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**SOHA DOCKET NO. 473-21-2427
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| APPLICATION OF EL PASO ELECTRIC COMPANY FOR APPROVAL TO REVISE ITS ENERGY EFFICIENCY COST RECOVERY FACTOR AND REQUEST TO ESTABLISH REVISED COST CAPS OF TEXAS | § § § § § § | BEFORE THE STATE OFFICE OF ADMINISTRATIVE HEARINGS |
|--|----------------------------|---|

CITY OF EL PASO EXHIBIT LIST

| Number | Description | Admitted |
|--------|--|----------|
| CEP 1 | Direct Testimony and Exhibits of Karl J. Nalepa (with errata p 11) | |
| CEP 2 | El Paso Electric Company Response to CEP RFI 2-1 (one page) | |
| CEP 3 | El Paso Electric Company Response to CEP RFI 2-3 (one page) | |
| CEP 4 | El Paso Electric Company Response to CEP RFI 2-8 (one page) | |
| CEP 5 | El Paso Electric Company Response to CEP RFI 2-9) (One Page) | |
| CEP 6 | El Paso Electric Company Response to CEP RFI 2-10) (One Page) | |

EPE has agreed to the authenticity of CEP Exhibits 2-6 (which are all EPE RFI answers)

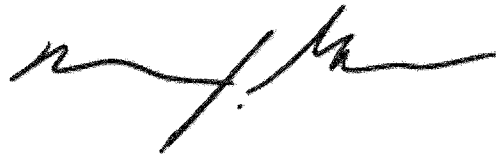
Dated August 24, 2021

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ATTACHMENTS

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| Exhibits | KJN-1 Performance Incentive Calculator |
| | KJN-2 Bonus Reduction Calculation |
| Attachment A | Statement of Qualifications |
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1 **I. INTRODUCTION AND QUALIFICATIONS**

2 **Q. PLEASE STATE YOUR NAME, OCCUPATION AND ADDRESS.**

3 A. My name is Karl J. Nalepa. I am President of ReSolved Energy Consulting, LLC
4 ("REC"), an independent utility consulting company. My business address is 11044
5 Research Boulevard, Suite A-420, Austin, Texas 78759.

6
7 **Q. ON WHOSE BEHALF ARE YOU PRESENTING TESTIMONY IN THIS**
8 **PROCEEDING?**

9 A. I am presenting testimony on behalf of the City of El Paso.
10

11 **Q. PLEASE OUTLINE YOUR PROFESSIONAL EXPERIENCE AND**
12 **EDUCATIONAL BACKGROUND.**

13 A. I am, and have been, a partner in REC since acquiring the firm in July 2011. I joined R.J.
14 Covington Consulting, REC's predecessor firm, in June 2003. I lead our firm's regulated
15 market practice, where I represent the interests of clients in utility regulatory proceedings,
16 prepare client cost studies, and develop client regulatory filings. Before joining REC, I
17 served for more than five years as an Assistant Director at the Railroad Commission of
18 Texas ("RRC"). In this position, I was responsible for overseeing the economic
19 regulation of natural gas utilities in Texas, which included supervising staff casework,
20 advising Commissioners on regulatory issues, and serving as a Technical Rate Examiner
21 in regulatory proceedings. Prior to joining the RRC, I worked as an independent
22 consultant advising clients on a broad range of electric and natural gas industry issues,
23 and before that I spent five years as a supervising consultant with Resource Management

1 International, Inc. I also served for four years as a Fuel Analyst at the Public Utility
2 Commission of Texas (“PUC” or “Commission”), where I evaluated fuel issues in
3 electric utility rate filings, participated in electric utility-related rulemaking proceedings,
4 and participated in the review of electric utility resource plans. My professional career
5 began with eight years in the reservoir engineering department of Transco Exploration
6 Company, which was an affiliate of Transco Gas Pipeline Company, a major interstate
7 pipeline company.

8 I hold a Master of Science degree in Petroleum Engineering from the University
9 of Houston, and a Bachelor of Science degree in Mineral Economics from The
10 Pennsylvania State University. I am also a certified mediator. My Statement of
11 Qualifications is included as Attachment A.

12
13 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THIS COMMISSION?**

14 A. Yes, I have testified many times before the Commission as well as the RRC on a variety
15 of regulatory issues. I have also provided testimony before the Louisiana Public Service
16 Commission, Arkansas Public Service Commission, and Colorado Public Utilities
17 Commission. A summary of my previously filed testimony is included as Attachment B.
18 In addition, I have provided analysis and recommendations in numerous city-level
19 regulatory proceedings that resulted in decisions without written testimony.

20
21 **II. PURPOSE OF TESTIMONY**

22 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?**

1 A. The purpose of my testimony is to present certain recommendations regarding El Paso
2 Electric Company's ("EPE" or the "Company") proposal to revise its Energy Efficiency
3 Cost Recovery Factor ("EECRF") and to establish revised cost caps.

4
5 **Q. WHAT PRELIMINARY ORDER ISSUES DO YOU ADDRESS IN YOUR**
6 **TESTIMONY?**

7 A. I address the following issues: 4, 5, 8 d.i., and 11 e from the Preliminary Order.¹

8 4. Do the total 2022 EECRF costs, excluding evaluation, measurement, and
9 verification costs, municipal rate-case expenses, and any interest amounts
10 applied to under- or over-recoveries, exceed the EECRF cost caps
11 prescribed in 16 TAC § 25.182(d)(7)? If so, did the utility request an
12 exception to the EECRF cost caps under 16 TAC § 25.181(e)(2) and, if so,
13 has the utility demonstrated that compliance with the EECRF cost caps is
14 not reasonably possible and that good cause supports the higher EECRF
15 cost caps?

16 a. Is the utility requesting in this application a performance bonus for a
17 prior program year for which it has been granted a higher EECRF cost
18 cap?

19 b. If so, were the factors that led to the utility being granted a higher
20 EECRF cost cap for the prior program year similar to the factors that the
21 utility is relying on to demonstrate that good cause supports a higher
22 EECRF cost cap in this docket? If so, should the Commission consider the
23 utility's prior performance in determining whether to establish a higher
24 EECRF cost cap?

25
26 5. What amount of projected costs for the utility's portfolio of energy-efficiency
27 programs should be recovered through the utility's 2022 EECRF?

28
29 8 d. i. Do the municipality's requested EECRF rate-case expenses comply with 16
30 TAC § 25.245(b)(1) through (6)?

31
32 11 e. Did the Commission grant a good-cause exception to establish a lower
33 demand-reduction goal, higher administrative-spending cap, or higher EECRF
34 cost cap for the utility for program year 2020?

35

¹ *Application of El Paso Electric Company for Approval to Revise Its Energy Efficiency Cost Recovery Factor and Request to Establish Revised Cost Caps*. Docket No. 52081, Order of Referral and Preliminary Order (May 25, 2021).

- i. For program year 2020, what factors did the utility rely on to demonstrate that compliance with its demand-reduction goal, the administrative-spending cap, or the EECRF cost cap was not reasonably possible?
- ii. Has the utility established actual occurrence of the factors relied on by the utility to demonstrate that compliance with the demand-reduction goal, administrative-spending cap, or EECRF cost cap was not reasonably possible?
- iii. What other considerations, if any, should the Commission weigh in determining whether to reduce the utility's performance bonus?⁸
- iii. Should the Commission deny the entire amount of the requested performance bonus? If not, what amount of the utility's requested performance bonus should be approved? In answering this issue, what are the parties' proposed methodologies for Commission approval of a portion of the bonus, and are the calculations and the data on which any proposed methodologies are based included in the evidentiary record?

Q. PLEASE SUMMARIZE YOUR FINDINGS AND RECOMMENDATIONS.

A. I have the following findings and recommendations regarding EPE's EECRF filing:

1. The FutureWise® MTP program provides certain non-energy content to students, and customers should not pay for such a program in an energy efficiency rider. EPE provided no way to verify the non-energy related portion of the budget, so I recommend that the entire FutureWise® MTP program budget be removed from EPE's request. This reduces EPE's proposed budget by \$300,000.
2. It is not reasonable that EPE calculate its program net benefits using avoided costs that are not representative of the avoided costs in EPE's service area. Using the inflated avoided costs reflective of the ERCOT market, EPE's net benefits and corresponding performance bonus are greatly overstated. I recommend that EPE's bonus (before adjustment) be limited to the amount it would have otherwise been calculated under alternative avoided cost values. This amount is \$681,615.
3. I recommend that the reduction to the bonus that EPE proposes because it has exceeded its commercial cost cap should be applied to the reduced bonus. The resulting adjusted bonus is \$479,078.

III. PROPOSED 2022 ENERGY EFFICIENCY COST RECOVERY

Q. WHAT IS AN ENERGY EFFICIENCY COST RECOVERY FACTOR?

1 A. An EECRF allows a utility the opportunity for timely and reasonable cost recovery for
2 expenditures made to satisfy PURA § 39.905² to provide for a cost-effective portfolio of
3 energy efficiency programs pursuant to 16 Tex. Admin. Code (“TAC”) § 25.181.

4
5 **Q. WHAT IS EPE’S PURPOSE FOR FILING THIS CASE?**

6 A. In its filing, EPE seeks recovery of \$8,495,031 in energy efficiency costs through its
7 2022 EECRF. The Company proposed to modify its current EECRF to: (1) recover
8 \$5,129,232 in projected energy efficiency program costs for 2022; (2) procure a
9 \$2,783,387 performance bonus based on the Company’s 2020 energy efficiency program
10 performance; (3) collect prior year EECRF proceeding expenses of \$38,682; (4) collect
11 \$486,514, including interest, for under-recovery of program costs collected in 2020; and
12 (5) collect evaluation, measurement, and verification (“EM&V”) costs of \$57,216
13 allocated to EPE.³

14
15 **Q. WHAT DEMAND SAVINGS GOAL IS EPE’S PROPOSED 2022 PROGRAM**
16 **BUDGET INTENDED TO ACHIEVE?**

17 A. EPE is requesting a demand savings goal of 11.16 MW for its 2022 program. This is the
18 same goal used by EPE since 2011.⁴

19
20 **Q. WHAT PROGRAMS WILL COMPRISE EPE’S PROPOSED ENERGY**
21 **EFFICIENCY PROGRAM PORTFOLIO IN 2022?**

² Public Utility Regulatory Act, Tex. Util. Code Ann. § 39.905 (West 2016) (“PURA”).

³ Application at 2.

⁴ Application at 2-3.

1 A. The Company is proposing to offer the following programs in 2022:⁵

2 Commercial

- 3 ○ Small Commercial Solutions MTP⁶
- 4 ○ Large C&I Solutions MTP
- 5 ○ Texas SCORE MTP
- 6 ○ Commercial Load Management SOP⁷
- 7 ○ Residential Marketplace MTP (Pilot)

8 Residential

- 9 ○ Residential Solutions MTP
- 10 ○ LivingWise® MTP
- 11 ○ FutureWise® MTP
- 12 ○ Texas Appliance Recycling MTP
- 13 ○ Residential Marketplace MTP (Pilot)
- 14 ○ Residential Load Management MTP

15 Hard-to-Reach

- 16 ○ Hard-to-Reach Solutions MTP

17
18 **Q. DOES EPE PROPOSE ANY NEW PROGRAM OFFERINGS IN 2022?**

19 A. Yes. EPE proposes to add the Residential FutureWise® MTP program in 2022. EPE
20 asserts the program will prepare high school students for the future. EPE claims that
21 under the program, students learn how to save money on electricity through energy
22 conservation, providing energy benefits from participants' behavioral change, and
23 installation of energy efficient products (e.g., smart lighting and advanced power strips)
24 provided through its Future Wise® Kit.⁸

⁵ Direct Testimony of Crystal A. Enoch, Exhibit CAE-1, Table 5.

⁶ 16 TAC §25.181(c)(37) *Market Transformation Program* (“MTP”) -- Strategic programs intended to induce lasting structural or behavioral changes in the market that result in increased adoption of energy efficient technologies, services, and practices.

⁷ 16 TAC §25.181(c)(55) *Standard Offer Program* (“SOP”) -- A program under which a utility administers standard offer contracts between the utility and energy efficiency service providers.

⁸ Direct Testimony of Crystal A. Enoch at 9.

1 EPE admits that the program also provides non-energy benefits to the students,
2 such as essential life skills like learning how to read utility bills. Additionally, through
3 career development exploration components, students are introduced to employment and
4 career opportunities within the emerging green sector.⁹

5
6 **Q. WILL EPE EXCEED THE COST CAPS ESTABLISHED IN THE RULE?**

7 A. Yes. EPE claims that in order to operate its energy efficiency programs to accomplish its
8 energy and demand goals, the rates for the residential and commercial customers are
9 projected to exceed the cost caps set in the rule. Accordingly, EPE is requesting that the
10 Commission establish revised cost caps for both the residential and commercial classes.¹⁰

11
12 **Q. IS EPE REQUESTING THAT THE COST CAP FOR RESIDENTIAL SERVICE**
13 **BE EXCEEDED SO THAT IT CAN COLLECT ITS CLAIMED BONUS?**

14 A. Yes, it does. EPE witness Mr. Gonzalez makes the point clear that a purpose of its
15 request to exceed the cost cap for residential customers is to allow for the collection of a
16 performance bonus from residential customers.¹¹ Using the requested 2020 bonus as an
17 example, the bonus amount attributable to residential customers is over 50% of the
18 proposed program budget for residential customers in 2022.

19
20 **Q. HOW IS EPE PROPOSING TO COLLECT ITS EECRF EXPENSES FROM**
21 **CUSTOMERS?**

⁹ *Id.*

¹⁰ Application at 3.

¹¹ See Testimony of Rene F. Gonzalez at 11, See RFG-01 line 1.

