable and the initial ten (10) year term from the Effective Date has been satisfied, the subsequent Customer shall be obligated to enter an Agreement for a term equal to the greater of (a) the term of the subsequent Customer's Agreement for Electric Service, or (b) the period during which the subsequent Customer receives electric service from Company.

#### **SECTION III RATE SCHEDULES**

**ENTERGY TEXAS, INC.** 

Electric Service

Sheet No.: 47A

Effective Date: 6-30-12

Revision No.: 13

Supersedes: AFC Effective 8-15-10 Schedule Consists of: Two Sheets

SCHEDULE AFC (Cont.)

#### ADDITIONAL FACILITIES CHARGE RIDER

Subject to Company's right to discontinue service in accordance with the terms herein and Company's right to remove the Additional Facilities pursuant to Section V herein, the Agreement can be terminated by the mutual written agreement of both parties or, once the Original Term has been fulfilled, by the written notification of the party wishing to terminate to the other party one (1) year in advance of the desired termination date, whether such termination notice occurs in the Original Term or the Secondary Term.

#### **B. OPTION B TERM**

Where the Customer has elected Option B, the term shall be from the Effective Date until the greater of (a) the end of the Customer's elected Recovery Term, or (b) the period during which Customer receives electric service from Company. The "Original Term" of the Agreement shall be the Recovery Term if Customer elects Option B. The "Secondary Term" shall be the period following the Original Term during which the Customer receives electric service from Company, irrespective of whether the Agreement for Electric Service has expired or is terminated.

In the event that a subsequent Customer succeeds the original Customer that requested the Additional Facilities and the subsequent Customer continues to benefit from the Additional Facilities, the subsequent Customer shall enter an Agreement to continue to pay the Facilities Charge under Option B if such was chosen by the original Customer. If Option B is applicable and the selected Recovery Term has not been satisfied, the subsequent Customer shall be obligated to enter an Agreement for a term equal to the greater of the remaining years of (a) the selected Recovery Term, or (b) the period during which the subsequent Customer receives electric service from Company. If Option B is applicable and the selected Recovery Term has been satisfied, the subsequent Customer shall be obligated to enter an Agreement for a term equal to the greater of (a) the term of the subsequent Customer's Agreement for Electric Service, or (b) the period during which the subsequent Customer receives electric service from Company.

Subject to Company's right to discontinue service in accordance with the terms herein and Company's right to remove the Additional Facilities pursuant to Section V herein, the Agreement can be terminated by the mutual written agreement of both parties or, once the Original Term has been fulfilled, by the written notification of the party wishing to terminate to the other party one (1) year in advance of the desired termination date, whether such termination notice occurs in the Original Term or the Secondary Term.

### VI. REMOVAL CHARGES

If the Customer terminates the Agreement prior to the conclusion of the Original Term or fails to make payments in accordance with the terms of the Agreement, the Company reserves the right to remove the Additional Facilities at Customer's expense. Customer shall be responsible for such other costs as set forth in the Agreement.

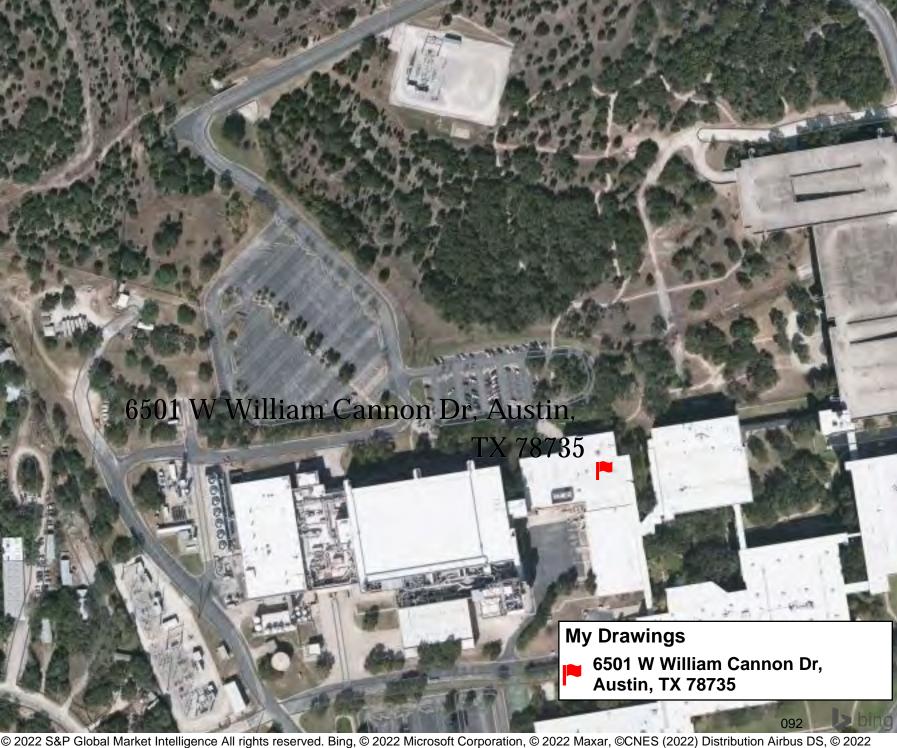
If the Customer terminates the Agreement in accordance with its terms at the conclusion of the Original Term, and requests in writing the removal of the Additional Facilities, Customer shall pay to Company the total estimated cost of removing the Additional Facilities.

