

Pennichuck East Utilities
DW17-128
Calculation of Rate Stabilization Funds

DLW Exh 1

Attachment A

Pennichuck East Utility, Inc.
Stabilization Fund Calculations
Settlement Agreement
Revised Per Staff and Town DR 3 and Tech session adjustments
8/10/2021, Revised for Settlement 12/1/2021

PEU Proforma Test Year 2019					
Proformed Revenue Requirement ¹ - \$ 10,160,719					
		Material Operating Expense Revenue Requirement, inclusive of MOEF and Amortization Expense	Operating Expense Revenue Requirement⁶	1.0 Debt Service Revenue Requirement	0.1 Debt Service Revenue Requirement
	CBFRR				
Revenue Requirement ² -	\$ 926,309	\$ 7,313,909	\$ 7,163	\$ 1,739,398	\$ 173,940
Percentage of Revenues -	9.12%	71.98%	0.07%	17.12%	1.71%
3 Years coverage -	\$ 61,187	\$ 1,761,614		\$ 114,896	\$ -
Requested Rate Stabilization Fund by Revenue Category ^{3,4} -	\$ 60,000	\$ 1,760,000	No Stabilization Fund	\$ 110,000	No Stabilization Fund
DW17-128 Approved RSF fund level -	\$ 31,000	\$ 898,000		\$ 51,000	
Based on largest negative variance from five year ave of -	3.83%				
Revenue Shortfall per year for worst sales year in the past 5 years compared against 5 year average -	\$ 20,396	\$ 159,823		\$ 38,299	

Increase in Material Operating Expenses of 3.00% per year based on average increase of these expenses per year between 2012 and 2017. See Table below for calculation.

Requested MOEF -	4.00%	MOEF @ 6% -	\$ 418,940		
Rate increase @ requested MOEF -	16.79%	Annual MOEF cash lost -	\$ 139,647	@	4.00% MOEF
Annual MOEF Cash -	\$ 279,293	Additional RSF borrowing -	\$ 418,940	@	4.00% MOEF
1,930,000 Requested RSF totals with no MOEF		based on			3 years of cash necessary to keep RSF
Requested RSF funds with MOEF -	\$ 980,000				accounts near their imprest levels at the
MOERR from 1604.06 Sch A -	\$ 6,982,335				beginning of the next rate case.

Revenue Type	2015 PEU Billed Revenue ⁷	2016 PEU Billed Revenue ⁸	2017 PEU Billed Revenue	2018 PEU Billed Revenue	2019 PEU Billed Revenue
Total Volumetric Charges (less Recoupment from DW13-1xx)	\$ 4,226,401	\$ 4,024,926	\$ 4,141,266	\$ 5,197,607	\$ 5,092,286
Total Capital Recovery Surcharge (fixed)	\$ 297,430	\$ 299,985	\$ 301,710	\$ 232,134	\$ 181,603
Total Meter Charge (less recoupment - fixed from DW13-1xx)	\$ 1,750,470	\$ 2,114,832	\$ 1,739,677	\$ 2,147,407	\$ 2,220,050
Total Fire Protection - Public & Private (fixed)	\$ 912,761	\$ 931,801	\$ 979,863	\$ 1,111,319	\$ 1,294,961
Total Billed Revenue (does not include Misc. Operating Revenues)	\$ 7,187,062	\$ 7,371,544	\$ 7,162,516	\$ 8,688,466	\$ 8,788,900
Misc. Operating Revenues	\$ 42,103	\$ 39,407	\$ 34,791	\$ 35,989	\$ 30,188
Total Annual Revenues inclusive of Misc. operating revenues	\$ 7,229,165	\$ 7,410,951	\$ 7,197,307	\$ 8,724,455	\$ 8,819,088
% of Revenues that are variable	58.5%	54.3%	57.5%	59.6%	57.7%
% of Revenues that are fixed	41.5%	45.7%	42.5%	40.4%	42.3%

Average percentage of revenues that were variable during the previous 5 years - 57.5%

Expense Type	2015 PEU Actual Variable Expenses	2016 PEU Actual Variable Expenses	2017 PEU Actual Variable Expenses	2018 PEU Actual Variable Expenses	2019 PEU Actual Variable Expenses
Purchased Water	\$ 959,966	\$ 1,009,818	\$ 952,865	\$ 1,104,605	\$ 1,018,049
Electric	\$ 302,197	\$ 279,236	\$ 269,019	\$ 313,229	\$ 337,595
Chemicals	\$ 32,816	\$ 66,908	\$ 79,231	\$ 75,072	\$ 87,745
Total Variable Costs	\$ 1,294,979	\$ 1,355,962	\$ 1,301,115	\$ 1,492,906	\$ 1,443,389
Variable Expenses as a Percent of Total Revenues	17.9%	18.3%	18.1%	17.1%	16.4%

	2015 Actual CCF's sold by PEU	2016 Actual CCF's sold by PEU	2017 Actual CCF's sold by PEU	2018 Actual CCF's sold by PEU	2019 Actual CCF's sold by PEU
Annual Metered Sales (CCF)	691,374	728,091	661,679	684,279	669,602
Percentage Variance between Current and High Consumption Year	-5.31%	0.00%	-10.04%	-6.40%	-8.73%
Average Consumption (CCF) over the past five years	687,005				
Variance between current and 5 Yr Ave Consumption	0.63%	5.64%	-3.83%	-0.40%	-2.60%

Largest percentage reduction in volumetric sales at PEU of 3.83% over the past five years from the five year average of volumetric sales
 Results in a Revenue loss of \$ 194,909
 Results in an Operating Expense reduction of \$ 55,246
 Results in an Operating Income reduction of \$ 139,663

Calculation of MOER RSF, based on increase in MOE's over the past 5 years		
	Inflation	Revenue Shortfall
Yr 1 -	\$ 209,470	\$ 159,823
Yr 2 -	\$ 425,224	\$ 159,823
Yr 3 -	\$ 647,451	\$ 159,823
	\$ 1,282,145	\$ 479,469
	Totals -	\$ 1,761,614

Projected MOERR Expenses inclusive of Amortization Expenses			
Projected MOERR Revenues	Amortization Expenses	Transfer into/out of MOER RSF Account	MOER RSF Balance
			\$ 898,000
\$ 7,313,909	\$ 7,244,086	\$ 69,823	\$ 967,823
\$ 7,313,909	\$ 7,459,840	\$ (145,931)	\$ 821,893
\$ 7,313,909	\$ 7,682,067	\$ (368,158)	\$ 453,735
			\$ 872,675

Pennichuck East Utilities
DW17-128
Calculation of Rate Stabilization Funds

Calculation of Annual Material Operating Expense Adjustment Percentage

Attachment A

	2016 PEU Material Operating Expenses (DW17-128 TY)	2017 PEU Material Operating Expenses	2018 PEU Material Operating Expenses	2019 PEU Material Operating Expenses	2019 PEU Proforma Material Operating Expenses ⁹	2020 Unaudited Material Operating Expenses	Increase in Pro Forma TY Operating Expense since the prior rate case TY	Average annual increase in Operating Expenses between 2016 MOE's and 2019 Proforma MOE's	Increase in Operating Expense between 2018 and 2019 Proforma	Increase in Operating Expense between 2018 and 2020 Actual
Production Expenses	\$ 1,991,779	\$ 1,966,063	2,290,425	2,257,199	2,349,324	2,670,931	17.95%	4.21%	1.28%	7.99%
Transmission & Distribution Expenses	\$ 616,944	\$ 696,492	737,584	1,006,231	676,427	743,929	9.64%	2.33%	-4.24%	0.43%
Customer Acct & Collection Exp	\$ 184,106	\$ 192,789	200,152	204,718	198,984	184,845	8.08%	1.96%	-0.29%	-3.90%
Administrative & General Expense	\$ 155,295	\$ 167,568	184,537	181,461	174,090	177,946	12.10%	2.90%	-2.87%	-1.80%
Inter Div Management Fee (Sum of PWW and PCP fees)	\$ 1,811,426	\$ 2,098,399	2,356,956	2,397,261	2,434,683	2,481,134	34.41%	7.67%	1.64%	2.60%
Amortization Expense	\$ 50,687	\$ 58,618	86,683	127,440	52,281	64,174	3.14%	0.78%	-22.34%	-13.96%
Property Taxes	\$ 1,051,160	\$ 891,416	1,021,406	1,174,044	1,241,441	1,182,385	18.10%	4.25%	10.25%	7.59%
Federal and State Income Taxes	\$ -	\$ -	18,779	3,775	23,882	3,978				
Less NOERR Expenses	\$ 8,305	\$ 20,278	36,869	27,863	7,163	17,518				
Total Annual MOERR Expenses	\$ 5,853,091	\$ 6,051,067	\$ 6,859,654	\$ 7,324,266	\$ 7,143,950	\$ 7,491,804	22.05%	5.11%	2.05%	4.51%
Less variable expenses for the year	\$ 1,355,962	\$ 1,301,115	\$ 1,492,906	\$ 1,443,389	\$ 1,520,218	\$ 1,801,903	12.11%	2.90%	0.91%	9.86%
Total Annual MOERR Expenses less variable expenses	\$ 4,497,129	\$ 4,749,952	\$ 5,366,747	\$ 5,880,877	\$ 5,623,732	\$ 5,689,901	25.05%	5.75%	2.37%	2.97%
Average Annual Increase in Proforma Material Operating Expenses, exclusive of variable expensed since last rate case							5.75%			

Notes:

- Based on Debt Service Multiplier of 1.10 per Sch A of 1604.06 schedules. The 1.1 multiplier is not applied to the North Country Capital Recovery Surcharge P&I. Revenue requirement is inclusive of the \$ 30,188.00 of other revenues
- Revenue requirements per Sch A of 1604.06 schedules
- Requested Rate Stabilization fund for Operating Expense and P & I Coverage each have a contingency of 0% safety factor and are based on year ending 2019 results
- PEU share of the \$5,000,000 RSF for distribution to the RSF, MOERSF and the P&IRSF is⁵ 19.56% based on % of PWW revenues (2012 Case) to % of all three regulated utilities revenues (2012 Cases) or \$ 980,000
- Calculation of RSF Percentage based on Revenue requirements from DW13-126, 13-128 and 13-130

PWW Revenue Requirement -	\$ 27,689,214	per DW13-130 Settlement Agreement
PEU Revenue Requirement -	\$ 6,913,261	per DW13-126 Settlement Agreement
PAC Revenue Requirement -	\$ 745,186	per DW13-128 Settlement Agreement
Total Utility Revenue Requirement -	\$ 35,347,661	

6. For Calculation of Operating Expense Requirement see Exhibit 1.1

2015 Billed Recoupment from DW13-1xx -	\$ 196,261
2016 Billed Recoupment from DW13-1xx -	\$ 16,968

- 2019 amortization expense proforma does not include deferred debit to refill depleted RSF accounts
- 2018 Revenues include

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PENNICHUCK EAST UTILITY, INC.
PERMANENT RATES
SUMMARY - CALCULATION OF REVENUE REQUIREMENT FROM WATER SALES

	(A)	(B)	(C)
	REVENUE REQUIREMENT PER COMPANY FILING	REVENUE REQUIREMENT W/O DW 21-129 FINANCING	REVENUE REQUIREMENT PER SETTLEMENT
<u>CITY BOND FIXED REVENUE REQUIREMENT (CBFRR)</u>			
1) City Bond Fixed Revenue Requirement (CBFRR) (Schedule 1)	\$ 926,309	\$ 926,309	\$ 926,309
<u>OPERATING EXPENSE REVENUE REQUIREMENT (OERR) (Schedule 2)</u>			
2) Total Pro Forma Operation & Maintenance Expenses	\$ 5,804,291	\$ 5,833,508	\$ 5,833,508
3) Pro Forma Property Tax Expense	1,237,009	1,132,107	1,132,107
4) Pro Forma Amortization Expense	268,728	264,735	52,280
5) Pro Forma NH Business Enterprise Tax Expense	3,775	23,882	23,882
6) Total Operating Expenses [(2) + (3) + (4) + (5)]	\$ 7,313,803	\$ 7,254,232	\$ 7,041,777
<u>MATERIAL OPERATING EXPENSE FACTOR (MOEF)</u>			
7) Less: Non-Material Operating Expenses (Schedule 2c)	(7,163)	(7,163)	(7,163)
8) Less: Pro Forma Amortization Expense [(4)]	_____	(264,735)	(52,280)
9) Material Operating Expenses Subject to MOEF [(6) - (7) - (8)]	7,306,640	6,982,334	6,982,334
10) Material Operating Expense Factor (MOEF) per Settlement	x 6.00%	x 6.00%	x 4.00%
11) MOEF Calculated Amount [(9) x (10)]	438,398	418,940	279,293
12) Operating Expense Revenue Requirement (OERR) [(6) + (11)]	\$ 7,752,201	\$ 7,673,172	\$ 7,321,071
<u>DEBT SERVICE REVENUE REQUIREMENT (DSRR) (Schedule 3)</u>			
13) Pro Forma Test Year Annual Debt Service	\$ 1,716,526	\$ 1,572,666	\$ 1,739,398
14) Debt Service Coverage Requirement	x 1.1	x 1.1	x 1.1
15) Debt Service Revenue Requirement (DSRR) [(13) x (14)]	\$ 1,888,179	\$ 1,729,933	\$ 1,913,338
16) REVENUE REQUIREMENT EXCLUSIVE OF NORTH COUNTRY CAPITAL RECOVERY SURCHARGE (NCCRS) REVENUES [(1) + (12) + (15)]	\$ 10,566,689	\$ 10,329,414	\$ 10,160,718

DW 20-156
PENNICHUCK EAST UTILITY, INC.
PERMANENT RATES
SUMMARY - CALCULATION OF REVENUE REQUIREMENT FROM WATER SALES

	(A)		(B)		(C)	
	REVENUE REQUIREMENT PER COMPANY FILING		REVENUE REQUIREMENT W/O DW 21-129 FINANCING		REVENUE REQUIREMENT PER SETTLEMENT	
<u>CALCULATION OF PERCENT INCREASE (DECREASE) IN ANNUAL BASE RATE WATER REVENUES</u>						
17) Total Proposed Revenue Requirement Exclusive of NCCRS Revenues [(16)]	\$ 10,566,689		\$ 10,329,414		\$ 10,160,718	
18) Less: Pro Forma Test Year Other Operating Revenues (Schedule 2)	(30,188)		(30,188)		(30,188)	
19) Total Proposed Water Revenues from Base Rates [(17) - (18)]	\$ 10,536,501		\$ 10,299,226		\$ 10,130,530	
20) Less: Pro Forma Test Year Water Revenues from Base Rates (Schedule 2)	(8,674,186)		(8,674,186)		(8,674,186)	
21) Proposed Increase / (Decrease) in Annual Water Revenues from Base Rates [(19) - (20)]	\$ 1,862,315	21.47%	\$ 1,625,040	18.73%	\$ 1,456,344	16.79%
22) Less: Pro Forma Test Year Water Revenues from QCPAC (Schedule 2)	(258,489)		(258,489)		(258,489)	
23) Proposed Increase / (Decrease) in Total Annual Revenues from Water Sales [(21) - (22)]	<u>\$ 1,603,826</u>	18.49%	<u>\$ 1,366,551</u>	15.75%	<u>\$ 1,197,855</u>	13.81%
<u>OPERATING REVENUES AFTER IMPLEMENTATION OF PERMANENT RATES</u>						
24) Proposed Revenues from Base Rates [(19)]	\$ 10,536,501		\$ 10,299,226		\$ 10,130,530	
25) Other Operating Revenues [(18)]	30,188		30,188		30,188	
26) Proposed North Country Capital Recovery Surcharge (NCCRS) (Schedule 2)	178,915		178,915		178,915	
27) Total Proposed Operating Revenues after Implementation of Temporary Rates [(24) + (25) + (26)]	<u>\$ 10,745,604</u>		<u>\$ 10,508,329</u>		<u>\$ 10,339,633</u>	

