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APPLICATION OF EL PASO	**§**	**BEFORE THE**
ELECTRIC COMPANY TO	**§**	**STATE OFFICE OF**
CHANGE RATES	**§**	**ADMINISTRATIVE HEARINGS**

DIRECT TESTIMONY OF

SCOTT NORWOOD

ON BEHALF OF

THE CITY OF EL PASO

OCTOBER 22, 2021

DIRECT TESTIMONY OF SCOTT NORWOOD

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EXHIBITS

I. INTRODUCTION

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

A. My name is Scott Norwood. I am President of Norwood Energy Consulting, L.L.C. My business address is 4700 N. Capital of Texas Highway, Austin, Texas 78746.

Q. WHAT IS YOUR OCCUPATION?

A. I am an energy consultant specializing in the areas of electric utility regulation, resource planning and energy procurement.

Q. PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND PROFESSIONAL EXPERIENCE.

A. I have over 39 years of experience in the electric utility industry. After graduating from the University of Texas in 1980 with a Bachelor of Science degree in electrical engineering, I began my career as a power plant engineer for the City of Austin's Electric Utility Department where I was responsible for electrical maintenance and design projects for the City's three gas-fired power plants. In January 1984, I joined the staff of the Public Utility Commission of Texas ("PUCT" or "Commission") as Manager of Power Plant Engineering. In that capacity, I was responsible for addressing resource planning, fuel and purchased power cost issues presented in regulatory filings before the Texas Commission. In 1986, I joined GDS Associates, Inc., a Marietta, Georgia-based

consulting firm that specializes in electric utility regulatory consulting and resource planning. I was elected a Principal of GDS in 1990 and directed the firm's Deregulation Services Department until January 2004, when I left GDS to form Norwood Energy Consulting, LLC. The focus of my current consulting practice is electric utility regulatory consulting. Exhibit SN-1 provides a more detailed summary of my background and experience.

Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS CASE?

A. I am testifying on behalf of the City of El Paso ("City").

Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE PUCT?

A. Yes. I have testified in numerous past regulatory proceedings before the Commission during my 31 years as a regulatory consultant and as a former member of the Commission's Staff. I have participated in a numerous El Paso Electric Company ("EPE" or "Company") base rate and fuel reconciliation cases, including PUCT Docket Nos. 30143, 34695, 37690, 38361, 40094, 41852, 46831, and 50058. I also have testified in over 200 regulatory proceedings involving base rate, fuel, and power plant certification matters before state regulatory commissions in 15 states, including Arkansas, Florida, Georgia, Illinois, Iowa, Michigan, Missouri, New Jersey, Louisiana, Ohio, Oklahoma, Texas, Virginia, Washington, and Wisconsin.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to address the unreasonableness of EPE's requests to recover extraordinary and unjustified Production and Transmission O&M expenses, and unjustified Distribution Reliability projects and acquisition of certain combustion turbine spare parts.

Q. HAVE YOU PREPARED ANY EXHIBITS TO SUPPORT YOUR TESTIMONY?

A. Yes. I have prepared 10 exhibits, which are attached to my testimony.

II. SUMMARY OF TESTIMONY

Q. PLEASE SUMMARIZE YOUR TESTIMONY AND RECOMMENDATIONS.

A. My primary conclusions and recommendations are as follows:

1) I recommend that EPE's Test Year O&M request be reduced by $6,039,273 (Total Company) to remove the extraordinary and unjustified increases in maintenance expenses included in accounts 512 and 513 at the Newman Station, and in account 553 at the Montana and Copper Stations.
2) I recommend that EPE's request for Test Year Transmission O&M expense be reduced by $2,389,050 (Total Company) to remove the extraordinary and unjustified increase in account 566, Miscellaneous Transmission Expenses.

3) I recommend that EPE's $7.6 million (Total Company) investment for a spare LMS100 power turbine and booster be disallowed from rate base due to EPE's failure to provide justification for these investments.

4) I recommend that the $19.8 million (Texas Retail) total budget over-run for six distribution system reliability projects be disallowed from EPE's Texas jurisdiction rate base because the Company has not provided cost/benefit analyses, estimated reliability benefits, load growth information, project cost variance reports, or other information necessary to justify the projects.

5) I recommend that EPE be required to implement more precise monitoring and documentation of curtailments of PVNGS energy deliveries to EPE's retail service area due to transmission constraints, and that the Company be required to present such information in direct testimony in its next fuel reconciliation proceeding.

III. PRODUCTION O&M EXPENSE

Q. WHAT AMOUNT HAS EPE REQUESTED FOR PRODUCTION O&M EXPENSE EXCLUDING THE PALO VERDE NUCLEAR GENERATING STATION?

A. As summarized in Table 1 below, EPE has requested approximately $55.5 million for production O&M expense for generating units excluding PVNGS.[1] The level of adjusted test year production O&M expense requested by EPE is $7.9 million (16.7%) higher than

[1] Source is EPE's response to CEP 1-11.

the Company's average O&M expenditures for the four years (2016-2019)[2] preceding the Test Year (2020). As shown below, the largest increases in EPE's requested non-nuclear Production O&M expense occurred at the Newman, Montana, and Copper Generating Stations.

Table 1
EPE's Test Year vs. Historical Average Gas Plant Production O&M Expense[3]

Generating Station	2016-2019 Avg O&M	TY Adjusted O&M	TY O&M Increase	TY Increase
Newman	$29,127,246	$33,076,042	$3,948,796	13.6%
Rio Grande (Steam)	$12,008,527	$12,384,703	$376,176	3.1%
Montana	$5,830,335	$8,698,615	$2,868,280	49.2%
Copper	$472,615	$971,816	$499,201	105.6%
Hueco Wind and Solar	$131,375	$378,642	$247,267	188.2%
	$47,570,097	$55,509,818	$7,939,721	16.7%

Q. WHICH NEWMAN STATION O&M ACCOUNTS HAD THE MOST SIGNIFICANT INCREASES DURING THE TEST YEAR?

A. As shown in Table 2 below, the increase in Newman Station O&M expense primarily occurred in FERC O&M accounts 505 (Electric Operating Expenses), 512 (Maintenance of Boiler Plant) and 513 (Maintenance of Electric Plant).

[2] Note that I used the 2017-2019 average O&M level for evaluating the Test Year O&M increase at the Montana Station because 2017 was the first full year that all four Montana Station units were in service.
[3] Source is EPE's response to CEP 1-11.

Table 2
Newman Station's Major Test Year O&M Increases by Account[4]

FERC Acct.	Description	2016-19 Avg	Test Year Req.	Test Year Increase	Percent Increase
505000	Electric Operating Expenses	$3,415,907	$4,619,548	$1,203,641	35.2%
512000	Maintenance of Boiler Plant	$5,487,916	$6,484,831	$996,915	18.2%
513000	Maintenance of Electric Plant	$10,695,360	$12,695,960	$2,000,600	18.7%
			Total:	$4,201,156	

Q. WHAT EXPLANATION HAS EPE PROVIDED FOR THE SIGNIFICANT TEST YEAR INCREASES IN NEWMAN STATION O&M IN FERC ACCOUNTS 505, 512 AND 513?

A. EPE indicates that the $1.2 million (35.2%) increase in Newman Station O&M account 505 is related to increased water usage and charges for water which are expected to continue in the future, and this explanation seems plausible.[5] However, EPE's discovery responses and testimony claim that the increases in Newman Station O&M accounts 512 and 513 are primarily due to increased maintenance and outage expenses, and are expected to continue at or above the Test Year level due to plant aging factors.[6]

Q. IS EPE WITNESS OLSON'S CLAIM THAT FUTURE NEWMAN STATION MAINTENANCE EXPENSES WILL BE AT OR ABOVE THE EXTRAORDINARY LEVEL EXPERIENCED IN TEST YEAR BECAUSE OF THE EFFECTS OF PLANT AGING REASONABLE?

[4] Source is EPE's response to CEP 1-11.
[5] See Exhibit SN-2, EPE's response to CEP 13-13.
[6] See Exhibit SN-2 and the Direct Testimony of Kyle Olson, page 25, lines 28-30, and page 26, lines 1-19.

A. No. The impacts of aging on power plant O&M costs do not happen suddenly, from one year to the next, and often may be offset by the reduced utilization of plants which normally occurs as they age and become less efficient to operate.

Q. IS EPE'S EXPLANATION FOR THE EXTRAORDINARY 49.2% INCREASE IN TEST YEAR MAINTENANCE EXPENSES AT THE MONTANA AND COPPER GENERATING STATIONS SIMILAR TO MR. OLSON'S EXPLANATION FOR THE INCREASED MAINTENANCE EXPENSES AT THE NEWMAN STATION?

A. Yes. EPE witness Olson indicates that the $2.9 million (49.2%) increase in Test Year O&M expense at the Montana Station O&M was primarily due to plant aging impacts.[7] As summarized in Table 3 below, most of the Test Year increase in Montana Station O&M expense occurred in FERC account 553, Maintenance of Generating & Electric Plant, which was $2.5 million (100.8%) higher than average expenses over the 2017-2019 period.[8]

Table 3
Montana Station's Major Test Year O&M Increases by Account[9]

FERC Acct.	Description	2017-19 Avg	Test Year Req.	Test Year Increase	Percent Increase
553000	Maintenance of Generating & Electric Plant	$2,525,303	$5,071,722	$2,546,419	100.8%

[7] See Exhibit SN-3, EPE's response to CEP 13-16 and Direct Testimony of Kyle Olson, pp. 25-26.
[8] As stated earlier in my testimony, I used the 2017-2019 average O&M level for evaluating the Test Year O&M increase at the Montana Station because 2017 was the first full year that all four Montana Station units were in service.
[9] Source is EPE's response to CEP 1-11.