A. EPE's proposed EECRF rates by class are included in Table 1:¹²

Table 1

Proposed EECRF Rates (\$/kWh)

| Rate | Rate Class | Current 2021 EECRF | Proposed 2022 EECRF | Change |
|--------|----------------------------------|-----------------------|------------------------|--------------|
| 01 | residential | \$0.000979 | \$0.001453 | \$0.000474 |
| 02 | small commercial | \$0.000933 | \$0.000290 | (\$0.000643) |
| 07 | outdoor recreational lighting | (\$0.000002) | - | \$0.000002 |
| 08 | governmental street lighting | \$0.000302 | - | (\$0.000302) |
| 09 | governmental traffic signal | \$0.000422 | (\$0.000002) | (\$0.000424) |
| 11-TOU | TOU municipal pumping | \$0.000017 | - | (\$0.000017) |
| 15 | electrolytic refining | - | - | - |
| 21 | water heating | (\$0.000035) | (\$0.000018) | \$0.000017 |
| 22 | irrigation | \$0.000037 | \$0.011989 | \$0.011952 |
| 24 | general | \$0.000928 | \$0.001406 | \$0.000478 |
| 25 | large power – sec. pri. | \$0.001585 | \$0.003197 | \$0.001612 |
| 31 | military reservation | - | - | - |
| 34 | cotton gin | \$0.000482 | \$0.000082 | (\$0.000400) |
| 38 | interruptible | - | - | - |
| 41 | city/county | \$0.003493 | \$0.003001 | (\$0.000492) |

IV. FUTUREWISE® MTP

Q. DO YOU HAVE A CONCERN WITH THE FUTUREWISE MTP PROGRAM?

A. Yes. The FutureWise® MTP provides content unrelated to energy efficiency.

Q. WHAT IS THE BASIS FOR YOUR CONCERN?

A. EPE witness Ms. Enoch testifies that the FutureWise® MTP program in part provides non-energy benefits to students, such as essential life skills like learning how to read utility bills. Additionally, through career development exploration components, students

¹² Direct Testimony of Rene Gonzalez, Table 1.

1 are introduced to employment and career opportunities within the emerging green
2 sector.¹³

3
4 **Q. WHAT BUDGET IS EPE REQUESTING FOR THIS PROGRAM?**

5 A. EPE is requesting a budget of \$300,000 for the FutureWise® MTP.¹⁴

6
7 **Q. DID EPE PROVIDE ANY REASON THAT CUSTOMERS SHOULD PAY FOR**
8 **THE NON-ENERGY CONTENT OF THE FUTUREWISE® MTP?**

9 A. No, it did not.

10
11 **Q. IS IT REASONABLE FOR CUSTOMERS TO PAY FOR THIS PROGRAM?**

12 A. No. Customers should not be expected to pay for a program that the Company
13 acknowledges provides non-energy content.

14
15 **Q. WHAT DO YOU RECOMMEND REGARDING THE FUTUREWISE® MTP?**

16 A. EPE responded in discovery that the \$300,000 budget for the FutureWise® MTP is to
17 cover the energy efficient products included in the program kit along with program
18 administrative costs, and EPE directed none of the \$300,000 budget for non-energy
19 benefits of the kits.¹⁵ However, EPE did not explain what was specifically included in the
20 FutureWise® kits so it is impossible to verify that none of the budget will be spent on
21 non-energy benefits. Therefore, I recommend that the entire FutureWise® MTP program

¹³ Direct Testimony of Crystal A. Enoch at 9.

¹⁴ *Id.*, Exhibit CAE-1, Table 6.

¹⁵ Response to CEP RFI 1-4.

1 budget be removed from EPE's request. This reduces EPE's proposed program budget by
2 \$300,000.

3
4 **V. PERFORMANCE BONUS ADJUSTMENT**

5 **Q. IS EPE REQUESTING A PERFORMANCE BONUS IN THIS CASE?**

6 A. Yes. EPE claims it has earned a \$3,649,575 performance bonus. The Company asserts
7 that its 2020 energy efficiency programs achieved a 20,740 kW reduction in demand
8 while its demand reduction goal for 2020 was 11,160 kW. EPE claims its achievement
9 represents 186% of its goal, qualifying it for a performance bonus.¹⁶

10
11 **Q. DID EPE MEET THE REQUIREMENTS PRESCRIBED IN THE RULE?**

12 A. No. EPE's costs to exceed its demand goals exceeded the prescribed cost caps.

13
14 **Q. DID THE COMMISSION APPROVE A 2020 REVISED COST CAP FOR EPE?**

15 A. Yes. The Commission approved a revised commercial cost cap for 2020 in Docket No.
16 49496.¹⁷

17
18 **Q. WHAT DOES THE RULE SAY WHEN A UTILITY EXCEEDS ITS COST CAPS?**

19 A. The rule states that the Commission may reduce the bonus otherwise permitted under the
20 rule for a utility with a lower goal, higher administrative spending cap, or higher cost cap

¹⁶ Direct Testimony of Crystal A. Enoch at 16.

¹⁷ Docket No. 49496, Final Order, CoL 15 (November 21, 2019).

1 established by the Commission. The bonus shall be considered in the EECRF proceeding
2 in which the bonus is requested.¹⁸

3
4 **Q. DID EPE PROPOSE AN ADJUSTMENT TO ITS PERFORMANCE BONUS IN**
5 **LIGHT OF ITS HIGHER COST CAPS?**

6 A. Yes. EPE requests an adjusted bonus of \$2,783,387. Based on the Order in Docket No.
7 48332,¹⁹ EPE reduce its calculated performance bonus by the percentage by which it
8 exceeded the commercial cost caps.²⁰

9
10 **Q. DO YOU RECOMMEND ANY OTHER ADJUSTMENTS THAT WOULD**
11 **IMPACT THE COMPANY'S REQUESTED PERFORMANCE BONUS?**

12 A. Yes. The avoided costs against which EPE measured its program performance and
13 requested bonus are not reasonable.

14
15 **Q. DID EPE APPLY THE LATEST AVOIDED COSTS PUBLISHED BY THE**
16 **COMMISSION?**

17 A. Yes, it did. EPE applied an avoided capacity cost of \$80 per kW-year and avoided energy
18 cost of \$0.11366 per kWh for 2020 to determine the demand and energy savings of its
19 programs in 2020²¹ and from those savings, EPE's resulting performance bonus.²²

20

¹⁸ 16 TAC § 25.182(e)(4).

¹⁹ Docket No. 48332, Final Order, Ordering Paragraph 7 (January 17, 2019).

²⁰ Direct Testimony of Rene F. Gonzalez at 12.

²¹ Project No. 38578, Energy Efficiency Implementation Project Under 16 TAC § 25.181.

²² Direct Testimony of Crystal A. Enoch, Exhibit CAE-6.

1 **Q. WHY ARE THESE AVOIDED COSTS NOT REASONABLE?**

2 A. The avoided costs are not reasonable because they are specific to the Texas Reliability
3 Entity (“TRE”) and Electric Reliability Council of Texas (“ERCOT”). EPE does not
4 participate in TRE or ERCOT. Thus, any purported energy savings resulting from EPE’s
5 programs are not realistic based on the published avoided cost values.²³

6
7 **Q. WHY IS USING THE PROPER AVOIDED COSTS IMPORTANT?**

8 A. An energy efficiency program is deemed to be cost effective only if the cost of the
9 program is less than the benefits of the program.²⁴ The benefits of an energy efficiency
10 program are determined by multiplying the capacity or energy saved under a program by
11 the cost of the capacity or energy “avoided”, or not needed, because of the demand or
12 energy reduction. Therefore, the measurement of the avoided cost must represent the
13 relevant area in which the demand or energy savings occurs. Otherwise, the resulting
14 calculated benefits are meaningless.

15
16 **Q. DID EPE ADDRESS THE CALCULATION OF AVOIDED COST IN THE**
17 **COMMISSION’S ENERGY EFFICIENCY RULEMAKING?**

18 A. Yes. In Project No. 37623, the Commission adopted an amendment to §25.181 related to
19 Energy Efficiency Goals. The Order in that Docket noted that:²⁵

20 EPE and Entergy opposed the use of an arbitrary calculation of the avoided cost of
21 energy as it does not reflect the utilities’ actual costs. They noted these utilities are not in
22 the ERCOT region, and there is no correlation between the market clearing price for

²³ Direct Testimony of Crystal A. Enoch, Exhibit CAE-6.

²⁴ 16 TAC §25.181 (d).

²⁵ *Rulemaking Proceeding to Amend Energy Efficiency Rules*, Project No. 37623, Order at 36 (August 9, 2010).

balancing energy in ERCOT and their avoided cost of energy. Entergy further stated that it is impractical to force one single set of avoided capacity and energy numbers, as they operate in discrete markets that each have distinct avoided energy costs based on different power prices, emission allowance costs, and natural gas costs. Entergy suggested the use of modified formulae for the non-ERCOT utilities, due to these differences in market conditions. Entergy urged the commission to allow non-ERCOT utilities to seek good cause exceptions or permit other methodologies for calculating avoided costs, because of the unique assumptions and market conditions that utilities encounter. Entergy believed that using a pre-defined and transparent avoided capacity and energy cost calculation methodology would be a flexible, accurate, and unambiguous means for estimating avoided costs to evaluate energy efficiency programs. Entergy noted that it is a part of a multi-state system that operates according to the principles of security-constrained economic dispatch, and thus flexibility is needed for them to administer the energy efficiency programs in a cost-effective manner.

Q. DOESN'T THE ENERGY EFFICIENCY RULE REQUIRE EPE TO USE THE COMMISSION'S PUBLISHED AVOIDED COSTS?

A. No, it does not. Based on the comments of EPE and Entergy, the Commission adopted a mechanism to address EPE's and Entergy's concerns.²⁶ While the default avoided cost of capacity and avoided cost of energy in the rule are the Commission's published values,²⁷ the rule allows a utility in an area in which customer choice is not offered, such as EPE, to petition the Commission for authorization to use an alternative avoided cost.²⁸

Q. DID EPE PETITION THE COMMISSION TO USE AN ALTERNATIVE AVOIDED COST IN THIS CASE?

A. No, it did not.

²⁶ *Id.* at 41.

²⁷ 16 TAC §25.181(d)(2)(A) and (d)(3)(A).

²⁸ 16 TAC §25.181(d)(2)(B) and (d)(3)(B).

1 **Q. IF IT DID, HOW SHOULD THE ALTERNATIVE AVOIDED COSTS BE**
2 **DETERMINED?**

3 A. The energy efficiency rule specifies what alternative avoided costs should be used. The
4 avoided cost of capacity shall be based on a generating resource or purchase in the
5 utility's resource acquisition plan.²⁹ For a utility that does not participate in an energy
6 market operated by a regional transmission organization, such as EPE, the avoided cost
7 of energy may be based on the expected heat rate of the gas-turbine generating
8 technology specified in the rule, multiplied by a publicly reported cost of natural gas.³⁰
9

10 **Q. WHAT ARE THE RESULTING AVOIDED COSTS DETERMINED THIS WAY?**

11 A. The most recent generating facility approved for EPE by the Commission was Newman
12 6, a 228-MW gas-fired combustion turbine unit.³¹ Using this unit as a proxy for the
13 generating resource or purchase in the utility's resource acquisition plan and recognizing
14 that this unit is consistent with the combustion turbine on which the Commission's
15 avoided capacity cost of \$80 per kW-year was based, the avoided cost of capacity would
16 remain \$80 per kW-year.

17 However, the avoided cost of energy would be significantly lower. The heat rate
18 for the gas-turbine generating technology specified in the rule is 9,905 Btu/kWh.³² Then,
19 an appropriate publicly reported cost of natural gas is EPE's 2020 summer peak cost of
20 gas. From its Fuel Cost Report filed with the Commission, EPE's average cost of natural

²⁹ 16 TAC §25.181(d)(2)(B).

³⁰ 16 TAC §25.181(d)(3)(B)

³¹ Docket No. 50277, Final Order, Ordering Paragraph 2 (October 16, 2020).

³² U.S. Energy Information Administration, Cost and Performance Characteristics of New Generating Technologies, Annual Energy Outlook 2021, Table 1 (combustion turbine – industrial frame).

gas in September 2020 was \$1.62 per MMBtu. So, the resulting avoided energy cost thus calculated is \$0.01605 per kWh.³³

Q. HOW DOES USING THE CORRECTED AVOIDED COST IMPACT EPE'S COST BENEFIT ANALYSIS AND RESULTING BONUS?

A. By substituting the corrected avoided costs into EPE's results calculator and bonus calculator, the net program benefits are reduced from \$36.5 million to \$6.8 million, and the bonus (before adjustment) is reduced from \$3.6 million to \$0.68 million, as seen on Exhibit KJN-1.³⁴

Q. WHAT HAVE YOU CONCLUDED REGARDING EPE'S PROPOSED ENERGY PROGRAMS AND PERFORMANCE BONUS?

A. EPE's decision to not use avoided costs relevant to its service area would entitle it to a financial windfall with no real improvement in the performance of its programs from the prior year. It is not reasonable that EPE calculate its program net benefits using avoided costs that are not representative of the avoided costs in EPE's service area. EPE had the opportunity to substitute more realistic avoided cost values but did not. Using the inflated avoided costs reflective of the ERCOT market, EPE's net benefits and corresponding performance bonus are greatly overstated.

Q. WHAT IS YOUR RECOMMENDATION REGARDING EPE'S PERFORMANCE BONUS?

³³ 9,905 Btu/kWh x \$1.62/1,000,000 Btu = \$0.016046/kWh.

³⁴ Also see Performance Incentive Calculator_KN WP.

1 A. I recommend that EPE's bonus (before adjustment) be limited to the amount it would
2 have otherwise been calculated under alternative avoided cost values. This is \$681,615.
3 Furthermore, the reduction to the bonus that EPE proposes because it has exceeded its
4 commercial cost cap should also be applied. The resulting adjusted bonus is \$479,078, as
5 seen on Exhibit KJN-2.³⁵

7 VI. SUMMARY AND CONCLUSIONS

8 Q. PLEASE SUMMARIZE YOUR FINDINGS AND RECOMMENDATIONS.

9 A. I have the following findings and recommendations regarding EPE's EECRF filing:

- 10 1. The FutureWise® MTP program provides certain non-energy content to students,
11 and customers should not pay for such a program in an energy efficiency rider.
12 EPE provided no way to verify the non-energy related portion of the budget, so I
13 recommend that the entire FutureWise® MTP program budget be removed from
14 EPE's request. This reduces EPE's proposed budget by \$300,000.
15
- 16 2. It is not reasonable that EPE calculate its program net benefits using avoided costs
17 that are not representative of the avoided costs in EPE's service area. Using the
18 inflated avoided costs reflective of the ERCOT market, EPE's net benefits and
19 corresponding performance bonus are greatly overstated. I recommend that EPE's
20 bonus (before adjustment) be limited to the amount it would have otherwise been
21 calculated under alternative avoided cost values. This amount is \$681,615.
22
- 23 3. I recommend that the reduction to the bonus that EPE proposes because it has
24 exceeded its commercial cost cap should be applied to the reduced bonus. The
25 resulting adjusted bonus is \$479,078.
26

27 VII. RATE CASE EXPENSES

28 Q. HAVE YOU INCLUDED SUPPORT FOR THE CITY OF EL PASO'S EXPENSES 29 INCURRED IN DOCKET NO. 50806, EPE'S PREVIOUS EECRF FILING?