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PENNICHUCK EAST UTILITY, INC.
PERMANENT RATES

SCHEDULE 1 - CALCULATION OF PEU'S SHARE OF CITY BOND FIXED REVENUE REQUIREMENT (CBFRR)

Total City Bond	\$	150,570,000
Bond Interest Rate		4.09%
Bond Period		30 yrs.
Total City Bond	\$	150,570,000
Less Rate Stabilization fund	\$	5,000,000
Amount of City Bond to be prorated between Utilities CBFRR	\$	145,570,000
PEU Share of CBFRR		10.21%
PEU Prorata share	\$	14,864,176
Add back PEU Pro Rata Share of Rate Stabilization Reserve	\$	980,000
Total PEU Pro Rata Share for CBFRR/MARA	\$	15,844,176
Bond Interest Rate		4.09%
Bond Period		30 yrs.
PEU CBFRR Requirement	\$	926,309

Notes:

Pro Rata Calculation as follows:⁽¹⁾

PWW & Southwood Equity (12/31/2011) ⁽²⁾	\$	56,442,675	88.12%
PEU Equity (12/31/2011)	\$	6,540,063	10.21%
PAC Equity (12/31/2011)	\$	1,066,353	1.66%
	\$	64,049,091	100.00%

Calculation of RSF Percentage based on Revenue requirements from DW13-126, 13-128 and 13-130

RSF amount funded by City Bond -	\$	5,000,000
PWW Revenue Requirement -	\$	27,689,214 per DW13-130 Settlement Agreement
PEU Revenue Requirement -	\$	6,913,261 per DW13-126 Settlement Agreement
PAC Revenue Requirement -	\$	745,186 per DW13-128 Settlement Agreement
PEU Share of RSF as a percentage -		19.56%
PEU Share of RSF in \$\$ -	\$	980,000

Distribution of RSF funds to Revenue Requirement RSF's⁽³⁾

CBFRR RSF	\$	31,000
MOERR RSF	\$	898,000
1.0 DSRR RSF	\$	51,000
	\$	980,000

(1) Calculations are from DW11-026

(2) Consists of Equity as of 12/31/2011 as follows:

PWW	\$	54,395,626
Southwood	\$	2,047,049
Total	\$	56,442,675

(3) PEU RSF fund levels as established in DW17-128

DW 20-156
PENNICHUCK EAST UTILITY, INC.
PERMANENT RATES
SCHEDULE 2 - OPERATING INCOME STATEMENT AND DETAILED CALCULATION OF ESTIMATED REVENUE REQUIREMENT

	Company Proposal per Original Filing			Settlement Proposal			
	(1) Test Year Operating Income	(2) Company Adjustments to Derive Permanent Rates	(3) Adjusted Test Yr Operating Income per Co' Filing (Co's Sch 1)	(4) Adj's per Settlement (Sch 2a)	(5) Pro Forma Operating Income per Settlement	(6) Revenue Increase per Settlement	(7) Revenue Requirement per Settlement
OPERATING REVENUES							
Revenues from Water Sales:							
Water Revenues from Base Rates	\$ 8,500,418	\$ 173,768	\$ 8,674,186		\$ 8,674,186	\$ 1,456,344	\$ 10,130,530
Water Revenues from Qualified Capital Project Adjustment Charge (QCPAC)	106,880	151,609	258,489		258,489	(258,489)	-
Total Revenues from Water Sales	<u>8,607,298</u>	<u>325,377</u>	<u>8,932,675</u>	-	<u>8,932,675</u>	<u>1,197,855</u>	<u>10,130,530</u>
Other Operating Revenues	30,188	-	30,188		30,188		30,188
Water Revenues from North Country Capital Recovery Surcharge (NCCRS)	181,603	-	181,603		181,603	(2,688)	178,915
Total Operating Revenues	<u>8,819,089</u>	<u>325,377</u>	<u>9,144,466</u>	-	<u>9,144,466</u>	<u>1,195,167</u>	<u>10,339,633</u>
OPERATING EXPENSES							
Operation and Maintenance Expenses:							
Production Expense	2,257,197	90,727	2,347,924	1,398	1	2,349,322	2,349,322
Transmission and Distribution Expense	1,006,231	(277,276)	728,955	(52,527)	2	676,428	676,428
Customer Account and Collection Expense	204,718	(5,733)	198,985			198,985	198,985
Administrative and General Expense	181,461	(8,241)	173,220	870	3-4	174,090	174,090
Inter-Division Management Fee	2,397,260	(42,053)	2,355,207	79,476	5-8	2,434,683	2,434,683
Total Operation and Maintenance Expenses	<u>6,046,867</u>	<u>(242,576)</u>	<u>5,804,291</u>	<u>29,217</u>		<u>5,833,508</u>	<u>5,833,508</u>
Other Operating Expenses:							
Property Tax Expense	1,174,044	62,965	1,237,009	(104,902)	9-10	1,132,107	1,132,107
Gain from Forgiveness of SRF Debt	(23,660)	23,660	-			-	-
Depreciation Expense	1,549,220	(1,549,220)	-			-	-
Amortization of Acquisition Adjustment	(195,643)	195,643	-			-	-
Amortization of Contributions in Aid of Construction (CIAC)	(431,235)	431,235	-			-	-
Amortization Expense - Other	340,758	(72,030)	268,728	(216,448)	11-12	52,280	52,280
Total Other Operating Expenses	<u>2,413,484</u>	<u>(907,747)</u>	<u>1,505,737</u>	<u>(321,350)</u>		<u>1,184,387</u>	<u>1,184,387</u>
Income Tax Expense:							
Federal Income Tax Expense	325,301	(325,301)	-			-	-
State Income Tax Expense	90,059	(90,059)	-			-	-
NH Business Enterprise Tax	3,775	-	3,775	20,107	13	23,882	23,882
Total Income Tax Expense	<u>419,135</u>	<u>(415,360)</u>	<u>3,775</u>	<u>20,107</u>		<u>23,882</u>	<u>23,882</u>
Total Operating Expenses	<u>8,879,486</u>	<u>(1,565,683)</u>	<u>7,313,803</u>	<u>(272,026)</u>		<u>7,041,777</u>	<u>7,041,777</u>
NET OPERATING INCOME	<u>\$ (60,397)</u>	<u>\$ 1,891,060</u>	<u>\$ 1,830,663</u>	<u>\$ 272,026</u>		<u>\$ 2,102,689</u>	<u>\$ 3,297,855</u>

DW 20-156
PENNICHUCK EAST UTILITY, INC.
PERMANENT RATES

SCHEDULE 2 - OPERATING INCOME STATEMENT AND DETAILED CALCULATION OF ESTIMATED REVENUE REQUIREMENT

<u>CALCULATION OF REVENUE DEFICIENCY AND REQUIRED INCREASE:</u>	<u>PER COMPANY</u>	<u>SETTLEMENT ADJUSTMENTS</u>	<u>PER SETTLEMENT</u>	<u>REVENUE INCREASE</u>	<u>SETTLEMENT</u>
NET OPERATING INCOME	\$ 1,830,663	\$ 272,026	\$ 2,102,689	\$ 1,195,167	\$ 3,297,855
LESS: QUALIFIED CAPITAL PROJECT ADJUSTMENT CHARGE (QCPAC) REVENUES	(258,489)	-	(258,489)	258,489	-
LESS: NORTH COUNTRY CAPITAL RECOVERY SURCHARGE (NCCRS) REVENUES	(181,603)	-	(181,603)	2,688	(178,915)
NET OPERATING INCOME EXCLUSIVE OF QCPAC and NCCRS REVENUES	<u>\$ 1,390,571</u>	<u>\$ 272,026</u>	<u>\$ 1,662,597</u>	<u>\$ 1,456,344</u>	<u>\$ 3,118,940</u>
LESS: CITY BOND FIXED REVENUE REQUIREMENT (CBFRR)	<u>(926,309)</u>	<u>-</u>	<u>(926,309)</u>	<u>-</u>	<u>(926,309)</u>
LESS: MATERIAL OPERATING EXPENSE FACTOR (MOEF)					
TOTAL OPERATING EXPENSES	(7,313,803)	272,026	(7,041,777)	-	(7,041,777)
LESS: NON-MATERIAL OPERATING EXPENSES	7,163	-	7,163	-	7,163
LESS: AMORTIZATION EXPENSE - OTHER	-	52,280	52,280	-	52,280
MATERIAL OPERATING EXPENSES SUBJECT TO MOEF	<u>(7,306,640)</u>	<u>324,306</u>	<u>(6,982,334)</u>	<u>-</u>	<u>(6,982,334)</u>
MATERIAL OPERATING EXPENSE FACTOR (MOEF)	x 6.00%		x 4.00%	x 4.00%	x 4.00%
CALCULATED MOEF AMOUNT	<u>(438,398)</u>	<u>159,105</u>	<u>(279,293)</u>	<u>-</u>	<u>(279,293)</u>
LESS: DEBT SERVICE REVENUE REQUIREMENT (DSRR)					
PRO FORMA DEBT SERVICE	(1,716,526)	(22,872)	(1,739,398)	-	(1,739,398)
x DEBT COVERAGE REQUIREMENT	1.1	1.1	1.1	1.1	1.1
DEBT SERVICE REVENUE REQUIREMENT (DSRR)	<u>(1,888,179)</u>	<u>(25,159)</u>	<u>(1,913,338)</u>	<u>-</u>	<u>(1,913,338)</u>
CALCULATED REVENUE (DEFICIENCY) / INCREASE	<u>\$ (1,862,315)</u>	<u>\$ 405,972</u>	<u>\$ (1,456,344)</u>	<u>\$ 1,456,344</u>	<u>\$ -</u>

Revenue Requirement Component Summary:

City Bond Fixed Revenue Requirement (CBFRR):	\$ 926,309
Operating Expense Revenue Requirement (OERR):	
Total O & M Expenses	\$ 5,833,508
Property Tax Expense	1,132,107
Amortization Expense	52,280
NH Business Enterprise Tax	23,882
Total Operating Expenses	<u>7,041,777</u>
Less: Non-Material Operating Expenses	(7,163)
Less: Amortization Expense - Other	<u>(52,280)</u>
Material Operating Expenses	6,982,334
Material Operating Expense Factor (MOEF) x	4.00%
Calculated MOEF Amount	<u>279,293</u>
	7,321,071
Debt Service Revenue Requirement (DSRR):	
Pro Forma Debt Service	\$ 1,739,398
Debt Service Coverage Requirement x	1.1
	<u>1,913,338</u>
Revenue Requirement from Water Sales and Other Water Revenues:	10,160,718
North Country Capital Recovery Surcharge (NCCRS):	178,915
Total Revenue Requirement Including NCCRS Revenues:	<u>\$ 10,339,633</u>

DW 20-156
PENNICHUCK EAST UTILITY, INC.
PERMANENT RATES
SCHEDULE 2a - OPERATING INCOME ADJUSTMENTS PER SETTLEMENT

Adj #	Account Description	Data Request Reference	Amounts	
<u>OPERATING EXPENSES</u>				
<u>OPERATION AND MAINTENANCE EXPENSES</u>				
<u>Production Expense:</u>				
1	Purchased Water Expense:	Staff 1-23	\$	<u>1,398</u>
<u>Transmission and Distribution Expense:</u>				
2	Leak Detection:	Staff 2-11		<u>(52,527)</u>
<u>Administrative and General Expense:</u>				
3	Insurance Expense:	Staff 1-26	\$ 10,567	
		Staff 2-12	<u>(10,759)</u>	(192)
4	Regulatory Commission Expense:	Staff 2-13		<u>1,062</u>
Total Adjustments - Administrative and General Expense				<u>870</u>
<u>Inter-Division Management Fee:</u>				
5	Non-union Compensation:	Staff 1-27	37,809	
		Staff 2-15	<u>773</u>	38,582
6	Lease Expense:	Staff 2-15		(9)
7	Pension Expense and Health Retirement:	Staff 1-30	46,660	
		Staff 2-15	<u>748</u>	47,408
8	Tier 1 Allocation Expense:	Staff 1-31	800	
		DOE 3-4	<u>(7,305)</u>	<u>(6,505)</u>
Total Adjustments - Inter-Division Management Fee				<u>79,476</u>
Total Adjustments - Operation and Maintenance Expenses				<u>29,217</u>
<u>OTHER OPERATING EXPENSES</u>				
<u>Property Tax Expense:</u>				
9	Property Tax Expense:	Staff 2-26		4,432
10	Property Tax Expense Adjustment	Schedule 5		<u>(109,334)</u>
Total Adjustments - Property Tax Expense				<u>(104,902)</u>

DW 20-156
 PENNICHUCK EAST UTILITY, INC.
 PERMANENT RATES
 SCHEDULE 2a - OPERATING INCOME ADJUSTMENTS PER SETTLEMENT

Adj #	Account Description	Data Request Reference	Amounts
	<u>Amortization Expense - Other:</u>		
11	Amortization Expense - Other:	Staff 2-26	(7,688)
12	Amortization of RSF Account Deficit:	Staff 1-16	14,296
		Staff 2-10	(10,601)
		Towns Tech 2-3	<u>(212,455)</u>
			<u>(208,760)</u>
	Total Adjustments - Amortization Expense - Other		<u>(216,448)</u>
	Total Adjustments - Other Operating Expenses		<u>(321,350)</u>
	<u>INCOME TAX EXPENSE</u>		
	<u>NH Business Enterprise Tax:</u>		
13	NH Business Enterprise Tax:	Staff 1-37	<u>20,107</u>
	Total Adjustments - Income Tax Expense		<u>20,107</u>
	TOTAL ADJUSTMENTS - OPERATING EXPENSES		<u>(272,026)</u>
	NET OPERATING INCOME ADJUSTMENTS		<u><u>\$ 272,026</u></u>

**DW 20-156
PENNICHUCK EAST UTILITY, INC.
PERMANENT RATES
SCHEDULE 2b - ANALYSIS OF OPERATING REVENUES**

Rate or Class of Service	Test Year Base Rate Revenues	Test Year QCPAC Revenues	Total Test Year Revenues	Pro Forma QCPAC Revenues	Total Test Year Pro Forma Revenues	5-Yr Avg Base Rate Pro Forma	5-Yr Avg QCPAC Pro Forma	Total 5-Yr Average Pro Forma Revenues	5-Yr Avg Pro Forma Revenues Less: QCPAC	Pro Forma Test Year Revenues
G-M	\$ 7,221,538	\$ 90,800	\$ 7,312,338	\$ 124,402	\$ 7,436,740	\$ 173,766	\$ 5,178	\$ 7,615,684	\$ 7,395,304	\$ 7,615,684
Private FP	358,892	4,513	363,405	6,182	369,587	-	-	369,587	358,892	369,587
FP - Hydrants	852,013	10,713	862,726	14,677	877,403	-	-	877,403	852,013	877,403
Windham Public Hydrant	38,577	485	39,062	665	39,727	-	-	39,727	38,577	39,727
Raymond Public Hydrant	6,139	77	6,216	106	6,322	-	-	6,322	6,139	6,322
Lee Public Hydrant	4,312	54	4,366	74	4,440	-	-	4,440	4,312	4,440
Exeter Public Hydrant	5,604	70	5,674	97	5,771	-	-	5,771	5,604	5,771
Birch Hill Public Hydrant	11,103	140	11,243	191	11,434	-	-	11,434	11,103	11,434
Bow Public Hydrant	2,240	28	2,268	39	2,307	-	-	2,307	2,240	2,307
Revenues from Water Sales	8,500,418	106,880	8,607,298	146,432	8,753,730	173,766	5,178	8,932,675	8,674,184	8,932,675
North Country Capital Recovery Surcharge	181,603	-	181,603	-	181,603	-	-	181,603	181,603	181,603
Revenues from Water Sales and NCCRS	8,682,021	106,880	8,788,901	146,432	8,935,333	173,766	5,178	9,114,278	8,855,787	9,114,278
Other Operating Revenues	30,188	-	30,188	-	30,188	-	-	30,188	30,188	30,188
Total Operating Revenues	\$ 8,712,209	\$ 106,880	\$ 8,819,089	\$ 146,432	\$ 8,965,521	\$ 173,766	\$ 5,178	\$ 9,144,466	\$ 8,885,975	\$ 9,144,466