While plant aging can contribute to higher O&M expenses in certain instances, plant aging is not a reasonable explanation for the extraordinary 100.8% increase in Test Year maintenance expenses in account 553 at the Montana Station, because all four of the Montana Station generating units were placed in commercial operations in 2015 and 2016, and therefore are relatively new units.

Q. IS PLANT AGING A REASONABLE EXPLANATION FOR THE EXTRAORDINARY 105.6% INCREASE IN TEST YEAR O&M EXPENSE AT EPE'S COPPER STATION?

A. No. As summarized in Table 4 below, most of the extraordinary 105.6% increase in Test Year O&M expense at the Copper Station occurred in FERC account 553, Maintenance of Generating & Electric Plant, which incurred a $495,340 (140.7%) increase in the Test Year.

Table 4
Copper Station's Major Test Year O&M Increases by Account[10]

FERC Acct.	Description	2016-19 Avg	Test Year Req.	Test Year Increase	Percent Increase
553000	Maintenance of Generating & Electric Plant	$351,937	$847,276	$495,340	140.7%

[10] Source is EPE's response to CEP 1-11.

Again, while Mr. Olson also attributes the Copper Station test year maintenance expense increase primarily to increased maintenance due to plant aging impacts,[11] plant aging effects do not normally occur suddenly and do not impact primarily a single account, as occurred in account 553 at the Copper Station during the Test Year. Moreover, the Copper plant has been in service for 41 years and is not one of EPE's oldest gas-fired power generating facilities. For example, Rio Grande Units 7 and 8 are both significantly older than the Copper plant; however, as shown in my Table 1 above, the Rio Grande Station has not experienced any significant increase in O&M expenses over the last five years. This fact further undermines EPE's explanation that the extraordinary 105.6% increase in Test Year O&M expense at the Copper Station was due primarily to plant aging effects and therefore likely to continue in the future.

Q. ARE THERE OTHER FACTORS THAT MIGHT MORE REASONABLY EXPLAIN THE EXTRAORDINARY TEST YEAR INCREASE IN MAINTENANCE EXPENSES AT THE NEWMAN, MONTANA, AND COPPER STATIONS?

A. Yes. A more likely explanation for the extraordinary sudden increases in Test Year maintenance expenses at the Newman, Montana and Copper Stations is simply that there were an abnormally high number of outage hours during the Test Year at these plants. Most generating units experience some year-to-year variation in O&M due to the cyclical nature of major planned outages, along with periodic lengthy forced outages. In some cases, these variations due to outage time can have a significant impact on O&M

[11] See Exhibit SN-4, EPE's response to CEP 13-14 and Direct Testimony of Kyle Olson, pp. 25-26.

expenses, particularly when long planned outages occur during the same year that long forced outages are experienced. For example, as shown in Table 5 below, the total planned and forced outage during the Test Year for the Newman, Montana and Copper Stations were 19%, 29% and 452% higher, respectively, than the average annual outage hours for these plants over the previous four years.[12] This appears to be due to a combination of lengthy planned and forced outages at each plant during the Test Year.

Table 5
Newman, Montana, and Copper Station Test Year Outage Hours

	2016-2019 Avg	2020 TY	2020 TY Increase
Newman			
Forced Outage Hours	6,306	5,016	-20%
Planned Outage Hours	10,714	15,197	42%
Total Outage Hours	17,020	20,212	19%
Montana			
Forced Outage Hours	745	518	-31%
Planned Outage Hours	3,278	4,656	42%
Total Outage Hours	4,023	5,174	29%
Copper			
Forced Outage Hours	182	3,567	1858%
Planned Outage Hours	522	320	-39%
Total Outage Hours	705	3,887	452%

Q. WOULD IT BE REASONABLE FOR EPE TO INCLUDE THE ABNORMALLY HIGH TEST YEAR MAINTENANCE EXPENSES INCURRED AT THE NEWMAN, MONTANA, AND COPPER STATIONS IN ITS NEW BASE RATES?

[12] Again, I used the 2017-2019 period for calculating the historical average annual outage hours for the Montana Station because 2017 was the first full year that all four Montana Station units were in service.

A. No. A longstanding basic tenant of ratemaking is that rates should be set at a normal and recurring level of expense. EPE's proposal to set new rates based on the extraordinarily high and non-recurring Test Year maintenance expenses incurred at the Newman, Montana, and Copper Stations, would almost certainly lead to unreasonably inflated and unjustified charges to Texas customers.

Q. WHAT IS YOUR RECOMMENDATION ON THIS ISSUE?

A. I recommend that EPE's Test Year O&M request be reduced by $6,039,273 (Total Company) to remove the extraordinary increases in maintenance expenses included in accounts 512 and 513 at the Newman Station, and in account 553 at the Montana and Copper Stations.

IV. TRANSMISSION O&M EXPENSE

Q. WHAT AMOUNT HAS EPE REQUESTED FOR TRANSMISSION O&M EXPENSE?

A. As summarized in Table 6 below, EPE has requested that approximately $17.1 million (Total Company) for transmission O&M expense be reflected in setting the Company's new base rates.[13] The level of adjusted test year production O&M expense requested by EPE is $2.1 million (14.4%) higher than the Company's average O&M expenditures for the four years (2016-2019) preceding the Test Year (2020).

[13] Source is EPE's response to CEP 1-14. The O&M amount cited excludes Transmission O&M account 565, wheeling expenses.

Table 6
EPE's Test Year vs Historical Average Transmission O&M Expense[14]

Description	2016-19 AVG	Test Year Adjusted	TY vs Avg	TY vs Avg
Operations Excluding Wheeling (Acct 565)	$12,574,940	$15,170,298	$2,595,358	20.6%
Maintenance	$2,339,220	$1,892,982	-$446,238	-19.1%
Total O&M Excluding Wheeling	$14,914,160	$17,063,280	$2,149,120	14.4%

Q. WHICH TRANSMISSION O&M ACCOUNTS HAD THE MOST SIGNIFICANT INCREASE DURING THE TEST YEAR?

A. As shown in Table 7 below, most of the increase in EPE's Test Year Transmission O&M expenses occurred in account 566 (Miscellaneous Transmission Expenses).

Table 7
Major Test Year Transmission O&M Increases by Account[15]

FERC Acct.	Description	2016-19 AVG	Test Year Adjusted	TY vs Avg	TY vs Avg
566000	Miscellaneous Transmission Expenses	$6,660,057	$9,049,107	$2,389,050	35.9%

Q. WHAT TYPES OF EXPENSES ARE RECORDED IN FERC O&M ACCOUNT 566, MISCELLANEOUS TRANSMISSION EXPENSES?

A. FERC O&M account 566 includes the costs of labor and materials incurred for transmission map and record work, transmission office expenses, and other transmission expenses not provided for elsewhere. [16]

[14] Source is EPE's response to CEP 1-14.
[15] Source is EPE's response to CEP 1-14.

Q. WHAT EXPLANATION HAS EPE PROVIDED FOR THE SIGNIFICANT TEST YEAR INCREASE IN MISCELLANEOUS TRANSMISSION EXPENSES?

A. EPE indicates that the primary cause of the $2.39 million (35.9%) increase in the Company's Test Year Transmission O&M expense in account 566 is "an increase in payroll costs". [17]

Q. DOES EPE'S DIRECT TESTIMONY EXPLAIN THE INCREASE IN TEST YEAR PAYROLL COSTS THAT WERE INCLUDED IN TRANSMISSION O&M ACCOUNT 566?

A. No. EPE witness Clay Doyle, who is the Company's Vice President of Transmission & Distribution, addresses EPE's test year Transmission O&M expenses on pages 50-52 of his direct testimony, but does not mention the overall 14.4% increase in Test Year Transmission O&M expenses, or the increase in payroll costs that EPE states is the primary cause of the extraordinary 35.9% increase in Test Year Transmission O&M expense in account 566.

Q. WOULD IT BE REASONABLE TO ALLOW EPE TO INCLUDE THE EXTRAORDINARY TEST YEAR INCREASE IN TRANSMISSION O&M ACCOUNT 566 IN SETTING THE COMPANY'S NEW BASE RATES?

A. No. As explained earlier in my testimony, extraordinary and non-recurring expenses should not be included in setting base rates. EPE's proposal to include the

[16] See Exhibit SN-5 for a listing of labor and non-labor costs that are includable in FERC account 566.
[17] See Exhibit SN-6, EPE's response to CEP 13-23.

extraordinarily high and non-recurring Test Year transmission O&M expense incurred in account 566 is unreasonable and unjustified.

Q. WHAT IS YOUR RECOMMENDATION ON THIS ISSUE?

A. I recommend that EPE's request for Test Year Transmission O&M expense be reduced by $2,389,050 (Total Company) to remove the extraordinary and unjustified increase in account 566, Miscellaneous Transmission Expenses.

V. GAS TURBINE SPARE PARTS

Q. WHAT IS THE ISSUE RELATED TO SPARE PARTS FOR EPE'S GAS TURBINE GENERATING UNITS?

A. EPE acquired a spare LMS 1000 gas turbine and booster at a cost of approximately $7.6 million for use in the event of future turbine failures at the Company's four Montana General Electric LMS100 gas turbines and for Rio Grande Unit 9, which is also an LMS100 unit. [18] The Company indicates that the acquisition of these spare components are justified by the likely long lead times to obtain replacement parts, which could result in lengthy forced outages in the event of a turbine or booster failure at any of EPE's five LMS100 units. [19] Since this investment is not providing service, and the date, if any, that

[18] See Direct Testimony of Kyle Olson, p. 12. The power turbine is a stacked assembly of five stages of disks, blades, and nozzles, connected to the generator and driven by the exhaust from the supercore. The booster, or low-pressure compressor, is an axial flow compressor, which is the first of two compressors on each LMS100 unit.

