

STATE OF NEW HAMPSHIRE

Inter-Department Communication

DATE: October 22, 2019
AT (OFFICE): NHPUC

FROM: James Schuler, Examiner

SUBJECT: Unitil Energy Systems, Inc. (UES)
DE 19-043 Step Adjustment – 2018 Additions
Final Audit Report

TO: Tom Frantz, Director Electric Division
Karen Moran, Director Audit Division

Introduction

In Docket DE 19-043, Unitil Energy Systems, Inc., (UES) (Company) filed a petition for approval of a 2019 step increase to reflect the recovery of 2018 capital additions in the amount of \$18,361,096 in accordance with the settlement agreement in Unitil's 2016 distribution rate case and approved by the Commission in Order No. 26,007 dated April 20, 2017:

Account	Description	Additions
303-00	Intangible Software - 5 Year	\$ 760,778
362-00	Distribution Station	\$ 482,629
364-00	Distribution Poles, Tower	\$ 4,348,900
365-00	Distribution Overhead Connections	\$ 4,677,474
366-00	Distribution Underground	\$ 132,716
367-00	Distribution Underground	\$ 1,335,215
368-00	Distribution Line Transformers	\$ 1,917,442
368-01	Transformer Installations	\$ 1,877,682
369-00	Distribution Services	\$ 893,128
370-00	Distribution Meters	\$ 700,543
370-01	Meter Installation	\$ 700,543
371-00	Installation on Customer Premises	\$ 246,648
373-00	Street Lights & Signal Systems	\$ 203,123
390-00	Structures	\$ 12,975
391-01	Office Furniture & Fixtures	\$ (1,696)
394-00	Tools, Shop & Garage Equipment	\$ 123,357
395-00	Laboratory Equipment	\$ 284
397-00	Communication Equipment	\$ (50,643)
		\$ 18,361,098
	Less: 2018 Asset Retirements	\$ (1,766,899)
	Total 2018 Step Additions	\$ 16,594,199

Additions Selected for Detailed Review

Audit selected twelve projects that were completed in 2018 for a detailed review:

Authorization/Work Order Number	Amount	Description
E-013161 - 00035542	\$ 174,210	Recloser Installation
C-170142 - 20171616	\$ 314,579	Recloser Replacement
C-170171 - 20172524	\$ 27,943	Eintake Migration
E-171023 - 20171803	\$ 266,446	Circuit Conversion Exeter
E-171060 - 20171851	\$ 275,304	Replace Primary Metering Seabrook
C-180107 - 20188007	\$ 415,546	Meter Purchases
C-180109 - 20181602	\$ 44,499	Relocate Riser Pole
C-180113 - 20181603	\$ 480,486	Condemned Poles Sub Trans
C-180113 - 20181606	\$ 40,276	Condemned Poles Sub Trans
C-180113 - 20181607	\$ 343,533	Condemned Poles Sub Trans
C-180132 - 20182514	\$ 178,847	Interface Enhancements
C-180134 - 20182516	\$ 52,017	MeterSense Enhancements
Total WO's Reviewed	\$ 2,613,686	

Payroll

Audit reviewed the Cost Record for each of the projects, which included payroll-straight time and payroll-overtime. UES provided the Schedule of Wages, which showed the employee designation, and the associated pay rate increases for the contract period June 1, 2018 through May 31, 2023.

Overhead Factors

The Company provided the monthly overhead factors for the Capital and the Seacoast Division for 2018. Overhead rates are set based on annual budgets at the beginning of each year and adjusted quarterly, or as necessary.

Capital	2018 Avg. Rate-Capital	2018 Avg. Rate-Seacoast
Light Trucks (Per Mile)	\$ 0.69	\$ 0.69
Heavy Trucks (Per Hour)	\$ 33.42	\$ 31.08
Exempt Stock Overhead	35.58%	35.00%
Exempt Stock Underground	4.00%	4.00%
Storeroom	33.33%	19.58%

The payroll related overhead rates are applied to the monthly payroll dollars per the Company and include the following:

<u>Payroll</u>	<u>2018 Average Rate</u>
Workers Compensation Insurance	02.39%
Medical Costs	24.56%
401k Costs	05.67%
PBOP Costs (Post-retirement Benefits Other than Pension)	10.73%
Small Tools	03.75%
Pension Costs	11.36%
Payroll Taxes	11.41%

The average Materials and Supplies related overheads for both divisions in 2018 include:

	<u>Capital Average</u>	<u>Seacoast Average</u>
M&S Stores Expense	33.33%	19.58%
Exempt Stock - Overhead	35.58%	35.00%
Exempt Stock – Underground	4.00%	4.00%

The Materials and Supplies overheads are applied (as appropriate) to Materials and Supplies specifically used for the work order.

Transportation expenses are directly charged based on the construction work order sheets completed in the field.

Vouchers are also directly charged to the work order. The expenses become part of the “base” charge against which the Construction Overheads are calculated.

Construction E&O Overheads are based on the sum of the monthly payroll and related overheads (under payroll heading above), Materials and Supplies and related overheads, transportation, and vouchers. The average rate for 2018 was 69.30%.

Construction Overheads-General are applied to all charges noted in the Construction E&O above and include the E&O Overhead. The average rate for 2018 was 6.92%.