DW 20-156
PENNICHUCK EAST UTILITY, INC.
PERMANENT RATES
SCHEDULE 2c - NON-MATERIAL OPERATING EXPENSES

Acct No.	Description	Per Co's 2019 Gen'l Ledger	Pro Forma Adj's per Co's Filing	Pro Forma Balance per Co's Filing	Pro Forma Adj's per Settlement	Pro Forma Balance per Settlement
923000	OUTSIDE SERVICES	\$ 23,260	\$ (20,701)	\$ 2,559	\$ -	\$ 2,559
930200	PUBLIC RELATIONS	-	-	-	-	-
930300	MEALS	4,604	-	4,604	-	4,604
930410	CHARITABLE CONTRIBUTIONS	-	-	-	-	-
	TOTAL NON-MATERIAL OPERATING EXPENSES	\$ 27,864	\$ (20,701)	\$ 7,163	\$ -	\$ 7,163

PENNICHUCK EAST UTILITY, INC.
PERMANENT TEST YEAR DEBT SERVICE
SCHEDULE 3 - PRO FORMA TEST YEAR DEBT SERVICE

Docket No.	Order No.	Order Date	Holder	Term	Maturity	Int Rate	OUTSTANDING DEBT	PRO FORMA PRINCIPAL PAYMENTS				PRO FORMA INTEREST PAYMENTS				PRO FORMA DEBT SERVICE PER CO FILING	PRO FORMA DEBT SERVICE PER SETTLMNT			
								2019 Principal Payments	Pro Forma Ad's per Co Filing	Pro Forma Princ Pmts per Co Filing	Adjustments per Settlement	Pro Forma Princ Pmts per Sett/mnt	2019 Interest Payments	Pro Forma Ad's per Co Filing	Pro Forma Int Pmts per Co Filing			Adjustments per Settlement	Pro Forma Int Pmts per Sett/mnt	
PRO FORMA TEST YEAR DEBT:																				
Outstanding Debt at 12/31/2019:																				
DW 09-134	25,041	11/09/09	CoBank	20	03/01/30	5.950%	\$ 2,715,543	\$ 212,716	\$ (14,512)	\$ 198,204	\$ 21,890 (b)	\$ 220,094	\$ 120,540	\$ 75,490	\$ 196,030	\$ (120,211) (c)	\$ 75,819	\$ 394,234	\$ 295,913	
DW 02-021	23,922	02/22/02	State of NH SRF: Green Hills	20	01/01/25	3.728%	113,245	17,325	-	17,325	-	17,325	4,689	(862)	3,827	-	3,827	21,152	21,152	
DW 04-138	24,375	09/30/04	State of NH SRF: Pelham Tank	20	01/01/27	3.488%	242,897	30,114	1,067	31,181	-	31,181	9,044	(1,067)	7,977	-	7,977	39,158	39,158	
DW 08-022	24,844	04/04/08	State of NH SRF: Maple Hills	20	06/01/30	2.952%	353,184	28,543	857	29,400	-	29,400	10,884	(854)	10,030	-	10,030	39,430	39,430	
DW 07-010	24,739	04/13/07	State of NH SRF: Birch Hill NC Loan	20	12/01/31	2.864%	1,193,378	82,859	(82,859)	-	-	-	35,469	(35,469)	-	-	-	-	-	
DW 07-010	24,739	04/13/07	State of NH SRF: Locke Lake - 2007	20	05/01/30	2.952%	151,960	12,326	59	12,385	-	12,385	4,743	(476)	4,267	-	4,267	16,652	16,652	
DW 10-330	25,209	03/29/11	State of NH SRF: Locke Lake - 2011	20	06/01/33	2.864%	227,937	6,427	572	6,999	-	6,999	6,724	(364)	6,360	-	6,360	13,359	13,359	
DW 11-108	25,248	07/07/11	State of NH SRF: Liberty Tree	20	04/01/35	3.104%	334,930	8,013	752	8,765	-	8,765	10,651	(478)	10,173	-	10,173	18,938	18,938	
DW 11-262	25,348	04/13/12	State of NH SRF: Locke Lake - 2012	20	12/01/33	2.720%	300,407	17,523	483	18,006	-	18,006	8,430	(483)	7,947	-	7,947	25,953	25,953	
DW 13-017	25,480	03/27/13	CoBank \$1.7M Loan (RX0848T4)	10	06/20/23	3.620%	1,294,541	72,802	2,585	75,387	-	75,387	49,104	(2,579)	46,525	-	46,525	121,912	121,912	
DW 13-017	25,480	03/27/13	CoBank \$925K Loan (RX0848T3)	20	06/20/33	4.250%	706,244	37,786	1,575	39,361	-	39,361	31,403	(1,572)	29,831	-	29,831	69,192	69,192	
DW 13-125	25,541	07/09/13	State of NH SRF: Locke Lake Dam Site - Phase 2	20	07/01/35	2.720%	327,933	16,785	462	17,247	-	17,247	9,168	(462)	8,706	-	8,706	25,953	25,953	
DW 14-020	25,650	04/15/14	State of NH SRF: Winwood & Monroe - Phase 1	20	07/01/36	2.720%	333,303	15,794	435	16,229	-	16,229	9,300	(435)	8,865	-	8,865	25,094	25,094	
DW 15-044	25,773	04/03/15	State of NH SRF: Winwood & Monroe - Phase 2	20	11/01/36	2.464%	349,020	16,530	412	16,942	-	16,942	8,821	(412)	8,409	-	8,409	25,351	25,351	
DW 14-020	25,650	04/15/14	State of NH SRF: W&E Main Replacement	20	08/01/36	2.616%	882,518	41,966	1,111	43,077	-	43,077	23,684	(1,111)	22,573	-	22,573	65,650	65,650	
DW 13-125	25,541	07/09/13	State of NH SRF: Hickory & Avery	20	04/01/36	2.616%	359,529	17,529	464	17,993	-	17,993	9,655	(464)	9,191	-	9,191	27,184	27,184	
DW 14-020	25,650	04/15/14	State of NH SRF: Hardwood Treatment Station	20	07/01/36	2.464%	491,091	23,832	594	24,426	-	24,426	12,420	(594)	11,826	-	11,826	36,252	36,252	
DW 14-282	25,746	12/30/14	CoBank \$625K Loan	25	03/06/40	4.900%	557,471	15,610	715	16,325	-	16,325	28,159	(714)	27,445	-	27,445	43,770	43,770	
DW 16-234	25,890	04/29/16	CoBank \$1.25M Loan T6 (1st Tranche)	25	11/01/41	4.200%	1,160,174	31,223	1,217	32,440	-	32,440	50,198	(1,215)	48,983	-	48,983	81,423	81,423	
DW 16-234	25,890	04/29/16	CoBank \$950K Loan T6 (2nd Tranche)	25	11/01/41	4.830%	887,255	21,945	976	22,921	-	22,921	44,091	(974)	43,117	-	43,117	66,038	66,038	
DW 16-234	25,890	04/29/16	State of NH SRF: Locke Lake - Varney Road	20	11/01/37	1.960%	1,356,529	63,287	1,252	64,539	-	64,539	27,262	(1,252)	26,010	-	26,010	90,549	90,549	
DW 17-055	26,006	04/19/17	State of NH SRF: Brady Ave (Derry) - 2017	30	07/01/49	1.960%	563,319	5,633	5,872	11,505	-	11,505	16,196	(5,277)	10,919	-	10,919	22,424	22,424	
DW 17-055	26,106	04/19/17	State of NH SRF: Hillcrest Road (Litchfield) - 2017	20	09/01/39	1.960%	238,741	3,306	6,743	10,049	-	10,049	5,482	(893)	4,589	-	4,589	14,638	14,638	
DW 17-157	26,117	03/30/18	CoBank \$500K Loan (2017 Capital Projects)	25	05/20/43	5.330%	2,369,217	7,034	338	7,372	-	7,372	18,556	(337)	18,219	-	18,219	25,591	25,591	
DW 17-055	26,006	04/19/17	State of NH SRF: Merrimack River Crossing	20	09/01/39	1.960%	2,367,217	32,783	66,861	99,644	-	99,644	64,446	(18,941)	45,505	-	45,505	145,149	145,149	
DW 19-069	26,253	05/22/19	CoBank \$1.153M Loan T9 (2018 QCP's)	25	06/01/44	4.380%	1,144,579	8,421	17,606	26,027	-	26,027	18,326	32,177	50,503	-	50,503	76,530	76,530	
DW 18-132	26,189	11/06/18	State of NH SRF: Locke Lake - Georgetown Main	30	TBD	2.704%	958,333	-	21,128	21,128	(21,128) (d)	-	-	25,913	25,913	(25,913) (d)	-	47,041	-	
			Sub-total: 2019 Outstanding Debt				19,950,446	848,112	36,765	884,877	762	885,639	637,445	56,295	693,740	(146,124)	547,616	1,578,617	1,433,255	
New Debt Acquired during 2020/2021:																				
DW 20-081	26,418	10/29/20	CoBank \$300K Loan (2019 QCP's)	25	12/20/45	3.980%	800,122	-	20,002	20,002	(738) (e)	19,264	-	29,605	29,605	2,240 (e)	31,845	49,607	51,109	
DW 21-129	26,538	10/29/21	CoBank RSP Refill Loan (2021)	25		4.250% (f)	2,546,632	-	-	-	58,016 (g)	58,016	-	-	-	108,716 (g)	108,716	166,732		
			Sub-total: 2020/2021 New Debt				3,346,754	-	20,002	20,002	57,278	77,280	-	29,605	29,605	110,956	140,561	49,607	217,841	
Intercompany Debt:																				
DW 17-157	26,117	03/30/18	Penn Corp: Refinanced \$1,701,516 Loans - 2018	30	05/01/48	3.200%	1,646,609	35,001	1,137	36,138	-	36,138	53,301	(1,137)	52,164	-	52,164	88,302	88,302	
DW 17-157	26,117	03/30/18	Penn Corp: Refinanced \$1,157,403 NC Loan - 2018	30	05/01/48	3.200%	1,120,054	23,808	(23,808)	-	-	-	36,256	(36,256)	-	-	-	-	-	
			Sub-total: Intercompany Debt				2,766,663	58,809	(22,671)	36,138	-	36,138	89,557	(37,393)	52,164	-	52,164	88,302	88,302	
PRO FORMA TEST YEAR TOTALS								\$ 26,063,863	\$ 906,921	\$ 34,096	\$ 941,017	\$ 58,040	\$ 999,057	\$ 727,002	\$ 48,507	\$ 775,509	\$ (35,168)	\$ 740,341	\$ 1,716,526	\$ 1,739,398

Notes:

(a) Per Audit Issue # 8, interest rate adjusted from 2.720% to 2.616%.

(b) Per Staff 2-23 \$ (122,386)
Per DOE 3-8 144,275
\$ 21,890

(c) Per Staff 2-22 \$ 24,065
Per DOE 3-7 (144,276)
\$ (120,211)

(d) Per Staff 1-42

(e) Per Staff 1-43

(f) Finalized Interest Rate

(g) Finalized Annual P & I Payment

DW 20-156
PENNICHUCK EAST UTILITY, INC.
PERMANENT RATES
SCHEDULE 4 - REPORT OF PROPOSED RATE CHANGES (PER COST OF SERVICE STUDY)

Rate or Class of Service	Effect of Proposed Change	Average Number Customers	Change in Annual Revenues				Permanent Rate Change in Annual Revenues	
			Pro Forma Test Year Revenues	Less: Pro Forma QCPAC Revenues	Pro Forma Test Year Base Rate Revenues	Proposed Distribution of Revenue Requirement	Amount	% Increase
G-M	Increase	7,927	\$ 7,615,684	\$ (220,380)	\$ 7,395,304	\$ 8,931,198	\$ 1,535,894	20.77%
Private FP	-	320	369,587	(10,695)	358,892	358,892	-	0.00%
FP - Hydrants	Decrease	4	877,403	(25,390)	852,013	769,098	(82,915)	-9.73%
Windham Public Hydrant	Increase	357	39,727	(1,150)	38,577	39,640	1,063	2.76%
Raymond Public Hydrant	Increase	248	6,322	(183)	6,139	7,638	1,499	24.42%
Lee Public Hydrant	Increase	34	4,440	(128)	4,312	4,519	207	4.80%
Exeter Public Hydrant	Decrease	52	5,771	(167)	5,604	5,355	(249)	-4.44%
Birch Hill Public Hydrant	Decrease	216	11,434	(331)	11,103	10,799	(304)	-2.74%
Bow Public Hydrant	Increase	26	2,307	(67)	2,240	2,552	312	13.93%
Revenues from Water Sales		8,251	8,932,675	(258,491)	8,674,184	10,129,691	1,455,507	16.78%
North Country Capital Recovery Surcharge	Decrease	1,199	181,603	-	181,603	178,915	(2,688)	-1.48%
Revenues from Water Sales and NCCRS		8,251	9,114,278	(258,491)	8,855,787	10,308,606	1,452,819	16.41%
Other Operating Revenues	-	-	30,188	-	30,188	30,188	-	0.00%
Total Operating Revenues		8,251	\$ 9,144,466	\$ (258,491)	\$ 8,885,975	\$ 10,338,794	\$ 1,452,819	16.35%

<u>Comparison of Proposed Revenues per Revenue Requirement and Cost of Service Study:</u>			
	Per Att A Summary	Per Cost of Service Study	Difference
Revenues from Water Sales	\$ 10,130,530	\$ 10,129,691	\$ (839)
North Country Capital Recovery Surcharge	178,915	178,915	-
Other Operating Revenues	30,188	30,188	-
Total Operating Revenues	\$ 10,339,633	\$ 10,338,794	\$ (839)
Percentage Difference			-0.01%