If the Customer terminates the Agreement in accordance with its terms at the conclusion of the Original Term and Company unilaterally elects to remove the Additional Facilities, Company, at its option, shall bear all costs associated with the removal of the Additional Facilities. Company may exercise its right to remove the Additional Facilities at Customer's expense at any time after the Agreement is terminated.

#### VII. PAYMENT

The past due amount for service furnished for which payment is not made within sixteen (16) days of the billing date shall be the monthly bill, including all adjustments under the rate schedule and applicable riders, plus 5%. The 5% penalty on delinquent bills shall not be applied to any balance to which the penalty has already been applied. If the amount due when rendered is paid prior to such date, the monthly bill shall apply. If providing service to the State of Texas or to municipalities or other political subdivisions of this state, Company shall not assess a fee, penalty, interest or other charge to these entities for delinquent payment of a bill.

SCHEDULE AFC 091



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### **POWER SUPPLY ADJUSTMENT**

#### Application:

Applies to all electric service whose point of delivery is located within the limits of Austin Energy's service territory, unless otherwise stated. The rates for this pass-through charge are effective January 1, 3.

#### **Character of Service:**

The Power Supply Adjustment (PSA) provides for the recovery of the preceding year's expenditures for (PSA Costs):

- ERCOT Settlements charges and credits from ERCOT, other than the Administrative Fees.
- Fuel Costs costs for fuel, fuel transportation, and hedging gains and losses.
- Net Purchased Power Agreement Costs costs and offsetting revenues (such as, bilateral sales and GreenChoice) associated with short- and long-term purchased power agreements, and costs for distributed generation production.

As part of the City of Austin's annual budgeting process, which includes a public hearing, the PSA is determined by calculating the sum of all net power supply costs divided by the historical twelve-month period service territory sales, plus any existing over- or under-recovery of PSA Costs balance divided by projected service territory sales preceding the effective date of the PSA. This results in an annual uniform system rate per kWh that is adjusted for voltage level and applied to each of the customer classes.

At least once each year, the City Manager will publicly present a report to the City Council that provides the underlying calculations for the PSA by system voltage level. The PSA Cost calculation will break out Fuel Costs, ERCOT Settlements, and Net Purchased Power Agreement Costs; it will also show the extent of over- or under-recovery of PSA Costs for the previous twelve months.

From the effective date of the last PSA adjustment, the PSA may be adjusted to eliminate any over- or under-recovery if the balance of net PSA Costs recovered is either over or under 10 percent of the actual PSA Costs incurred during such period. If such over- or under-recovery is projected to remain either over or under 10 percent after 12 months from the effective date of the last PSA adjustment, then the PSA shall be adjusted to eliminate the amount of the over- or under-recovery balance within the next 12 months. Within 30 days of any adjustment of the PSA to eliminate over- or under-recovery of PSA Costs, the City Manager will publicly present a report to the City Council that provides the underlying calculations for the PSA, both pre- and post-adjustment by system voltage level.

The PSA charges by voltage level are:

| Voltage Level  | Adjustment Factor | Power Supply Rate (\$/kWh) |
|----------------|-------------------|----------------------------|
| System Average | 1.0000            | \$0.02862                  |
| Secondary      | 1.0061            | \$0.02877                  |
| Primary        | 0.9805            | \$0.02811                  |
| Transmission   | 0.9687            | \$0.02775                  |

### **Renewable Offtake Agreement Option:**

Qualifying customers who desire to purchase and receive additional renewable energy and associated renewable energy credits (RECs) to meet their sustainability targets may enter into a

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contract with Austin Energy backed by a renewable power purchase agreement (RPPA) between Austin Energy and a third-party generator for a specified megawatt-hour (MWh) amount, depending upon market availability. The customer's PSA charge will be adjusted by Austin Energy's ERCOT-settled net financial gains and losses from the RPPA (the positive or negative difference between the RPPA MWh price and settled nodal price for each generated MWh) for the contracted amount in the month following ERCOT settlement. In the event an adjustment would reduce the PSA charge to below zero in a given month, the negative amount will be carried forward as a credit to be applied to future PSA charges. Austin Energy will retire any associated RECs on the customer's behalf.

To qualify for a RPPA-backed contract, the customer shall (1) maintain during the contract term an average monthly billed demand of at least 75,000 kW and an average annual load factor of at least 85 percent, and (2) have (or provide through an affiliate guarantee) a creditworthiness no lower than a rating of BBB- by Standard & Poor's Rating Group or Baa2 by Moody's Investor Services, Inc., or provide other appropriate security backed by a qualified financial institution as approved by Austin Energy.

Additional contract terms and conditions, related QSE and other fees, financial security requirements, and other matters shall be determined by Austin Energy. All energy, demand, customer, and other charges shall be billed as set forth in the applicable rate schedule.





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### PROVIDED IN NATIVE EXCEL FORMAT

- AE Class Revenue Allocation.xlsx
- Class revenue allocation.xlsx
- Exhibit JP-1.xlsx
- Exhibit JP-3 Austin Energy.xlsx
- Exhibit JP-3 ERCOT.xlsx
- Exhibit JP-4.XLSX
- Exhibit JP-8.xlsx
- Exhibits JP-2, 5, 6, 7, 9, 10, 11.xlsx