The Company indicated in the 2017 Step Adjustment that larger projects such as new substations are charged construction overheads at a rate of 30%. UES states that the regular rate applied to these larger projects would impact all other projects by reducing the rate for the year the larger project was being constructed, and that the Company tries to maintain a consistent overhead rate for all construction projects in any given year and between years. In addition, the Company determined that 30% was the appropriate overhead rate for each of the projects and that this procedure will be added as an appropriate appendix to the Cost Allocation Manual (CAM), going forward. However, UES states that they have not yet added the procedure of determining special overhead rates to the CAM. The Company also stated that they do not anticipate any large projects

that would require using the special rate in the near future. When applicable, UES would determine the rate at that time and include that calculation in the CAM.

Depreciation

The Company provided the Accumulated Depreciation amount in schedule TRD-1, page 3 of 5 and the annual depreciation charge in TRD-1, page 4 of 5. Audit tied the annual depreciation charge totaling \$12,146,479 shown on the filing schedule TRD-1, page 1 of 5, to twelve general ledger entries with no exceptions noted. The Company states that under their practice of mass asset accounting, they do not have depreciation entries for individual assets.

Allowance for Funds Used During Construction

UES calculates the monthly AFUDC using the average balance of the month. In the month in which the work order is placed in service, ½ of the final month is used in the calculation. The monthly debt rate used for 2018 was noted to be 0.0024%.

Blanket Agreements

Audit was provided with the blanket agreements between UES and several large vendors that provide line crews, equipment and tree trimming services. Vendor charges incurred in the sampled work orders were reviewed for compliance with the rate sheet in effect.

I.C. Reed & Sons - All rates were effective January 1, 2017 through December 31, 2017 and covered labor including straight time, overtime and double time. Equipment based on hourly rates, a contractor's percentage (overhead) and overtime/double time overheads. The blanket agreement applied to UES's Seacoast Division only.

Utility Service and Assistance, Inc. - The agreement was effective January 1, 2017 through December 31, 2017 and covered labor, equipment, trucks and tools needed to perform services assigned. The blanket agreement applied to UES's Capital Division and the Seacoast Division.

Asplundh Tree Expert Company - The service agreement was effective May 30, 2014 January 1, 2017 with no expiration date (evergreen). The Company confirmed that this agreement was in effect for the year 2018. The blanket agreement applied to UES's Capital Division and the Seacoast Division.

Hi Volt Line Construction and Maintenance - The agreement was effective January 1, 2018 through December 31, 2018 and covered labor, equipment, vehicles and tools needed to perform services. The blanket agreement applied to UES's Capital Division and the Seacoast Division.

Replace Two Reclosers at Wolf Hill**E-013161-00035542****\$174,210**

This work order comprises the replacement of two reclosers at Wolf Hill in Plaistow for the Company's Seacoast Division. The work order was booked to plant in service in January 2018. Audit reviewed the cost record for work order #00035542 and noted the following:

Cost Record Code	Journal Entry Description	Amount
10-800	Payroll Straight Time	\$ 8,174
10-803	Payroll Overtime	\$ 507
27-804	Materials & Supplies Issue	\$ 3,176
30-820	Transportation	\$ 1,357
40-805	Vouchers	\$ 78,990
50-807	M/S Stores Expense	\$ 677
51-850	Exempt Stock Expense	\$ 848
55-857	Exempt Stock Stores Expense	\$ 180
60-809	Workers Comp Insurance	\$ 350
60-815	Medical Costs Capitalized	\$ 2,586
60-816	401K Costs Capitalized	\$ 304
60-817	PBOP Costs Capitalized	\$ 2,713
70-811	Construction E&O Overheads	\$ 67,224
70-813	Construction Overheads Capitalized	\$ 16,556
80-814	Small Tools	\$ 409
90-822	Interest Capitalized	\$ 4,577
90-848	Sundry Revenue	\$ (18,993)
90-866	Payroll Taxes Capitalized	\$ 895
90-867	Pension Costs Capitalized	\$ 3,681
Total Work Order		\$ 174,210

Payroll and one-hundred percent of the vouchers were reviewed and verified to the reported totals. A summary of the vendors is shown below:

Vendor	Description	Invoice(s)
G&W Electric	Reclosers	\$ 46,800
IC Reed	Install Reclosers	\$ 27,205
Adecco Employment	Temp Employees	\$ 1,955
RLH Industries	Fiber Cable	\$ 1,062
Northeast Electric	Junction Box & PVC Connections	\$ 825
Wesco Distributors	4-Bolt Terminal	\$ 726
Plaistow Police	Police Detail/Traffic Control	\$ 390
Arjay Ace Hardware	Small Tools & Propane	\$ 27
Total Vendors		\$ 78,990

The major construction charges included under this work order were from G&W Electric and I.C. Reed Construction, which provided line crews and vehicles. From the

The major construction charges included under this work order were from G&W Electric and I.C. Reed Construction, which provided line crews and vehicles. From the employee timesheets, Audit tied the employee and equipment rates to the service agreement and recalculated all the invoices with no exceptions noted.

ADECCO Employment Services provided temporary administrative support to the Seacoast Distribution and Operations Center (DOC). Audit noted that several ADDECO invoices were presented in the 2017 Step Adjustment in Docket DE 18-036. However, work order line items that were filed in 2017 were properly not included in the 2018 filing.

Audit requested an explanation and documentation for cost code 90-848 – Sundry Revenue in the amount of (\$18,993). The Company provided the invoice showing that this was reimbursement for damaged caused by a tree crew.

<u>Verification to the General Ledger</u>		
Account	Description	Amount
365-00	Overhead Conductors & Devices	\$ 172,093
	Net Additions	\$ 172,093

Audit verified that the total \$172,093 was posted to account 365-00, Overhead Conductors and Devices in January 2018.