DW 20-156
 PENNICHUCK EAST UTILITY, INC.
 PERMANENT RATES
 SCHEDULE 5 - PROPERTY TAX EXPENSE ANALYSIS

		2019							2020							Adjustments		Adjusted Tax
		First Issue			Second Issue			Total Payment	First Issue			Second Issue			Total Payment	Rate	Total	
		Assess	Rate	Tax	Assess	Rate	Tax		Assess	Rate	Tax	Assess	Rate	Tax				
ATKINSON:	000001-00023	\$ 83,100	\$ 7.87	\$ 654	\$ 79,100	\$15.53	\$ 574	\$ 1,228	\$ 79,100	\$ 7.76	\$ 614	\$ 87,800	\$16.24	\$ 809	\$ 1,423	\$ -	\$ -	\$ 1,423
BARNSTEAD:	046-007	18,500	10.25	190	18,500	20.99	199	388	18,500	10.49	194	18,500	21.24	199	393			393
	014-008-001	3,923,159	10.25	40,212	4,042,275	20.99	44,635	84,847	4,042,275	10.49	42,403	4,265,745	21.24	48,201	90,604			90,604
	014-009	873	10.25	9	1,099	20.99	14	23	1,099	10.49	12	1,027	21.24	10	22			22
	048-001-00X	12,500	10.25	128	12,500	20.99	134	262	12,500	10.49	131	-	-	-	131	(h)	(131)	-
		<u>3,955,032</u>		<u>40,539</u>	<u>4,074,374</u>		<u>44,982</u>	<u>85,521</u>	<u>4,074,374</u>		<u>42,740</u>	<u>4,285,272</u>		<u>48,410</u>	<u>91,150</u>		<u>(131)</u>	<u>91,019</u>
BOW:	28-3-43-B-UO	360,500	12.41	4,474	398,100	24.35	5,220	9,694	398,100	12.18	4,849	445,000	23.69	5,693	10,542			10,542
	15-3-109-UO	412,500	12.41	5,119	412,500	24.35	4,925	10,044	412,500	12.18	5,024	489,000	23.69	6,560	11,584			11,584
	44-2-134-UO	46,000	12.41	571	46,000	24.35	549	1,120	46,000	12.18	560	52,000	23.69	672	1,232			1,232
		<u>819,000</u>		<u>10,164</u>	<u>856,600</u>		<u>10,694</u>	<u>20,858</u>	<u>856,600</u>		<u>10,433</u>	<u>986,000</u>		<u>12,925</u>	<u>23,358</u>			<u>23,358</u>
CHESTER:	017-102-000	19,200	10.98	211	11,300	18.87	2	213	11,300	9.43	107	11,300	18.63	104	211			211
CONWAY:	232-140	55,300	9.27	513	54,100	16.32	370	883	54,100	8.16	441	54,100	15.39	391	833			833
	231-56	40,900	10.44	427	47,900	18.30	450	877	-	-	-	-	-	-	-			-
	997-002	744,700	9.27	6,903	999,900	16.32	9,415	16,318	999,900	8.16	8,159	999,900	15.39	7,229	15,388			15,388
	231-139.031	2,500	9.90	25	2,500	17.55	19	44	2,500	8.78	22	2,500	16.72	20	42			42
		<u>843,400</u>		<u>7,868</u>	<u>1,104,400</u>		<u>10,254</u>	<u>18,122</u>	<u>1,056,500</u>		<u>8,623</u>	<u>1,056,500</u>		<u>7,640</u>	<u>16,263</u>			<u>16,263</u>
DERRY:	09-015	329,698	12.00	3,955	711,365	24.06	13,161	17,115	711,365	12.03	8,558	955,211	22.46	12,896	21,454			21,454
	05-038-A	83,700	12.00	1,004	83,700	24.06	1,010	2,014	83,700	12.03	1,007	83,700	22.46	873	1,880			1,880
		<u>413,398</u>		<u>4,959</u>	<u>795,065</u>		<u>14,171</u>	<u>19,129</u>	<u>795,065</u>		<u>9,565</u>	<u>1,038,911</u>		<u>13,769</u>	<u>23,334</u>			<u>23,334</u>
EXETER:	115-30	8,700	12.56	109	11,200	21.29	129	238	11,100	10.65	118	11,100	22.50	132	250			250
HOOKESETT:	WATR-0001	262,200	9.97	2,614	262,200	19.36	2,462	5,076	262,200	9.68	2,538	262,200	20.51	2,840	5,378			5,378
	0005-0116-000W	630,500	9.97	6,286	630,500	19.36	5,920	12,206	645,500	9.68	6,248	645,500	20.51	6,991	13,239			13,239
		<u>892,700</u>		<u>8,900</u>	<u>892,700</u>		<u>8,382</u>	<u>17,283</u>	<u>907,700</u>		<u>8,787</u>	<u>907,700</u>		<u>9,830</u>	<u>18,617</u>			<u>18,617</u>
LEE:	000036-000003	15,100	14.14	214	15,100	29.10	226	439	15,100	14.56	220	15,100	29.54	226	446			446
LITCHFIELD:	0016-0057	14,872,800	10.54	156,759	14,872,800	21.35	160,775	317,534	14,872,800	10.68	158,842	15,106,000	16.87	95,997	254,838			254,838
	0011-0035	16,000	10.54	169	16,000	21.35	173	342	16,000	10.68	171	19,100	16.87	151	322			322
		<u>14,888,800</u>		<u>156,928</u>	<u>14,888,800</u>		<u>160,948</u>	<u>317,876</u>	<u>14,888,800</u>		<u>159,012</u>	<u>15,125,100</u>		<u>96,148</u>	<u>255,160</u>			<u>255,160</u>
LONDONDERRY:	10-142-0	146,000	10.90	1,591	146,000	17.48	961	2,552	146,000	9.70	1,416	146,000	18.18	1,238	2,654			2,654
	81-5-0	10,663,300	9.77	104,180	15,745,700	17.48	171,054	275,235	15,745,700	9.70	152,733	2,676,300	18.18	(104,078)	48,655			48,655
	81-5-1	-	-	-	-	-	-	-	-	-	-	10,783,300	18.18	196,040	196,040			196,040
	7-108A-0	72,200	10.90	787	96,000	17.48	891	1,678	96,000	9.70	931	96,000	18.18	814	1,745			1,745
	4-3-21	122,500	10.90	1,335	144,600	17.48	1,192	2,528	144,600	9.70	1,403	144,600	18.18	1,226	2,629			2,629
	13-74-1A	100,800	10.90	1,099	119,800	17.48	995	2,094	119,800	9.70	1,162	119,800	18.18	1,016	2,178			2,178
		<u>11,104,800</u>		<u>108,993</u>	<u>16,252,100</u>		<u>175,094</u>	<u>284,087</u>	<u>16,252,100</u>		<u>157,645</u>	<u>13,966,000</u>		<u>96,257</u>	<u>253,902</u>			<u>253,902</u>
MIDDLETON:	000003-00016	466,200	13.30	6,200	466,200	24.82	5,371	11,571	466,200	12.42	5,790	446,200	26.95	6,235	12,025			12,025
	000002-000013	39,300	13.30	523	40,000	24.82	470	993	40,000	12.42	497	40,000	26.95	581	1,078			1,078
		<u>505,500</u>		<u>6,723</u>	<u>506,200</u>		<u>5,841</u>	<u>12,564</u>	<u>506,200</u>		<u>6,287</u>	<u>486,200</u>		<u>6,816</u>	<u>13,103</u>			<u>13,103</u>

DW 20-156
 PENNICHUCK EAST UTILITY, INC.
 PERMANENT RATES
 SCHEDULE 5 - PROPERTY TAX EXPENSE ANALYSIS

		2019						2020						Adjustments		Adjusted Tax		
		First Issue		Second Issue		Total Payment	First Issue		Second Issue		Total Payment	Rate	Total					
		Assess	Rate	Tax	Assess		Rate	Tax	Assess	Rate				Tax				
PELHAM:	0-14-1	2,770,000	9.69	26,827	3,480,000	18.31	36,891	63,719	3,480,000	8.76	30,467	4,687,200	18.26	55,121	85,588		85,588	
	33-1-146-28	120,900	10.73	1,297	45,200	19.40	(420)	877	45,200	9.70	438	45,200	20.20	475	913 (i)	(1.94)	(88)	825
	7-4-65	652,600	9.69	6,320	393,300	18.31	881	7,201	393,300	8.76	3,443	393,300	18.26	3,738	7,182		7,182	
	14-4-137-10-A	44,700	9.69	433	53,800	18.31	552	985	64,600	8.76	566	64,600	18.26	614	1,180		1,180	
	7-4-26	62,100	9.69	601	62,100	18.31	536	1,137	62,100	8.76	544	62,100	18.26	590	1,134		1,134	
	13-4-139-22-A	724,500	9.69	7,017	603,800	18.31	4,039	11,056	603,800	8.76	5,286	603,800	18.26	5,739	11,025		11,025	
		<u>4,374,800</u>		<u>42,496</u>	<u>4,638,200</u>		<u>42,478</u>	<u>84,975</u>	<u>4,649,000</u>		<u>40,745</u>	<u>5,856,200</u>		<u>66,277</u>	<u>107,022</u>		<u>(88)</u>	<u>106,934</u>
PLAISTOW:	99-08	230,400	11.17	2,572	212,000	19.33	1,526	4,098	212,000	9.67	2,049	400,800	19.60	5,807	7,856		7,856	
RAYMOND:	021-000-00B	1,978,000	12.06	23,846	1,777,400	24.35	19,434	43,280	1,777,400	12.18	21,640	1,975,200	23.93	25,627	47,267		47,267	
	021-000-00A	9,100	12.06	110	9,100	24.35	112	222	9,100	12.18	111	9,100	23.93	107	218		218	
	017-000-095	90,100	12.06	1,086	90,100	24.35	1,108	2,194	90,100	12.18	1,097	90,100	23.93	1,059	2,156		2,156	
	012-003-084	5,800	12.06	70	5,800	24.35	71	141	5,800	12.18	71	7,100	23.93	99	170		170	
		<u>2,083,000</u>		<u>25,112</u>	<u>1,882,400</u>		<u>20,725</u>	<u>45,836</u>	<u>1,882,400</u>		<u>22,918</u>	<u>2,081,500</u>		<u>26,892</u>	<u>49,810</u>			<u>49,810</u>
SANDOWN:	07-007-01-0A	57,700	12.21	705	53,700	24.81	628	1,332	53,700	12.41	666	45,100	25.60	488	1,155		1,155	
TILTON:	000U03-000037	565,600	11.30	6,391	458,800	20.22	2,886	9,277	458,800	10.11	4,638	632,400	18.87	7,295	11,933		11,933	
WEARE:	109-42	461,000	10.45	4,817	461,000	21.58	5,131	9,948	461,000	10.79	4,974	447,200	21.83	4,788	9,762		9,762	
WINDHAM:	22L-00300-02441	97,900	11.65	1,140	97,900	22.55	1,068	2,208	97,900	11.28	1,104	105,600	19.13	916	2,020 (i)	(1.84)	(180)	1,840
	00F-00000-02489	3,135,300	10.49	32,874	2,885,300	20.24	25,525	58,398	2,885,300	10.12	29,199	2,950,600	17.29	21,817	51,016			51,016
		<u>3,233,200</u>		<u>34,014</u>	<u>2,983,200</u>		<u>26,592</u>	<u>60,606</u>	<u>2,983,200</u>		<u>30,303</u>	<u>3,056,200</u>		<u>22,733</u>	<u>53,036</u>		<u>(180)</u>	<u>52,856</u>
STATE OF NH:					32,198,300	6.60	212,509	212,509				29,502,300	6.60	194,715	194,715			194,715
TOTAL		<u>\$44,554,430</u>		<u>\$ 462,368</u>	<u>\$82,374,539</u>		<u>\$ 743,772</u>	<u>\$1,206,141</u>	<u>\$50,154,039</u>		<u>\$ 510,444</u>	<u>\$79,998,483</u>		<u>\$ 622,062</u>	<u>\$1,132,506</u>		<u>\$ (399)</u>	<u>\$1,132,107</u>

Less: Pro-forma Property Tax Expense per Co:
 Property Tax Expense per 2019 Annual Report (Pg 75; Sch F-50) \$1,174,044
 Co's pro-forma adj's relative to Property Tax Expense (1604.06 Sch 1; Att G; Adj's IA and IB) 67,397
Proposed Pro Forma Adjustment to Property Tax Expense \$ (109,334)

Notes:

(h) To adjust property tax expense relative to the disposal of the Airport Booster Station structure. (See Attachment Staff 1-33, Page 197; and Staff 2-19(a))

(i) To adjust property tax expense by the amounts charged by the municipalities of Pelham and Windham relative to their respective State School Tax rates. (See Attachment Staff 1-33, Pages 235 and 254)

CHAIRWOMAN
Dianne Martin

COMMISSIONER
Kathryn M. Bailey

EXECUTIVE DIRECTOR
Debra A. Howland

STATE OF NEW HAMPSHIRE



PUBLIC UTILITIES COMMISSION
21 S. Fruit St., Suite 10
Concord, N.H. 03301-2429

Attachment C

TDD Access: Relay NH
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March 11, 2021

Debra A. Howland
Executive Director
New Hampshire Public Utilities Commission
21 South Fruit Street, Suite 10
Concord, New Hampshire 03301-2429

Re: DW 20-019 – Pennichuck East Utility, Inc.
Petition for Approval of 2020 Qualified Capital Project Annual Adjustment Charge
Staff Recommendation for Approval of 2020 QCPAC, One-Time Recoupment,
2020 Capital Expenditure Budget, and Request for Company to Petition for
Modification of QCPAC

Dear Ms. Howland:

The purpose of this letter is to recommend that the Commission approve a cumulative Qualified Capital Project Adjustment Charge (QCPAC) of 4.20%, or an additional 1.22% to the previously approved 2.98% charge, for Pennichuck East Utility, Inc. (PEU or the Company). For an average single-family, non-North Country residential ratepayer, this would result in a monthly increase of approximately \$0.92, or \$11.04 annually.¹

Commission Staff (Staff) further recommends that the Commission approve the Company's collection of a one-time recoupment charge for the additional QCPAC revenues, from the proposed effective date of November 25, 2020 (the date of closing for the underlying CoBank, ACB financing) to the date the adjusted QCPAC is first billed (approximately April 1, 2021). That equates to the collection of approximately four additional months of the QCPAC. For an average single-family, non-North Country residential ratepayer, this would result in a one-time recoupment of approximately \$3.68 (4 months x \$0.92) on customer bills.

Staff also recommends the Commission preliminarily approve, subject to a future audit and prudency review, a 2020 capital budget of \$4,951,522.

Staff further recommends that the Commission accept, for informational purposes, PEU's 2021 and 2022 capital budgets.

¹ North Country residents are subject to the North Country Capital Recovery Surcharge, an additional charge created to recover the acquisition and improvement costs related to Pennichuck East Utility, Inc.'s North Country Systems, consisting of Birch Hill in North Conway, Sunrise Estates in Middleton, and Locke Lake in Barnstead. *Pennichuck East Utility, Inc.*, Order No. 26,179 at 4, footnote 2 (October 4, 2018) (citing *Pittsfield Aqueduct Company, Inc.*, Order No. 25,051 (December 11, 2009)).

Staff also recommends that the Commission direct the Company to request a modification of the settlement agreement approved by Order No. 26,179, which instituted the QCPAC mechanism, in its pending 2021 QCPAC petition (Docket No. DW 21-022). Specifically, Staff requests that: (1) the Company petition the Commission for approval to include the interest on its line of credit, paid for by its annual CoBank ACB financing, as an eligible expense recoverable through the QCPAC mechanism; and (2) request the Commission to determine the appropriate criteria for the interest charges eligible for QCPAC recovery, including, but not limited to, the time period for which the interest charges occur.

Staff, lastly, recommends that the Commission issue its Order on a *nisi* basis to ensure that interested persons receive notice of the Commission’s determination and have the opportunity to comment or request a hearing prior to the order taking effect.

I. History of PEU’s QCPAC

PEU is a regulated public utility that provides water service to customers in several communities throughout New Hampshire. PEU is owned by Pennichuck Corporation (Penn Corp), which is, in turn, owned by the City of Nashua. *Pennichuck East Utility, Inc.*, Order No. 26,311 at 1 (November 27, 2019). As a municipally owned entity, Penn Corp and PEU are no longer publically traded and do not have access to equity for the financing of capital projects. *Id.* “Instead, the Company’s capital investments are financed entirely with debt.” *Id.* In other words, unlike traditional investor-owned utilities, which have the benefit of cash infusions from its owners to meet expenses and obligations that currently authorized rates do not cover, PEU relies only upon debt.

As an entirely debt-financed utility, PEU’s ability to make timely payments on its debt, especially for that incurred on necessary capital improvements between rate cases, is extremely important for the Company’s on-going viability. To address this solvency issue, the Commission approved the QCPAC mechanism, “which helps PEU maintain adequate cash flow by compensating it for necessary capital investments between rate cases.” *Id.*

The QCPAC is designed as:

“an annual surcharge assessed between rate cases, based on the capital projects undertaken and completed by PEU each year. The adjustment surcharge will be implemented pursuant to a capital budget that will have been previously reviewed and approved by the Commission.” *Pennichuck East Utility, Inc.*, Order No. 26,179 at 10 (October 4, 2018) (Docket No. DW 17-128).

In order for a capital project to become eligible for recovery through the QCPAC mechanism, it must meet three criteria: (1) the capital project must be completed, in service, used and useful by December 31 of the prior calendar year; (2) the capital project must be financed by debt previously authorized by the Commission, pursuant to RSA 369; and (3) the project must be associated with the budget previously submitted and preliminarily approved by the Commission. *Id.* at 11.