[19] See Direct Testimony of Kyle Olson, p. 12, lines 12-21.

it would provide service is unknown, one could also argue that it does not meet the used and useful test of the Public Utility Regulatory Act.[20]

Q. HAS EPE EVER EXPERIENCED TURBINE OR BOOSTER FAILURES ON ANY OF ITS FIVE LMS 1000 GAS TURBINE UNITS IN THE PAST?

A. No.[21]

Q. DOES EPE HAVE ANY COST/BENEFIT ANALYSIS THAT SUPPORTS ITS $7.6 MILLION INVESTMENT FOR THE LMS100 TURBINE AND BOOSTER SPARES?

A. No. EPE has provided very limited summary information describing the purpose of the spares and has not provide any cost/benefit analysis to support these investments.[22]

Q. WHAT IS YOUR RECOMMENDATION REGARDING THIS ISSUE?

A. I recommend that EPE's $7.6 million (Total Company) investment for a spare LMS100 power turbine and booster be disallowed from rate base due to EPE's failure to provide justification for the cost of these spare combustion turbine components.

[20] Public Utility Regulatory Act, TEX. UTIL. CODE §36.051 ESTABLISHING OVERALL REVENUES. In establishing an electric utility's rates, the regulatory authority shall establish the utility's overall revenues at an amount that will permit the utility a reasonable opportunity to earn a reasonable return on the utility's invested capital used and useful in providing service to the public in excess of the utility's reasonable and necessary operating expenses.

[21] See Exhibit SN-7, EPE's responses to CEP 5-36 and CEP 5-37.

[22] See Exhibit SN-8, EPE's responses to CEP 1-13.

VI. TEXAS AREA DISTRIBUTION RELIABILITY PROJECTS

Q. WHAT IS THE ISSUE REGARDING EPE'S CAPITAL INVESTMENTS FOR PROJECTS TO IMPROVE DISTRIBUTION SYSTEM RELIABILITY IN THE COMPANY'S TEXAS SERVICE AREA?

A. As summarized in Table 8 below, EPE is requesting approval and inclusion in rate base of approximately $33.2 million for six distribution capital projects, which the Company claims are needed to improve reliability in the Company's Texas service area.[23] Each of these six projects were placed in service since the Test Year end of EPE's last base rate (PUC Docket No. 46831) and are included in the Company's Distribution Cost Recovery Factor ("DCRF") charges. Under the Commission's DCRF Rule, the determination of prudence of costs of these six projects is explicitly deferred until the utility's next base rate case, which for EPE is the current proceeding.

Table 8
EPE Texas Area Distribution Reliability Projects

Project	Cost Requested
DT359 - NUWAY	$14,431,157
DT186 - LEO Sub	$6,899,678
DT382 - Ripley T2 XFMR	$3,397,392
DT379 - Pendale T2 XFMR	$3,351,288
DT291 - Global Reach T2	$3,009,279
DT184 - Rio Bosque Capacitor Bank	$2,139,566
	$33,228,360

[23] See Exhibit SN-9, EPE's response to CEP 8-3.

Q. WHAT ARE YOUR PRIMARY CONCERNS REGARDING THE SIX DISTRIBUTION PROJECTS LISTED IN TABLE 8 ABOVE?

A. My primary concerns are that other than general descriptions of the projects, the Company has provided virtually no specific information to support the prudence of the projects. In addition, I am concerned that EPE has provided very little specific information to justify why the final cost of each of the projects was far higher than the original budgets for the projects.

Q. WHAT WAS THE TOTAL BUDGET OVERAGE FOR THE SIX PROJECTS?

A. As summarized in Table 9 below, the $33.2 million final cost of the six projects includes a total budget overage of $19.8 million, which represents an average overage of 148%.

Table 9
EPE Texas Area Distribution Reliability Project Budget Overages[24]

Projects	Cost Requested	Budget Overage	Overage %
DT359 - NUWAY	$14,431,157	$10,331,928	252%
DT186 - LEO Sub	$6,899,678	$3,214,808	87%
DT382 - Ripley T2 XFMR	$3,397,392	$1,216,948	56%
DT379 - Pendale T2 XFMR	$3,351,288	$1,731,086	107%
DT291 - Global Reach T2	$3,009,279	$1,465,267	95%
DT184 - Rio Bosque Capacitor Bank	$2,139,566	$1,889,566	756%
Projects Total	$33,228,360	$19,849,603	148%

[24] See Exhibit SN-9.

Q. HAS EPE PROVIDED UPDATED COST/BENEFIT ANALYSES OR OTHER DOCUMENTATION THAT DEMONSTRATES THAT THE EXTRAORDINARY BUDGET OVER-RUNS FOR THESE PROJECTS WERE REASONABLE AND JUSTIFIED?

A. No. EPE has not provided cost/benefit analyses to support the original project budgets or the final project costs, including costs reflected in the budget overages. While the Company has provided short descriptions of major reasons why the final project costs were so much higher than the original budgets, these summaries are not adequate to confirm that the final project costs were reasonable and prudent, beneficial to customers, and represented the lowest reasonable cost alternative for completion of the project.

Q. HAS EPE PROVIDED ADEQUATE INFORMATION TO DEMONSTRATE THAT THE PROJECTS WERE TRULY NEEDED TO IMPROVE SYSTEM RELIABILITY AND TO SERVE LOAD GROWTH ON EPE'S SYSTEM?

A. No. For example, EPE has not provided any quantification of the expected reliability improvement due to the projects, nor has it provided any evidence that each project was necessary to serve load growth and could not be served from other distribution facilities.

Q. WAS THE DISTRIBUTION SERVICE RELIABILITY IN EPE'S TEXAS SERVICE AREA BEEN INADEQUATE PRIOR TO THESE PROJECTS BEING PLACED IN SERVICE?

A. No. As summarized in Table 10 below, the System Average Interruption Duration Index ("SAIDI") for EPE's Texas service area averaged approximately 46.7 minutes per customer per year over the last 10 years, including years before and after the six projects were placed in service. This level of service means that on average, EPE's Texas customers received distribution service in 99.991% of all hours in the year, which represents very high reliability performance

Table 10
EPE Texas Area Distribution Reliability Performance[25]

	SAIDI	SAIFI	RELIABILITY
2011	48.4	0.45	99.991%
2012	38.3	0.33	99.993%
2013	37.5	0.37	99.993%
2014	49.2	0.53	99.991%
2015	51.5	0.53	99.990%
2016	43.1	0.41	99.992%
2017	47.0	0.58	99.991%
2018	38.8	0.49	99.993%
2019	64.5	0.72	99.988%
2020	48.6	0.53	99.991%
AVG 2011-2015	45.0	0.44	99.991%
AVG 2016-2020	48.4	0.55	99.991%
AVG 2011-2020	46.7	0.49	99.991%

Moreover, the above reliability statistics do not show any discernible improvement in EPE's distribution reliability performance since 2017 when these "Reliability Projects" first began to be placed in service.

[25] Source is EPE's Annual Service Quality Reports for 2011 through 2020 as filed with the Public Utility Commission of Texas.

Q. DID EPE RECEIVE MANY CUSTOMER COMPLAINTS REGARDING THE COMPANY'S DISTRIBUTION SERVICE RELIABILITY BEFORE 2017 WHEN THE FIRST OF THESE SIX PROJECTS WAS PLACED IN SERVICE?

A. No. EPE has averaged approximately 5 customer complaints per year related to distribution service reliability over the last five years. This number of complaints represents less than 0.0015% of the EPE's total customers in Texas in 2020 (~335,000), and certainly does not indicate that there were any distribution reliability problems to be fixed as claimed by EPE's summary descriptions of the six projects.

Q. WHAT IS YOUR RECOMMENDATION ON THIS ISSUE?

A. EPE has not provided cost/benefit analyses, estimated reliability benefits, load growth information, project cost variance reports, or other information necessary to support its claims that the six distribution reliability projects for which the Company has requested final approval in this case, were prudently initiated and completed at a reasonable cost. For these reasons, I recommend that the $19.8 million (Texas Retail) total budget over-run for the six projects be disallowed from EPE's Texas jurisdiction rate base.

VII. PVNGS TRANSMISSION CONSTRAINTS

Q. WHAT IS THE ISSUE REGARDING TRANSMISSION CONSTRAINTS THAT OCCASIONALLY LIMIT EPE'S ABILITY TO FULLY DELIVER ENERGY FROM THE PVNGS PROJECT TO THE COMPANY'S TEXAS CUSTOMERS?

A. It is my understanding that EPE's in service treatment of all of its 15.8% ownership interest in PVNGS was conditioned upon the requirement that EPE would have adequate firm transmission service to deliver the full output of the plant to customers in the Company's retail service area.[26] However, in response to discovery on this issue, EPE has indicated that there are times when it cannot fully deliver the energy produced from PVNGS to its retail customers, and more importantly, that the Company does not maintain records of such transmission constraint events.[27] This situation raises serious concerns regarding EPE's ability to demonstrate that its customers receive the full energy and capacity benefits that were promised by the Company in obtaining initial approval of the PVNGS project.

Q. PLEASE ELABORATE ON YOUR CONCERN REGARDING EPE'S FAILURE TO DOCUMENT INSTANCES IN WHICH PVNGS ENERGY CANNOT BE DELIVERED TO THE COMPANY'S RETAIL SYSTEM?