Cost Record Total	\$174,210
Cost of Removal	<u>(\$ 2,117)</u>
Net Additions to Plant in Service	\$172,093

Retirements shown on the general ledger were credited to the plant account 365-00, Distribution Overhead in the amount of \$462 for arrestors, pin insulators and aluminum wire that was placed in service in 1976.

<u>Recloser Replacement</u>	<u>C-170142-20171616</u>	<u>\$314,579</u>
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This work order was for the replacement of a failed recloser/breaker at the West Concord substation. The work order was booked to plant in service in April of 2018. Audit reviewed the cost record for work order C-170142-20171616 and noted the following:

Cost Record Code	Journal Entry Description	Amount
10-800	Payroll Straight Time	\$ 2,377
40-805	Vouchers	\$ 166,648
60-809	Workers Comp Insurance	\$ 47
60-815	Medical Costs Capitalized	\$ 459
60-816	401K Costs Capitalized	\$ 111
60-817	PBOP Costs Capitalized	\$ 258
70-811	Construction E&O Overheads	\$ 106,952
70-813	Construction Overheads Capitalized	\$ 33,065
80-814	Small Tools	\$ 95
90-822	Interest Capitalized	\$ 1,971
90-866	Payroll Taxes Capitalized	\$ 259
90-867	Pension Costs Capitalized	\$ 237
95-865	Miscellaneous Plant Adjustment	\$ 2,100
	Total Work Order	\$ 314,579

Payroll and one-hundred percent of the vouchers were reviewed and verified to the reported totals. A summary of the vendors is shown below:

Vendor	Description	Invoice(s)
IC Reed	Install Reclosers	\$ 113,500
ABB Power, Inc.	Outdoor Dead Tank Breaker	\$ 48,050
Fastenall Industries	Miscellaneous Hardware	\$ 497
Siemens Industrial	Disconnect Switches	\$ 926
Graybar Electric	Various Connectors	\$ 2,910
Substation Engineering	Regulator Stands	\$ 524
Rocky's Ace Hardware	Miscellaneous Supplies	\$ 38
NE Traffic Control	Traffic Control	\$ 203
Total Vendors		\$ 166,648

I.C Reed provided labor, and materials for the installation at the West Concord substation. The Company was invoiced on September 14, 2018 for the contract completion.

ABB Power Inc. furnished 2, 15 KV, outdoor dead tank circuit breakers or switches at \$24,025 each for a total of \$48,050.

Verification to the General Ledger

Account	Description	
362-00	Distribution Station	\$ 314,579
	Net Additions	\$ 314,579

Audit verified that the total \$314,579 was posted to account 362-00, Distribution Station Equipment in November 2018.

Retirements shown on the general ledger were credited to the plant account 362-00, Distribution Station Equipment in the amount of \$13,863 for the recloser that was placed in service in July of 1970 and other miscellaneous switching and connection apparatus.

Eintake Migration **C-170171-20172524** **\$27,943**

This work order was initiated to integrate the Company's Microsoft database into their current web-based system. The project was initiated in 2017 and was completed and booked to the general ledger in August of 2018. The Company states that a web based system will allow for greater development than the current data based system. Audit reviewed the cost record for work order #C-170171-20172524 and noted the following:

Cost Record Code	Journal Entry Description	Amount
40-805	Vouchers	\$ 15,746
95-865	Miscellaneous Plant Adjustment	\$ 12,198
	Total Work Order	\$ 27,943

There were nine entries to cost code 95-865, Miscellaneous Plant Adjustment totaling \$12,198. UES states that these entries are done to re-classify Unitil Service Company payroll and overheads to the appropriate projects. For this work order, internal payroll receives an overhead rate of 55%. Audit reviewed all the invoices that supported the journal entries and recalculated several for accuracy with no exceptions noted. A summary of the vendors follows:

Vendor	Description	Invoice(s)
AVCO Consulting	Consulting Services	\$ 15,746

AVCO Consulting of Worcester Massachusetts provided consulting services from October 2017 through March of 2018. The invoice amount was allocated to UES at 69% and Fitchburg Electric, a Unitil Division in Massachusetts, at 31% based on a three-factor allocator using revenues, customers and assets. Audit recalculated the invoices with no exceptions noted.

<u>Verification to the General Ledger</u>		
Account	Description	Amount
303-00	Intangible Software - 5-Year	\$ 27,943

Audit noted that the total work order for \$27,943 was posted to account 303-00 in August 2018. There were no associated costs of removal or assets retired as a result of the plant additions reviewed.

There were nine entries to cost code 95-865, Miscellaneous Plant Adjustment totaling \$12,198 from November 2017 to August 2018. These represented plant adjustments to reclassify Unitil Service Company (USC), payroll and overheads to the work order at an overhead rate of 55% on service projects. Audit reviewed all the invoices

that supported the journal entries and recalculated several for accuracy with no exceptions noted.