Within its annual QCPAC filing, PEU must provide: (1) a calculation of the surcharge associated with capital investments from the prior calendar year; (2) budget information regarding proposed capital projects for the current year (year that the petition is filed); and (3) a detailed forecast of anticipated capital project expenditures for the subsequent two years, for informational purposes only. *Id.* at 11.

The surcharge will consist of two elements:

- (1) the annual principal and interest payments for the approved projects' associated debt, multiplied by 1.1; and
- (2) the approved projects' incremental property taxes for that same year. *Id.*²

In reviewing the proposed surcharge, the Commission will make a prudence determination on the projects completed in the previous year upon which the surcharge calculation is based. *Id.* If deemed appropriate, the Commission will approve the proposed surcharge. *Id.* The Commission will also review the proposed budget and the underlying projects planned for the current year (or for the calendar year the filing is made), and if deemed appropriate, preliminarily approve that budget. *Id.*

The QCPAC also provides for a one-time annual recoupment charge, which covers the period between the approved effective date of the surcharge (typically the closing date of the underlying financing upon which the surcharge is based) and the date of the Commission's order approving the surcharge. *Id.* at 12.

The Commission directed PEU to submit an interim capital budget for preliminary approval. *Id.* That budget, consisting of 2018 capital projects, was approved in Order No. 26,228 (March 21, 2019) (Docket No. 18-174). The Company followed with its request for approval of the

² The debt (principal and interest multiplied by 1.1) element of the QCPAC revenues are allocated to the Company's Debt Service Revenue Requirement (DSRR), one of the three components of its unique revenue requirement structure. *See* Order No. 26,179 at 8 ("PEU's overall revenue requirement consists of three components: (1) a City Bond Fixed Revenue Requirement (CBFRR); (2) an Operating Expense Revenue Requirement (OERR), which includes a Material Operating Expense Revenue Requirement (MOERR) and a Non-material Operating Expense Revenue Requirement (NOERR); and (3) a ...DSRR"). The property tax element of QCPAC revenues is allocated to the Company's OERR. *See* Table on Page 10 (showing additions to those revenue requirement components).

The DSRR is comprised of two further sub-components: the DSRR-1.0, consisting of the principal and interest payments on existing debt; and the DSRR-0.1, which equates an additional 10% of the principal and interest payments. Pennichuck East Utility, Inc., Settlement Agreement, July 18, 2018 at 16-17 (Docket No. DW 17-128). The Company stated that the DSRR-0.1, or additional 10%, is necessary: (1) to provide additional funds which satisfy the Company's debt service ratio requirements (used by lenders to compare operating income available to its principal, interest, and lease payments), essentially a cash reserve; (2) to provide additional funds that satisfy Penn Corp's (its parent company) covenant requirements for its working capital line of credit, which is used by Penn Corp and its subsidiaries (including PEU) as a "back stop" for short-term capital needs; (3) to provide additional funds to meet cash flow obligations required by covenant in the debt financings; and (4) to meet obligations on new debt incurred between rate filings. *Id.* at 17.

As the debt portion of the QCPAC revenue pertains to debt service, and in turn, is allocated to the DSRR, it is subject to the additional 10% adder, as required by the Company's ratemaking mechanism. Thus, to comply with the approved structure, the actual principal and interest payments are multiplied by 1.1. The principal and interest portion is allocated to the DSRR-1.0, and the 0.1 multiple applied to principal and interest payments is allocated to the DSRR-0.1. *Id.* at 36.

corresponding surcharge in Docket No. DW 19-135. The Commission approved an initial QCPAC of 2.98%. *Pennichuck East Utility, Inc.*, Order No. 26,313 (December 6, 2019).

II. Petition Summary and Procedural Background

On February 13, 2020, in accordance with Order No. 26,179, PEU filed its 2020 Petition of Pennichuck East Utility, Inc. for Qualified Capital Project Annual Adjustment Charge (Petition). The Petition was accompanied by the testimony and attachments of Donald L. Ware, PEU's Chief Operating Officer, and the testimony of John J. Boisvert, Pennichuck Water Works, Inc.'s Chief Engineer.³ The attachments contained various schedules and calculations, including: information regarding the proposed surcharge, based on 2019 capital projects; the proposed budget and description of 2020 capital projects; and, for informational purposes only, the estimated capital budgets for 2021 and 2022 capital projects.

PEU's stated that the Petition served three purposes: (1) to seek approval of a the surcharge reflective of 2019 capital investments, estimated at the time of filing to be a 1.97% addition to the currently approved 2.98% QCPAC; (2) to seek preliminary approval of the capital budget for eligible projects anticipated to be completed in 2020, which is subject to refinement through quarterly budget updates; (3) and request acceptance of the forecasted capital budgets of 2021 and 2022. Petition at 2, 7.

The petition also posited two additional requests: (1) recoupment of the "QCPAC between its implementation on a service rendered basis for bills issued after the final QCPAC order has been issued ... and the date the Company closed on its loan with CoBank...[the estimated closing date of July 31, 2020," Petition at 5; and (2) "authority to pay the interest incurred on its fixed asset line of credit [Line of Credit] each year by incorporating the interest into the amount borrowed from CoBank." *Id.* at 6.

On February 25, 2020, the Office of the Consumer Advocate (OCA) filed a notice of participation in accordance with RSA 363:28. There are no other intervenors in this docket.

Staff filed a proposed procedural schedule on March 11, 2020. The Commission approved the procedural schedule, by Secretarial Letter, the next day.

The Commission Audit Staff (Audit) reviewed the Company's 2019 capital expenditures and issued a Final Audit Report (Audit Report), dated April 16, 2020. Attachment A. The Audit Report indicated no exceptions regarding PEU's 2019 capital expenditures.

PEU responded to five sets of discovery propounded by Staff. The Company also provided supplemental discovery responses. Attachment B.

In addition, Staff's engineering consultant, Mr. Douglas W. Brogan, P.E., reviewed the Company's filing, the proposed surcharge, and proposed 2020 capital budget. His report (Engineering Report), dated December 22, 2020 is attached. Attachment C.

³ Pennichuck Water Works, Inc. is the sister utility of PEU, and provides various services to the Company.

III. 2020 QCPAC (Requested Surcharge)

A. Components of the Surcharge

The QCPAC is a surcharge on customer's bills comprised of two components: (1) the annual debt service (principal and interest payments) of the applicable loans used to finance the eligible capital projects from the prior calendar year, multiplied by 1.1; and (2) the incremental property taxes associated with those projects.

1. Annual Debt Service on 2019 Capital Projects with 1.1 Multiplier

PEU initially requested recovery of annual debt service of \$107,314. Petition at 21. Staff calculated that the QCPAC component based upon that debt service to be \$118,045 (annual principal and interest payment of \$107,314 * 1.1). According to Mr. Ware's testimony, that debt service was associated with "the investment of \$1,769,257 in assets." Petition at 13.

Specifically, the Company contended it calculated the principal and interest payments based upon: (1) a long-term loan from CoBank ACB (CoBank), estimated at the time of filing to be \$803,275, at an interest rate of 5.5% for a term of 25 years⁴; and (2) \$966,252, a portion of a larger \$4.2 million NH State Revolving Loan Fund (SRF) financing, administered by the NH Department of Environmental Services (NHDES). Petition at 13-14.

After review, and as explained below, Staff recommends inclusion of a debt service amount of \$56,220 to be added to the DSRR component in the QCPAC calculation below. This is based upon a CoBank Term Loan of \$800,122 and principal and interest payments on that loan of \$51,109, which is then adjusted by the 1.1 multiplier.

a. CoBank Term Loan

The Company provided the specifics regarding the CoBank loan through discovery, as the loan did not close until November 25, 2020, well after PEU's initial February 13 filing. Attachment B, Staff 3-3 (supplemental response of December 9, 2020).

PEU stated the CoBank loan was for an amount of \$800,122, at a fixed interest rate of 3.98% over a 25-year amortization period. *Id.* The first payment on the loan occurred on December 21, 2020, and consisted of interest only. *Id.*

The Commission previously approved this financing on October 29, 2020. *Pennichuck East Utility, Inc.*, Order No. 26,418 (Docket No. DW 20-081). Per that Order, the financing was intended to repay PEU's line of credit expenditures, which consisted of "new capital expenditures, routine maintenance of capital projects, and other non-recurring capital expenditures." *Id.* at 2. The financing was also intended to pay the interest incurred on PEU's Line of Credit borrowings on those capital expenditures. That Order detailed the items and amounts to be used by the financing, as follows:

⁴ CoBank ACB is part of the US [Farm Credit System](#), providing loans and financial services to cooperatives, agribusinesses, and rural public utilities.

Total Capital Improvements	\$439,820	
Total Maintenance Capital Expenditures	319,901	
<u>Line of Credit Interest</u>	<u>40,401</u>	
Total Loan	\$800,122	<i>Id.</i> at 3-4.

Staff notes that the Commission previously approved inclusion of the Line of Credit interest in the 2020 CoBank loan both in Order No. 26,418 and during the 2019 QCPAC process. *See Pennichuck East Utility, Inc.*, Order No, 26,313 at 9 (December 6, 2019) (“PEU has requested approval to include the annual interest incurred on its Line of Credit in its annual long-term debt issuances beginning in 2020... [w]e find the Company’s proposal an appropriate adjustment and approve it”).

Staff further notes, however, that the Company has never specifically requested that the Line of Credit interest be a recoverable expense via the QCPAC mechanism in its 2019, 2020, or 2021 QCPAC filings. *Pennichuck East Utility, Inc.*, 2019 Petition of Pennichuck East Utility, Inc., for Qualified Capital Project Annual Adjustment Charge, February 15, 2019 (Docket No. DW 19-035); Petition; and *Pennichuck East Utility, Inc.*, 2021 Petition of Pennichuck East Utility, Inc., for Qualified Capital Project Annual Adjustment Charge, February 11, 2021 (Docket No. DW 21-022).⁵

The Line of Credit interest requested for inclusion in PEU’s 2020 QCPAC, furthermore, was not included in the budget submitted by the Company in Docket No. DW 19-035; consequently, inclusion of the Line of Credit interest in the QCPAC did not receive preliminary approval by the Commission, as required by the third prong of the eligibility criteria for recoverable capital project expenditures (“(3) the project must be associated with the budget previously submitted and preliminarily approved by the Commission” Order No. 26,179 at 11). *See* Order 26,313 at 6, 9 (“On November 14, 2019, PEU updated its 2019 QCPAC capital budget as of September 30, adjusting the amount to \$2,058,625... we approve the 2019 QCPAC budget on a preliminary basis”); and *Pennichuck East Utility, Inc.*, 2019 QCPAC Quarterly Update as of September 30, 2019 at 5, November 14, 2019 (no indication of either an entry for Line of Credit interest or corresponding amount).

At this time, however, Staff recommends inclusion of the interest as a recoverable expense in this year’s QCPAC for five reasons. First, it balances the interests of both ratepayers and the Company. *See* RSA 363:17-a (“The commission shall be the arbiter between the interests of

⁵ Staff recognizes that these three petitions include identical, or nearly identical language requesting the Commission to include the Line of Credit interest in its yearly debt financing. *Pennichuck East Utility, Inc.*, 2019 Petition of Pennichuck East Utility, Inc., for Qualified Capital Project Annual Adjustment Charge, February 15, 2019 at 6-7 (Docket No. DW 19-035); Petition at 6-7; and *Pennichuck East Utility, Inc.*, 2021 Petition of Pennichuck East Utility, Inc., for Qualified Capital Project Annual Adjustment Charge, February 11, 2021 at 6-7 (Docket No. DW 21-022).

As stated, however, that request was previously approved in Order No. 26,313. Staff notes, furthermore, that the amount and purpose of a financing is examined at the time of the finance petition. *See* RSA 369:1 (“The proposed issue and sale of securities will be approved by the commission where it finds that the same is consistent with the public good. Such approval shall extend to the amount of the issue authorized and the purpose or purposes to which the securities or the proceeds thereof are to be applied, and shall be subject to such reasonable terms and conditions as the commission may find to be necessary in the public interest”). As such, Staff’s position is that the Company’s request is moot and does not need to be addressed.

the customer and the interests of the regulated utilities”). Staff recognizes that PEU is a debt-only entity, and that cash coverage of all associated expenses, including the Line of Credit interest, supports the Company’s financial viability. That viability, in turn, allows the Company to continue providing safe and adequate water service to its customers, pursuant to RSA 374:1 (“Every public utility shall furnish such service and facilities as shall be reasonably safe and adequate and in all other respects just and reasonable”).

Second, it is consistent with past Commission practice. While the Commission did not explicitly authorize the inclusion of the Line of Credit interest as a recoverable expense during the 2019 QCPAC process, the Commission ultimately approved the resulting QCPAC of 2.98%, which did include the Line of Credit interest. Order No. 26,313 at 1, 3.

Third, it is consistent with past Staff recommendation. In its 2019 QCPAC recommendation, Staff recommended that the “Commission authorize PEU to include the [Line of Credit] interest in its annual long-term financings, and as such, in its annual QCPAC filings for proposed recovery through customer rates.” Commission Staff, Recommendation at 8, September 20, 2019 (Docket No. DW 19-035) (emphasis added).

Fourth, inclusion of the Line of Credit interest properly reflects the total cost of the underlying capital projects. Reimbursement of that total cost to the Company was the intended purpose of the QCPAC. The Line of Credit is used to fund the capital projects in the short-term, later converted to long-term debt, which makes it eligible for QCPAC recovery. Inclusion of the interest related to that short-term debt for the qualifying capital projects in the surcharge is logical.

Fifth, the inclusion of the Line of Credit interest results in a negligible difference in the resulting surcharge. Staff calculates that removal of the Line of Credit interest from the Company’s annual principal and interest obligation on the CoBank loan would result in a minimal difference in the surcharge (reducing the QCPAC from 4.20% to 4.17%, or approximately \$0.01 per month for the average residential rate payer).

Staff also supports the specific amount of Line of Credit interest to be included in the overall calculation, \$40,401. According to the Company, the \$40,401 of Line of Credit interest to be recovered pertains only to those capital projects that were completed, used and useful, and in service by December 31, 2019. *See* Attachment B, Staff 1-6 (“no interest on the CoBank [Line of Credit] associated with projects that were not used and useful prior to December 31, 2019 is included in the projected interest calculation of \$40,401 incurred on the [Line of Credit]”).

As a result, the Company indicated that the annual principal and interest on the \$800,122 CoBank loan is \$51,109. Attachment B, Staff 5-1, Schedule DW-1, Page 1. Multiplying that amount by 1.1 results in \$56,220. As such, Staff recommends inclusion of \$56,220 in principal and interest payments, adjusted with the 1.1 multiplier, to be added to the DSRR component in the QCPAC calculation below.

b. SRF Financing

The \$966,252 of SRF money included in the Company's original 2020 QCPAC calculation are part of a larger previously-approved \$4.2 million financing. *Pennichuck East Utility, Inc.*, Order No. 26,189 (November 6, 2018) (Docket No. DW 18-132). The Commission approved the use of the SRF funding as it provided low cost financing for three multi-year projects for the Company's Locke Lake Community Water System. *Id.*

According to discovery, the financing was initially to be provided, and recorded, as short-term debt. Attachment B, Staff 1-8 Response and Supplemental Response (updated December 29, 2020). The short-term debt would then be converted to long-term debt in three tranches, with each conversion occurring upon completion of each phase. *Id.* According to PEU, the first of these conversions was scheduled to take place in 2020, corresponding with Locke Lake system projects completed in 2019. *Id.* The payments associated with this first tranche were anticipated to begin in July 2020. Petition at 4.