A. Without EPE's documentation of the date, duration and magnitude of transmission constraints that limit PVNGS energy from being delivered to EPE's retail customers, it is not possible to precisely know the magnitude and causes of such constraints, and whether the Company's accounting for such restrictions truly results in customers receiving the full economic benefits of PVNGS, as if the restrictions had not occurred. For example, EPE has committed that in hours when PVNGS energy could not be delivered to its Texas service area and must instead be sold into western energy markets at prevailing

[26] Application of El Paso Electric Company to Declare Palo Verde Unit Nuclear Generating Station Unit Three In Service, PUC Docket 9652 (Order February 1, 1991)
[27] See Exhibit SN-10, EPE's response to CEP 1-28.

prices, that the Company would assign costs of local area gas-fired generation that was necessary to replace such PVNGS curtailments to off-system sales and to assign PVNGS energy costs to Texas customers. However, if EPE does not track and document the time, duration, and magnitude of such PVNGS curtailment events, it is not clear how the Company will be able to make such cost assignments to ensure that Texas retail customers receive the full benefit of the low-cost PVNGS energy.

I am further concerned that without precise documentation of such transmission constraint events, Texas customers may be at risk of a capacity shortfall in certain periods due to the inability to deliver PVNGS energy on a firm basis to EPE's retail service area.

Q. WHAT IS YOUR RECOMMENDATION ON THIS ISSUE?

A. Although this issue does not appear to impact EPE's base rate application in this case, I recommend that the Company be required to implement more precise monitoring and documentation of future curtailments of PVNGS energy deliveries to EPE's retail service area due to transmission constraints, and that the Company be required to present such information in direct testimony in its next fuel reconciliation proceeding.

VIII. NORWOOD ENERGY CONSULTING'S RATE CASE EXPENSE

Q. WHAT SERVICES HAS NORWOOD ENERGY CONSULTING PROVIDED TO THE CITY OF EL PASO IN THIS CASE?

A. The services provided by Norwood Energy Consulting to City of El Paso to date include: 1) review and analysis of EPE's direct testimony; 2) preparation of discovery; 3) analysis

of EPE's discovery responses, 4) review of past testimony and orders addressing issues in this case, 5) identification and analysis of issues; and 6) preparation of direct testimony.

Q. WHAT ARE THE TOTAL CHARGES INCURRED BY NORWOOD ENERGY CONSULTING FOR SERVICES PROVIDED TO CITY OF EL PASO IN THIS CASE?

A. Norwood Energy Consulting has incurred total charges of $30,800 for services it has provided to the City of El Paso through September 30, 2021.

Q. ARE THE HOURLY RATES CHARGED TO CITY OF EL PASO BY NORWOOD ENERGY CONSULTING FOR THIS CASE REASONABLE AND CONSISTENT WITH THE FEES CHARGED BY OTHER FIRMS FOR SIMILAR CONSULTING SERVICES?

A. Yes. My hourly rate of $220 for services provided to City of El Paso is reasonable when compared to the hourly rates charged by other regulatory consultants with similar experience, based on my personal knowledge of rates charged in other proceedings. The hourly rate charged for this project is equal to or less than the hourly rates charged by Norwood Energy Consulting to other clients for similar services for contracts entered during the period contemporaneous with this proceeding.

Q. HAVE THE SERVICES PERFORMED BY NORWOOD ENERGY CONSULTING FOR THE CITY OF EL PASO IN THIS PROCEEDING BEEN PROVIDED IN A PROFESSIONAL, TIMELY, AND EFFICIENT MANNER?

A. Yes. The services provided to the City of El Paso by Norwood Energy Consulting are detailed on monthly invoices, which include a description of the services performed, and the number of hours charged in each day. The amounts charged for such services are reasonable, the calculation of the charges is correct, and there has been no double-billing of any charges. All work performed was conducted in a timely and efficient manner and is relevant and necessary to address issues identified by Norwood Energy Consulting in this the proceeding.

Q. HAS NORWOOD ENERGY CONSULTING CHARGED 12 OR MORE HOURS IN ANY ONE DAY ON THIS PROJECT?

A. No.

Q. HAS NORWOOD ENERGY CONSULTING CHARGED ANY AMOUNTS FOR TRAVEL, LODGING, MEALS, OR OTHER EXPENSES INCURRED DIRECTLY FOR THIS PROJECT?

A. No. Norwood Energy Consulting only charges for the actual services provided.

Q. WHAT ARE THE ESTIMATED REMAINING CHARGES FOR NORWOOD ENERGY CONSULTING TO COMPLETE THIS CASE?

A. I estimate that Norwood Energy Consulting will incur an additional $22,000 for services provided to the City of El Paso after September 30, 2021, including: 1) completion of analysis of issues; 2) preparation of direct testimony; 3) review of direct testimony filed by other parties; 4) review of EPE's rebuttal testimony; 5) assistance with settlement negotiations; 6) assistance with development and support of cross examination; 7) preparation for testifying, 8) attendance and submittal of testimony at the hearing; and 9) assistance with briefs and any appeals.

Q. DOES THAT CONCLUDE YOUR TESTIMONY?

A. Yes.

DON SCOTT NORWOOD

Norwood Energy Consulting, L.L.C.

P. O. Box 30197
Austin, Texas 78755-3197
scott@scottnorwood.com
(512) 297-1889

SUMMARY

Scott Norwood is an energy consultant with over 39 years of utility industry experience in the areas of regulatory consulting, resource planning, power plant operations and energy procurement. His clients include government agencies, publicly-owned utilities, public service commissions, municipalities and various electric consumer interests. Over the last 15 years Mr. Norwood has presented expert testimony on electric utility ratemaking, resource planning, and electric utility restructuring issues in over 200 regulatory proceedings in Arkansas, Georgia, Iowa, Illinois, Michigan, Missouri, New Jersey, Oklahoma, South Dakota, Texas, Virginia, Washington and Wisconsin.

Prior to founding Norwood Energy Consulting in January of 2004, Mr. Norwood was employed for 18 years by GDS Associates, Inc., a Marietta, Georgia based energy consulting firm. Mr. Norwood was a Principal of GDS and directed the firm's Deregulated Services Department which provided a range of consulting services including merchant plant due diligence studies, deregulated market price forecasts, power supply planning and procurement projects, electric restructuring policy analyses, and studies of power plant dispatch and production costs.

Before joining GDS, Mr. Norwood was employed by the Public Utility Commission of Texas as Manager of Power Plant Engineering from 1984 through 1986. He began his career in 1980 as Staff Electrical Engineer with the City of Austin's Electric Utility Department where he was in charge of electrical maintenance and design projects at three gas-fired power plants.

Mr. Norwood is a graduate of the college of electrical engineering of the University of Texas.

EXPERIENCE

The following summaries are representative of the range of projects conducted by Mr. Norwood over his 30-year consulting career.

Regulatory Consulting

Oklahoma Industrial Energy Consumers - Assisted client with technical and economic analysis of proposed EPA regulations and compliance plans involving control of air emissions and potential conversion of coal-to-gas conversion options.

Cities Served by Southwestern Electric Power Company – Analyzed and presented testimony regarding the prudence of a $1.7 billion coal-fired power plant and related settlement agreements with Sierra Club.

New York Public Service Commission - Conducted inter-company statistical benchmarking analysis of Consolidated Edison Company to provide the New York Public Service Commission with guidance in determining areas that should be reviewed in detailed management audit of the company.

Oklahoma Industrial Energy Consumers - Analyzed and presented testimony on affiliate energy trading transactions by AEP in ERCOT.

Virginia Attorney General – Analyzed and presented testimony regarding distribution tap line undergrounding program proposed by Dominion Virginia Power Company.

Cities Served by Southwestern Electric Power Company – Analyzed and presented testimony regarding the prudence of the utility's decision to retire the Welsh Unit 2 coal-fired generating unit in conjunction with a litigation settlement agreement with Sierra Club.

Georgia Public Service Commission - Presented testimony before the Georgia Public Service Commission in Docket 3840-U, providing recommendations on nuclear O&M levels for Hatch and Vogtle and recommending that a nuclear performance standard be implemented in the State of Georgia.

Oklahoma Industrial Energy Consumers - Analyzed and presented testimony addressing power production and coal plant dispatch issues in fuel prudence cases involving Oklahoma Gas and Electric Company.

Georgia Public Service Commission - Analyzed and provided recommendations regarding the reasonableness of nuclear O&M costs, fossil O&M costs and coal inventory levels reported in GPC's 1990 Surveillance Filing.

City of Houston - Analyzed and presented comments on various legislative proposals impacting retail electric and gas utility operations and rates in Texas.

New York Public Service Commission - Conducted inter-company statistical benchmarking analysis of Rochester Gas & Electric Company to provide the New York Public Service Commission with guidance in determining areas which should be reviewed in detailed management audit of the company.

Virginia Attorney General – Analyzed and presented testimony regarding an accelerated vegetation management program and rider proposed by Appalachian Power Company.

Oklahoma Attorney General – Analyzed and presented testimony regarding fuel and purchased power, depreciation and other expense items in Oklahoma Gas & Electric Company's 2001 rate case before the Oklahoma Corporation Commission.

City of Houston - Analyzed and presented testimony regarding fossil plant O&M expense levels in Houston Lighting & Power Company's rate case before the Public Utility Commission of Texas.

City of El Paso - Analyzed and presented testimony regarding regulatory and technical issues related to the Central & Southwest/El Paso Electric Company merger and rate proceedings before the PUCT, including analysis of merger synergy studies, fossil O&M and purchased power margins.

Residential Ratepayer Consortium - Analyzed Fermi 2 replacement power and operating performance issues in fuel reconciliation proceedings for Detroit Edison Company before the Michigan Public Service Commission.