30 A. Yes, I have provided a declaration from Mr. Norman J. Gordon addressing the City of El
31 Paso's expenses in Docket No. 50806 as Attachment C to my testimony.

³⁵ Also see Bonus Reduction Calculation _KN WP.

1

2 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

3 A. Yes, it does.

EXHIBIT KJN-1

Performance Incentive Calculator

| Program Year 2020 | | |
|--|-------------|------------|
| Energy Efficiency Performance Bonus Calculator | | |
| | kW | kWh |
| Demand and Energy Goals | 11,160 | 19,522,320 |
| Actual Demand and Energy Savings | 20,740 | 30,704,424 |
| Reported/Verified Hard-to-Reach | 964 | |
| | | |
| Program Costs (excluding bonus) | \$5,077,812 | |
| | | |
| Performance Bonus | \$681,615 | |

| | |
|---------------------------|--|
| 9% | Hard-to-Reach Goal Met? |
| | |
| Bonus Calculation Details | |
| 186% | Percentage of Demand Reduction Goal Met (Reported kW/Goal kW) |
| 157% | Percentage of Energy Reduction Goal Met (Reported kWh/Goal kWh) |
| TRUE | Met Requirements for Performance Bonus? |
| \$12,704,625 | Total Avoided Costs |
| \$810,663 | Docket No. 48297 requirement (add previous bonus to current year bonus calculation) |
| \$5,888,475 | Total Program Costs (including bonus) |
| \$6,816,150 | Net Benefits |
| | |
| \$2,925,500 | Calculated Bonus (((Achieved Demand Reduction/Demand Goal - 100%) / 2) * Net Benefits) |
| \$681,615 | Maximum Bonus Allowed (10% of Net Benefits) |

EXHIBIT KJN-2

Bonus Reduction Calculation

TABLE 1: Excluding Bonus:

| | Component | Total | Commercial | Residential | |
|----|---|---------------|---------------|---------------|-------------------|
| 1 | Actual 2020 Program Costs | \$ 4,983,108 | \$ 3,170,706 | \$ 1,812,402 | |
| 2 | 2018 EE Bonus | \$ 810,663 | \$ 472,293 | \$ 338,370 | |
| 3 | 2018 EPE Proceeding Expenses | \$ 188,923 | \$ 110,067 | \$ 78,856 | |
| 4 | 2018 Over Rrecovery | \$ (260,655) | \$ (33,066) | \$ (227,589) | |
| 5 | Total EE Costs to be Recovered Subject to Cap | \$ 5,722,039 | \$ 3,720,000 | \$ 2,002,039 | Sum Lines 1-4 |
| 6 | Actual 2020 Billed kWh | 5,292,119,427 | 2,760,263,653 | 2,531,855,774 | |
| 7 | Actual Costs Subject to Cap | | \$ 0.001348 | \$ 0.000791 | Line 5 / Line 6 |
| 8 | 2020 Regulatory Energy Efficiency Cap | | \$ 0.000845 | \$ 0.001351 | |
| 9 | Ratio of Regulatory Cap to Actual Costs | | 62.70% | 170.85% | Line 8 / Line 7 |
| 10 | 2020 Bonus | \$ 681,615 | \$ 542,988 | \$ 138,627 | |
| 11 | 2020 Bonus Reduction | \$ (202,537) | \$ (202,537) | \$ - | Line 10 - Line 12 |
| 12 | 2020 Reduced Bonus | \$ 479,078 | \$ 340,451 | \$ 138,627 | Line 10 x Line 9 |

Amounts may not add or tie to other exhibits and or workpapers due to rounding.

Source for 2020 Bonus: Performance Incentive Calculator_KN WP

ATTACHMENT A
STATEMENT OF QUALIFICATIONS

KARL J. NALEPA

Mr. Nalepa is an energy economist with more than 35 years of private and public sector experience in the electric and natural gas industries. He has extensive experience analyzing utility rate filings and resource plans with particular focus on fuel and power supply requirements, quality of fuel supply management, and reasonableness of energy costs. Mr. Nalepa developed peak demand and energy forecasts for public utilities and has forecast the price of natural gas in ratemaking and resource plan evaluations. He led a management and performance review of the Texas Public Utility Commission, and has conducted performance reviews and valuation studies of municipal utility systems. Mr. Nalepa previously directed the Railroad Commission of Texas' Regulatory Analysis & Policy Section, with responsibility for preparing timely natural gas industry analysis, managing ratemaking proceedings, mediating informal complaints, and overseeing consumer complaint resolution. He has prepared and defended expert testimony in both administrative and civil proceedings, and has served as a technical examiner in natural gas rate proceedings.

EDUCATION

- 1998 Certificate of Mediation
 Dispute Resolution Center, Austin
- 1989 NARUC Regulatory Studies Program
 Michigan State University
- 1988 M.S. - Petroleum Engineering
 University of Houston
- 1980 B.S. - Mineral Economics
 Pennsylvania State University

PROFESSIONAL HISTORY

- 2011 - ReSolved Energy Consulting
 Partner
- 2003 - 2011 RJ Covington Consulting
 Managing Director
- 1997 – 2003 Railroad Commission of Texas
 Asst. Director, Regulatory Analysis & Policy
- 1995 – 1997 Karl J. Nalepa Consulting
 Principal
- 1992 – 1995 Resource Management International, Inc.
 Supervising Consultant
- 1988 – 1992 Public Utility Commission of Texas
 Fuels Analyst
- 1980 – 1988 Transco Exploration Company
 Reservoir and Evaluation Engineer

AREAS OF EXPERTISE

Regulatory Analysis

Electric Power: Analyzed electric utility rate, certification, and resource forecast filings. Assessed the quality of fuel supply management, and reasonableness of fuel costs recovered from ratepayers. Projected the cost of fuel and purchased power. Estimated the impact of environmental costs on utility resource selection. Participated in regulatory rulemaking activities. Provided expert staff testimony in a number of proceedings before the Texas Public Utility Commission.

As consultant, represent interests of municipal clients intervening in large utility rate proceedings through analysis of filings and presentation of testimony before the Public Utility Commission. Also assist municipal utilities in preparing and defending requests to change rates and other regulatory matters before the Public Utility Commission.

Natural Gas: Directed the economic regulation of gas utilities in Texas for the Railroad Commission of Texas. Responsible for monitoring, analyzing and reporting on conditions and events in the natural gas industry. Managed Commission staff representing the public interest in contested rate proceedings before the Railroad Commission, and acted as technical examiner on behalf of the Commission. Mediated informal disputes between industry participants and directed handling of customer billing and service complaints. Oversaw utility compliance filings and staff rulemaking initiatives. Served as a policy advisor to the Commissioners.

As consultant, represent interests of municipal clients intervening in large utility rate proceedings through analysis of filings and presentation of testimony before the cities and Railroad Commission. Also assist small utilities in preparing and defending requests to change rates and other regulatory matters before the Railroad Commission.

Litigation Support

Retained to support litigation in natural gas contract disputes. Analyzed the results of contract negotiations and competitiveness of gas supply proposals considering gas market conditions contemporaneous with the period reviewed. Supported litigation related to alleged price discrimination related to natural gas sales for regulated customers. Provided analysis of regulatory and accounting issues related to ownership of certain natural gas distribution assets in support of litigation against a natural gas utility. Supported independent power supplier in binding arbitration regarding proper interpretation of a natural gas transportation contract. Provided expert witness testimony in administrative and civil court proceedings.

Utility System Assessment

Led a management and performance review of the Public Utility Commission. Conducted performance reviews and valuation studies of municipal utility systems. Assessed ability to compete in the marketplace, and recommended specific actions to improve the competitive position of the utilities. Provided comprehensive support in the potential sale of a municipal gas system, including preparation of a valuation study and all activities leading to negotiation of contract for sale and franchise agreements.

Energy Supply Analysis

Reviewed system requirements and prepared requests for proposals (RFPs) to obtain natural gas and power supplies for both utility and non-utility clients. Evaluated submittals under alternative demand and market conditions, and recommended cost-effective supply proposals. Assessed supply strategies to determine optimum mix of available resources.

Econometric Forecasting

Prepared econometric forecasts of peak demand and energy for municipal and electric cooperative utilities in support of system planning activities. Developed forecasts at the rate class and substation levels. Projected price of natural gas by individual supplier for Texas electric and natural gas utilities to support review of utility resource plans.

Reservoir Engineering

Managed certain reserves for a petroleum exploration and production company in Texas. Responsible for field surveillance of producing oil and natural gas properties, including reserve estimation, production forecasting, regulatory reporting, and performance optimization. Performed evaluations of oil and natural gas exploration prospects in Texas and Louisiana.

PROFESSIONAL MEMBERSHIPS

Society of Petroleum Engineers
International Association for Energy Economics
United States Association for Energy Economics

SELECT PUBLICATIONS, PRESENTATIONS, AND TESTIMONY

- “Summary of the USAEE Central Texas Chapter’s Workshop entitled ‘EPA’s Proposed Clean Power Plan Rules: Economic Modeling and Effects on the Electric Reliability of Texas Region,’” with Dr. Jay Zarnikau and Mr. Neil McAndrews, USAEE Dialogue, May 2015
- “Public Utility Ratemaking,” EBF 401: Strategic Corporate Finance, The Pennsylvania State University, September 2013
- “What You Should Know About Public Utilities,” EBF 401: Strategic Corporate Finance, The Pennsylvania State University, October 2011
- “Natural Gas Markets and the Impact on Electricity Prices in ERCOT,” Texas Coalition of Cities for Fair Utility Issues, Dallas, October 2008
- “Natural Gas Regulatory Policy in Texas,” Hungarian Oil and Gas Policy Business Colloquium, U.S. Trade and Development Agency, Houston, May 2003
- “Railroad Commission Update,” Texas Society of Certified Public Accountants, Austin, April 2003
- “Gas Utility Update,” Railroad Commission Regulatory Expo and Open House, October 2002
- “Deregulation: A Work in Progress,” Interview by Karen Stidger, *Gas Utility Manager*, October 2002
- “Regulatory Overview: An Industry Perspective,” Southern Gas Association’s Ratemaking Process Seminar, Houston, February 2001
- “Natural Gas Prices Could Get Squeezed,” with Commissioner Charles R. Matthews, *Natural Gas*, December 2000
- “Railroad Commission Update,” Texas Society of Certified Public Accountants, Austin, April 2000
- “A New Approach to Electronic Tariff Access,” Association of Texas Intrastate Natural Gas Pipeline Annual Meeting, Houston, January 1999
- “A Texas Natural Gas Model,” United States Association for Energy Economics North American Conference, Albuquerque, 1998
- “Texas Railroad Commission Aiding Gas Industry by Updated Systems, Regulations,” *Natural Gas*, July 1998
- “Current Trends in Texas Natural Gas Regulation,” Natural Gas Producers Association, Midland, 1998
- “An Overview of the American Petroleum Industry,” Institute of International Education Training Program, Austin, 1993
- Direct testimony in PUC Docket No. 10400 summarized in *Environmental Externality*, Energy Research Group for the Edison Electric Institute, 1992
- “God’s Fuel - Natural Gas Exploration, Production, Transportation and Regulation,” with Danny Bivens, Public Utility Commission of Texas Staff Seminar, 1992
- “A Summary of Utilities’ Positions Regarding the Clean Air Act Amendments of 1990,” Industrial Energy Technology Conference, Houston, 1992
- “The Clean Air Act Amendments of 1990,” Public Utility Commission of Texas Staff Seminar, 1992

ATTACHMENT B

PREVIOUSLY FILED TESTIMONY

**KARL J. NALEPA
TESTIMONY FILED**

| DKT NO. | DATE | REPRESENTING | UTILITY | PHASE | ISSUES |
|--|-------------|---------------------------|-----------------------------|------------------------|-----------------------------|
| <u>Before the Public Utility Commission of Texas</u> | | | | | |
| 51415 | Mar 21 | CARD | SWEPCO | Cost of Service | Cost Allocation |
| 51381 | Dec 20 | Entergy Cities | Entergy Texas Inc. | GCRR | GCRR Methodology |
| 51345 | Oct 20 | Denton Municipal Electric | Denton Municipal Electric | Interim TCOS | Wholesale Transmission Rate |
| 51215 | Mar 21 | Office of Public Counsel | Entergy Texas Inc. | CCN | Public Interest Review |
| 51100 | Nov 20 | Office of Public Counsel | Lubbock Power & Light | TCOS | Wholesale Transmission Rate |
| 50997 | Jan 21 | CARD | SWEPCO | Fuel Reconciliation | Fuel Cost Recovery |
| 50790 | Jul 20 | Office of Public Counsel | Entergy Texas, Inc. | Sale, Transfer, Merger | Public Interest Review |
| 50714 | May 20 | Cities | Entergy Texas Inc. | DCRF | DCRF Methodology |
| 50110 | Dec 19 | Denton Municipal Electric | Denton Municipal Electric | Interim TCOS | Wholesale Transmission Rate |
| 49831 | Feb 20 | Xcel Municipalities | Southwestern Public Service | Cost of Service | Cost Allocation |
| 49737 | Jan 20 | Office of Public Counsel | SWEPCO | CCN | Public Interest Review |
| 49594 | Jul 19 | Oncor Cities | Oncor Electric Delivery | EECRF | EECRF Methodology |
| 49592 | Jul 19 | AEP Cities | AEP Texas Inc. | EECRF | EECRF Methodology |
| 49586 | Jul 19 | TNMP Cities | Texas-New Mexico Power | EECRF | EECRF Methodology |
| 49583 | Aug 19 | Gulf Coast Coalition | CenterPoint Energy Houston | EECRF | EECRF Methodology |
| 49496 | Jun 19 | City of El Paso | El Paso Electric | EECRF | EECRF Methodology |
| 49494 | Jul 19 | AEP Cities | AEP Texas Inc. | Cost of Service | Plant Additions |
| 49421 | Jun 19 | Office of Public Counsel | CenterPoint Energy Houston | Cost of Service | Cost of Service |