The SRF funds associated with the Locke Lake projects completed in 2019, however, did not convert from short-term to long-term in 2020 as originally anticipated, and, in turn, loan payments have not yet begun. Attachment B, Staff 1-8 Response and Supplemental Response (updated December 29, 2020). Rather, the Company and NHDES agreed the entire \$4.24 million would be converted from short-term to long-term debt sometime during the first half of 2021. *Id.* Thus, conversion and payments on the entire \$4.24 million would not begin until after all the Locke Lake projects were substantially complete. *Id.* That is expected to take place within the first half of 2021. *Id.*

As such, the Company will not incur principal and interest payments on the SRF loan until later in 2021. Therefore, the Company removed the \$966,252 of SRF financing, and the corresponding \$52,173 of debt service, from the instant QCPAC request. *Id.* Staff anticipates examination of those amounts will be deferred until a future QCPAC filing.

After review, Staff agrees that if the Company is not currently repaying the SRF loan, they should not be included in the debt service calculation of the requested QCPAC surcharge increase. As a result, the debt service component associated with the proposed 2020 QCPAC has been revised, per the Company's suggestion, to reflect only the CoBank debt service, as detailed above.

2. Incremental Property Tax Increase from 2019 Capital Projects

The Company requested inclusion of \$45,231 in the surcharge calculation, relating to an increase in its annual property tax expense relative to its completed 2019 capital projects. Petition at 21. While PEU requested that the debt service for the SRF loans be removed from calculation of the surcharge, the Company, however, has requested that the incremental property tax associated with the projects completed in 2019, and financed by SRF funds, remain eligible for recovery through the QCPAC. *See* Attachment B, Staff 1-8 Supplemental Response (updated December 29, 2020) ("the Company still seeks recovery of the property taxes associated with the

[SRF projects] as the value of the watermain [sic] improvements is part of the Town of Barnstead's 2020 valuation and reflected in the Company's property tax").

Staff calculated the annual property tax related to those projects as \$28,970 of the total \$45,231. *See Id.* at DLW-1, Page 3 (calculating the taxes associated with SRF funding projects (\$575 + \$11,046 + \$9,286 + \$6,866 + \$1,196 = \$28,970).

After review, Staff agrees with the Company's request. The underlying assets are currently providing service to customers and, furthermore, are currently being taxed by the Town of Barnstead. Staff's determination is further supported by Staff's engineering consultant, Douglas Brogan, P.E.'s Engineering Report, which indicates that those projects are complete. Attachment C at 2.

As such, the Company should include, and recover, the full incremental property tax amount of \$45,231, inclusive of the \$28,970 in property tax associated with SRF projects, in the current QCPAC request. Thus, Staff recommends inclusion of \$45,231 of property tax expense be added to the OERR component in the QCPAC calculation below.

B. Calculation of 2020 QCPAC (Surcharge)

In order to implement the new, cumulative QCPAC percentage, the Company must first calculate a new revenue requirement. That is achieved by adding the new debt service and property taxes to its previously approved revenue requirement. The new revenue requirement is then divided by the previously approved revenue requirement in the Company's last general rate proceeding, Order No. 26,179.

The Company determined their new revenue requirement, inclusive of the prior year's approved QCPAC, as \$8,624,071 by the following calculation:

Current Debt Service Revenue Requirement (DSRR)	\$1,785,595
+ DSRR Increase	\$56,220 (51,109 *1.1)
+ Current Operating Expense Revenue Requirement (OERR)	\$5,810,716
+ OERR Increase (incremental property tax increase)	\$45,231
<u>+ Current City Bond Fixed Revenue Requirement (CBFRR)</u>	<u>\$926,309</u>
Company Proposed New Revenue Requirement	\$8,624,071

In Order No. 26,179, the Commission approved an overall revenue requirement of \$8,455,176. at 15. That revenue requirement includes North Country Capital Recovery Surcharge (NCCRS). *Id.* at 5. PEU calculates the NCCRS revenues at \$178,915, to which the QCPAC does not apply. Petition at 21. Therefore, when the NCCRS revenues are eliminated from the previously approved revenue requirement, the result is \$8,276,261 (\$8,455,176 – \$178,915 = \$8,276,261).

Following the formula above, the new proposed cumulative QCPAC is 4.20% [(\$8,624,071 ÷ \$8,276,261) – 1]. This represents a 1.22% addition to PEU's previously approved QCPAC of 2.98% (2.98% + 1.22% = 4.20%).

Based upon the information provided by PEU, an average non-North Country single-family residential customer, using 7.29 hundred cubic feet (ccf) of water per month, currently pays a monthly average of \$77.70 (a base rate of \$75.45 per month and a current QCPAC of \$2.25 (\$75.45 x 2.98%).

The proposed 2020 cumulative QCPAC surcharge will result in a total QCPAC surcharge of \$3.17 (\$75.45 x 4.20%), an increase of \$0.92 (\$75.45 x 1.22%) per month. When the cumulative QCPAC is added to the monthly base rate of \$75.45, it would result in a new average single-family residential bill of \$78.62 (\$75.45 + \$3.17).

Staff supports approval of a 4.20% cumulative QCPAC, resulting in an increase in 1.22% on customer's current bills. Staff draws its support from the Engineering Report provided by its engineering consultant, Mr. Douglas Brogan, P.E. Attachment C. In the Engineering Report, Mr. Brogan states that each project associated with the QCPAC, including the projects which incurred an increase in the Company's property tax liability, but were not included in the debt service calculation of the QCPAC, were completed and in-service at the end of 2019, and were furthermore prudent, used and useful. Attachment C at 4.

Staff also notes that the Audit Staff reviewed the 2019 capital expenditures, as detailed in its Audit Report, and made no adjustments and found no exceptions to those expenditures. Attachment A.

As such, Staff recommends approval of the resulting 4.20% QCPAC.

IV. One-Time Recoupment Charge

As stated, the QCPAC mechanism previously approved by the Commission also provides for a one-time annual recoupment charge, which covers the period between the approved effective date of the surcharge (typically the closing date of the underlying financing the surcharge is based upon) and the date of the Commission's order approving the surcharge. Order No. 26, 179 at 12.

The Company requested "recoupment of the QCPAC between its implementation, on a service rendered basis for bills issued after the final QCPAC order has been issued and the tariff pages are approved and the date the Company closed on its loan with CoBank." Petition at 5.⁶ As stated, the CoBank term loan did not close until November 25, 2020.

Therefore, PEU proposed, and Staff agrees, the effective date of the 2020 QCPAC should be for service-rendered as of November 25, 2020. Attachment B, Staff 3-3 Supplemental Response (dated December 29, 2020). As proposed, the Company would be eligible for a recoupment of the incremental revenue from that date until the date the cumulative QCPAC appears on customer bills.

⁶ Staff notes that the settlement agreement approved by Order No. 26,179 allowed PEU to recoup the QCPAC revenue on a bills-rendered basis, thus waiving NH Admin. R., Puc 1203.05(b) ("all rate changes implemented as a result of a commission order...shall be implemented on the basis of service rendered on or after the effective date of the approved rate change"). Order No. 26,313 at 8. The Commission, however, granted "PEU's request to modify that provision of the [s]ettlement [a]greement" in the 2019 QCPAC proceeding. *Id.* As such, recoupment on a service-rendered basis is appropriate and requires no further request to modify the underlying settlement agreement.

PEU provided an example of that recoupment based upon Commission approval of the cumulative 2020 QCPAC by early February 2021. *Id.* In that example, customers would be assessed the surcharge commencing with PEU's billings in March. Staff calculated that results in an approximate 3-month recoupment period (December 2020, January and February 2021). As such, an average non-North Country single-family residential customer would be subject to a revenue recoupment of approximately \$2.76 ($\$0.92 * 3$ months).

Given those circumstances, PEU proposed to collect this amount over one month, to which Staff concurs. If the cumulative QCPAC did not appear on customer bills until approximately April, Staff further calculated the recoupment would be approximately \$3.68 ($\$0.92 * 4$ months). In each scenario, Staff believes the recoupment to be appropriate. As such, Staff recommends that the Commission approve a one-time recoupment of the QCPAC surcharge, from the date of the Commission's final order and resulting customer charge to the date of the CoBank loan closing, November 25, 2020.

V. 2020 Capital Budget and Estimated Customer Bill Impact

PEU originally proposed a 2020 capital budget of \$4.737 million. Petition at 24. The Company adjusted that budget through quarterly reports submitted in August and November 2020, and January 2021.

In its quarterly report submitted on January 11, 2021 the Company provided hard-coded versions of its schedules. On January 12, 2021, PEU provided live Excel versions of the schedules in response to Staff's request. *See* Attachment D (email from PEU's counsel attaching the live Excel version of the quarterly report). After review of the live Excel version, Staff propounded a fifth set of discovery, in which the Company confirmed the new proposed 2020 capital budget to be \$4,951,522. Attachment B, Staff 5-3; *see also* Attachment E (hard-coded worksheet detailing updated 2020 capital budget).⁷

The Company projected the QCPAC percentage increase from those 2020 projects is estimated to be 4.71%. Attachment B, Staff 5-1, DLW-1, Page 1. Further, the Company indicated this estimated percentage increase includes the SRF principal and interest PEU requested be deferred from the 2020 QCPAC. Attachment E. Staff calculated that this would result in a total cumulative QCPAC of approximately 8.91%.⁸

Staff further calculated that the estimated 4.71% increase would result in an additional \$3.55 per month (assuming a base rate of \$75.45 per month ($\$75.45 * .0471 = \3.55)) for the

⁷ Staff submits Attachment E, a hard-copy of the pertinent live excel version worksheet as it was the only verifiable source for its discovery questions and provides the Company's the detailed 2020 capital budget proposal. The hard-coded schedules submitted with its January 11, 2021, quarterly report, and the responses to Staff's fifth round of discover are truncated and do not include all pertinent information. Staff recognizes that the discrepancy between the live Excel versions circulated, which are not always circulated to the entire service list, and the hard-coded responses from the Company are a recurring problem and hopes to address and resolve the issue of quality control of the Company's filings in PEU's next QCPAC proceeding, Docket No. DW 21-022.

⁸ Staff notes that the Company calculated, in error, a resulting cumulative charge of 9.05%. Attachment B, Staff 5-1, DLW-1, Page 1. Please see the footnote above,

average single-family residential, non-North Country customer, using 7.29 ccf of water per month.

As such, Staff calculated the estimated cumulative QCPAC of 8.91%, at an additional \$6.72 per month (assuming a base rate of \$75.45 per month ($\$75.45 * .0891 = \6.72)) for the average single-family residential, non-North Country customer, using 7.29 ccf of water per month. The resulting total estimated monthly bill would be approximately \$82.17 ($\$75.45 + \$6.72 = \82.17).

Staff reviewed the Company's proposed 2020 capital budget of \$4,951,522, as shown in Attachment E, and contends that the projects appear to fulfill the objectives of the QCPAC program by enabling PEU to effectively maintain its capital improvements program and sustain the necessary cash flows to pay the debt service and property tax obligations associated with these projects. Staff also draws support from the findings of its consulting engineer, Mr. Brogan. In the Engineering Report, Mr. Brogan stated that "while the typical juggling of projects to balance project deferrals and funding availability is in evidence, the projects as proposed appear appropriate." Attachment C at 3.

Staff notes that the Company included in its proposed 2020 capital budget a line item entitled "Interest on CoBank FaLOC" for \$16,000. Attachment E. Staff acknowledges that, unlike its preliminarily approved 2019 capital budget, PEU's inclusion of that line item partially conforms with the QCPAC recovery requirement that "the project must be associated with the budget previously submitted and preliminarily approved by the Commission." Order 26,179 at 11. Staff states that it partially conforms with the QCPAC recovery requirement as the requirement states "the project" and not "the cost" or "charge incurred." Despite that discrepancy, Staff supports the proposed budget as submitted, particularly in light of its recommendation that the Commission direct PEU to file a request for modification of the settlement agreement in one of its pending dockets, as discussed below.

As such, Staff recommends that the Commission approve the proposed 2020 capital improvement budget of \$4,951,552, as contained in Attachment E, on a preliminary basis, but withhold any prudency determination of those projects, pursuant to RSA 378:28. Staff's recommendation is predicated upon the fact that the actual project costs incurred by PEU during 2020 will be fully investigated as part of the Company's 2021 QCPAC proceeding (Docket No. DW 21-022).

VI. 2021 and 2022 Capital Budgets

PEU provided proposed capital budgets for the years 2021 and 2022 in the amounts of \$2.076 million and \$1,260,500, respectively. Petition at 25, 26. According to the most recent quarterly update, the proposed capital budget for 2021 increased to \$3.196 million, but the 2022 proposed capital budget remained the same. Pennichuck East Utility, Inc., Quarterly Update, January 11, 2021 at 6, 7.

Staff recommends the Commission accept PEU's revised budgets for the years 2021 and 2022, for informational purposes.

VII. Recommendation for Commission to Direct PEU to file for QCPAC Modification: Inclusion of Line of Credit Interest as Recoverable Expenditure in QCPAC

Staff recommends that the Commission direct the Company to request a modification of the settlement agreement approved by Order No. 26,179 in its pending 2021 QCPAC petition (Docket No. DW 21-023). Specifically, Staff requests that the Company petition for modification of the settlement agreement to: (1) include interest on its Line of Credit, paid for by its annual CoBank ACB financing, as an eligible expense recoverable through the QCPAC mechanism; and (2) request the Commission to determine the appropriate criteria for the interest charges eligible for QCPAC recovery, including, but not limited to, the time period for which the interest charges occur.

Staff makes this recommendation in order to streamline future QCPAC proceedings as inclusion of interest on the Line of Credit in the QCPAC will be an ongoing issue. A determination by the Commission would settle the framework to be used in Staff's review of the filing, allowing Staff to avoid an annual, protracted examination into the threshold inquiry of the appropriateness of inclusion of the line of credit interest in the QCPAC, as discussed in length above in Section III(A)(1)(a). The modification, furthermore, would reconcile the proposed budget's inclusion of a Line of Credit interest charge with the existing QCPAC parameters provided by Order No. 26,179 and the underlying settlement agreement requirements, that in order to be recoverable, it must be a qualifying "project." Order No. 26,179 at 11.

Staff also contends that the request would not be overly burdensome on PEU as the Company has constructively requested that the Commission modify the settlement agreement in its prior QCPAC proceeding. *See* Pennichuck East Utility, Inc., 2019 Petition of Pennichuck East Utility, Inc., for Qualified Capital Project Annual Adjustment Charge, February 15, 2019 at 5-6 ("At the time of the settlement in Docket No. DW 17-128 the Company sought implementation of recoupment on a bills rendered basis... the Company is [now] requesting the recoupment be implemented on a service rendered basis in accordance with PUC 1203.05").

It also appears that the Company would benefit from a decision by the Commission as it is currently unsure if the interest is recoverable, as noted in its current rate case. *See* Pennichuck East Utility, Inc., Testimony of Larry D. Goodhue, November 23, 2020 at 25 (request for prioritization of account funds "to pay for the interest cost of [its Line of Credit], if these costs are not allowed to be included in the Company's QCPAC charges") (emphasis added). The modification would also allow PEU to avoid making identical requests each year regarding inclusion of the Line of Credit interest in its yearly CoBank financing, as described in Footnote 4 above.

As such, Staff respectfully requests that the Commission direct PEU to request a modification accordingly.

VIII. Overall Summary and Conclusion

In conclusion, based on review of the Company's filing, discovery, the Audit Report, and the Engineering Report, Staff recommends that the Commission find that the capital projects

completed in 2019 and proposed as eligible for recovery through the QCPAC, are prudent, used, and useful. *See* RSA 378:28 (rates will not reflect improvements which have not first been found by the Commission to be prudent, used, and useful).

Staff further recommends that the Commission approve a cumulative, monthly QCPAC on customer bills of 4.20% effective on a service-rendered basis as of November 25, 2020.

Staff also recommends that the Commission approve a one-time recoupment of the QCPAC surcharge, from the date of the Commission's final order and resulting customer charge to the date of the CoBank loan closing, November 25, 2020.