Residential Ratepayer Consortium - Analyzed and prepared testimony addressing coal plant outage rate projections in the Consumer's Power Company fuel proceeding before the Michigan Public Service Commission.

City of El Paso - Analyzed and developed testimony regarding Palo Verde operations and maintenance expenses in El Paso Electric Company's 1991 rate case before the Public Utility Commission of Texas.

City of Houston - Analyzed and developed testimony regarding the operations and maintenance expenses and performance standards for the South Texas Nuclear Project, and operations and maintenance expenses for the Limestone and Parish coal-fired power plants in HL&P's 1991 rate case before the PUCT.

City of El Paso - Analyzed and developed testimony regarding Palo Verde operations and maintenance expenses in El Paso Electric Company's 1990 rate case before the Public Utility Commission of Texas. Recommendations were adopted.

Energy Planning and Procurement Services

Virginia Attorney General – Review and provide comments or testimony regarding annual integrated resource plan filings made by Dominion Virginia Power and Appalachian Power Company.

Dell Computer Corporation – Negotiated retail power supply agreement for Dell's Round Rock, Texas facilities producing annual savings in excess of $2 million.

Texas Association of School Boards Electric Aggregation Program – Serve as TASB's

consultant in the development, marketing and administration of a retail electric aggregation program consisting of 2,500 Texas schools with a total load of over 300 MW. Program produced annual savings of more than $30 million in its first year.

Oklahoma Industrial Energy Consumers - Analyzed and drafted comments addressing integrated resource plan filings by Public Service Company of Oklahoma and Oklahoma Gas and Electric Company.

S.C. Johnson - Analyzed and presented testimony addressing Wisconsin Electric Power Company's $4.1 billion CPCN application to construct three coal-fired generating units in southeast Wisconsin.

Oklahoma Industrial Energy Consumers - Analyzed wind energy project ownership proposals by Oklahoma Gas and Electric Company and presented testimony addressing project economics and operational impacts.

City of Chicago, Illinois Attorney General, Illinois Citizens' Utility Board - Analyzed Commonwealth Edison's proposed divestiture of the Kincaid and State Line power plants to SEI and Dominion Resources.

Georgia Public Service Commission - Analyzed and presented testimony on Georgia Power Company's integrated resource plan in a certification proceeding for an eight unit, 640 MW combustion turbine facility.

South Dakota Public Service Commission - Evaluated integrated resource plan and power plant certification filing of Black Hills Power & Light Company.

Shell Leasing Co. - Evaluated market value of 540 MW western coal-fired power plant.

Community Energy Electric Aggregation Program – Served as Community Energy's consultant in the development, marketing and start-up of a retail electric aggregation program consisting of major charitable organizations and their donors in Texas.

Austin Energy – Conducted competitive solicitation for peaking capacity. Developed request for proposal, administered solicitation and evaluated bids.

Austin Energy - Provided technical assistance in the evaluation of the economic viability of the

City of Austin's ownership interest in the South Texas Project.

Austin Energy - Assisted with regional production cost modeling analysis to assess production cost savings associated with various public power merger and power pool alternatives.

Sam Rayburn G&T Electric Cooperative - Conducted competitive solicitation for peaking capacity. Developed request for proposal, administered solicitation and evaluated bids.

Rio Grande Electric Cooperative, Inc. - Directed preparation of power supply solicitation and conducted economic and technical analysis of offers.

Virginia Attorney General – Review and provide comments or testimony regarding annual demand-side management program programs and rider proposals made by Dominion Virginia Power and Appalachian Power Company.

Austin Energy – Conducted modeling to assess potential costs and benefits of a municipal power pool in Texas.

Electric Restructuring Analyses

Electric Power Research Institute - Evaluated regional resource planning and power market dispatch impacts on rail transportation and coal supply procurement strategies and costs.

Arkansas House of Representatives – Critiqued proposed electric restructuring legislation and identified suggested amendments to provide increased protections for small consumers.

Virginia Legislative Committee on Electric Utility Restructuring – Presented report on status of stranded cost recovery for Virginia's electric utilities.

Georgia Public Service Commission – Developed models and a modeling process for preparing initial estimates of stranded costs for major electric utilities serving the state of Georgia.

City of Houston – Evaluated and recommended adjustments to Reliant Energy's stranded cost proposal before the Public Utility Commission of Texas.

Oklahoma Attorney General – Evaluated and advised the Attorney General on technical, economic and regulatory policy issues arising from various electric restructuring proposals considered by the Oklahoma Electric Restructuring Advisory Committee.

State of Hawaii Department of Business, Economics and Tourism – Evaluated electric restructuring proposals and developed models to assess the potential savings from deregulation of the Oahu power market.

Virginia Attorney General - Served as the Attorney General's consultant and expert witness in the evaluation of electric restructuring legislation, restructuring rulemakings and utility proposals addressing retail pilot programs, stranded costs, rate unbundling, functional

separation plans, and competitive metering.

Western Public Power Producers, Inc. - Evaluated operational, cost and regional competitive impacts of the proposed merger of Southwestern Public Service Company and Public Service Company of Colorado.

Iowa Department of Justice, Consumer Advocate Division - Analyzed stranded investment and fuel recover issues resulting from a market-based pricing proposal submitted by MidAmerican Energy Company.

Cullen Weston Pines & Bach/Citizens' Utility Board - Evaluated estimated costs and benefits of the proposed merger of Wisconsin Energy Corporation and Northern States Power Company (Primergy).

City of El Paso - Evaluated merger synergies and plant valuation issues related to the proposed acquisition and merger of El Paso Electric Company and Central & Southwest Company.

Rio Grande Electric Cooperative, Inc. - Analyzed stranded generation investment issues for Central Power & Light Company.

Power Plant Management

City of Austin Electric Utility Department - Analyzed the 1994 Operating Budget for the South Texas Nuclear Project (STNP) and assisted in the development of long-term performance and expense projections and divestiture strategies for Austin's ownership interest in the STNP.

City of Austin Electric Utility Department - Analyzed and provided recommendations regarding the 1991 capital and O&M budgets for the South Texas Nuclear Project.

Sam Rayburn G&T Electric Cooperative - Developed and conducted operational monitoring program relative to minority owner's interest in Nelson 6 Coal Station operated by Gulf States Utilities.

KAMO Electric Cooperative, City of Brownsville and Oklahoma Municipal Power Agency - Directed an operational audit of the Oklaunion coal-fired power plant.

Sam Rayburn G&T Electric Cooperative - Conducted a management/technical assessment of the Big Cajun II coal-fired power plant in conjunction with ownership feasibility studies for the project.

Kamo Electric Power Cooperative - Developed and conducted operational monitoring program for client's minority interest in GRDA Unit 2 Coal Fired Station.

Northeast Texas Electric Cooperative - Developed and conducted operational monitoring program concerning NTEC's interest in Pirkey Coal Station operated by Southwestern Electric Power Company and Dolet Hills Station operated by Central Louisiana Electric Company.

Corn Belt Electric Cooperative/Central Iowa Power Cooperative - Perform operational monitoring and budget analysis on behalf of co-owners of the Duane Arnold Energy Center.

PRESENTATIONS

Quantifying Impacts of Electric Restructuring: Dynamic Analysis of Power Markets, 1997 NARUC Winter Meetings, Committee on Finance and Technology.

Quantifying Costs and Benefits of Electric Utility Deregulation: Dynamic Analysis of Regional Power Markets, International Association for Energy Economics, 1996 Annual North American Conference.

SOAH DOCKET NO. 473-21-2606
PUC DOCKET NO. 52195

APPLICATION OF EL PASO	§	BEFORE THE STATE OFFICE
ELECTRIC COMPANY TO CHANGE	§	OF
RATES	§	ADMINISTRATIVE HEARINGS

EL PASO ELECTRIC COMPANY'S RESPONSE TO
CITY OF EL PASO'S THIRTEENTH REQUEST FOR INFORMATION
QUESTION NOS. CEP 13-1 THROUGH CEP 13-29

CEP 13-13:

Reference EPE's response to CEP 1-11, please explain the primary factors that contributed to the increases reflected in the requested "Test Year Adjusted" levels of Newman plant O&M expenses in FERC accounts 505, 506, 507, 512 and 513, when compared to the average level of expenses incurred in each of these accounts during the 2016-2019 period.

RESPONSE:

Primary factors contributing to the increases in the requested accounts during the test year, as compared to average expenses incurred during the 2016-2019 period, can be found in CEP 13-13, Attachment 1.

Preparer: Pedro Vega Title: Senior Accountant – Power Generation

Sponsor: J Kyle Olson Title: Manager – Power Generation Engineering

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NEWMAN GENERATING STATION

Line No.	FERC Acct.	Description	Average 2016-2019	Test Year Adjusted	Variance	
1	505000	Electric Expenses	3,273,196	4,619,548	1,346,352	(A)
2	506000	Miscellaneous Steam Power Expenses	1,990,298	2,268,058	277,760	(B)
3	507000	Rents	478,611	655,198	176,587	(C)
4	512000	Maintenance of Boiler Plant	4,899,711	6,484,831	1,585,121	(D)
5	513000	Maintenance of Electric Plant	9,644,836	12,695,960	3,051,124	(D)

(A) Primarily due to increased water usage and higher water rates from the El Paso Water Utilities. Water rates are expected to continue to increase steadily in future years.

(B) Primarily due to increased training related costs which is expected to remain consistent.

(C) Primarily due to increased equipment rentals reflecting the need for additional maintenance as units age, necessary for the performance of plant maintenance.

(D) Primarily due to increased maintenance and outage related expenses. Outage and maintenance expenses at EPE's local fleet are expected to continue at or above this level. Please see the direct testimony of El Paso Electric witness J Kyle Olson, Page 25, line 28-30, and page 26, lines 1-19, and EPE's response to CEP 6-2.