| DKT NO. | DATE | REPRESENTING | UTILITY | PHASE | ISSUES |
|----------------|-------------|---------------------------|-----------------------------|---------------------|-----------------------------|
| 49395 | May 19 | City of El Paso | El Paso Electric | DCRF | DCRF Methodology |
| 49148 | Apr 19 | City of El Paso | El Paso Electric | TCRF | TCRF Methodology |
| 49042 | Mar 19 | SWEPCO Cities | SWEPCO | TCRF | TCRF Methodology |
| 49041 | Feb 19 | SWEPCO Cities | SWEPCO | DCRF | DCRF Methodology |
| 48973 | May 19 | Xcel Municipalities | Southwestern Public Service | Fuel Reconciliation | Fuel / Purch Power Costs |
| 48963 | Dec 18 | Denton Municipal Electric | Denton Municipal Electric | Interim TCOS | Wholesale Transmission Rate |
| 48420 | Aug 18 | Gulf Coast Coalition | CenterPoint Energy Houston | EECRF | EECRF Methodology |
| 48404 | Jul 18 | Cities | Texas-New Mexico Power | EECRF | EECRF Methodology |
| 48371 | Aug 18 | Cities | Entergy Texas Inc. | Cost of Service | Cost of Service |
| 48231 | May 18 | Cities | Oncor Electric Delivery | DCRF | DCRF Methodology |
| 48226 | May 18 | Gulf Coast Coalition | CenterPoint Energy Houston | DCRF | DCRF Methodology |
| 48222 | Apr 18 | Cities | AEP Texas Inc. | DCRF | DCRF Methodology |
| 47900 | Dec 17 | Denton Municipal Electric | Denton Municipal Electric | Interim TCOS | Wholesale Transmission Rate |
| 47527 | Apr 18 | Xcel Municipalities | Southwestern Public Service | Cost of Service | Cost of Service |
| 47461 | Dec 17 | Office of Public Counsel | SWEPCO | CCN | Public Interest Review |
| 47236 | Jul 17 | Cities | AEP Texas | EECRF | EECRF Methodology |
| 47235 | Jul 17 | Cities | Oncor Electric Delivery | EECRF | EECRF Methodology |
| 47217 | Jul 17 | Cities | Texas-New Mexico Power | EECRF | EECRF Methodology |
| 47032 | May 17 | Gulf Coast Coalition | CenterPoint Energy Houston | DCRF | DCRF Methodology |
| 46936 | Oct 17 | Xcel Municipalities | Southwestern Public Service | CCN | Public Interest Review |
| 46449 | Apr 17 | Cities | SWEPCO | Cost of Service | Cost of Service |

| DKT NO. | DATE | REPRESENTING | UTILITY | PHASE | ISSUES |
|----------------|-------------|---------------------------|-----------------------------|-------------------------|-----------------------------|
| 46348 | Sep 16 | Denton Municipal Electric | Denton Municipal Electric | Interim TCOS | Wholesale Transmission Rate |
| 46238 | Jan 17 | Office of Public Counsel | Oncor Electric Delivery | STM | Public Interest Review |
| 46076 | Dec 16 | Cities | Entergy Texas Inc. | Fuel Reconciliation | Fuel Cost |
| 46050 | Aug 16 | Cities | AEP Texas | STM | Public Interest Review |
| 46014 | Jul 16 | Gulf Coast Coalition | CenterPoint Energy Houston | EECRF | EECRF Methodology |
| 45788 | May 16 | Cities | AEP-TNC | DCRF | DCRF Methodology |
| 45787 | May 16 | Cities | AEP-TCC | DCRF | DCRF Methodology |
| 45747 | May 16 | Gulf Coast Coalition | CenterPoint Energy Houston | DCRF | DCRF Methodology |
| 45712 | Apr 16 | Cities | SWEPCO | DCRF | DCRF Methodology |
| 45691 | Jun 16 | Cities | SWEPCO | TCRF | TCRF Methodology |
| 45414 | Feb 17 | Office of Public Counsel | Sharyland | Cost of Service | Cost of Service |
| 45248 | May 16 | City of Fritch | City of Fritch | Cost of Service (water) | Cost of Service |
| 45084 | Nov 15 | Cities | Entergy Texas Inc. | TCRF | TCRF Methodology |
| 45083 | Oct 15 | Cities | Entergy Texas Inc. | DCRF | DCRF Methodology |
| 45071 | Aug 15 | Denton Municipal Electric | Denton Municipal Electric | Interim TCOS | Wholesale Transmission Rate |
| 44941 | Dec 15 | City of El Paso | El Paso Electric | Cost of Service | CEP Adjustments |
| 44677 | Jul 15 | City of El Paso | El Paso Electric | EECRF | EECRF Methodology |
| 44572 | May 15 | Gulf Coast Coalition | CenterPoint Energy Houston | DCRF | DCRF Methodology |
| 44060 | May 15 | City of Frisco | Brazos Electric Coop | CCN | Transmission Cost Recovery |
| 43695 | May 15 | Pioneer Natural Resources | Southwestern Public Service | Cost of Service | Cost Allocation |
| 43111 | Oct 14 | Cities | Entergy Texas Inc. | DCRF | DCRF Methodology |

| DKT NO. | DATE | REPRESENTING | UTILITY | PHASE | ISSUES |
|----------------|-------------|---------------------------|---------------------------|---|---|
| 42770 | Aug 14 | Denton Municipal Electric | Denton Municipal Electric | Interim TCOS | Wholesale Transmission Rate |
| 42485 | Jul 14 | Cities | Entergy Texas Inc. | EECRF | EECRF Methodology |
| 42449 | Jul 14 | City of El Paso | El Paso Electric | EECRF | EECRF Methodology |
| 42448 | Jul 14 | Cities | SWEPCO | TCRF | Transmission Cost Recovery Factor |
| 42370 | Dec 14 | Cities | SWEPCO | Rate Case Expenses | Rate Case Expenses |
| 41791 | Jan 14 | Cities | Entergy Texas Inc. | Cost of Service | Cost of Service/Fuel |
| 41539 | Jul 13 | Cities | AEP Texas North | EECRF | EECRF Methodology |
| 41538 | Jul 13 | Cities | AEP Texas Central | EECRF | EECRF Methodology |
| 41444 | Jul 13 | Cities | Entergy Texas Inc. | EECRF | EECRF Methodology |
| 41223 | Apr 13 | Cities | Entergy Texas Inc. | ITC Transfer | Public Interest Review |
| 40627 | Nov 12 | Austin Energy | Austin Energy | Cost of Service | General Fund Transfers |
| 40443 | Dec 12 | Office of Public Counsel | SWEPCO | Cost of Service | Cost of Service/Fuel |
| 40346 | Jul 12 | Cities | Entergy Texas Inc. | Join MISO | Public Interest Review |
| 39896 | Mar 12 | Cities | Entergy Texas Inc. | Cost of Service/ Fuel Reconciliation | Cost of Service/ Nat Gas/ Purch Power |
| 39366 | Jul 11 | Cities | Entergy Texas Inc. | EECRF | EECRF Methodology |
| 38951 | Feb 12 | Cities | Entergy Texas Inc. | CGS Tariff | CGS Costs |
| 38815 | Sep 10 | Denton Municipal Electric | Denton Municipal Electric | Interim TCOS | Wholesale Transmission Rate |
| 38480 | Nov 10 | Cities | Texas-New Mexico Power | Cost of Service | Cost of Service/Rate Design |
| 37744 | Jun 10 | Cities | Entergy Texas Inc. | Cost of Service/ Fuel Reconciliation | Cost of Service/ Nat Gas/ Purch Power/ Gen |
| 37580 | Dec 09 | Cities | Entergy Texas Inc. | Fuel Refund | Fuel Refund Methodology |

| DKT NO. | DATE | REPRESENTING | UTILITY | PHASE | ISSUES |
|----------------|------------------|---------------------------|-------------------------|--|--|
| 36956 | Jul 09 | Cities | Entergy Texas Inc. | EECRF | EECRF Methodology |
| 36392 | Nov 08 | Texas Municipal Power | Texas Municipal Power | Interim TCOS | Wholesale Transmission Rate |
| 35717 | Nov 08 | Cities Steering Committee | Oncor Electric Delivery | Cost of Service | Cost of Service/Rate Design |
| 34800 | Apr 08 | Cities | Entergy Gulf States | Fuel Reconciliation | Natural Gas/Coal/Nuclear |
| 16705 | May 97 | North Star Steel | Entergy Gulf States | Fuel Reconciliation | Natural Gas/Fuel Oil |
| 10694 | Jan 92 | PUC Staff | Midwest Electric Coop | Revenue Requirements | Depreciation/ Quality of Service |
| 10473 | Sep 91 | PUC Staff | HL&P | Notice of Intent | Environmental Costs |
| 10400 | Aug 91 | PUC Staff | TU Electric | Notice of Intent | Environmental Costs |
| 10092 | Mar 91 | PUC Staff | HL&P | Fuel Reconciliation | Natural Gas/Fuel Oil |
| 10035 | Jun 91 | PUC Staff | West Texas Utilities | Fuel Reconciliation Fuel Factor | Natural Gas Natural Gas/Fuel Oil/Coal |
| 9850 | Feb 91 | PUC Staff | HL&P | Revenue Req. Fuel Factor | Natural Gas/Fuel Oil/ETSI Natural Gas/Coal/Lignite |
| 9561 | Aug 90 | PUC Staff | Central Power & Light | Fuel Reconciliation Revenue Requirements Fuel Factor | Natural Gas Natural Gas/Fuel Oil Natural Gas |
| 9427 | Jul 90 | PUC Staff | LCRA | Fuel Factor | Natural Gas |
| 9165 | Feb 90 | PUC Staff | El Paso Electric | Revenue Requirements Fuel Factor | Natural Gas/Fuel Oil Natural Gas |
| 8900 | Jan 90 | PUC Staff | SWEPCO | Fuel Reconciliation Fuel Factor | Natural Gas Natural Gas |
| 8702 | Sep 89 Jul 89 | PUC Staff | Gulf States Utilities | Fuel Reconciliation Revenue Requirements Fuel Factor | Natural Gas/Fuel Oil Natural Gas/Fuel Oil Natural Gas/Fuel Oil |

| DKT NO. | DATE | REPRESENTING | UTILITY | PHASE | ISSUES |
|--|------------------|-----------------------------|--------------------------|--|--|
| 8646 | May 89 Jun 89 | PUC Staff | Central Power & Light | Fuel Reconciliation Revenue Requirements Fuel Factor | Natural Gas Natural Gas/Fuel Oil Natural Gas |
| 8588 | Aug 89 | PUC Staff | El Paso Electric | Fuel Reconciliation | Natural Gas |
| <u>Before the Railroad Commission of Texas</u> | | | | | |
| 05509 | Dec 20 | LDC, LLC | LDC, LLC | Cost of Service | Cost of Service/Rate Design |
| 10928 | Mar 20 | TGS Cities | Texas Gas Service | Cost of Service | Cost of Service/Rate Design |
| 10920 | Feb 20 | East Texas Cities Coalition | CenterPoint Energy Entex | Cost of Service | Cost of Service/Rate Design |
| 10900 | Nov 19 | Cities Steering Committee | Atmos Energy Triangle | Cost of Service | Cost of Service |
| 10899 | Sep 19 | NatGas, Inc. | NatGas, Inc. | Cost of Service | Cost of Service/Rate Design |
| 10737 | Jun 18 | T&L Gas Co. | T&L Gas Co. | Cost of Service | Cost of Service/Rate Design |
| 10622 | Apr 17 | LDC, LLC | LDC, LLC | Cost of Service | Cost of Service/Rate Design |
| 10617 | Mar 17 | Onalaska Water & Gas | Onalaska Water & Gas | Cost of Service | Cost of Service/Rate Design |
| 10580 | Mar 17 | Cities Steering Committee | Atmos Pipeline Texas | Cost of Service | Cost of Service/Rate Design |
| 10567 | Feb 17 | Gulf Coast Coalition | CenterPoint Energy Entex | Cost of Service | Cost of Service/Rate Design |
| 10506 | Jun 16 | City of El Paso | Texas Gas Service | Cost of Service | Cost of Service/Energy Efficiency |
| 10498 | Feb 16 | NatGas, Inc. | NatGas, Inc. | Cost of Service | Cost of Service/Rate Design |
| 10359 | Jul 14 | Cities Steering Committee | Atmos Energy Mid Tex | Cost of Service | Cost of Service/Rate Design |
| 10295 | Oct 13 | Cities Steering Committee | Atmos Pipeline Texas | Revenue Rider | Rider Renewal |
| 10242 | Jan 13 | Onalaska Water & Gas | Onalaska Water & Gas | Cost of Service | Cost of Service/Rate Design |
| 10196 | Jul 12 | Bluebonnet Natural Gas | Bluebonnet Natural Gas | Cost of Service | Cost of Service/Rate Design |
| 10190 | Jan 13 | City of Magnolia, Texas | Hughes Natural Gas | Cost of Service | Cost of Service/Rate Design |

| DKT NO. | DATE | REPRESENTING | UTILITY | PHASE | ISSUES |
|----------------|-------------|---------------------------|---------------------------|---|--|
| 10174 | Aug 12 | Cities Steering Committee | Atmos Energy West Texas | Cost of Service | Cost of Service/Rate Design |
| 10170 | Aug 12 | Cities Steering Committee | Atmos Energy Mid Tex | Cost of Service | Cost of Service/Rate Design |
| 10106 | Oct 11 | Gulf Coast Coalition | CenterPoint Energy Entex | Cost of Service | Cost of Service/Rate Design |
| 10083 | Aug 11 | City of Magnolia, Texas | Hughes Natural Gas | Cost of Service | Cost of Service/Rate Design |
| 10038 | Feb 11 | Gulf Coast Coalition | CenterPoint Energy Entex | Cost of Service | Cost of Service/Rate Design |
| 10021 | Oct 10 | AgriTex Gas, Inc. | AgriTex Gas, Inc. | Cost of Service | Cost of Service/Rate Design |
| 10000 | Dec 10 | Cities Steering Committee | Atmos Pipeline Texas | Cost of Service | Cost of Service/Rate Design |
| 9902 | Oct 09 | Gulf Coast Coalition | CenterPoint Energy Entex | Cost of Service | Cost of Service/Rate Design |
| 9810 | Jul 08 | Bluebonnet Natural Gas | Bluebonnet Natural Gas | Cost of Service | Cost of Service/Rate Design |
| 9797 | Apr 08 | Universal Natural Gas | Universal Natural Gas | Cost of Service | Cost of Service/Rate Design |
| 9732 | Jul 08 | Cities Steering Committee | Atmos Energy Corp. | Gas Cost Review | Natural Gas Costs |
| 9670 | Oct 06 | Cities Steering Committee | Atmos Energy Corp. | Cost of Service | Affiliate Transactions/ O&M Expenses/GRIP |
| 9667 | Nov 06 | Oneok Westex Transmission | Oneok Westex Transmission | Abandonment | Abandonment |
| 9598 | Sep 05 | Cities Steering Committee | Atmos Energy Corp. | GRIP Appeal | GRIP Calculation |
| 9530 | Apr 05 | Cities Steering Committee | Atmos Energy Corp. | Gas Cost Review | Natural Gas Costs |
| 9400 | Dec 03 | Cities Steering Committee | TXU Gas Company | Cost of Service O&M Expenses/Capital Costs | Affiliate Transactions/ |

| DKT NO. | DATE | REPRESENTING | UTILITY | PHASE | ISSUES |
|--|------------------|---|--|---------------------------|---|
| <u>Before the Louisiana Public Service Commission</u> | | | | | |
| U-35359 | Feb 20 Nov 20 | PSC Staff | Dixie Electric Membership Corporation | Cost of Service | Cost of Service / FRP Renewal / AMS Certification Stipulation |
| U-34344/ U-34717 | Apr 18 | PSC Staff | Dixie Electric Member Corporation | Formula Rate Plan | Stipulation |
| U-34344 | Jan 18 | PSC Staff | Dixie Electric Member Corporation | Formula Rate Plan | Adjusted Revenues |
| U-33633 | Nov 15 | PSC Staff Entergy Gulf States Louisiana | Entergy Louisiana, LLC/ | Resource Certification | Prudence |
| U-33033 | Jul 14 | PSC Staff Entergy Gulf States Louisiana | Entergy Louisiana, LLC/ | Resource Certification | Revenue Requirement |
| U-31971 | Nov 11 | PSC Staff Entergy Gulf States Louisiana | Entergy Louisiana, LLC/ | Resource Certification | Certification/Cost Recovery |
| <u>Before the Arkansas Public Service Commission</u> | | | | | |
| O7-105-U | Mar 08 | Arkansas Customers & pipelines serving CenterPoint | CenterPoint Energy, Inc. | Gas Cost Complaint | Prudence / Cost Recovery |
| <u>Before the Colorado Public Utilities Commission</u> | | | | | |
| 18A-0791E | Mar 19 | Pueblo County | Black Hills Colorado Electric | Economic Development Rate | Tariff Issues |