Staff further recommends the Commission approve a 2020 capital budget of \$4,951,522, on a preliminary basis, and subject to the Commission's prudency review. Staff also recommends that the Commission accept, for informational purposes, PEU's updated QCPAC budgets for the years 2021 and 2022.

Staff, lastly, recommends that the Commission direct PEU to file a request for modification of the QCPAC process in its pending 2021 QCPAC proceeding.

Before filing this letter with the Commission, Staff provided the OCA and the Company with a draft copy for their review. The Company agreed with Staff's recommendations. The OCA did not take a position.

Thank you for your attention and assistance with this matter. If you have any further questions, please do not hesitate to contact me.

Sincerely,

/s/ Anthony J. Leone

Anthony J. Leone
Utility Analyst, Gas-Water Division

/s/ Christopher R. Tuomala

Christopher R. Tuomala
Hearings Examiner/Staff Attorney

Attachments: A) Audit Report of Staff Utility Examiner, Krista Leigh
B) Discovery Responses
C) Engineering Report, Doug Brogan, P.E.
D) Email from PEU Counsel, Dated January 12, 2021
E) Proposed 2020 Capital Budget

cc: Service List (electronically)

STATE OF NEW HAMPSHIRE

Inter-Department Communication

DATE: April 16, 2020
AT (OFFICE): NHPUC

FROM: Krista Leigh, Utility Examiner

SUBJECT: Pennichuck East Utility, Inc.
DW 20-019 Qualified Capital Project Adjustment Charge - QCPAC
FINAL Audit Report

TO: Steve Frink, Director Gas - Water Division, NHPUC
Jayson Laflamme, Asst. Director Gas - Water Division, NHPUC
Karen Moran, Chief Auditor
Anthony Leone, Utility Analyst

Introduction

On February 13, 2020, Pennichuck East Utility, Inc. (PEU or The Company) filed for their 2019 Qualified Capital Project Adjustment Charge (QCPAC) reconciliation. This reconciliation, and its associated projects, are subject to the Public Utilities Commission's (PUC) Audit Staff (Audit) review and subsequent Order granting approval, prior to eligibility for recovery through the QCPAC. For determination of eligibility, Audit reviewed the 2019 plant additions, as identified on the Capital Expenditures report (CAPEX), found on Exhibit DLW-1, page 3, of the QCAPC filing.

Per the Commission approved Order 26,070, dated November 7, 2017, "*The [replacement] of the pilot WICA [Water Infrastructure and Conservation Adjustment] program with the Qualified Capital Project Adjustment Charge is a reasonable method to compensate the Company for necessary capital investments between rate cases. Such investments will of course be subject to a Commission review and determination of whether such investment was prudent.*" Prior to the approval of the QCPAC recoupment, as detailed in Order 26,070, the Company had been participating in a WICA Pilot Program, approved in Order 25,230, dated June 9, 2011.

The filing included the 2019 Capital Expenditures (CAPEX), which reported the Company's board approved a QCPAC budgeted amount of \$3,286,500 in January of 2019. The total final project cost as of 12/31/19, per the petition filed on February 13, 2020, Docket No. DW 20-019, totaled \$1,787,322. The final unaudited project cost of \$1,769,527, as reported on the 2019 CAPEX report, was revised to the QCPAC eligible project final costs totaling \$1,787,322, less any that were funded with .01 Debt Service Revenue Requirement (DSRR) funds. Audit identified that the \$17,795 variance between the total final project cost of \$1,787,322 and the unaudited project cost of \$1,769,527 is the aggregate of the projects that were funded with the 0.1 DSRR funds. Exhibit DLW-1, page 3 of the filing reports that the .01 DSRR funded projects are for the Alexander Road Water Main Upsizing, totaling \$1,119, and the Nashua Road 4" Main Relocation, totaling \$16,676.

Audit noted the amount to be funded with the 2020 loan from CoBank totaled \$803,275, as reported on Exhibit DLW-1, page 3 of the filing. Page 4 of the filed testimony from Donald Ware, Chief Operating Officer of Pennichuck East, identifies the funds to be borrowed from CoBank as totaling \$799,439. Audit questioned the \$3,836 variance between the CAPEX and Donald Ware's testimony. The Company stated that, "*The difference in testimony is due to the fact that the loan won't close until June [2020] and we do not have the final interest rate at this time.*"

Regulatory Approval

As required by Order 26,179, to be eligible for recovery through the 2019 QCPAC, a project must meet the following standards:

- (1) Completed, in service and used and useful on or before December 31, 2019;
- (2) Financed by debt that has been approved by the Commission; and
- (3) Corresponds with a capital budget that has previously been submitted by the Company and approved by the Commission.

Bidding

Audit inquired about the Company's procedure regarding the bidding process that contractors go through when applying to build and/or manage a project. The Company explained that the bid documents used include criteria that reference a potential contractor's technical ability, their experience successfully completing projects with a similar scope of work and size, their financial stability (the ability to bond), and their references. The bidder the Company selects is determined to be the responsible bidder based on review of their application, and who offers the lowest price to complete the job. The Company stated that they typically already know the majority of contractors that bid on projects. Audit understands that there may be instances when the work that a project requires is more specialized or unique (unlike water main construction), such as well drilling and construction. In this case, the Company explained that they would prequalify the bidders to ensure potential contractors are capable of completing the type of well the Company needs.

For review, Audit requested the bid proposals for the 2019 QCPAC projects. The Company provided a Record of Bids and Proposals in an Excel spreadsheet, detailing the name of the three lowest bidders for each project, the bid date, and the bid amount. Each project indicated that the lowest bidder was the winning bidder. Audit noted that some of the projects reported no winning bids. The Company stated that projects less than \$5,000 "*do not meet the criteria that that [the Company] has established for soliciting bids.*"

Review of 2019 Capital Projects

There were a total of forty Capital Projects listed on Exhibit DLW-1, page 3 of the filing, and one amount for the PEU capitalized short-term project interest. Of the forty projects listed in the filing, twenty-seven of them plus the short-term interest, had a combined final project cost totaling \$1,787,322. Refer to the Introduction section of the report for details on the two DSRR funded projects that were included in the original \$1,787,322 CAPEX total but later removed for the final update, as they were not QCPAC eligible. Twenty-five of the listed projects were put

into service during 2019; thus, eligible for the 2020 QCPAC surcharge. Audit reviewed all twenty-five of the QCPAC eligible projects, noting that the remaining fifteen of the forty projects listed on the CAPEX did not have a final project cost and/or were reported as not qualifying for the QCPAC. The following identifies the fifteen projects not included in the QCPAC:

- Elevated storage tank in Londonderry
- Airstrip alternative arsenic treatment
- Locke Lake surface water treatment
- Locke Lake treatment evaluation
- Upgrade Michells Way PRV pit
- Alexander Road water main upsizing
- Nashua Road 4” Main relocation
- Install/replace treatment systems in small CWS
- Misc. Structural Improvements
- Misc. Fencing and Security Projects
- Misc. SCADA/Electrical
- Well Rehabilitation
- Atkinson Booster pump station design
- Replace softner media, W and E
- Add communications between remote facility and Nashua WTP (4 locations)

Per Audit’s request, the Company provided an explanation as to why these projects were listed on the CAPEX but did not have a final project cost. In response, the Company stated that, *“[The projects] are generally place holders in the budget for ‘run rate/routine’ projects. The budgets are brought into the QCPAC at the budget that was approved by the board. As the year progresses, the projects may be delayed and/or not completed based on business needs. If there is no work order listed, that means the project was not completed or not necessary.”* Written in the notes on the CAPEX, Audit recognized the Company’s explanation for any deletion of projects, since the petition filing.

In addition to the mains, services, and paving projects that were historically included under the WICA to be eligible for recovery through the QCPAC mechanism, a project can be related to the replacement of vehicles, network infrastructure and building improvements. The following depicts the twenty-seven Capital Projects (plus the short-term interest), as per Exhibit DLW-1, page 3, of the filing:

Project Name/Description	Work Order #	Final Project cost as of 12/31/2019	QCPAC Eligible Property Tax Expense
Georgetown Area water main replacements	1917479	\$ 20,845	\$ 575
Georgetown Drive water main replacement	1901644	\$ 400,377	\$ 11,046
Bradford Lane water main replacement	1901645	\$ 336,562	\$ 9,286
N.Barnstead Road - Eliminate dead end piping	1901646	\$ 248,858	\$ 6,866
Belmont Drive water main replacement	1901647	\$ 43,364	\$ 1,196
PEU-PWW Interconnection (Merrimack to Litchfield)	1900424, 1900434, 1908514	\$ 59,691	\$ 1,723
Rolling Hills Water Main Replacement	1825265, 1901649, 1918198	\$ 188,089	\$ 4,877

1x rev invest Normal Run Rate w/2 mos of PFOA in Litchfield	n/a	\$ 37,724	\$ 1,080
Alexander Road, Water Main Upsizing	1908374	\$ 1,119	\$ 27
Nashua Rd 4" Main Relocation - Carryover Charges	1829926 & 1906036	\$ 16,676	\$ 478
Weinstein/Dame Station Upgrades	1506139, 1603114, 1703756, 1813249, 1907079	\$ 108,286	\$ -
Booster Pump replacement/rebuild	760 - 763 workorders	\$ 26,925	\$ 771
Booster Pump replacement/rebuild	1915423	\$ 6,697	\$ 192
Well Pump replacements	760 - 763 workorders	\$ 42,371	\$ 1,214
Chemical Feed pump replacements	760 - 763 workorders	\$ 8,143	\$ 233
Miscellaneous SCADA/Electrical	1910159	\$ 1,712	\$ 53
Miscellaneous SCADA/Electrical	1915363	\$ 1,742	\$ 49
Miscellaneous SCADA/Electrical	1915856	\$ 2,155	\$ 58
Miscellaneous SCADA/Electrical	1916937	\$ 2,115	\$ 57
Add communications between remote facility and Nashua WTP	1901651	\$ 4,488	\$ 129
Pennichuck East Survey Work	1702834	\$ 3,153	\$ -
New Services (5)	720 workorders	\$ 14,560	\$ 417
Renewed Services (10)	721 & 722 workorders	\$ 35,824	\$ 1,026
Hydrants (5)	730 & 731 workorders	\$ 9,911	\$ 284
Gates (8)	712 workorders	\$ 33,630	\$ 963
Radios (550)	754 workorders	\$ 22,291	\$ 638
Meters (Growth) 5/8"-2" - PEU (220) / Lead Meter PEU (550)	750 workorders	\$ 69,613	\$ 1,994
PEU Capitalized short term project interest		\$ 40,401	\$
Totals		\$ 1,787,322	\$ 45,231

Overhead Rates

The Company's overhead rates are input into Synergen, the plant accounting system, by the Senior or Staff Accountant. The system entered overhead rates are then automatically calculated and posted to the general ledger, at the same time that the work orders are posted to the general ledger, at the end of the month.

Audit requested the overhead rates that were in effect during the 2019 test year for labor, general construction, and engineering. The Company responded with the following statement:

"For 2019, the Union overhead rate was 63.24% and the general overhead rate was 2%. It is intended to capture the cost of benefits for Union employees and is derived by an analysis of the employee's benefits which is reviewed / revised annually."

The general overhead rate is calculated on the total job cost, including the union labor rate as described above, and by an analysis of the employee benefits which is reviewed/revised annually as part of the budget process. Audit verified the OH rates to the work order detail reports of each project reviewed.

Allowance for Funds Used During Construction

Audit noted that there was no charge for Accounting for Funds Used During Construction (AFUDC) on the work order detail reports for the 2019 QCPAC projects and inquired as to whether or not the AFUDC was being calculated. The Company stated that, "As part of the 2019 PEU QCPAC filing we agreed that we would no longer calculate AFUDC and that we

would replace the inclusion of AFUDC for a project total with the interest incurred on the [Fixed Asset Line of Credit] FALOC.” Audit verified that Order 26,313, dated December 6, 2019, stated that, “The AFUDC mechanism does not accurately reflect the financing costs that PEU incurs during the period of actual project construction. PEU and Staff further agreed that the actual interest expense incurred on the Company’s Line of Credit during construction is a more accurate measure of costs than AFUDC.” The Company reported the short-term interest on the CoBank FALOC, from July 2019 - July 2020, as totaling \$40,401. This interest amount was a representation of interest from July 2019 through July 2020. The final amount of capitalized interest will not be known until the day the Company closes and pays off of the CoBank FALOC.

Cost of Removal and Retirements

The Company submitted the Continuing Property Records (CPR), detailing capitalized date, disposition date, cost of removal, gross book value, depreciation expense, accumulated depreciation, and net book value. The Company also provided a Dispositions and Meter Counts report. The general ledger for the construction work in progress account (CWIP, 105222), accumulated depreciation account (108000), the cost of removal account (108001), the accumulated depreciation loss account (108002), and the plant in service subaccounts (301000 – 348000) were also provided, along with copies of the journal entries and entry report for the general journal 2019 retired assets. Audit reviewed the general ledger entries confirming the final project costs credit the CWIP account and debit the appropriate plant in service account.

The CPR was examined by Audit, along with the general ledger entries for the accounts provided, and noted that the Cost of Removal (COR) on the CPR for the 2019 QCPAC projects, as totaling \$126,928. The COR general ledger, account 108001, reported a total of \$127,154. Audit inquired about the \$225 variance between the CPR and the trail balance. The Company explained that, “This is also to do with the same \$2,500.00 invoice that was booked to Georgetown area project. The assets were booked, but it should not be included in QCPAC filing for 2019 assets, as this will be part of a 2020 used and useful project.”

The Company provided a spreadsheet identifying the CPR assets that are posted to GL but not included in the QCPAC filing. Audit reviewed the spreadsheet and confirmed the \$225 variance between the Cost of Removal balance on the CPR and the general ledger balance for the cost of removal account.

Audit examined the general ledger and four samples of detailed journal entries for the retirements, one from each 2019 quarter, as well as the asset disposition list. The retirements are processed by debiting the 108000 account for the Gross Book Value, thus taking them off of the books and crediting the asset GLs 301-348. Then, there is a journal entry for the loss or gain on the asset which debits 108002 and credits 108000. The net change in the 108 account is a debit for the assets being retired. The assets themselves are depreciating by crediting 108000 each month and debiting the depreciation expense (403000). Because the Company uses the Synergen accounting system, that keeps track of the net value of assets, they need to clear the values off the books. By using the 108002 and 108000 for the “loss” or “gain”, they are basically zeroing out that remaining item. It has no impact on the income statement or the balance sheet, at the 108 account level. Audit verified that the depreciation is booked per the PUC Uniform System of Accounts for Water Utilities through the Accumulated Depreciation account 108.

The Company stated that the retirements are processed at the manager’s discretion and explained that, *“The fixed asset administrator will review the work order report showing replacements or repairs throughout the quarter. The manager has final say on what would be retired from that quarterly list.”*

Audit noted that the Q3 Gross Book Value for asset account #334100, Metering Equipment, totaled \$83,972 but the trial balance for account #108000, Accumulated Depreciation, shows the debit amount as \$85,183. Also, the Dispositions and Meter Counts report shows a Net Book Value of \$56,444.79 for the same quarter (Q3) but the trial balance shows the credit to account #108000, as \$57,632.71. The Company explained the variance between the Q3 Dispositions List and the Q3 trial balance in the following statement:

“There was a retirement that was done in error, it was found later and it was reversed in December 2019. The journal entry for that reversal is attached. Asset #700-00003032 was capitalized in March 2019 and retried September 2019 (in error). The manager did not request this asset to be retired.”

Audit examined the detailed journal entry provided and noted the asset retired in error. The reversing entry was noted with no exceptions.