Circuit Conversion Exeter

E-171023-20171803

\$266,446

This work order is comprised of labor and materials to accommodate supplying the proposed waste water treatment plant on Public Works Drive in Exeter, NH. The work order was booked to plant in service in January 2018. Audit reviewed the cost record for work order E-171023-20171803 and noted the following:

Cost Record Code	Journal Entry Description	Amount
10-800	Payroll Straight Time	\$ 858
27-804	Materials & Supplies Issues	\$ 22,614
30-820	Transportation	\$ 264
40-805	Vouchers	\$ 111,374
50-807	Materials & Supplies Stores Expense	\$ 4,073
51-850	Exempt Stock Expense	\$ 5,880
55-857	Exempt Stock Stores Expense	\$ 1,059
60-809	Workers Comp Insurance	\$ 17
60-815	Medical Costs Capitalized	\$ 228
60-816	401K Costs Capitalized	\$ 40
60-817	PBOP Costs Capitalized	\$ 61
70-811	Construction E&O Overheads	\$ 95,666
70-813	Construction Overheads Capitalized	\$ 21,115
80-814	Small Tools	\$ 34
90-822	Interest Capitalized	\$ 3,013
90-866	Payroll Taxes Capitalized	\$ 74
90-867	Pension Costs Capitalized	\$ 76
Total Work Order		\$ 266,446

Payroll, transportation, and overheads were reviewed and recalculated for a sample of months from 2018. Audit tied the cost record entries to the Company's Standard Costs and Overhead Factors sheet with no exceptions noted. One-hundred percent of the vouchers were reviewed and verified to the reported totals. A summary of the vendors follows:

Vendor	Description	Invoice(s)
Utility Service & Assistance, Inc.	Line Crews & Equipment	\$ 104,930
Asplundh Tree Service	Tree Trimming	\$ 3,633
I.C. Reed & Sons	Line Crews & Equipment	\$ 1,834
Exeter Police	Traffic control	\$ 977
Total Vendors		\$ 111,374

Audit reviewed 5 invoices from Utility Service & Assistance to convert the circuit at Newfields Road and replace 22 poles. One invoice dated October 11, 2017 in the amount of \$82,460 did not contain timesheets. The invoice states that this was bid and the costs were per the contract. The Company provided the request for proposal and the contract showing the amount to be \$82,460 with Utility Service and Assistance, the chosen bidder.

I.C. Reed provided a crew of four and equipment for the installation of metering units totaling \$1,834. Audit recalculated 27 hours of labor charges, matching the rates to the vendors rate sheet with no exceptions noted.

Verification to the General Ledger

Account	Description	Amount
364-00	Distribution Poles, Tower - E	\$ 74,240
365-00	Distribution Overhead Con - E	\$ 123,648
369-00	Distribution Services - E	\$ 40,358
	Net Additions	\$ 238,246
Cost Record Total		\$266,446
Cost of Removal		<u>(\$ 28,200)</u>
Net Additions to Plant in Service		\$238,246

Retirements for the work orders totaled \$13,049 per the general ledger and was posted to the general ledger in April 2018.

Replace Primary Metering Seabrook E-171060-20171851 \$275,304

This work order was for the replacement of metering equipment at Seabrook Station in Hampton, NH in the Company's Seacoast Division. The work order was booked to plant in service in April 2018. Audit reviewed the cost record for work order E-171060-#20171851 and noted the following:

Cost Record Code	Journal Entry Description	Amount
10-800	Payroll Straight Time	\$ 90
27-804	Materials & Supplies Issue	\$ 9,999
40-805	Vouchers	\$ 138,958
50-807	M/S Stores Expense	\$ 1,313
51-850	Exempt Stock Expense	\$ 2,464
55-857	Exempt Stock Stores Expense	\$ 459
60-809	Workers Comp Insurance	\$ 2
60-815	Medical Costs Capitalized	\$ 13
60-816	401K Costs Capitalized	\$ 4
60-817	PBOP Costs Capitalized	\$ 6
70-811	Construction E&O Overheads	\$ 82,468
70-813	Construction Overheads Capitalized	\$ 16,529
80-814	Small Tools	\$ 4
90-822	Interest Capitalized	\$ 3,162
90-866	Payroll Taxes Capitalized	\$ 8
90-867	Pension Costs Capitalized	\$ 8
95-865	Miscellaneous Plant Adjustment	\$ 22,776
K7-804	Issue Reversal	\$ (2,959)
	Total Work Order	\$ 275,304

Audit reviewed 4 invoices from ABB Inc. for 9 metering units at \$9,775 each for a total of \$87,975. The units were received over four months from November, 2017 through February 2018. Audit recalculated the invoices with no exceptions noted.

I.C Reed provided the crews and equipment for the installation of metering units totaling \$49,705. Audit recalculated the invoices and labor charges, matching rates to the vendors rate sheet with no exceptions noted.

Verification to the General Ledger

Account	Description	Amount
362-00	Distribution station Equipment	\$ 122,779
364-00	Distribution Poles, Tower	\$ 7,617
365-00	Distribution Overhead Connections	\$ 109,418
	Net Additions	\$ 239,815
Cost Record Total		\$275,304
Cost of Removal		(\$ 35,489)
Net Additions to Plant in Service		\$239,815

Retirements for the work order totaled \$6,619 per the general ledger and was posted on December 18, 2018 per the general ledger. These were for miscellaneous pole materials placed in service in January of 1989, 1990, and 1991.

Meter Purchases**C-180107-20188007/20188009****\$415,546**

This project is comprised of two work orders for the purchase and installation of new metering and equipment for residential and commercial customers in both the Company's divisions.