ATTACHMENT C
RELIED UPONS



Cost and Performance Characteristics of New Generating Technologies, *Annual Energy Outlook 2021*

The tables presented below will be incorporated into the Electricity Market Module chapter of the U.S. Energy Information Administration's (EIA) *Annual Energy Outlook 2021* (AEO2021) Assumptions document. Table 1 represents EIA's assessment of the cost to develop and install various generating technologies used in the electric power sector. Generating technologies typically found in end-use applications, such as combined heat and power or roof-top solar photovoltaics (PV), will be described elsewhere in the Assumptions document. The costs shown in Table 1, except as noted below, are the costs for a typical facility for each generating technology before adjusting for regional cost factors. Overnight costs exclude interest accrued during plant construction and development. Technologies with limited commercial experience may include a technological optimism factor to account for the tendency to underestimate the full engineering and development costs for new technologies during technology research and development.

All technologies demonstrate some degree of variability in cost, based on project size, location, and access to key infrastructure (such as grid interconnections, fuel supply, and transportation). For wind and solar PV, in particular, the cost favorability of the lowest-cost regions compound the underlying variability in regional cost and create a significant differential between the unadjusted costs and the capacity-weighted average national costs as observed from recent market experience. To account for this difference, Table 1 shows a weighted average cost for both wind and solar PV, based on the regional cost factors assumed for these technologies in AEO2021 and the actual regional distribution of the builds that occurred in 2019.

Table 2 shows a full listing of the overnight costs for each technology and electricity region, if the resource or technology is available to be built in the given region. The regional costs reflect the impact of locality adjustments, including one to address ambient air conditions for technologies that include a combustion turbine and one to adjust for additional costs associated with accessing remote wind resources. Temperature, humidity, and air pressure can affect the available capacity of a combustion turbine, and EIA's modeling addresses these possible effects through an additional cost multiplier by region. Unlike most other generation technologies where fuel can be transported to the plant, wind generators must be located in areas with the best wind resources. Sites that are located near existing transmission with access to a road network or are located on lower development cost lands are generally built up first, after which additional costs may be incurred to access sites with less favorable characteristics. EIA represents this possibility through a multiplier applied to the wind plant capital costs that increases as the best sites in a region are developed.

Table 1. Cost and performance characteristics of new central station electricity generating technologies

| Technology | First available year ¹ | Size (MW) | Lead time (years) | Base overnight cost ² (2020 \$/kW) | Techno-logical optimism factor ³ | Total overnight cost ^{4,5} (2020 \$/kW) | Variable O&M ⁶ (2020 \$/MWh) | Fixed O&M (2020\$/kW-yr) | Heat rate ⁷ (Btu/kWh) |
|---|-----------------------------------|-----------|-------------------|---|---|--|---|--------------------------|----------------------------------|
| Ultra-supercritical coal (USC) | 2024 | 650 | 4 | 3,672 | 1.00 | 3,672 | 4.52 | 40.79 | 8,638 |
| USC with 30% carbon capture and sequestration (CCS) | 2024 | 650 | 4 | 4,550 | 1.01 | 4,595 | 7.11 | 54.57 | 9,751 |
| USC with 90% CCS | 2024 | 650 | 4 | 5,861 | 1.02 | 5,978 | 11.03 | 59.85 | 12,507 |
| Combined-cycle—single shaft | 2023 | 418 | 3 | 1,082 | 1.00 | 1,082 | 2.56 | 14.17 | 6,431 |
| Combined-cycle—multi shaft | 2023 | 1,083 | 3 | 957 | 1.00 | 957 | 1.88 | 12.26 | 6,370 |
| Combined-cycle with 90% CCS | 2023 | 377 | 3 | 2,471 | 1.04 | 2,570 | 5.87 | 27.74 | 7,124 |
| Internal combustion engine | 2022 | 21 | 2 | 1,813 | 1.00 | 1,813 | 5.72 | 35.34 | 8,295 |
| Combustion turbine— aeroderivative ⁸ | 2022 | 105 | 2 | 1,169 | 1.00 | 1,169 | 4.72 | 16.38 | 9,124 |
| Combustion turbine—industrial frame | 2022 | 237 | 2 | 709 | 1.00 | 709 | 4.52 | 7.04 | 9,905 |
| Fuel cells | 2023 | 10 | 3 | 6,277 | 1.09 | 6,866 | 0.59 | 30.94 | 6,469 |
| Nuclear—light water reactor | 2026 | 2,156 | 6 | 6,034 | 1.05 | 6,336 | 2.38 | 122.26 | 10,455 |
| Nuclear—small modular reactor | 2028 | 600 | 6 | 6,183 | 1.10 | 6,802 | 3.02 | 95.48 | 10,455 |
| Distributed generation—base | 2023 | 2 | 3 | 1,560 | 1.00 | 1,560 | 8.65 | 19.46 | 8,935 |
| Distributed generation—peak | 2022 | 1 | 2 | 1,874 | 1.00 | 1,874 | 8.65 | 19.46 | 9,921 |
| Battery storage | 2021 | 50 | 1 | 1,165 | 1.00 | 1,165 | 0.00 | 24.93 | NA |
| Biomass | 2024 | 50 | 4 | 4,077 | 1.00 | 4,078 | 4.85 | 126.36 | 13,500 |
| Geothermal ^{9,10} | 2024 | 50 | 4 | 2,772 | 1.00 | 2,772 | 1.17 | 137.50 | 8,946 |
| Municipal solid waste—landfill gas | 2023 | 36 | 3 | 1,566 | 1.00 | 1,566 | 6.23 | 20.20 | 8,513 |
| Conventional hydropower ¹⁰ | 2024 | 100 | 4 | 2,769 | 1.00 | 2,769 | 1.40 | 42.01 | NA |
| Wind ⁵ | 2023 | 200 | 3 | 1,846 | 1.00 | 1,846 | 0.00 | 26.47 | NA |
| Wind offshore ⁹ | 2024 | 400 | 4 | 4,362 | 1.25 | 5,453 | 0.00 | 110.56 | NA |
| Solar thermal ⁹ | 2023 | 115 | 3 | 7,116 | 1.00 | 7,116 | 0.00 | 85.82 | NA |
| Solar photovoltaic (PV) with tracking ^{5,9,11} | 2022 | 150 | 2 | 1,248 | 1.00 | 1,248 | 0.00 | 15.33 | NA |
| Solar PV with storage ^{9,11} | 2022 | 150 | 2 | 1,612 | 1.00 | 1,612 | 0.00 | 32.33 | NA |

¹ Represents the first year that a new unit could become operational.

² Base cost includes project contingency costs.

³ The technological optimism factor is applied to the first four units of a new, unproven design; it reflects the demonstrated tendency to underestimate actual costs for a first-of-a-kind unit.

⁴ Overnight capital cost includes contingency factors and excludes regional multipliers (except as noted for wind and solar PV) and learning effects. Interest charges are also excluded. The capital costs represent current costs for plants that would come online in 2021.

⁵ Total overnight cost for ind and solar PV technologies in the table are the average input value across all 25 electricity market regions, as weighted by the respective capacity of that type installed during 2019 in each region to account for the substantial regional variation in wind and solar costs (as shown in Table 4). The input value used for onshore wind in AEO2021 was \$1,268 per kilowatt (kW), and for solar PV with tracking it was \$1,232/kW, which represents the cost of building a plant excluding regional factors. Region-specific factors contributing to the substantial regional variation in cost include differences in typical project size across regions, accessibility of resources, and variation in labor and other construction costs throughout the country.

⁶ O&M = Operations and maintenance.

⁷ The nuclear average heat rate is the weighted average tested heat rate for nuclear units as reported on the Form EIA-860, *Annual Electric Generator Report*. No heat rate is reported for battery storage because it is not a primary conversion technology; conversion losses are accounted for when the electricity is first generated; electricity-to-storage losses are accounted for through the additional demand for electricity required to meet load. For hydropower, wind, solar, and geothermal technologies, no heat rate is reported because the power is generated without fuel combustion and no set British thermal unit conversion factors exist. The model calculates the average heat rate for fossil-fuel generation in each year to report primary energy consumption displaced for these resources.

⁸ Combustion turbine aeroderivative units can be built by the model before 2022, if necessary, to meet a region's reserve margin.

⁹ Capital costs are shown before investment tax credits are applied.

¹⁰ Because geothermal and hydropower cost and performance characteristics are specific for each site, the table entries show the cost of the least expensive plant that could be built in the Northwest region for hydro and Great Basin region for geothermal, where most of the proposed sites are located.

¹¹ Costs and capacities are expressed in terms of net AC (alternating current) power available to the grid for the installed capacity.

Sources: Input costs are primarily based on a report provided by external consultants: Sargent & Lundy, December 2019. Hydropower site costs for non-powered dams were most recently updated for AEO2018 using data from Oak Ridge National Lab

Table 2. Total overnight capital costs of new electricity generating technologies by region

2020 dollars per kilowatt

| Technology | 1 TRE | 2 FRCC | 3 MISW | 4 MISC | 5 MISE | 6 MISS | 7 ISNE | 8 NYCW | 9 NYUP | 10 PJME | 11 PJMw | 12 PJMC | 13 PJMD |
|--------------------------------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|------------|------------|------------|
| Ultra-supercritical coal (USC) | 3,412 | 3,512 | 3,838 | 3,939 | 3,985 | 3,531 | 4,255 | NA | 4,159 | 4,293 | 3,662 | 4,614 | 3,952 |
| USC with 30% CCS | 4,308 | 4,422 | 4,774 | 4,903 | 4,942 | 4,450 | 5,272 | NA | 5,167 | 5,306 | 4,594 | 5,640 | 4,939 |
| USC with 90% CCS | 5,642 | 5,786 | 6,173 | 6,381 | 6,387 | 5,841 | 6,764 | NA | 6,590 | 6,775 | 5,956 | 7,214 | 6,331 |
| CC—single shaft | 977 | 997 | 1,112 | 1,122 | 1,151 | 1,006 | 1,298 | 1,722 | 1,301 | 1,300 | 1,078 | 1,302 | 1,241 |
| CC—multi shaft | 851 | 872 | 989 | 1,006 | 1,032 | 882 | 1,134 | 1,554 | 1,115 | 1,140 | 934 | 1,196 | 1,054 |
| CC with 90% CCS | 2,410 | 2,432 | 2,599 | 2,605 | 2,645 | 2,455 | 2,729 | 3,091 | 2,667 | 2,707 | 2,489 | 2,822 | 2,593 |
| Internal combustion engine | 1,705 | 1,743 | 1,862 | 1,936 | 1,915 | 1,766 | 1,984 | 2,487 | 1,909 | 1,985 | 1,778 | 2,164 | 1,847 |
| CT—aeroderivative | 1,034 | 1,056 | 1,223 | 1,226 | 1,263 | 1,077 | 1,315 | 1,684 | 1,269 | 1,308 | 1,122 | 1,437 | 1,190 |
| CT—industrial frame | 626 | 639 | 742 | 746 | 768 | 653 | 801 | 1,033 | 771 | 797 | 680 | 877 | 723 |
| Fuel cells | 6,589 | 6,691 | 6,997 | 7,299 | 7,160 | 6,804 | 7,428 | 8,745 | 7,126 | 7,364 | 6,784 | 7,851 | 6,993 |
| Nuclear—light water reactor | 5,981 | 6,110 | 6,450 | 7,036 | 6,786 | 6,309 | 7,177 | NA | 6,696 | 7,013 | 6,199 | 7,711 | 6,451 |
| Nuclear—small modular reactor | 6,338 | 6,486 | 7,066 | 7,369 | 7,366 | 6,567 | 7,608 | NA | 7,246 | 7,623 | 6,648 | 8,506 | 6,904 |
| Dist. generation—base | 1,408 | 1,437 | 1,603 | 1,618 | 1,659 | 1,450 | 1,871 | 2,482 | 1,876 | 1,874 | 1,554 | 1,877 | 1,788 |
| Dist. Generation—peak | 1,657 | 1,692 | 1,959 | 1,965 | 2,024 | 1,727 | 2,108 | 2,698 | 2,034 | 2,096 | 1,798 | 2,303 | 1,907 |
| Battery storage | 1,165 | 1,168 | 1,151 | 1,207 | 1,168 | 1,192 | 1,201 | 1,196 | 1,169 | 1,173 | 1,162 | 1,177 | 1,173 |
| Biomass | 3,784 | 3,887 | 4,208 | 4,348 | 4,358 | 3,919 | 4,842 | 6,572 | 4,857 | 4,942 | 4,156 | 4,951 | 4,736 |
| Geothermal | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| MSW—landfill gas | 1,476 | 1,508 | 1,606 | 1,673 | 1,652 | 1,530 | 1,713 | 2,133 | 1,647 | 1,711 | 1,538 | 1,861 | 1,596 |
| Conventional hydropower | 4,040 | 4,935 | 1,963 | 1,305 | 2,657 | 3,932 | 1,819 | NA | 3,722 | 3,866 | 3,370 | NA | 3,420 |
| Wind | 2,477 | NA | 1,395 | 1,268 | 1,518 | 1,268 | 1,680 | NA | 2,049 | 1,680 | 1,268 | 1,846 | 1,750 |
| Wind offshore | 5,325 | 6,390 | 6,304 | NA | 6,529 | NA | 6,360 | 5,486 | 6,652 | 6,097 | 4,985 | 7,219 | 5,679 |
| Solar thermal | 6,865 | 6,969 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Solar PV with tracking | 1,214 | 1,191 | 1,232 | 1,278 | 1,264 | 1,202 | 1,276 | 1,501 | 1,264 | 1,301 | 1,229 | 1,341 | 1,226 |
| Solar PV with storage | 1,561 | 1,577 | 1,624 | 1,677 | 1,653 | 1,593 | 1,687 | 1,917 | 1,656 | 1,690 | 1,588 | 1,757 | 1,643 |