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PUC DOCKET NO. 52195

APPLICATION OF EL PASO	§	BEFORE THE STATE OFFICE
ELECTRIC COMPANY TO CHANGE	§	OF
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EL PASO ELECTRIC COMPANY'S RESPONSE TO
CITY OF EL PASO'S THIRTEENTH REQUEST FOR INFORMATION
QUESTION NOS. CEP 13-1 THROUGH CEP 13-29

CEP 13-16:

Reference EPE's response to CEP 1-11, please explain the primary factors that contributed to the increases reflected in the requested "Test Year Adjusted" levels of Montana plant O&M expenses in FERC accounts 546, 550, 551, 552, 553 and 554, when compared to the average level of expenses incurred in each of these accounts during the 2016-2019 period.

RESPONSE:

Primary factors contributing to the increases in the requested accounts during the test year, as compared to average expenses incurred during the 2016-2019 period, can be found in CEP 13-16, Attachment 1.

Preparer: Pedro Vega Title: Senior Accountant – Power Generation

Sponsor: J Kyle Olson Title: Manager – Power Generation Engineering

SOAH Docket No. 473-21-2606
PUC Docket No. 52195
CEP's 13th, Q. No. CEP 13-16
Attachment 1
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MONTANA POWER STATION

Line No.	FERC Acct.	Description	Average 2016-2019	Test Year Adjusted	Variance	
1	546000	Operation Supervision & Engineering	496,524	$ 661,538	$ 165,014	(A)
2	550000	Rents	59,125	187,358	$ 128,233	(B)
3	551000	Maintenance Supervision & Engineering	24,229	197,408	$ 173,179	(C)
4	552000	Maintenance of Structures	66,992	219,319	$ 152,327	(D)
5	553000	Maintenance of Generating & Electric Plant	2,036,652	5,071,722	$ 3,035,070	(D)(E)
6	554000	Maintenance of Miscellaneous Other Power	405,731	700,901	$ 295,170	(D)

(A) Primarily due to increased engineering operations support services as plant staffing reaches full staffing levels.
(B) Primarily due to increased equipment rentals, necessary for the performance of plant maintenance.
(C) Primarily due to increased straight time charged to 551000, due to additional plant personnel to support plant operations and maintenance activities.
(D) Primarily due to increased maintenance and outage related expenses. Outage and maintenance expenses are expected to continue at or above this level as the MPS units entered their regularly scheduled maintenance intervals. As these units age, additional maintenance will be required. Therefore, outage and maintenance expenses at EPE's local fleet are expected to continue at or above this level. Please see the direct testimony of EPE witness J Kyle Olson, page 25, lines 28 through 30, page 26, lines 1 through 19, and EPE's response to CEP 6-2.
(E) Account 553000 includes the quarterly and hours based payments of the GE MYA. These payments are expected to continue at or above this level. Please see the direct testimony of EPE witness J Kyle Olson, page 12, lines 29 through 30, page 13, lines 1 through 15, and EPE's response to CEP 5-38.

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APPLICATION OF EL PASO	§	BEFORE THE STATE OFFICE
ELECTRIC COMPANY TO CHANGE	§	OF
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EL PASO ELECTRIC COMPANY'S RESPONSE TO
CITY OF EL PASO'S THIRTEENTH REQUEST FOR INFORMATION
QUESTION NOS. CEP 13-1 THROUGH CEP 13-29

CEP 13-14:

Reference EPE's response to CEP 1-11, please explain the primary factors that contributed to the increases reflected in the requested "Test Year Adjusted" levels of Copper plant O&M expenses in FERC accounts 552, 553 and 554, when compared to the average level of expenses incurred in each of these accounts during the 2016-2019 period.

RESPONSE:

Primary factors contributing to the increases in the requested accounts during the test year, as compared to average expenses incurred during the 2016-2019 period, can be found in CEP 13-14, Attachment 1.

Preparer: Pedro Vega Title: Senior Accountant – Power Generation

Sponsor: J Kyle Olson Title: Manager – Power Generation Engineering

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Attachment 1
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COPPER GENERATING STATION

Line No.	FERC Acct.	Description	Average 2016-2019	Test Year Adjusted		Variance	
1	552000	Maintenance of Structures	6,115	36,537	$	30,422	(A)
2	553000	Maintenance of Generating & Electric Plant	351,937	847,276	$	495,340	(A)
3	554000	Maintenance of Miscellaneous Other Power	31,769	40,937	$	9,168	(A)

(A) Primarily due to increased maintenance and outage related expenses primarily due to a major overhaul. Outage and maintenance expenses at EPE's local fleet are expected to continue at or above this level. Please see the direct testimony of EPE witness J Kyle Olson, page 25, lines 28 through 30, page 26, lines 1 through 19, and EPE's response to CEP 6-2.

566 Miscellaneous transmission expenses (Major only).

This account shall include the cost of labor, materials used and expenses incurred in transmission map and record work, transmission office expenses, and other transmission expenses not provided for elsewhere.

Items

Labor:

1. General records of physical characteristics of lines and stations, such as capacities, etc.

2. Ground resistance records.

3. Janitor work at transmission office buildings, including care of grounds, snow removal, cutting grass, etc.

4. Joint pole maps and records.

5. Line load and voltage records.

6. Preparing maps and prints.

7. General clerical and stenographic work.

8. Miscellaneous labor.

Materials and Expenses:

9. Communication service.

10. Building service supplies.

11. Map and record supplies.

12. Transmission office supplies and expenses, printing and stationery.

13. First-aid supplies.

14. Research, development, and demonstration expenses.

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APPLICATION OF EL PASO ELECTRIC COMPANY TO CHANGE RATES	§ § §	BEFORE THE STATE OFFICE OF ADMINISTRATIVE HEARINGS

EL PASO ELECTRIC COMPANY'S RESPONSE TO
CITY OF EL PASO'S THIRTEENTH REQUEST FOR INFORMATION
QUESTION NOS. CEP 13-1 THROUGH CEP 13-29

CEP 13-23:

Reference EPE's response to CEP 1-14, please explain the primary factors that contributed to the increases reflected in the requested "Test Year Adjusted" levels of Transmission O&M expenses in FERC accounts 560, 561 and 566, when compared to the average level of expenses incurred in each of these accounts during the 2016-2019 period.

RESPONSE:

The Test Year Adjusted amounts in FERC Account 560 - Operation Supervision & Engineering, 561.1 - Load Dispatch - Reliability, 561.2 - Load Dispatch - Monitor & Operate Transmission System, 561.3 - Load Dispatch - Transmission Service & Scheduling, 561.4 - Scheduling, System Control & Dispatch Services, 561.5 - Reliability, Planning & Standards Development, and 566 - Miscellaneous Transmission Expenses increased, as compared to the average level of expenses incurred during the 2016-2019 period, primarily due to an increase in payroll costs.

Preparer:	En Li Darcy A. Welch	Title:	Manager – Financial Accounting Supervisor – T&D Financial Planning & Analysis
Sponsor:	Cynthia S. Prieto Robert C. Doyle David C. Hawkins	Title:	Vice President – Controller Vice President – Transmission and Distribution Vice President – Strategy and Sustainability

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APPLICATION OF EL PASO ELECTRIC COMPANY TO CHANGE RATES	§ § §	BEFORE THE STATE OFFICE OF ADMINISTRATIVE HEARINGS

EL PASO ELECTRIC COMPANY'S RESPONSE TO
CITY OF EL PASO'S FIFTH REQUEST FOR INFORMATION
QUESTION NOS. CEP 5-1 THROUGH CEP 5-42

CEP 5-36:

Reference page 12 of EPE witness Olson's direct testimony, please provide the date and duration of past forced outages due to failure of a LMS100 power turbine owned by EPE along with the estimated replacement power costs due to each failure.

RESPONSE:

El Paso Electric Company has not experienced a failure of a LMS100 power turbine. A project overview and justification can be found in the direct testimony of El Paso Electric Company ("EPE") witness J Kyle Olson, page 12, lines 12-27.

Preparer: J Kyle Olson Title: Manager – Power Generation Engineering

Sponsor: J Kyle Olson Title: Manager – Power Generation Engineering

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APPLICATION OF EL PASO	§	BEFORE THE STATE OFFICE
ELECTRIC COMPANY TO CHANGE	§	OF
RATES	§	ADMINISTRATIVE HEARINGS

EL PASO ELECTRIC COMPANY'S RESPONSE TO
CITY OF EL PASO'S FIFTH REQUEST FOR INFORMATION
QUESTION NOS. CEP 5-1 THROUGH CEP 5-42

CEP 5-37:

Reference page 12 of EPE witness Olson's direct testimony, please provide the date and duration of past forced outages due to failure of a booster on an LMS100 owned by EPE along with the estimated replacement power costs due to each failure.

RESPONSE:

El Paso Electric Company has experienced no forced outages due to failure of a booster on an LMS100. A project overview and justification can be found in the direct testimony of El Paso Electric Company ("EPE") witness J Kyle Olson, page 12, lines 12-27.

Preparer: J Kyle Olson Title: Manager – Power Generation Engineering

Sponsor: J Kyle Olson Title: Manager – Power Generation Engineering

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APPLICATION OF EL PASO ELECTRIC COMPANY TO CHANGE RATES	§ § §	BEFORE THE STATE OFFICE OF ADMINISTRATIVE HEARINGS

EL PASO ELECTRIC COMPANY'S RESPONSE TO
CITY OF EL PASO'S FIRST REQUEST FOR INFORMATION
QUESTION NOS. CEP 1-1 THROUGH CEP 1-28

CEP 1-13:

Please provide project descriptions, in-service dates, and cost/benefit summaries for each production plant, distribution plant and transmission plant capital project having a cost more than $2 million which is being included in EPE's rate base for the first time in this case.