Cost Record Code	Journal Entry Description	Amount
40-805	Vouchers	\$ 215,026
70-811	Construction Engineering Overheads	\$ 137,385
70-813	Construction Overheads Capitalized	\$ 38,551
90-822	Interest Capitalized	\$ 3,147
10-800	Payroll Straight Time	\$ 165
10-802	MDS Payroll	\$ 4,529
10-803	Payroll Overtime	\$ 3,651
60-809	Workers' Compensation Insurance	\$ 113
60-815	Medical Costs Capitalized	\$ 1,127
60-816	401K Costs Capitalized	\$ 261
60-817	PBOP Costs Capitalized	\$ 527
70-811	Construction Engineering Overheads	\$ 7,588
70-813	Construction Overheads Capitalized	\$ 2,003
80-814	Small Tools	\$ 173
90-822	Interest Capitalized	\$ 245
90-866	Payroll Taxes Capitalized	\$ 520
90-867	Pension Cost Capitalized	\$ 536
Total Work Order		\$ 415,546

One-hundred percent of the vouchers were reviewed and verified to the reported totals for purchased meters. A summary of the vendors follows:

Vendor	Description	Qty	Invoice(s)
Stuart Irby	Meters	1,656	\$ 188,650
Alcara Meters	Meters	96	\$ 13,056
Landis + Gyr	Meters	124	\$ 13,320
Total Meters		1,876	\$ 215,026

Three vendors supplied 1,876 meters totaling \$215,026 from January 2018 through August 2018. Audit recalculated several months with no exceptions noted.

Verification to the General Ledger

Account	Description	Amount
370-00	Distribution Meters-E	\$ 207,773
370-01	Meter Installation-E	\$ 207,773
Net Additions		\$ 415,546

Audit noted that the general ledger did not report any meter retirements for these work orders in 2018. The Company responded to an Audit request stating that "a report was run in January of 2019 for all meters that were retired during 2018 and will be included in the 2019 Additions and Retirements." UES did provide detailed retirement

documentation, however the last meter removal dates were year 2017. Audit was unable to verify the related meter retirements for 2018. **Audit Issue #1**

Audit tested several months of overhead calculations related to the following categories shown on the cost record:

180107-20188007

- January 2018 Construction E&O Overheads, cost code 70-811, was \$11,623 on total January vouchers of \$16,772 @ 69.30%.
- January 2018 Construction Overheads Capitalized, code 70-813, was \$1,965 on total January vouchers of \$16,623 and construction E&O overheads of \$11,623 @ 6.92%.
- March 2018 Construction E&O Overheads, cost code 70-811, was \$28,185 on total March vouchers of \$40,671 @ 69.30%.
- March 2018 Construction Overheads Capitalized, code 70-813, was \$4,765 on total March vouchers of \$40,671, and construction E&O overheads of \$28,185 @ 6.92%.

180107-20188009

- September 2018 Medical Costs Capitalized, cost code 60-815 totaled \$59 on September payroll totaling \$308 @ 19%.
- September 2018 Pension Costs Capitalized, cost code 90-867 totaled \$31 on September payroll totaling \$308 @ 10%.
- Transportation Overheads, cost code 30-820 totaled \$3,651 and represented 12 months of direct charges.

Accounting for Funds Used During Construction (AFUDC) or Capitalized Interest, cost code 90-822, totaled \$3,392 for the two work orders per the cost record. The Company provided the monthly calculations for the work orders at a debt rate of .0024%. The total AFUDC agreed with the cost record code 90-822, Capitalized Interest for the two months reviewed with no exceptions noted.

Relocate Riser Pole	C-180109-20181600/20181602	\$44,499
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This work order was for the relocation of a riser pole, which connects an overhead line to an underground line, and installing a 375-foot, three-phase primary underground line extension. This was done to accommodate a new commercial service in Bow, NH that previously would not handle the increased load. The project was completed in February of 2018 and posted to the appropriate general ledger plant accounts in March 2018.

Audit reviewed the cost record for construction work order #C-180109 and noted the following:

Cost Record Code	Journal Entry Description	Amount
10-800	Payroll Straight Time	\$ 6,061
10-803	Payroll Over Time	\$ 22
29-804	M/S Salvage	\$ (373)
27-804	Materials & Supplies Issue	\$ 9,610
30-820	Transportation	\$ 2,175
40-805	Vouchers	\$ 6,282
50-807	Materials & Supplies Stores Expense	\$ 1,813
51-850	Exempt Stock Expense	\$ 1,018
55-857	Exempt Stock Stores Expense	\$ 214
60-809	Worker's Comp Insurance	\$ 120
60-815	Medical Costs Capitalized	\$ 1,617
60-816	401K Costs Capitalized	\$ 284
60-817	PBOP Costs Capitalized	\$ 434
70-811	Const E&O Overheads	\$ 20,711
70-813	Const OHDS Capitalized	\$ 3,590
80-814	Small Tools	\$ 243
90-822	Interest Capitalized	\$ 101
90-848	Sundry Revenue	\$ (9,511)
90-866	Payroll Taxes Capitalized	\$ 527
90-867	Pension Costs Capitalized	\$ 540
K7-804	Issue Reversal	\$ (977)
Net Addition to Plant in Service		\$ 44,499

Payroll, transportation, and overheads were reviewed as noted above. One-hundred percent of the vouchers were reviewed and verified to the reported totals. A summary of the vendors is shown below:

Vendor	Description	Invoice(s)
Hi Volt Line Const. & Maint.	Pole Relocation	\$ 4,939
New England Traffic Control	Flaggers in Bow/Concord	\$ 624
Boscawen Police	Police Detail, 8 Hrs on 7/18/18	\$ 720
Total Vendors		\$ 6,282

Materials and Supplies Issue, cost code 27-804, totaled \$9,610 and represented poles and miscellaneous pins and anchors. Retirements totaled \$4,303 for plant placed in service in January 1987 and January 2012. The Sundry Revenue amount of \$9,511 was full payment from the customer for relocating the pole at the 79 Dow Road project per the Company. The cost of removal totaled \$2,718.

Construction E&O Overheads comprised eight postings and are based on the sum of the monthly vouchers. The average rate for 2018 was 69.30%. Audit recalculated the general ledger amounts using the average rate and found no exceptions.