| Technology | 14 SRCA | 15 SRSE | 16 SRCE | 17 SPPS | 18 SPPC | 19 SPPN | 20 SRSG | 21 CANO | 22 CASO | 23 NWPP | 24 RMRG | 25 BASN |
|--------------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Ultra-supercritical coal (USC) | 3,533 | 3,586 | 3,634 | 3,557 | 3,779 | 3,597 | 3,748 | NA | NA | 3,971 | 3,712 | 3,873 |
| USC with 30% CCS | 4,454 | 4,496 | 4,563 | 4,466 | 4,713 | 4,508 | 4,703 | NA | NA | 4,942 | 4,653 | 4,828 |
| USC with 90% CCS | 5,852 | 5,904 | 5,974 | 5,821 | 6,117 | 5,863 | 6,098 | NA | NA | 6,398 | 6,008 | 6,287 |
| CC—single shaft | 993 | 1,005 | 1,036 | 1,004 | 1,066 | 995 | 978 | 1,432 | 1,399 | 1,138 | 922 | 996 |
| CC—multi shaft | 872 | 883 | 915 | 882 | 947 | 874 | 842 | 1,259 | 1,225 | 987 | 793 | 889 |
| CC with 90% CCS | 2,424 | 2,437 | 2,492 | 2,428 | 2,509 | 2,391 | 2,212 | 2,774 | 2,743 | 2,559 | 2,080 | 2,336 |
| Internal combustion engine | 1,776 | 1,781 | 1,812 | 1,763 | 1,858 | 1,781 | 1,798 | 2,155 | 2,116 | 1,916 | 1,775 | 1,900 |
| CT—aeroderivative | 1,071 | 1,081 | 1,121 | 1,079 | 1,155 | 1,087 | 981 | 1,381 | 1,347 | 1,211 | 949 | 1,082 |
| CT— industrial frame | 649 | 655 | 680 | 654 | 701 | 658 | 594 | 844 | 822 | 737 | 575 | 657 |
| Fuel cells | 6,853 | 6,848 | 6,942 | 6,728 | 7,010 | 6,789 | 6,884 | 7,887 | 7,796 | 7,209 | 6,751 | 7,191 |
| Nuclear—light water reactor | 6,390 | 6,340 | 6,546 | 6,135 | 6,487 | 6,133 | 6,361 | NA | NA | 6,885 | 6,162 | 6,893 |
| Nuclear—small modular reactor | 6,600 | 6,651 | 6,802 | 6,584 | 6,993 | 6,640 | 6,728 | NA | NA | 7,285 | 6,656 | 7,235 |
| Dist. Generation—base | 1,432 | 1,449 | 1,493 | 1,448 | 1,536 | 1,434 | 1,409 | 2,064 | 2,017 | 1,641 | 1,328 | 1,436 |
| Dist. Generation—peak | 1,717 | 1,732 | 1,797 | 1,729 | 1,852 | 1,741 | 1,572 | 2,213 | 2,158 | 1,941 | 1,521 | 1,734 |
| Battery storage | 1,203 | 1,186 | 1,201 | 1,159 | 1,167 | 1,153 | 1,180 | 1,213 | 1,216 | 1,193 | 1,155 | 1,201 |
| Biomass | 3,934 | 3,963 | 4,016 | 3,937 | 4,183 | 4,020 | 4,305 | 5,515 | 5,390 | 4,451 | 4,265 | 4,265 |
| Geothermal | NA | NA | NA | NA | NA | NA | 2,825 | 2,802 | 2,269 | 2,742 | NA | 2,772 |
| MSW—landfill gas | 1,539 | 1,541 | 1,568 | 1,525 | 1,605 | 1,539 | 1,555 | 1,857 | 1,825 | 1,655 | 1,534 | 1,642 |
| Conventional hydropower | 1,904 | 4,130 | 2,135 | 4,086 | 1,722 | 1,619 | 3,282 | 3,473 | 3,344 | 2,769 | 3,306 | 3,613 |
| Wind | 1,512 | 1,713 | 1,268 | 1,395 | 1,395 | 1,395 | 1,395 | 2,799 | 2,418 | 1,848 | 1,395 | 1,395 |
| Wind offshore | 4,907 | NA | NA | NA | NA | NA | NA | 8,224 | 8,628 | 6,170 | NA | NA |
| Solar thermal | NA | NA | NA | 6,934 | 7,203 | 6,864 | 7,193 | 8,473 | 8,367 | 7,656 | 6,912 | 7,671 |
| Solar PV with tracking | 1,251 | 1,188 | 1,228 | 1,190 | 1,237 | 1,199 | 1,211 | 1,348 | 1,341 | 1,241 | 1,225 | 1,236 |
| Solar PV with storage | 1,604 | 1,588 | 1,607 | 1,577 | 1,628 | 1,594 | 1,602 | 1,756 | 1,751 | 1,656 | 1,595 | 1,653 |

NA = not available; plant type cannot be built in the region because of a lack of resources, sites, or specific state legislation.

USC = ultra-supercritical, CCS = carbon capture and sequestration, CC = combined cycle, CT = combustion turbine, PV = photovoltaic, MSW = municipal solid waste

[Electricity Market Module region map](#)

Source: U.S. Energy Information Administration, Office of Electricity, Coal, Nuclear and Renewables Analysis

Notes: Costs include contingency factors, regional cost, and ambient conditions multipliers. Interest charges are excluded. The costs are shown before investment tax credits are applied.



Item Number: 74

Addendum StartPage: 0

PROJECT NO. 50448

2020 ELECTRIC UTILITIES FUEL COST § PUBLIC UTILITY COMMISSION
AND USE INFORMATION PURSUANT §
TO SUBST. R. 25.82 AND 25.238 § OF TEXAS

2020 NOV 13 PM 1:58

EL PASO ELECTRIC COMPANY'S MONTHLY FUEL REPORT
SEPTEMBER 2020

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EL PASO ELECTRIC COMPANY
FUEL COST REPORT
FOR THE MONTH OF September 2020

Current System Fuel Factor 0.012273

| TOTAL SYSTEM FUEL/PURCHASED POWER COSTS | ACCOUNT | RECONCILABLE | NON-RECONCILABLE | TOTAL |
|---|---------|---------------|------------------|---------------|
| Fuel Cost | 501 | \$ 6,496,102 | \$ - | \$ 6,496,102 |
| Nox Emmissions | 509 | 9,375 | 3,912 | 13,287 |
| Nuclear Fuel Cost | 518 | 3,839,035 | - | 3,839,035 |
| Other Fuel Cost | 547 | 1,330,748 | - | 1,330,748 |
| Purchased Power Cost | 555 | 6,895,726 | 1,424,649 | 8,320,375 |
| TOTAL SYSTEM COST | | \$ 18,570,986 | \$ 1,428,561 | \$ 19,999,547 |
| Less Sales for Resale Revenue | 447 | 14,785,337 | 462,266 | 15,247,603 |
| NET SYSTEM COST | | \$ 3,785,649 | \$ 966,295 | \$ 4,751,944 |
| Texas Retail Allocator | | 0.7957456045 | 0.7957456045 | 0.7957456045 |
| | | \$ 3,012,414 | \$ 768,925 | \$ 3,781,339 |
| Direct Assigned Texas Environmental Consumables | 502 | 24,817 | 6,370 | 31,187 |
| Recovery of Coal Reclamation Costs | 501 | 55,044 | - | 55,044 |
| TEXAS RETAIL FUEL/PURCHASED POWER COST | | \$ 3,092,275 | \$ 775,295 | \$ 3,867,570 |

| TEXAS RETAIL FUEL FACTOR-RELATED REVENUES | ACCOUNT | REVENUES | MWH SALES |
|---|---------|--------------|-----------|
| Residential | 440 | \$ 3,879,088 | 314,180 |
| Commercial & Industrial | 442 | 3,424,635 | 279,835 |
| Street & Highway | 444 | 38,306 | 3,091 |
| Public Authorities | 445 | 1,347,302 | 110,848 |
| TOTAL TEXAS RETAIL | | \$ 8,689,331 | 707,954 |

| OVER/(UNDER)-RECOVERY OF COSTS | ACCOUNT | OVER (UNDER) RECOVERY | OVER (UNDER) INTEREST | OVER (UNDER) TOTAL |
|--|---------|-----------------------------|-----------------------------|--------------------------|
| Interest Rate (%) | | | 2.35% | |
| Beginning Cumulative Fuel Recovery Balance | 182 | \$ (10,857,984) | \$ 7,178 | \$ (10,850,806) |
| Fuel Over/(Under) Entry This Month | 182 | 5,597,056 | (21,024) | 5,576,032 |
| Fuel Surcharge/(Refund) Entry This Month Docket #50940 | 182 | (6,064) | - | (6,064) |
| Ending Cumulative Fuel Recovery Balance | | \$ (5,266,992) | \$ (13,846) | \$ (5,280,838) |

Note: Amounts may not add or tie due to rounding

EL PASO ELECTRIC COMPANY
FUEL EFFICIENCY REPORT

FOR THE MONTH OF September 2020

Time Period

720 Hrs

| | | NDC | | | | | | | | |
|---|---------------------------------|-------|-----------|-----------|---------------|--------|--------|----------|----------|---------|
| PLANT/SOURCE | | MW | MWH | MMBTU | COST | % CF | HR | \$/MMBTU | \$/MWH | % MIX |
| NUCLEAR | Palo Verde 1 | 211 | 149,871 | 1,544,994 | \$1,392,442 | 98 65% | 10 309 | \$0 901 | \$9 291 | 19 46% |
| | Palo Verde 2 | 211 | 150,464 | 1,546,652 | 1,178,536 | 99 04% | 10 279 | \$0 762 | \$7 833 | 19 54% |
| | Palo Verde 3 | 211 | 149,007 | 1,546,631 | 1,268,057 | 98 08% | 10 380 | \$0 820 | \$8 510 | 19 35% |
| | Prior Period Adjustments | | | | | 0 00% | 0 000 | \$0 000 | \$0 000 | 0 00% |
| GAS/OIL | TOTAL NUCLEAR | 633 | 449,342 | 4,638,277 | \$3,839,035 | 98 59% | 10 322 | \$0 828 | \$8 544 | 58 34% |
| | Copper | 64 | (3) | 0 | 3,655 | -0 01% | 0 000 | \$0 000 | \$0 000 | 0 00% |
| | Newman | 752 | 314,024 | 3,081,237 | 5,381,443 | 58 00% | 9 812 | \$1 747 | \$17 137 | 40 77% |
| | Rio Grande | 276 | 91,722 | 1,090,661 | 1,309,605 | 46 16% | 11 891 | \$1 201 | \$14 278 | 11 91% |
| | Montana | 354 | 59,213 | 569,970 | 1,132,147 | 23 23% | 9 626 | \$1 986 | \$19 120 | 7 69% |
| | Prior Period Adjustments | | | | 0 | 0 00% | 0 000 | \$0 000 | \$0 000 | 0 00% |
| | TOTAL GAS/OIL | 1,446 | 464,956 | 4,741,868 | 7,826,850 | 44 66% | 10 199 | \$1 651 | \$16 834 | 60 37% |
| TOTAL NET GENERATION | | 2,079 | 914,298 | 9,380,145 | \$11,665,885 | 61 08% | 10 259 | \$1 244 | \$12 759 | 118 71% |
| PURCHASES | FIRM COGEN | | | N/A | | N/A | N/A | N/A | \$0 000 | 0 00% |
| | NON-FIRM COGEN | | | N/A | | N/A | N/A | N/A | \$0 000 | 0 00% |
| | Prior Period Adjustments | | | N/A | | N/A | N/A | N/A | \$0 000 | 0 00% |
| | TOTAL COGEN | | 0 | N/A | \$0 | N/A | N/A | N/A | \$0 000 | 0 00% |
| | OTHER FIRM | | | N/A | | N/A | N/A | N/A | \$0 000 | 0 00% |
| | OTHER NON-FIRM | | (144,113) | N/A | (7,889,611) | N/A | N/A | N/A | \$0 000 | -18 71% |
| | Prior Period Adjustments | | | N/A | \$0 | N/A | N/A | N/A | \$0 000 | 0 00% |
| | TOTAL OTHER | | (144,113) | N/A | (\$7,889,611) | N/A | N/A | N/A | \$0 000 | -18 71% |
| | TOTAL PURCHASES | | (144,113) | N/A | (\$7,889,611) | N/A | N/A | N/A | \$0 000 | -18 71% |
| NET INTERCHANGE | | | | N/A | | N/A | N/A | N/A | \$0 000 | 0 00% |
| NET TRANSMISSION (WHEELING) | | | | N/A | | N/A | N/A | N/A | \$0 000 | 0 00% |
| SYSTEM TOTAL AT THE SOURCE | | | 770,185 | N/A | \$3,776,275 | N/A | N/A | N/A | \$4 903 | 100 00% |
| DISPOSITION OF ENERGY | Sales to Ultimate Consumer | | 893,434 | | | | | | \$0 000 | 116 00% |
| | Sales for Resale | | 5,401 | | | | | | \$0 000 | 0 70% |
| | Energy Furnished Without Charge | | | | | | | | \$0 000 | 0 00% |
| | Energy used by Utility | | 956 | | | | | | \$0 000 | 0 12% |
| | Electric Dept Only | | | | | | | | \$0 000 | 0 00% |
| | TOTAL @ THE METER | | 899,791 | | \$0 | | | | \$0 000 | 116 83% |
| | Total Energy Losses | | (129,606) | | | | | | | -16 83% |
| Percent Losses | | | -16 83% | | | | | | | |
| FUEL OIL (Included in the above generation) | Copper | N/A | 0 | 0 | \$0 | N/A | 0 000 | \$0 000 | \$0 000 | 0 00% |
| | Newman | N/A | 0 | 0 | 0 | N/A | 0 000 | \$0 000 | \$0 000 | 0 00% |
| | Rio Grande | N/A | 0 | 0 | 0 | N/A | 0 000 | \$0 000 | \$0 000 | 0 00% |
| | Prior Period Adjustments | N/A | 0 | 0 | 0 | N/A | 0 000 | \$0 000 | \$0 000 | 0 00% |
| | TOTAL FUEL OIL | N/A | 0 | 0 | \$0 | N/A | 0 000 | \$0 000 | \$0 000 | 0 00% |