RESPONSE:

Capital addition costs over $100,000 and in-service dates of those additions for each local power plant can be found on Schedule H-5.2b.

Additional information on local production plant capital projects with costs over $5 million can be found in El Paso Electric Company ("EPE") witness J Kyle Olson's testimony at page 5, line 29, through page 17, line 12. Projects with costs between $2 million and $5 million, excluding blanket projects, are summarized in attachment CEP 1-13 Attachment 2.

Palo Verde Nuclear Generating Station capital addition information, reflecting total plant figures (EPE's ownership is 15.8%), is attached as CEP 1-13, Attachment 1 Confidential Voluminous.

Costs for distribution and transmission plant capital projects closed to plant in service from October 1, 2016, through December 31, 2020, can be found in Exhibit LJH-2 of EPE witness Hancock's testimony.

Detailed project summaries for non-blanket transmission capital projects with costs over $4.5 million can be found in EPE witness R. Clay Doyle's testimony at page 22, line 1, through page 36, line 22. Information on transmission blanket projects and transmission projects with costs over $1 million but less than $4.5 million are presented in Exhibit RCD-9 of EPE witness Doyle's testimony.

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Detailed project summaries for non-blanket distribution projects with costs over $4 million can be found in EPE witness Doyle's testimony, page 40, line 8, through page 48, line 11. Information on distribution projects with costs over $1 million but less than $4 million are presented in Exhibit RCD-10 of EPE witness Doyle's testimony.

For your convenience, all transmission and distribution plant capital projects with costs over $2 million are summarized in CEP 1-13, Attachment 3. The Company uses Blanket Projects to account for capital efforts that fall within pre-defined categories. Although the individual activities are relatively small in nature, these projects span activities that apply to the entire system, while the specific work orders under each project delineate the task by location, customer, or other characteristics that facilitate both scheduling and accounting processes at EPE. For those projects described as "Multi Year" projects, the amount shown in CEP 1-13 Attachment 3 is the dollar value of the investment portion of the multi-year project placed into service from October 1, 2016, through December 31, 2020.

Preparer:	Darcy Welch	Title:	Supervisor – T&D Financial Planning & Analysis
	Pedro Vega		Senior Accountant – Power Generation
	Victor Martinez		Manager – Resource Planning, Resource Management, Regulatory & Quality Assurance
Sponsor:	J Kyle Olson	Title:	Manager – Power Generation Engineering
	Larry J. Hancock		Manager – Plant Accounting
	R. Clay Doyle		Vice President – Transmission & Distribution
	David C. Hawkins		Vice President – Strategy & Sustainability
	Todd Horton		Senior Vice President – Site Operations at the Palo Verde Generating Station

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Project GN161, NEWMAN UNIT 5 STEAM TURBINE UPGRADES – Project is used to capture capital costs with reliability upgrades to Newman Unit 5 including control system software, hardware, and network upgrades. This was a series of reliability-based improvements and upgrades based on deficiencies found in the performance of the unit.

Project GN156, NEWMAN GAS METERING UPGRADE – Installation of two gas metering and blending skids at the Newman Power Plant. The project sought to enhance reliability of Newman Units 1, 2, 3, and 4 by blending the dual natural gas supplies to ensure operation of the units in the event of a price spike or natural gas scarcity event.

Project GN174, NEWMAN UNIT 3 DISTRIBUTIVE CONTROL SYSTEM UPGRADE – Steam turbine, burner management system, and balance of plant distributive control system upgrade for Newman Unit 3. This was a reliability-based upgrade as the previous distributive control system was obsolete. EPE issued a request for proposals ("RFP") for a new distributive control system and installation.

Project GN160, NEWMAN UNIT 4 STEAM GENERATOR ROTOR REPLACEMENT – Replacement of the Newman Unit 4 Steam Turbine Rotor with a refurbished rotor following the June 2016 forced outage. Repairing the existing rotor was considered as an alternative. The cost for the replacement rotor was comparable to the repair costs for the existing rotor, the lead time for the replacement rotor option was shorter, and the replacement rotor had fewer service hours than the existing rotor.

Project GN198, NEWMAN UNIT 5 HRSG BYPASS VALVE REPLACEMENT – Replacement of the high pressure, intermediate pressure, and low-pressure bypass valves for HRSG 3 on Newman Unit 5. This was a reliability-based upgrade as the existing bypass valves were experiencing operational and maintenance issues. EPE issued an RFP for a new bypass valves and installation.

Project GR133, RIO GRANDE UNIT 8 CONTROLS UPGRADE (2017 OUTAGE) – Burner management system and balance of plant distributive control system upgrade for Rio Grande Unit 8. This was a reliability-based upgrade as the previous distributive control system was obsolete. EPE sole sourced the replacement based on the cost saving benefits of standardizing the plant distributive control system.

Project GR180, RIO GRANDE UNIT 7 GENERATOR IMPROVEMENTS – Rewind and refurbishment of the Rio Grande Unit 7 generator stator. A purchase power agreement to replace lost generation from this unit was considered and a RFP was issued. There were no responses to this purchase power agreement RFP.

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Project GM112, MONTANA STATION GAS BLENDING – Installation of a gas metering and blending skid at the Montana Power Plant. The project sought to enhance reliability of the Montana Plant adding and blending a second natural gas supply to ensure operation of the plant in the event of a price spike or natural gas scarcity event.

Project GM117, MONTANA UNIT 1 PARTIAL HOT SECTION COMBUSTOR REPLACEMENT – Replacement of the Montana Unit 1 supercore high pressure hot section. This run hour-based replacement was required by the GE MYA and as such no other viable alternative was found.

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APPLICATION OF EL PASO	§	BEFORE THE STATE OFFICE
ELECTRIC COMPANY TO CHANGE	§	OF
RATES	§	ADMINISTRATIVE HEARINGS

EL PASO ELECTRIC COMPANY'S SUPPLEMENTAL RESPONSE TO
CITY OF EL PASO'S EIGHTH REQUEST FOR INFORMATION
QUESTION NOS. CEP 8-1 THROUGH CEP 8-13

CEP 8-3:

Please provide the original budget, final cost, purpose and plant in service date of each of the top 20 highest distribution capital additions whose costs have been included in the Company's DCRF since the Company's last base rate case, along with information explaining the reasons for any increase in the original budget cost of each project of more than 10%.

SUPPLEMENTAL RESPONSE:

In accordance with the agreement with counsel from the City of El Paso, El Paso Electric Company ("EPE") was given additional time to draft its response to CEP 8-3.

EPE has identified the "top 20 highest distribution capital additions" included in the distribution cost recovery factors ("DCRF") it filed in Public Utility Commission of Texas Docket Nos. 49148 and 49395 that are not blanket projects. This response includes both a general description of EPE's planning and budgeting processes as well as an individual analysis for each project's included in the table below.

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Table CEP 8-3.1

Top 20 DCRF Projects
(Docket Nos. 49148 and 49395)[1]

Project Number	Project Description	Project Total less AFUDC and CE&S	Page
DT359	NUWAY NEW DISTRIBUTION SUBSTATION	$14,431,157	5
DT371	EXECUTIVE (CE-1) NEW SUBSTATION	$11,021,964	6
DT229	SCOTSDALE TRANSFORMER & SWITCHGEAR REPLACEMENTS	$8,159,325	7
DT220	SANTA FE SUBSTATION TRANSFORMER, SWITCHGEAR, AND EQUIPMENT UPGRADES	$7,420,698	8
DT186	LEO SUBSTATION 115 KV CONVERSION & GETAWAY UPGRADE	$6,899,678	9
DT365	SPARKS T2 TRANSFORMER, SWITCHGEAR, AND VOLTAGE REGULATORS	$3,784,491	10
DT382	RIPLEY T2 TRANSFORMER, SWITCHGEAR, AND VOLTAGE REGULATOR ADDITIONS	$3,397,392	11
DT379	PENDALE T2 TRANSFORMER, SWITCHGEAR, AND VOLTAGE REGULATOR ADDITIONS	$3,351,288	12
DT389	SUNSET NORTH AUTO TRANSFORMER REPLACEMENT	$3,223,211	13
DT291	GLOBAL REACH T2 AND SWITCHGEAR	$3,009,279	14
DT194	SUNSET 69KV-4KV TRANSFORMER, REGULATORS, AND FEEDER REPLACEMENTS	$1,947,525	15
DT383	PELLICANO T2 TRANSFORMER ADDITION	$2,628,214	16
DT184	RIO BOSQUE CAPACITOR BANK ADDITION	$2,139,566	17
DT218	SUNSET 14KV SWITCHGEAR AND NETWORK FEEDER REPLACEMENTS	$2,382,644	18
DT353	STREET CAR (TROLLEY) - CITY OF EL PASO	$1,706,470	19
DT300	FARMER 69KV 7.5 MVAR CAPACITOR BANK	$1,659,158	20
DT361	SUBSTATION CIRCUIT BREAKER UPGRADES MPS	$1,443,037	21
DT417	MONTWOOD T1 TRANSFORMER UPGRADE TO 50 MVA	$1,484,196	22
DT392	SOL & VISTA DISTRIBUTION SUBSTATION UPGRADES	$1,524,823	23
DT404	MONTWOOD SUBSTATION LAND & PRE-FAB WALL	$1,642,242	24

[1] The project costs shown in this response do not include AFUDC or Capitalized Engineering and Supervision (CE&S) allocations, which are not included in the original project budgets.