Verification to the General Ledger

Account	Description	Amount
364-00	Distribution Poles, Tower-E	\$ 273
365-00	Distribution Overhead Con-E	\$ 495
367-00	Distribution Overhead Con-E	\$ 44,073
371-00	Distribution Underground-E	\$ 30
29-804	Materials & Supplies Salvage	\$ (373)
	Net Additions	\$ 44,499

Retirements for the work orders totaled \$4,303 per the general ledger and was posted on August 18, 2018 per the general ledger.

Condemned Poles Sub-Transmission **C-180113-20181603** **\$480,486**

The authorization was for the replacement of 55 distribution poles that were identified by annual inspection as needing to be replacing in the Capital region. The work order was booked to plant in service on the general ledger December 2018. Audit reviewed the cost record for construction work order #20181603 and noted the following:

Cost Record Code	Journal Entry Description	Amount
10-800	Payroll - Straight Time	\$ 37,661
10-803	Payroll - Overtime	\$ 1,640
27-804	Materials & Supplies Issue	\$ 33,763
30-820	Transportation	\$ 14,982
40-805	Vouchers	\$ 115,391
50-807	Materials & Supplies Stores Expense	\$ 10,555
51-850	Exempt Stock Expense	\$ 12,381
55-857	Exempt Stock Stores Expense	\$ 3,343
60-809	Worker's Compensation Insurance	\$ 779
60-815	Medical Costs Capitalized	\$ 7,484
60-816	401K Costs Capitalized	\$ 1,847
60-817	PBOP Costs Capitalized	\$ 3,247
70-811	Construction Engineering Overheads	\$ 166,363
70-813	Construction Overheads Capitalized	\$ 41,824
80-814	Small Tools	\$ 1,570
90-822	Interest Capitalized	\$ 4,751
90-866	Payroll Taxes Capitalized	\$ 3,691
90-867	Pension Costs Capitalized	\$ 3,641
95-865	Misc. Plant Adjustment	\$ 15,836
K7-804	Issue Reversal	\$ (265)
	Total Work Order	\$ 480,486

Payroll, transportation, and overheads were reviewed as noted above. One-hundred percent of the vouchers were reviewed and verified to the reported totals. A summary of the vendors is shown below:

Vendor	Description	Invoice(s)
Hi-Volt Line Construction & Maintenance	Line Work	\$ 91,670
New England Traffic Control	Traffic Control	\$ 19,807
Asplundh Tree Service	Tree Trimming	\$ 1,705
Utility Service & Assistance	Line Work	\$ 858
Town of Allenstown	Police Detail	\$ 704
Town of Epsom	Police Detail	\$ 352
G. Ray Colby & Sons	Sand/Salt Mix	\$ 150
Graybar Electric	Miscellaneous Electrical Parts	\$ 85
Phoenix Precast	Concrete Box Cover	\$ 60
Total Vendors		\$ 115,391

Construction E&O Overheads, cost code 70-811, was comprised of twelve monthly postings and are based on the sum of the monthly vouchers and other cost codes discussed on pages 2 and 3 of this report. The average rate for 2018 was 69.30%. Audit recalculated several general ledger amounts using the average rate and found no exceptions.

Construction Overheads-Capitalized, cost code 70-813, are applied to all charges noted in the Construction E&O above in addition to the E&O Overhead. Audit tested several months with no exceptions noted using the average rate for 2018 of 6.92%.

Verification to the General Ledger

Account	Description	Amount
364-00	Distribution Poles, Tower-E	\$ 256,641
365-00	Distribution Overhead Con-E	\$ 150,667
367-00	Distribution Underground-E	\$ 2,286
369-00	Distribution Overhead Services-E	\$ 3,148
	Net Additions	\$ 412,743

Cost Record Total	\$480,486
Cost of Removal	(\$ 67,743)
Salvage	\$ -0-
Net Additions to Plant in Service	\$412,743

Retirements totaled \$22,046 per the general ledger account 364-00, Distribution Poles/Towers, 365-00, Distribution Overhead and 367-00, Distribution Underground. UES provided the retirement entries for the plant accounts, which showed 14 poles and miscellaneous related equipment such as wire, cross arms and insulators that were placed in service from the 1950's through the 2010's. The cost of removal totaled \$67,743 per the general ledger.

Condemned Poles Sub-Transmission C-180113-20181606 \$40,276

The authorization was for the replacement of sub transmission poles and poles identified as condemned by Fairpoint in their maintenance area. The work order was booked to plant in service on the general ledger in December 2018. Audit reviewed the cost record for construction work order #20181606 and noted the following:

Cost Record Code	Journal Entry Description	Amount
10-800	Payroll - Straight Time	\$ 5,311
10-803	Payroll - Overtime	\$ 400
27-804	Materials & Supplies Issue	\$ 1,331
30-820	Transportation	\$ 2,648
40-805	Vouchers	\$ 6,759
50-807	Materials & Supplies Stores Expense	\$ 333
51-850	Exempt Stock Expense	\$ 486
55-857	Exempt Stock Stores Expense	\$ 113
60-809	Worker's Compensation Insurance	\$ 140
60-815	Medical Costs Capitalized	\$ 1,517
60-816	401K Costs Capitalized	\$ 302
60-817	PBOP Costs Capitalized	\$ 1,025
70-811	Construction Engineering Overheads	\$ 14,373
70-813	Construction Overheads Capitalized	\$ 3,701
80-814	Small Tools	\$ 202
90-822	Interest Capitalized	\$ 364
90-866	Payroll Taxes Capitalized	\$ 649
90-867	Pension Costs Capitalized	\$ 622
Total Work Order		\$ 40,276