EL PASO ELECTRIC COMPANY
FUEL PURCHASE REPORT
FOR THE MONTH OF September 2020

| Supplier | Fuel Type | Purchase Type | Expiration Date | PLANT NAME | (A) MMBTU | (A) Cost | \$/MMBTU |
|------------------------------|-----------|---------------|-----------------|------------|-----------|-------------|----------|
| BP Energy Company | NG | Spot | | Copper | 0 | 0 | \$0 000 |
| Conoco Phillips Co | NG | Spot | | Copper | 0 | 0 | \$0 000 |
| Eco-Energy | NG | Spot | | Copper | 0 | 0 | \$0 000 |
| Koch Energy Services | NG | Spot | | Copper | 0 | 0 | \$0 000 |
| Morgan Stanley | NG | Spot | | Copper | 0 | 0 | \$0 000 |
| Oneok | NG | Firm | | Copper | 0 | 0 | \$0 000 |
| Sequent Energy Manageme | NG | Firm | | Copper | 0 | 0 | \$0 000 |
| Sequent Energy Manageme | NG | Spot | | Copper | 0 | 0 | \$0 000 |
| Texas Gas Service | NG | Spot | | Copper | 0 | 112 | \$0 000 |
| Prior Period Adjustments | NG | N/A | | Copper | 0 | 0 | \$0 000 |
| Total Plant --> | | | | Copper | 0 | \$112 | \$0 000 |
| AEP Energy Services | NG | Spot | | Newman | 0 | 0 | \$0 000 |
| Apache Corporation | NG | Spot | | Newman | 34,734 | 55,629 | \$1 602 |
| Aquila Energy | NG | Spot | | Newman | 0 | 0 | \$0 000 |
| BNP Paribas Energy | NG | Spot | | Newman | 0 | 0 | \$0 000 |
| BNP Paribas Energy | NG | Firm | | Newman | 0 | 0 | \$0 000 |
| BP Energy Company | NG | Spot | | Newman | 334,585 | 469,103 | \$1 402 |
| BP Energy Company | NG | Firm | | Newman | 0 | 0 | \$0 000 |
| Burlington Res Trading | NG | Spot | | Newman | 0 | 0 | \$0 000 |
| Castleton Commodities | NG | Spot | | Newman | 1,665 | 2,027 | \$1 218 |
| Citigroup | NG | Spot | | Newman | 0 | 0 | \$0 000 |
| Coastal Gas Marketing | NG | Spot | | Newman | 0 | 0 | \$0 000 |
| Concord Energy LLC | NG | Spot | | Newman | 0 | 0 | \$0 000 |
| Conoco Phillips Co | NG | Spot | | Newman | 180,431 | 117,972 | \$0 654 |
| DB Energy | NG | Spot | | Newman | 0 | 0 | \$0 000 |
| Duke Energy Trading & Mar | NG | Firm | | Newman | 0 | 0 | \$0 000 |
| Duke Energy Trading & Mar | NG | Spot | | Newman | 0 | 0 | \$0 000 |
| Eco-Energy | NG | Spot | | Newman | 885,320 | 611,531 | \$0 691 |
| EDF Trading North Amenca | NG | Spot | | Newman | 0 | 0 | \$0 000 |
| Freepoint Commodities | NG | Spot | | Newman | 0 | 0 | \$0 000 |
| Koch Energy Services | NG | Spot | | Newman | 407,687 | 442,805 | \$1 086 |
| Merril Lynch | NG | Spot | | Newman | 0 | 0 | \$0 000 |
| Mieco Inc | NG | Spot | | Newman | 19,701 | 28,763 | \$1 460 |
| Morgan Stanley | NG | Firm | | Newman | 0 | 0 | \$0 000 |
| Morgan Stanley | NG | Spot | | Newman | 974,676 | 1,403,154 | \$1 440 |
| National Fuel Marketing | NG | Spot | | Newman | 0 | 0 | \$0 000 |
| National Fuel Marketing | NG | Firm | | Newman | 0 | 0 | \$0 000 |
| Noble Gas & Power | NG | Spot | | Newman | 0 | 0 | \$0 000 |
| Oneok | NG | Spot | | Newman | 0 | 0 | \$0 000 |
| Oneok | NG | Firm | | Newman | 0 | 0 | \$0 000 |
| Pacific Summit Energy LLC | NG | Spot | | Newman | 0 | 0 | \$0 000 |
| PanCanadian Energy Svc | NG | Firm | | Newman | 0 | 0 | \$0 000 |
| Sempra Energy Trading | NG | Spot | | Newman | 0 | 0 | \$0 000 |
| Sequent Energy Manageme | NG | Spot | | Newman | 0 | 0 | \$0 000 |
| Sequent Energy Manageme | NG | Firm | | Newman | 0 | 0 | \$0 000 |
| Shell North Amenca | NG | Spot | | Newman | 172,764 | 256,117 | \$1 482 |
| Tristar Gas Marketing Co | NG | Firm | | Newman | 0 | 0 | \$0 000 |
| TXU Portfolio Mgmt Co | NG | Spot | | Newman | 0 | 0 | \$0 000 |
| UBS | NG | Spot | | Newman | 0 | 0 | \$0 000 |
| United Energy Trading | NG | Spot | | Newman | 0 | 0 | \$0 000 |
| Wells Fargo | NG | Spot | | Newman | 0 | 0 | \$0 000 |
| Prior Period Adjustments | NG | N/A | | Newman | 0 | 0 | \$0 000 |
| Total Plant --> | | | | Newman | 3,011,562 | \$3,387,101 | \$1 125 |
| AEP Energy Services | NG | Spot | | Rio Grande | 0 | 0 | \$0 000 |
| Apache Corporation | NG | Spot | | Rio Grande | 0 | 0 | \$0 000 |
| Apache Corporation | NG | Firm | | Rio Grande | 0 | 0 | \$0 000 |
| Anzona Public Service Co | NG | Spot | | Rio Grande | 0 | 0 | \$0 000 |
| BNP Panbas Energy | NG | Spot | | Rio Grande | 0 | 0 | \$0 000 |
| BNP Panbas Energy | NG | Firm | | Rio Grande | 0 | 0 | \$0 000 |
| BP Energy Company | NG | Spot | | Rio Grande | 0 | 0 | \$0 000 |
| Burlington Res Trading | NG | Spot | | Rio Grande | 0 | 0 | \$0 000 |
| Castleton Commodities | NG | Spot | | Rio Grande | 0 | 0 | \$0 000 |
| Citigroup | NG | Spot | | Rio Grande | 0 | 0 | \$0 000 |
| Concord | NG | Spot | | Rio Grande | 0 | 0 | \$0 000 |
| Conoco Phillips Co | NG | Spot | | Rio Grande | 750,000 | 22,772 | \$0 030 |
| DB Energy | NG | Spot | | Rio Grande | 0 | 0 | \$0 000 |
| Duke Energy Trading & Mar | NG | Spot | | Rio Grande | 0 | 0 | \$0 000 |
| Duke Energy Trading & Mar | NG | Firm | | Rio Grande | 0 | 0 | \$0 000 |
| Eco-Energy | NG | Spot | | Rio Grande | 0 | 0 | \$0 000 |
| EDF Trading North Amenca | NG | Spot | | Rio Grande | 0 | 0 | \$0 000 |
| EnCana Energy Services | NG | Spot | | Rio Grande | 0 | 0 | \$0 000 |
| E-Prime, Inc | NG | Firm | | Rio Grande | 0 | 0 | \$0 000 |
| Freepoint Commodities | NG | Spot | | Rio Grande | 0 | 0 | \$0 000 |
| Industrial Energy Applicator | NG | Spot | | Rio Grande | 0 | 0 | \$0 000 |

EL PASO ELECTRIC COMPANY
FUEL PURCHASE REPORT
FOR THE MONTH OF September 2020

| Supplier | Fuel Type | Purchase Type | Expiration Date | PLANT NAME | (A) MMBTU | (A) Cost | \$/MMBTU |
|---|-----------|---------------|-----------------|------------|-----------|--------------|----------|
| K N Marketing, L P | NG | Firm | | Rio Grande | 0 | 0 | \$0 000 |
| Kimball Energy Corp | NG | Spot | | Rio Grande | 0 | 0 | \$0 000 |
| Koch Energy Services | NG | Spot | | Rio Grande | 0 | 0 | \$0 000 |
| Merril Lynch | NG | Spot | | Rio Grande | 0 | 0 | \$0 000 |
| Mieco Inc | NG | Spot | | Rio Grande | 0 | 0 | \$0 000 |
| Morgan Stanley | NG | Spot | | Rio Grande | 0 | 0 | \$0 000 |
| National Fuel Marketing | NG | Spot | | Rio Grande | 0 | 0 | \$0 000 |
| Noble Gas & Power | NG | Spot | | Rio Grande | 0 | 0 | \$0 000 |
| Oneok Energy Services | NG | Spot | | Rio Grande | 0 | 0 | \$0 000 |
| Oneok Energy Services | NG | Firm | | Rio Grande | 0 | 0 | \$0 000 |
| Pacific Summit Energy LLC | NG | Spot | | Rio Grande | 0 | 0 | \$0 000 |
| PNM Energy Marketing | NG | Firm | | Rio Grande | 0 | 0 | \$0 000 |
| Sempra Energy Trading | NG | Spot | | Rio Grande | 0 | 0 | \$0 000 |
| Sequent Energy Manageme | NG | Spot | | Rio Grande | 0 | 0 | \$0 000 |
| Shell North America | NG | Spot | | Rio Grande | 0 | 0 | \$0 000 |
| UBS | NG | Spot | | Rio Grande | 0 | 0 | \$0 000 |
| United Energy Trading | NG | Spot | | Rio Grande | 300,000 | 723,786 | \$2 413 |
| Wells Fargo | NG | Spot | | Rio Grande | 0 | 0 | \$0 000 |
| Prior Period Adjustments | NG | Spot | | Rio Grande | 0 | 0 | \$0 000 |
| Total Plant --> | | | | Rio Grande | 1,050,000 | \$746,558 | \$0 711 |
| Apache Corporation | NG | Spot | | Montana | 7,974 | 12,770 | \$1 602 |
| BP Energy Company | NG | Spot | | Montana | 76,807 | 107,687 | \$1 402 |
| Castleton Commodities | NG | Spot | | Montana | 382 | 465 | \$1 218 |
| Citigroup | NG | Spot | | Montana | 0 | 0 | \$0 000 |
| Concord Energy | NG | Spot | | Montana | 0 | 0 | \$0 000 |
| Conoco Phillips Co | NG | Spot | | Montana | 41,419 | 27,081 | \$0 654 |
| Eco-Energy | NG | Spot | | Montana | 308,758 | 316,608 | \$1 025 |
| EDF Trading North America | NG | Spot | | Montana | 0 | 0 | \$0 000 |
| Freeport Commodities | NG | Spot | | Montana | 0 | 0 | \$0 000 |
| Koch Energy Services | NG | Spot | | Montana | 93,588 | 101,650 | \$1 086 |
| Merril Lynch | NG | Spot | | Montana | 0 | 0 | \$0 000 |
| Mieco Inc | NG | Spot | | Montana | 4,522 | 6,603 | \$1 460 |
| Morgan Stanley | NG | Spot | | Montana | 223,745 | 322,106 | \$1 440 |
| Noble Gas & Power | NG | Spot | | Montana | 0 | 0 | \$0 000 |
| Pacific Summit Energy LLC | NG | Spot | | Montana | 0 | 0 | \$0 000 |
| Sequent Energy Manageme | NG | Spot | | Montana | 0 | 0 | \$0 000 |
| Shell North America | NG | Spot | | Montana | 39,659 | 58,794 | \$1 482 |
| United Energy Trading | NG | Spot | | Montana | 0 | 0 | \$0 000 |
| Wells Fargo | NG | Spot | | Montana | 0 | 0 | \$0 000 |
| Prior Period Adjustments | NG | Spot | | Montana | 0 | 0 | \$0 000 |
| Total Plant --> | | | | Montana | 796,855 | \$953,764 | \$1 197 |
| Sequent Energy Manageme | NG | Transport | | Copper | N/A | 0 | |
| Oneok | NG | Transport | | Copper | N/A | 0 | |
| Franchise Fees | NG | | | Copper | N/A | 0 | |
| Storage Fees | NG | | | Copper | N/A | 0 | |
| El Paso Natural Gas | NG | Transport | | Newman | N/A | 1,358,855 | |
| Sequent Energy Manageme | NG | Transport | | Newman | N/A | 0 | |
| Oneok | NG | Transport | | Newman | N/A | 253,898 | |
| Franchise Fees | NG | | | Newman | N/A | 25,894 | |
| Storage Fees | NG | | | Newman | N/A | 77,615 | |
| El Paso Natural Gas | NG | Transport | | Rio Grande | N/A | 523,123 | |
| Storage Fees | NG | | | Rio Grande | N/A | 24,753 | |
| El Paso Natural Gas | NG | Transport | | Montana | N/A | 311,937 | |
| Oneok | NG | Transport | | Montana | N/A | 153,946 | |
| Franchise Fees | NG | | | Montana | N/A | 15,700 | |
| Storage Fees | NG | | | Montana | N/A | 31,890 | |
| Prior Period Adjustments | NG | N/A | | Montana | N/A | 0 | |
| Total Transportation, Franchise Fees, and Storage Charges | | | | | N/A | \$2,777,611 | |
| TOTAL NATURAL GAS | | | | | 4,858,417 | \$ 7,865,145 | \$1 619 |

Notes

(A) Represents MMBTU and dollars from invoices for fuel delivered in the reporting month