DT359 - NUWAY SUBSTATION
Scope Zero Budget estimated May 2013
Pre- Construction Budget estimated November 2018
In Service Date 12/17/2019

COST INCLUDED IN RATE CASE REQUEST	SCOPE ZERO BUDGET	VARIANCE TO SCOPE ZERO BUDGET		PRE CONSTRUCTION START BUDGET	VARIANCE TO PRE CONSTRUCTION BUDGET	
$14,431,157	$ 4,099,229	$10,331,928	252%	$ 12,168,853	$ 2,262,304	19%

The project was necessary to improve system reliability and serve load growth in the west EPE service territory. Further project details can be found in the direct testimony of EPE witness Mr. Doyle in Docket No. 52915, page 40 line 25 through page 41, line 21.

The Scope Zero assumed the new substation would be located northwest of Interstate 10 ("I-10") and would include a six-position ring bus with two 30 MVA transformers, two switchgears, and four feeders. This initial location would have required routing a 115 kilovolt ("kV") transmission line across Interstate 10 and was a smaller lot. The decision was made to acquire property closer to existing transmission infrastructure and run distribution feeders across I-10 instead of the transmission line, which would help to expedite construction.

This substation was also chosen to be EPE's first automated substation to include new technology to aid in faster recovery during transformer operations, reduce the number of hardwired alarms, and allow for remote monitoring of substation equipment.

Major equipment and scope changes that contributed to the increase from Scope Zero and from Pre-Construction Budget to actual costs in the project include:

- Transformers changed from 30 MVA to 50 MVA.
- The switchgear was upgraded from the standard configuration to one that supports a higher reliability, aids the automation processes, and provides flexibility to perform maintenance in critical substation equipment without taking any feeders out of service. The engineering and technician labor needed for the first implementation of these automated systems was more than had been initially estimated.
- The substation site was larger than initially estimated and required additional grading and drainage work.

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DT186 – LEO SUBSTATION 115KV CONVERSION AND GETAWAY UPGRADE
Scope Zero Budget estimated May 2007
Pre-Construction Budget estimated May 2015
In Service Dates: Leo East (LEA) substation 3/23/2017; Dyer substation improvements 3/31/2017

COST INCLUDED IN RATE CASE REQUEST	SCOPE ZERO BUDGET	VARIANCE TO SCOPE ZERO BUDGET		PRE CONSTRUCTION START BUDGET	VARIANCE TO PRE CONSTRUCTION BUDGET	
$ 6,899,678	$ 3,684,871	$3,214,808	87%	$ 5,014,748	$ 1,884,930	38%

This project was necessary to improve system reliability and serve load growth in the Northeast EPE service territory. Further project details can be found in the direct testimony of EPE witness R. Clay Doyle in Docket No. 52915, page 44 line 24 through page 45, line 26.

Major equipment and scope changes that contributed to the increase from Scope Zero and from Pre-Construction Budget to actual costs in the project include:

- Initial budget assumptions planned for completion of the complete substation in 2011. The general escalation in costs from 2009, when the budget was created, until 2015, when the next phase in major engineering work started, also contributed to the variance from original budget.
- The 115kV upgrade of Leo was tied to the upgrade of Dyer substation, which unexpectedly required an upgrade to the high side bus circuit breaker plus related equipment, a new dead end tower to receive the new conductor, as well as upgrades to the control equipment which had not been included in the original budget.
- A rock wall was built around the substation instead of chain link fencing and new sidewalks were added to scope per City of El Paso ordinance.

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DT382 – RIPLEY T2 TRANSFORMER, SWITCHGEAR, AND VOLTAGE REGULATOR ADDITIONS

Scope Zero Budget estimated May 2015
Pre-Construction Budget estimated May 2018
In Service Date 7/18/2019

COST INCLUDED IN RATE CASE REQUEST	SCOPE ZERO BUDGET	VARIANCE TO SCOPE ZERO BUDGET		PRE CONSTRUCTION START BUDGET	VARIANCE TO PRE CONSTRUCTION BUDGET	
$ 3,397,392	$ 2,180,444	$ 1,216,948	56%	$ 3,768,405	$ (371,013)	-10%

This project was necessary to improve system reliability and serve load growth in the west EPE service territory. The project included the addition of one 50 MVA transformer, circuit breakers, voltage regulators, power control room with switchgear, steel bus and related protection, control, and communication equipment needed to serve three additional feeders from this substation.

Major equipment and scope changes that contributed to the increase from Scope Zero and from Pre-Construction Budget to actual costs in the project include:

- Transformers changed from 30 MVA to 50 MVA.
- Upgraded switchgear equipment and technology.
- Upgrades to the electrical equipment inside the control equipment enclosure were needed to meet new loading requirements.

DT379 – PENDALE T2 TRANSFORMER, SWITCHGEAR, AND VOLTAGE REGULATOR ADDITIONS

Scope Zero Budget estimated May 2015
Pre-Construction Budget estimated November 2018
In Service Date 12/6/2019

COST INCLUDED IN RATE CASE REQUEST	SCOPE ZERO BUDGET	VARIANCE TO SCOPE ZERO BUDGET		PRE CONSTRUCTION START BUDGET	VARIANCE TO PRE CONSTRUCTION BUDGET	
$ 3,351,288	$ 1,620,201	$1,731,086	107%	$ 2,711,297	$ 639,991	24%

This project was necessary to improve system reliability and serve load growth in the Far east EPE service territory. The project included the addition of one 50 MVA transformer, circuit breakers, voltage regulators, expansion of the ESS to install new switchgear, steel bus, and communication equipment needed to serve three additional feeders from this substation.

Major equipment and scope changes that contributed to the increase from Scope Zero and from Pre-Construction Budget to actual costs in the project include:

- Transformers changed from 30 MVA to 50 MVA.
- Upgraded switchgear equipment and technology.
- Upgrades to the electrical equipment inside the control equipment enclosure were needed to meet new loading requirements.

DT291- GLOBAL REACH T2 AND SWITCHGEAR
Scope Zero Budget estimated May 2011
Pre-Construction Budget estimated November 2017
In Service Date 8/2/2018

COST INCLUDED IN RATE CASE REQUEST	SCOPE ZERO BUDGET	VARIANCE TO SCOPE ZERO BUDGET		PRE CONSTRUCTION START BUDGET	VARIANCE TO PRE CONSTRUCTION BUDGET	
$ 3,009,279	$ 1,544,012	$ 1,465,267	95%	$ 2,432,357	$ 576,923	24%

The purpose of this project was to improve system reliability and serve load growth in the East EPE service territory. The project included the addition of one 50 MVA transformer, circuit breakers, voltage regulators, Power Control Room with switchgear, steel bus and related protection, control, and communication equipment needed to serve three additional feeders from this substation.

Major equipment and scope changes which contributed to the increase from scope zero, to pre-construction budget to actual costs in the project include:

- Transformers changed from 30 MVA to 50 MVA.
- Upgraded switchgear equipment and technology.
- Upgrades to the electrical equipment inside the Control Equipment Enclosure were needed to meet new loading requirements.

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DT291- GLOBAL REACH T2 AND SWITCHGEAR
Scope Zero Budget estimated May 2011
Pre-Construction Budget estimated November 2017
In Service Date 8/2/2018

COST INCLUDED IN RATE CASE REQUEST	SCOPE ZERO BUDGET	VARIANCE TO SCOPE ZERO BUDGET		PRE CONSTRUCTION START BUDGET	VARIANCE TO PRE CONSTRUCTION BUDGET	
$ 3,009,279	$ 1,544,012	$ 1,465,267	95%	$ 2,432,357	$ 576,923	24%

The purpose of this project was to improve system reliability and serve load growth in the East EPE service territory. The project included the addition of one 50 MVA transformer, circuit breakers, voltage regulators, Power Control Room with switchgear, steel bus and related protection, control, and communication equipment needed to serve three additional feeders from this substation.

Major equipment and scope changes which contributed to the increase from scope zero, to pre-construction budget to actual costs in the project include:

- Transformers changed from 30 MVA to 50 MVA.
- Upgraded switchgear equipment and technology.
- Upgrades to the electrical equipment inside the Control Equipment Enclosure were needed to meet new loading requirements.

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APPLICATION OF EL PASO ELECTRIC COMPANY TO CHANGE RATES	§ § §	BEFORE THE STATE OFFICE OF ADMINISTRATIVE HEARINGS

EL PASO ELECTRIC COMPANY'S RESPONSE TO
CITY OF EL PASO'S FIRST REQUEST FOR INFORMATION
QUESTION NOS. CEP 1-1 THROUGH CEP 1-28

CEP 1-28:

Please provide the number of hours during each of the last three calendar years and during the test year that the delivery of energy produced from EPE's ownership share of the PVNGS units to EPE's Texas service area was limited by transmission constraints and explain the primary reasons for these constraints.

RESPONSE:

During periods of transmission constraints, EPE seeks to utilize other ways to import EPE's least cost resources, such as through the Freeport-McMoRan agreement or interruptible transmission. Outside of the two mentioned import alternatives, EPE does not track whether EPE could not import energy from its remote generation due to transmission constraints. Should there be a transmission constraint wherein EPE was not able to import energy from its remote generation and was required to make off-system sales, EPE would engage in off-system sales and increase local natural gas generation to meet load requirements; the increased natural gas costs would be assigned to off-system sales and the cost of energy generated at Palo Verde would be assigned to native load customers. From an accounting perspective, EPE's customers would receive the benefit of the lower fuel prices from EPE's remote generation.

Preparer: Jesus S. Gonzalez — Title: Manager – Day Ahead & Long-Term Trading

Sponsor: David C. Hawkins — Title: Vice President – Strategy & Sustainability