Payroll, transportation, and overheads were reviewed as noted above. One-hundred percent of the vouchers were reviewed and verified to the reported totals. A summary of the vendors is shown below:

Vendor	Description	Invoice(s)
Hi-Volt Line Construction & Maintenance	Line Work	\$ 3,273
New Engalnd Traffic Control	Traffic Control	\$ 2,349
Town of Bow	Police Detail	\$ 680
Town of Epsom	Police Detail	\$ 256
Town of Northwood	Police Detail	\$ 201
Total Vendors		\$ 6,759

Construction E&O Overheads, cost code 70-811, was comprised of nine monthly postings and are based on the sum of the monthly vouchers and other cost codes discussed on pages 2 and 3 of this report. The average rate for 2018 was 69.30%. Audit recalculated several general ledger amounts using the average rate and found no exceptions.

Verification to the General Ledger

Account	Description	Amount
364-00	Distribution Poles, Tower-E	\$ 11,449
365-00	Distribution Overhead Con-E	\$ 23,246
	Net Additions	\$ 34,695

Cost Record Total	\$40,276
Cost of Removal	(\$ 5,581)
Salvage	\$ -0-
Net Additions to Plant in Service	\$34,695

Retirements totaled \$49 per the general ledger account 364-00, Distribution Poles/Towers and 365-00, Distribution Overhead. UES provided the retirement entries for the plant accounts, which showed cross arms and insulators that were placed in service in January of 1970 and January 1972. The cost of removal totaled \$5,581 per the general ledger.

Condemned Poles Sub-Transmission C-180113-20181607 \$343,533

The authorization, budgeted in 2017, was for the replacement of six distribution poles and cross arms that were identified by annual inspection as needing to be replaced. This project included work on a river crossing and off-road work on line #374, which required special equipment per the authorization. The work order was booked to plant in service on the general ledger November 2018. Audit reviewed the cost record for construction work order #20181607 and noted the following:

Cost Record Code	Journal Entry Description	Amount
10-800	Payroll Straight Time	\$ 3,803
27-804	Materials & Supplies Issue	\$ 14,843
29-804	Materials & Supplies Salvage	\$ (593)
30-820	Transportation	\$ 1,793
40-805	Vouchers	\$ 156,904
50-807	Materials & Supplies Stores Expense	\$ 7,277
51-850	Exempt Stock Expense	\$ 2,344
55-857	Exempt Stock Stores Expense	\$ 1,528
60-809	Workers' Compensation Insurance	\$ 75
60-815	Medical Costs Capitalized	\$ 722
60-816	401K Costs Capitalized	\$ 178
60-817	PBOP Costs Capitalized	\$ 418
70-811	Construction Engineering Overheads	\$ 112,930
70-813	Construction Overheads Capitalized	\$ 41,189
80-814	Small Tools	\$ 152
90-822	Interest Capitalized	\$ 1,353
90-866	Payroll Taxes Capitalized	\$ 418
90-867	Pension Costs Capitalized	\$ 380
95-865	Misc. Plant Adjustment	\$ 1,500
K7-804	Pension Cost Capitalized	\$ (3,681)
	Total Work Order	\$ 343,533

Payroll, Materials, Supplies and several vendor invoices were reviewed and verified to the reported totals. Shown below is a summary of the vendors:

Vendor	Description	Invoice(s)
Utility Service & Assistance	Line Work	\$ 133,157
Graybar Electric	Misc. Electrical Materials	\$ 12,368
McFarland Cascade	40 & 45 Foot Poles	\$ 9,999
Stuart Irby	3/4 Ton Nylon Strap Hoist	\$ 542
New Engalnd Traffic Control	Traffic Control	\$ 493
Town of Bow	Police Detail	\$ 315
Bullseye Products Inc.	Woodpecker & Insect Repair Patch	\$ 30
Total Vendors		\$ 156,904

Payroll-Straight Time, cost code 10-800, comprised two posting in the months of August and September 2018 totaling \$3,803. Audit matched the Schedule of Wages to the Payroll Inquiry Report provided by the Company with no exceptions noted.

Utility Service and Assistance, Inc., provided the line crews in August and September 2018 totaling \$133,157 for the work order. UES provided to Audit the rate schedules for 2017, which according to the Company were also in effect in 2018. Audit reviewed all five invoices matching the employee hourly wages, equipment and vehicle charges to the invoices as well as recalculating all the totals. No exceptions were noted.

Graybar Electric provided cross arms and braces in May and June 2018 totaling \$12,368 including freight. Audit reviewed three invoices with no exceptions noted.

McFarland Cascade provided eight, 40-foot poles and five, 45-foot poles of which six were installed under this work order.

Construction E&O Overheads comprised six postings and are based on the sum of the monthly vouchers. The average rate for 2018 was 69.30%. Audit recalculated the general ledger amounts using the average rate and found no exceptions.

Audit recalculated several months of Construction Overheads Capitalized, code 70-813, which are based on total Vouchers and Construction E&O Overheads for the month. Using the rate of 6.92%, Audit found no exceptions.

Verification to the General Ledger

Account	Description	Amount
364-00	Distribution Poles, Tower-E	\$ 194,573
365-00	Distribution Overhead Con-E	\$ 89,551
	Net Additions	\$ 284,124
Cost Record Total		\$343,533
Cost of Removal		(\$ 60,002)
Salvage		\$ 593
Net Additions to Plant in Service		\$284,124

Retirements totaled \$1,056 per the general ledger account 364-00, Distribution Poles/Towers. UES provided the retirement entries for the plant accounts, which showed four 40-foot poles and related items that were placed in service in January of 1966 and January 1991. The cost of removal totaled \$60,002 per the general ledger.