EL PASO ELECTRIC COMPANY
MONTHLY PEAK DEMAND AND SALES REPORT
FOR THE MONTH OF September 2020

TOTAL SYSTEM DATA

| | | | | | | | | |
|------------------|-------------|-------------|------------|------------|-----------|------------|------------|-----------|
| SYSTEM PEAK (MW) | 1,864 | NATIVE PEAK | 1,870 | | | | MONTHLY | |
| | | | | ALL OTHER | | | SYSTEM | NET SALES |
| | RESIDENTIAL | COMMERCIAL | INDUSTRIAL | RETAIL | WHOLESALE | TOTALS | OFF-SYSTEM | |
| SALES (MWH) (1) | 403,657 | 246,408 | 93,250 | 150,119 | 5,401 | 898,835 | | 144,113 |
| REVENUES \$(2) | 48,725,239 | 26,929,956 | 5,201,408 | 13,158,019 | 343,537 | 94,358,159 | | 7,889,611 |
| No BILLS | 389,845 | 43,385 | 48 | 6,719 | 1 | 439,998 | | 26 |

TEXAS SYSTEM ONLY DATA

| SYSTEM PEAK (MW) | N / A | | | | | MONTHLY | NET SALES |
|------------------|-------------|------------|------------|------------|-----------|------------|------------|
| | RESIDENTIAL | COMMERCIAL | INDUSTRIAL | RETAIL | WHOLESALE | TOTALS | OFF-SYSTEM |
| SALES (MWH) (1) | 314,180 | 193,386 | 86,449 | 113,940 | 5,401 | 713,356 | N/A |
| REVENUES \$(2) | 39,500,314 | 21,845,963 | 4,680,460 | 10,356,575 | 343,537 | 76,726,849 | N/A |
| No BILLS | 299,396 | 32,676 | 39 | 5,181 | 1 | 337,293 | N/A |

NOTES (1) All Sales (Mwh) amounts shown exclude unbilled and prior period adjustment Mwh sales for the month
(2) All revenue amounts shown exclude unbilled, deferred fuel, surcharge and rider revenues, and prior period adjustment fuel revenues for the month

SOAH DOCKET NO. 473-21-2427
PUC DOCKET NO. 52081

| | | |
|----------------------------|---|---------------------------|
| APPLICATION OF EL PASO | § | PUBLIC UTILITY COMMISSION |
| ELECTRIC COMPANY TO ADJUST | § | |
| ITS ENERGY EFFICIENCY COST | § | OF TEXAS |
| RECOVERY FACTOR AND | § | |
| ESTABLISH REVISED COST CAP | § | |

EL PASO ELECTRIC COMPANY'S RESPONSE TO
CITY OF EL PASO'S FIRST REQUEST FOR INFORMATION
QUESTION NOS. CEP 1-1 THROUGH CEP 1-16

CEP 1-4:

Refer to the Direct Testimony of Crystal Enoch at 9. Please indicate how much of the \$300,000 budget for the FutureWise® Pilot MTP is directed at non-energy items for students, such as essential life skills and career development components. Also explain how this amount was determined.

RESPONSE:

The estimated \$300,000 budget is to cover the energy efficient products included in the kit along with program administrative costs. EPE directed \$0 of the \$300,000 budget for non-energy benefits of the FutureWise® kits.

Preparer: Crystal A. Enoch

Title: Principal Energy Efficiency Program Analyst

Sponsor: Crystal A. Enoch

Title: Principal Energy Efficiency Program Analyst

ATTACHMENT D

DECLARATION OF MR. NORMAN J. GORDON

REGARDING RATE CASE EXPENSES

SOAH NO. 473-21-2427
PUC DOCKET NO. 52081

| | | |
|-------------------------------------|----------|--------------------------------|
| APPLICATION OF EL PASO | § | BEFORE THE STATE OFFICE |
| ELECTRIC COMPANY TO | § | |
| REVISE ITS ENERGY EFFICENCY | § | OF |
| COST RECOVERY FACTOR AND | § | |
| ESTABLISH A REVISED COST CAP | § | ADMINISTRATIVE HEARINGS |

DECLARATION OF NORMAN J. GORDON

THE STATE OF OHIO)
)
COUNTY OF CUYAHOGA)

BEFORE ME, the undersigned authority, on this day personally appeared NORMAN J. GORDON, known to me to be the person whose name is subscribed hereto, and being by me duly sworn, upon his oath, stated as follows:

1. My name is Norman J. Gordon. My business address is PO Box 8, El Paso, Texas, 79940. I am over eighteen years of age and I am not disqualified from making this Declaration. I declare under penalty of perjury that the information in this declaration provided under Chapter 132 Texas Civil Practice and Remedies Code is true and correct.

2. I am an attorney licensed in the States of Texas and Illinois, and numerous federal courts. I received my undergraduate degree and law degree from University of Illinois at Urbana-Champaign. I have been in private practice of law in El Paso since completing my military obligation with the Judge Advocate General's Corps of the United States Army in 1974. I am board certified in Civil Trial Law by the Texas Board of Legal Specialization and have been so certified since 1983. One of the areas of my practice is in the area of utility regulation. Since 1978, I have been lead counsel for parties in many major rate cases, rule making proceedings, and other administrative dockets before City Councils, the Railroad Commission of Texas, the Public Utility Commission of Texas, State District Courts, United States Bankruptcy Court, and Texas Appellate Courts, including the Supreme Court of Texas. I have filed testimony on rate case expense issues in cases before Railroad Commission of Texas. I have filed testimony and testified as an expert witness on rate case expenses in cases before the Public Utility Commission of Texas. I have also taught principles of regulation to members of the Public Utility Regulation Board of the City of El Paso, an advisory board on utility matters.

3. I became a sole practitioner in February 2019. Prior to February 2019, I was a shareholder in the El Paso firm of Mounce, Green Myers, Safi, Paxson & Galatzan, A

Professional Corporation, from October 2003 until February 2019. Prior to that time my private practice was with the El Paso law firm of Diamond Rash Gordon & Jackson, P.C., for 29 years where I was a shareholder.

4. The City of El Paso ("City") engaged me to act as outside counsel for it in EPEC's prior EECRF case, PUC Docket 50806 SOAH No. 473-20-3633

5. In connection with the case, I billed a total of \$6,965.00 in fees. There were no expenses. The description of services is provided in the attached invoices, by day, attorney and services performed. The invoice and support are attached to this Affidavit as Attachment "A" and incorporated herein. There were no charges for first class travel or hotel expense. There is no markup on the expenses.

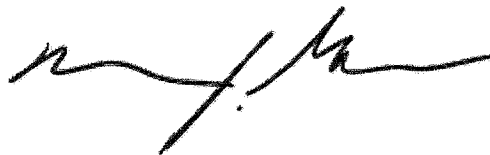
7. The total of fees and expenses is \$6,965.00.

8. I am familiar with the hourly rates charged by others in Texas with similar or less experience for similar work, through the cases in which I have acted as counsel and through the cases in which I have filed testimony. The hourly rates charged by me of \$350.00 was reasonable.

9. All of the work done by me was necessary and reasonable with respect to both time and amount considering the nature, extent, and difficulty of the work, the originality of the issues presented including the nature of the issues raised and addressed by the City in this proceeding, and the amount of time spent by and charges by others for work of a similar nature in this and other proceedings. The expenses incurred were all reasonable and necessary for the presentation and prosecution of the City's case.

Further Declarant Says Not.

Dated July 15, 2021

A handwritten signature in black ink, appearing to read 'N. J. Gordon', with a horizontal line underneath.

Norman J. Gordon

ATTACHMENT A TO DECLARATION OF NORMAN J. GORDON

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| | | |
|----------------------------|---|---------------------------|
| APPLICATION OF EL PASO | § | PUBLIC UTILITY COMMISSION |
| ELECTRIC COMPANY TO ADJUST | § | |
| ITS ENERGY EFFICIENCY COST | § | OF TEXAS |
| RECOVERY FACTOR AND | § | |
| ESTABLISH REVISED COST CAP | § | |

EL PASO ELECTRIC COMPANY'S RESPONSE TO
CITY OF EL PASO'S SECOND REQUEST FOR INFORMATION
QUESTION NOS. CEP 2-1 THROUGH CEP 2-10

CEP 2-1:

Refer to the Rebuttal testimony of Crystal A. Enoch at Page 3-4, Please identify whether the kit container, or the items in the kit bear the name of and/or a logo of El Paso Electric Company.

RESPONSE:

The El Paso Electric Company name and logo are on the kit container. Some kit items may include the El Paso Electric Company name and/or logo.

Preparer: Desmond Machuca

Title: Senior Energy Efficiency Analyst

Sponsor: Crystal A. Enoch

Title: Principal Energy Efficiency Program Analyst

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PUC DOCKET NO. 52081

| | | |
|----------------------------|---|---------------------------|
| APPLICATION OF EL PASO | § | PUBLIC UTILITY COMMISSION |
| ELECTRIC COMPANY TO ADJUST | § | |
| ITS ENERGY EFFICIENCY COST | § | OF TEXAS |
| RECOVERY FACTOR AND | § | |
| ESTABLISH REVISED COST CAP | § | |

EL PASO ELECTRIC COMPANY'S RESPONSE TO
CITY OF EL PASO'S SECOND REQUEST FOR INFORMATION
QUESTION NOS. CEP 2-1 THROUGH CEP 2-10

CEP 2-3:

Refer to the Rebuttal testimony of Crystal A. Enoch at page 3-4, Please provide a list of the contents of the kit other than the advanced power strip, the WiFi connected KED Light Bulb and A-19 light bulb.

RESPONSE:

Other than the advanced power strip, the WiFi connected KED Light Bulb and the A-19 light bulb, the kit contains the installation instructions, a student's interactive notebook, a teacher book, a parent pledge form, and a teacher evaluation form.

Preparer: Desmond Machuca

Title: Senior Energy Efficiency Analyst

Sponsor: Crystal A. Enoch

Title: Principal Energy Efficiency Program Analyst

SOAH DOCKET NO. 473-21-2427
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| | | |
|----------------------------|---|---------------------------|
| APPLICATION OF EL PASO | § | PUBLIC UTILITY COMMISSION |
| ELECTRIC COMPANY TO ADJUST | § | |
| ITS ENERGY EFFICIENCY COST | § | OF TEXAS |
| RECOVERY FACTOR AND | § | |
| ESTABLISH REVISED COST CAP | § | |

EL PASO ELECTRIC COMPANY'S RESPONSE TO
CITY OF EL PASO'S SECOND REQUEST FOR INFORMATION
QUESTION NOS. CEP 2-1 THROUGH CEP 2-10

CEP 2-8:

Refer to the Rebuttal testimony of Crystal A. Enoch at page 4. Please identify each year in which the bonus was reduced due to EPE using the ERCOT avoided cost?

RESPONSE:

The referenced statement in the question (rebuttal testimony of witness Enoch at page 4, lines 28 to 30), "the increase in the posted avoided costs will increase the bonus for all of the Texas utilities this year for the same level of performance, just as a lower avoided cost in the past has reduced the bonus for the same level of performance," is an observation of the affects the avoided cost has on the size of a utility's performance bonus. As the ERCOT avoided cost fluctuates, the amount of the incentive bonus fluctuates. The statement in the testimony was made in response to Mr. Nalepa's statement that the use of the posted 2020 ERCOT avoided cost of energy would lead to a financial windfall with no increase in performance. The results are not properly characterized as either a windfall or a shortfall if the result is either an increased or decreased bonus.

EPE's bonus, for the same level of performance it achieved in 2020, would have been less using ERCOT avoided costs for each of the performance years 2014 to 2019 (the years for which the Staff has posted the avoided cost of energy). Similarly, for example, for performance year 2016, the posted avoided cost for energy was \$0.05088/kWh, while for 2017, the posted avoided cost of energy went down to \$0.03989/kWh. So, if EPE had the same level of performance, meaning the same amount of kWh in excess of the goal, in 2016 and 2017, EPE would have received a reduced bonus for 2017 from what it would have received for 2016 because of the reduced avoided cost of energy for ERCOT.

EPE has not calculated for any year what its bonus would have been had it sought an exception to use an avoided cost of energy other than the commission filed ERCOT avoided costs.

Preparer: Crystal A. Enoch

Title: Principal Energy Efficiency Program Analyst

Sponsor: Crystal A. Enoch

Title: Principal Energy Efficiency Program Analyst 9

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|----------------------------|---|---------------------------|
| APPLICATION OF EL PASO | § | PUBLIC UTILITY COMMISSION |
| ELECTRIC COMPANY TO ADJUST | § | |
| ITS ENERGY EFFICIENCY COST | § | OF TEXAS |
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EL PASO ELECTRIC COMPANY'S RESPONSE TO
CITY OF EL PASO'S SECOND REQUEST FOR INFORMATION
QUESTION NOS. CEP 2-1 THROUGH CEP 2-10

CEP 2-9:

Refer to the Rebuttal testimony of Crystal A. Enoch at page 4-4 Please provide the basis including the calculations for the statement that EPE is not receiving a more generous bonus than other Texas Utilities for its level of performance.

RESPONSE:

A calculation was not performed, nor necessary, for purposes of the cited statement. It is simply an observation that under the Commission's Energy Efficiency Rule, 16 Tex. Admin. Code §25.182(e), the performance bonus is calculated using a specific formula, and EPE used the same avoided cost for determining benefits as every other utility subject to that rule.

Preparer: Crystal A. Enoch

Title: Principal Energy Efficiency Program Analyst

Sponsor: Crystal A. Enoch

Title: Principal Energy Efficiency Program Analyst

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|----------------------------|---|---------------------------|
| APPLICATION OF EL PASO | § | PUBLIC UTILITY COMMISSION |
| ELECTRIC COMPANY TO ADJUST | § | |
| ITS ENERGY EFFICIENCY COST | § | OF TEXAS |
| RECOVERY FACTOR AND | § | |
| ESTABLISH REVISED COST CAP | § | |

EL PASO ELECTRIC COMPANY'S RESPONSE TO
CITY OF EL PASO'S SECOND REQUEST FOR INFORMATION
QUESTION NOS. CEP 2-1 THROUGH CEP 2-10

CEP 2-10:

Refer to the Rebuttal testimony of Crystal A. Enoch at page 5-6, Please identify the mechanism by which any party can challenge EPE's decision to utilize the ERCOT avoided cost.

RESPONSE:

El Paso Electric Company's ("EPE") is unaware of a mechanism by which any party can challenge EPE's decision to utilize the ERCOT avoided cost. EPE is authorized to use the ERCOT-calculated avoided cost of energy under 16 TAC § 25.181(d)(3)(A). A party can challenge the Staff's posted avoided cost of energy calculated by ERCOT as permitted by 16 TAC § 25.181(d)(3)(A).

Preparer: Crystal A. Enoch

Title: Principal Energy Efficiency Program Analyst

Sponsor: Crystal A. Enoch

Title: Principal Energy Efficiency Program Analyst