Interface Enhancements C-180132-20182514 \$178,847

The authorization, initiated in February 2018, approved enhancements related to the integration of interfaces to the customer information system. The work order was booked to plant in service on the general ledger in November 2018. Audit reviewed the cost record for construction work order #20182514 and noted the following:

Cost Record Code	Journal Entry Description	Amount
40-805	Vouchers	\$ 86,914
95-865	Misc. Plant Adjustment	\$ 91,933
	Total Work Order	\$ 178,847

One-hundred percent of vouchers were reviewed and verified to the reported totals. A summary of the vendors is shown below:

Vendor	Description	Invoice(s)
Grant Thornton LLP	System Interface Enhancements	\$ 39,855
Alexander Group LLC	System Interface Enhancements	\$ 29,019
Systems & Software Corp.	System Interface Enhancements	\$ 14,409
PC Connection	Hardware	\$ 3,611
Joes Meat Shop	Meals Expense	\$ 20
Total Vendors		\$ 86,914

Grant Thornton LLP provided interface enhancements totaling \$39,855. This was a 33% allocation to UES. The invoices also contained an administrative expense charge of 3.5% which was also included in the allocation. Audit reviewed the charges with no exceptions noted.

Alexander Group LLC provided systems consulting totaling \$29,019. UES was charged at an allocation rate of 33% on each monthly invoice. Each invoice was supported by the individual consultant's time record showing the number of hours worked and pay rate.

There were nine entries to post internal payroll overhead and two entries to re-class two vouchers to cost code 95-865, Miscellaneous Plant Adjustment. The total for the cost code was \$12,198. UES states that the entries are done to re-classify Unitil Service Company payroll and overheads to the appropriate projects. For this work order, internal payroll receives an overhead rate of 55%. In addition, the Company states that vouchers do not receive Service Company overheads. Audit reviewed all the invoices that supported the journal entries and recalculated several for accuracy with no exceptions noted.

Verification to the General Ledger

Account	Description	Amount
303-00	Intangible Software - 5-Year	\$ 178,547

There were no retirements or cost of removal associated with the work order.

MeterSense Enhancements C-180134-20182516 \$52,017

This work order was for enhancements to the meter data management system, MeterSense. The system contains energy measurement, data validation and analysis modules. Audit reviewed the cost record for systems enhancement work, C-180134-#20182516 and noted the following:

Cost Record Code	Journal Entry Description	Amount
40-805	Vouchers	\$ 37,797
95-865	Miscellaneous Plant Adjustment	\$ 14,220
	Total Work Order	\$ 52,017

One-hundred percent of vouchers were reviewed and verified to the reported totals. A summary of the vendors is shown below:

Vendor	Description	Invoice(s)
Harris Computer Systems	Module Implementation & Training	\$ 18,249
Grant Thornton, LLP	Monthly Consulting	\$ 14,874
Systems & Software	Consulting	\$ 2,859
Abridge Info Systems, Inc.	Consulting	\$ 1,815
Total Vendors		\$ 37,797

Harris Computer Systems provided the implementation of the Smartworks Dashboard module and employee training. The invoice dated November 11, 2018 totaled \$55,300 of which UES was allocated 33%, or \$18,249. Audit reviewed the charges with no exceptions noted.

Grant Thornton LLC provided CIS system enhancements totaling \$14,874. This was a 33% allocation to UES. The invoices also contained an administrative expense charge of 3.5% which was also included in the allocation. Audit reviewed the charges with no exceptions noted.

Verification to the General Ledger

Account	Description	Amount
303-00	Intangible Software	\$ 52,017
	Net Additions	\$ 52,017

There were no retirements or cost of removal associated with the work order.

Conclusion

Audit reviewed twelve work orders totaling \$2,613,686, representing 15% of the reported \$18,361,098 in total 2018 gross plant additions. The filing schedule TRD-1, page one, Step Additions, agreed with the Company's general ledger for total additions and retirements. However, the ending utility plant amount of \$340,808,317 is overstated by the amount of meter retirements not taken in the test-year. (See Audit Issue #1)

Beginning Utility Plant	\$324,214,118
Plant Additions	\$ 18,361,098
Retirements	<u>\$ (1,766,899)</u>
Ending Utility Plant	\$340,808,317

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Lack of Meter Retirement Documentation

Background

Audit noted that the general ledger did not reflect any meter retirements for work orders C-180107-20188007 and C-180107-20188009, Meter Purchases, in 2018.

Issue

The Company responded to a request for a retirement listing stating that *“a report was run in January of 2019 for all meters that were retired during 2018 and will be included in the 2019 Additions and Retirements.”* Audit was therefore unable to verify the related meter retirements, resulting in account 371 – Meters being overstated for the test-year 2018.

Recommendation

UES should reduce the ending plant balance of \$340,808,317 to reflect meter retirements not taken in the test-year. In addition, the ending accumulated depreciation figure of \$123,439,500 should also be reduced to reflect the increase in retirements.

Company Comment

The Company agrees with the recommendation, and has provided a Revised Schedule TRD-1 RevReq. Since both gross plant and accumulated depreciation have been adjusted by the same amount the impact to the change in net plant is zero. The revenue requirement is unchanged from the initial filing.

Going forward, the Company will implement the practice of processing meter retirements within the year in which they are disposed of, in order to accurately reflect the ending plant balance each year.

Audit Comment

Audit concurs with the Company's comment