Tax Rate Calculation

The February 13, 2020 filing by the Company reported the QCPAC eligible property tax expense of \$45,231, as per Exhibit DLW-1, page 3. All the projects reviewed by Audit were part of the PEU systems of Barnstead, Exeter, Londonderry, Merrimack, Plaistow, Raymond, and Windham. Audit requested the supporting schedule used to determine the QCPAC eligible property tax expense listed in the filing, as well as copies of the town property bills for each of the towns where the projects occurred. The Company provided the requested documentation including a schedule showing the tax rate calculation, stating that, *“The rates were calculated by taking the property tax bill from year end 2019 and adding the Statewide Utility tax rate of \$6.60/\$1000.”*

Audit verified that the QCPAC eligible property tax expense was calculated by multiplying the tax rate for the community where the project was located, by the final cost of the project/\$1,000, as per the explanation provided by the Company. Audit confirmed both the property tax rate calculation for each town, as well as the eligible property tax expense, and noted that the calculations agreed with the filed CAPEX. The following schedule represents the 2019 calculated property tax rate, based on final 2019 property tax bills, by municipality and state:

	Barnstead	Exeter	Londonderry	Merrimack	Plaistow	Raymond	Windham
Local Tax Rate	\$ 20.99	\$ 21.29	\$ 17.48	\$ 22.26	\$ 19.33	\$ 24.35	\$ 20.24
State Utility Tax Rate	\$ 6.60	\$ 6.60	\$ 6.60	\$ 6.60	\$ 6.60	\$ 6.60	\$ 6.60
Total	\$ 27.59	\$ 27.89	\$ 24.08	\$ 28.86	\$ 25.93	\$ 30.95	\$ 26.84

Work Order Detail Report

The Company provided copies of individual Work Order Detail Reports for the each of the QCPAC additions listed as projects on Exhibit DLW-1, page 3, of the filing. The reports describe the specific type of expense incurred throughout the duration of the project. Expenses listed on the reports include payroll related overheads, materials and supplies, transportation, and construction overheads. Also provided were the Cost Records and applicable E-22 forms for Audit's review.

Georgetown Area Water Main Replacements, Engineering/Management Costs WO#1917479 - \$20,845

The Capital Improvements Request form, dated March 7, 2019, identifies the project's detailed description, inventory of property-record units, associated costs, date of installation and completion. The Company filed the E-22 in March 2019, for work order #1917479, which was for the replacement of 7,800 feet of substandard and deteriorating 2" and 4" diameter polyethylene pipe with 4" and 6" C-900 PVC and (87) main to curb stop water service reconnections. The location of the project was in Barnstead and involved Georgetown Road, North Barnstead Road, Danbury Road, Bradford Lane and Belmont Drive. Work order #1917479 totaled \$20,845.

The CAPEX shows that this project was not in the approved budget. The earliest estimated project cost, as of November 30, 2019, was for 20,845. The final project cost on the work order detail report totaled \$20,845, which agreed with the final project cost reported in the filing.

Audit requested a schedule depicting the record of bids and proposals for the 2019 QCPAC surcharge eligible projects. In response, the Company provided an Excel spreadsheet of winning bid tabulations and noted that this portion of the Georgetown Area Water Main project was not open to receive bids because, "[The] Work Order #1917479 is a work order created to track engineering and management cost for design and management for the Locke Lake projects. It was not intended to include construction cost."

Copies of the Engineering and Management costs for the project were provided. Audit reviewed the costs as detailed in the following:

Richard D. Bartlett & Assoc., LLC	\$ 7,118
Richard D. Bartlett & Assoc., LLC	9,754
Richard D. Bartlett & Assoc., LLC	<u>3,973</u>
Total W/O #1917479	<u>\$ 20,845</u>

There were three separate invoices from Richard D. Bartlett for the Engineering and Management costs totaling \$20,845. Audit reviewed each invoice, as well as the Wage Classification and Salary Schedule, detailing the rates for 2018-2020 by employee classification. Audit noted that the charges on the invoice were for labor, mileage, and materials. No exceptions were noted.

Audit reviewed the CPR for the Georgetown Area Water Main Replacements project and noted the cost of removal totaled \$1,877, as per the most recent depreciation study. The Company indicated that because this project is for the replacement of deteriorating pipe, which is an existing asset, it is a retirement with no cost of removal posted to the work order. Audit understands that the project is related to an existing system; therefore, the cost of removal amounts listed on the CPR are worked into the total project cost listed on the invoices that were billed to the Company from the vendor.

Audit verified that the removal costs are reflected in the CPR records and noted that the Company calculates the COR at 10% of the gross cost. Audit recalculated the COR and verified the total Gross Plant amount to the general ledger. The Company booked the cost of the project as depicted in the following accounts:

Work Order #1917479 – Georgetown Area Water Main Replacement

Account	Description	Gross Plant	COR	Gross Book
331101	Mains 4” and under	\$ 3,588	\$ (359)	\$ 3,229
331100	Mains 6” and larger	\$15,185	\$(1,519)	\$ 13,667
309200	Supply Mains	\$ 2,072	\$ (0)	\$ 2,072
	Totals	<u>\$20,845</u>	<u>\$(1,877)</u>	<u>\$ 18,968</u>

Audit reviewed the Company’s general ledger and verified that the replacement pipes and supply mains were posted to the general ledger on November 1st and December 1st of 2019. The project closed on December 18, 2019, as per the work order detail report.

Audit noted that the QCPAC eligible property tax expense was calculated by multiplying the tax rate for the community where the project was located by the final cost of the project/\$1000, as per the explanation provided by the Company. Refer to the Tax Rate Calculation section for further detail.

Audit reviewed the tax rate amounts submitted in the filing, Exhibit DLW-1, page 3, for each of the QCPAC eligible projects. Audit reviewed the Town of Barnstead’s property tax bill from year end 2019 and noted the tax rate of \$27.59/one thousand. Audit verified both the property tax rate calculation, as well as the eligible property tax expense of \$575. Refer to the Tax Rate Calculation section of the report for details on how the tax rate was calculated.

Georgetown Drive Water Main Replacement, WO #1901644 - \$400,377

The E-22 was filed by the Company on 3/7/19 with the Capital Improvements Request for work order #1901644, indicating the replacement approximately 7,800 feet of substandard and deteriorating 2” and 4” diameter polyethylene pipe with 4” and 6” C-900 PVC and (87) main to curb stop water service reconnections. The location of the project was within the Barnstead community and the streets involved in the project were as follows: Georgetown Road, North Barnstead Road, Danbury Road, Bradford Lane and Belmont Drive. The project proposed start date was July 15, 2019 with a proposed completion date of December 1, 2019.

The CAPEX shows that this project was in the approved budget for \$619,300. The final project cost on the work order detail report totaled \$400,377, which agreed with the amount in the filing.

The Record of Bids and Proposals spreadsheet provided by the Company was reviewed by Audit. Three companies were listed as bidding for the Georgetown project. The winning bid was awarded to the lowest bidder, John H. Lyman.

Audit reviewed the work order detail report, along with the requisitions and other vendor invoices for the project. The work order detail report listed the total vendor cost, as depicted in the following:

John H. Lyman	\$ 132,813
John H. Lyman	228,098
Contractor	35,541
John H. Lyman	268
Engineering & IS Overhead	4,883
Richard D. Bartlett & Assoc., LLC	(1,106)
John H. Lyman	<u>(120)</u>
Total W/O #1901644	<u>\$ 400,377</u>

There were seven invoices, totaling \$400,377, for work order #1901644. Audit reviewed the three invoices from John H. Lyman Excavating Contractor, with charges totaling \$361,059. The services included on the invoice were for mobilization and demobilization activities, furnishing and installation of water main and butterfly valves, and traffic control. Audit also examined the Engineering and IS Overhead charges for \$4,883 and recalculated the line items. No exceptions were noted.

Audit reviewed the CPR for the Georgetown Drive Water Main Replacement project and noted the cost of removal totaling \$31,345, as per the most recent depreciation study. Refer to the Tax Rate Calculation section for details regarding Audit’s examination of the Company’s cost of removal.

Audit verified that the removal costs are reflected in the CPR records and noted that the Company calculates the COR at 10% of the gross cost. Audit recalculated the COR and verified the total Gross Plant amount to the general ledger. The Company booked the cost of the project as depicted in the following accounts:

Work Order #1901644 – Water Main Replacement

Account	Description	Gross Plant	COR	Gross Book
331002	Pavement Dist Mains	\$ 62,044	\$ 0	\$ 62,044
331250	Gates 4” and under	\$ 7,832	\$ (783)	\$ 7,049
331251	Gates 6” and larger	\$ 3,800	\$ (380)	\$ 3,420
331100	Mains 6”and larger	\$ 245,172	\$ 24,517	\$ 220,655
333200	Renewed Services	\$ 56,648	\$ (5,665)	\$ 50,983
309200	Pumping Plant	\$ 24,881	\$ 0	\$ 24,881
	Totals	\$ 400,377	\$(31,345)	\$ 369,032

The 11/1/19 entries on the general ledger were confirmed by Audit for \$62,044, \$7,832, \$3,800, and \$56,648. Audit was not able to locate the remaining entries of \$245,172 (mains 6” & larger) and \$24,881 (supply mains) as recorded to the general ledger. Audit inquired about the missing entries on the general ledger and the Company explained that the entries for the mains 6”

and larger and the pumping plant are on the general ledger provided and that. The Company further explained their response with the following statement:

“\$245,172.18 is made up of assets capitalized 11/01/19 \$242,243.97 and 12/01/19 \$2,928.51. The December amount was booked for \$3,785.48 and then the asset was split due to an invoice belonging to a different project that was not used and useful at year end 2019. It will be reversed in 2020 and booked to correct project when that project goes used and useful. [The] \$24,880.48 is made up of assets capitalized 11/01/19 \$24,031.60 and 12/01/19 \$848.88. The December amount was booked for \$1,097.39 and the asset was split due to an invoice belonging to a different project that was not used and useful at year end 2019...The invoice that was backed out affects all four work orders on the Georgetown Area Project, 1901644, 1901645, 1901646, and 190647...[The \$1,097] will be reversed in 2020 and booked to the correct project when that project goes used and useful.”

Audit located the amounts of the capitalized assets, making up the \$245,172 and \$24,880, on the general ledger. The water main replacement pipes, distribution mains, renewed services, and pumping plant were all posted to the general ledger on November 1st and December 1st of 2019. The project closed on January 16, 2020, as per the work order detail report.

Audit recalculated the eligible property tax expense based on the tax rate and the Company’s property tax rate calculation. The Town of Barnstead’s tax rate of \$27.59/thousand yields an eligible property tax expense of \$11,046 which agrees with the filing. Refer to the Tax Rate Calculation section of the report for details on how the tax rate was calculated..

Bradford Lane Water Main Replacement, WO#1901645 - \$336,562

The Company filed an E-22 in March 2019, for work order #1901645, which was for the replacement of 7,800 feet of substandard and deteriorating 2” and 4” diameter polyethylene pipe with 4” and 6” C-900 PVC and (87) main to curb stop water service reconnections. The location of the project was within the Barnstead community and involves Georgetown Road, North Barnstead Road, Danbury Road, Bradford Lane and Belmont Drive. The CAPEX shows that this project was in the approved budget for \$253,000. The final project cost on the work order detail report was for \$336,562, which agrees with the filing.

The Record of Bids and Proposals spreadsheet provided by the Company recorded that John H. Lyman received the winning bid for the project. Refer to the Georgetown Area Water Main Replacement project, work order #1917479, for details on the bid proposal for all projects within the Barnstead community.

Audit reviewed the work order detail report, along with the requisitions and other vendor invoices for the project. The costs by vendor are broken out below:

John H. Lyman	\$ 73,674
Contractor	\$ 26,956
John H. Lyman	\$ 208,701
John H. Lyman	\$ 24,367
Engineering and IS Overhead	\$ 3,703
Richard D. Bartlett & Associates, LLC	\$ (839)

Total W/O #1901645 \$ 336,562

Six invoices in total were included in the Bradford Lane project. There were three John H. Lyman invoices, totaling \$306,742. Services listed on these invoices were for mobilization and demobilization, furnishing and installing water mains and pipe, traffic control and cleanup. Audit reviewed two of the Lyman invoices, totaling \$282,375 and recalculated the line items with no exceptions noted.

Audit reviewed the CPR for the Bradford Lane Water Main Replacement project and noted the cost of removal as totaling \$29,651 as per the most recent depreciation study. Refer to the Tax Rate Calculation section for details regarding Audit’s examination of the Company’s tax rate calculation.

Audit verified that the removal costs are reflected in the CPR records and noted that the Company calculates the COR at 10% of the gross cost. Audit recalculated the COR and verified the total Gross Plant amount to the general ledger. The Company booked the cost of the project as depicted in the following accounts:

Work Order #1901645 – Bradford Lane Water Main Replacement

Account	Description	Gross Plant	COR	Gross Book
331002	Pavement Dist Mains	\$ 40,050	\$ 0	\$ 40,050
331250	Gates 4” and under	\$ 8,150	\$ (815)	\$ 7,335
331251	Gates 6” and larger	\$ 1,900	\$ (190)	\$ 1,710
331101	Mains 4” and under	\$ 62,058	\$ (6,206)	\$ 55,853
331100	Mains 6”and larger	\$ 181,234	\$(18,123)	\$ 163,110
333200	Renewed Services	\$ 43,169	\$ (4,317)	\$ 38,853
	Totals	\$ 366,562	\$(29,651)	\$ 306,911

The \$62,058 total for the 4” Mains and the \$181,234 total for the 6” Mains were not located on the general ledger. Audit requested that the company provide the supporting documentation that these assets were booked to the appropriate general ledger account. The Company responded by stating that, “[The] 4” mains booked for \$62,058.39 is made up of assets capitalized 11/01/19 (61,290.78) and 12/01/19 (767.61). The December GL Amount was \$992.33 which included the invoice being backed out in 2020. [The] 6” mains booked for \$181,233.80 is also made up of assets capitalized 11/01/19 (179,136.66) 12/01/19 (2,097.14). The December GL Amount was \$2,711.07 which included the invoice being backed out in 2020.” Refer to Work Order #1901644, Georgetown Drive Water Main Replacement, for details on the invoice being backed out in 2020.

Audit located the amounts of the capitalized assets, making up the \$62,058 and \$181,234, on the general ledger. The water main replacement pipes, distribution mains, renewed services, and pumping plant were all posted to the general ledger on November 1st and December 1st of 2019. The project closed on January 16, 2020, as per the work order detail report.

Audit recalculated the QCPAC eligible property tax expense based on the tax rate and the Company’s property tax expense calculation. For the final project cost of \$336,562, the Town of Barnstead’s tax rate of \$27.59/thousand yields an eligible property tax expense of \$9,286 which

agrees with the filing. Refer to the Tax Rate Calculation section of the report for details on how the tax rate was calculated.

North Barnstead Rd. to Eliminate Deadend Piping, WO #1901646 - \$248,858

The Company filed an E-22 in March 2019, for work order #1901646, which was for the replacement of 7,800 feet of substandard and deteriorating 2” and 4” diameter polyethylene pipe with 4” and 6” C-900 PVC and (87) main to curb stop water service reconnections. The location of the project is in Barnstead and involves Georgetown Road, North Barnstead Road, Da bury Road, Bradford Lane and Belmont Drive. This project is part of the substandard Locke Lake distribution system, which is reported as suffering chronic leakage and has a leak repair history. The phase of this project is to reduce the unaccounted water, increase system reliability, reduce maintenance cost and improve customer service.

The CAPEX shows that this project was in the approved budget for \$132,000. The final project cost on the work order detail report was for \$248,858, which agrees with the filing. Audit observed the approximate \$100k increase in the final project cost from the Board approved budgeted amount. The Company explained that the Board approved budget did not include the initial survey expenses, which were incurred in 2018, or the internal engineering and field inspection on the Locke Lake projects. These items are estimated to add about \$164,500 to these project costs.

The Record of Bids and Proposals spreadsheet provided by the Company recorded that John H. Lyman received the winning bid for the project. Refer to the Georgetown Area Water Main Replacement project, work order #1917479, for details on the bid proposal for all projects within the Barnstead community.

The project consisted of one work order, totaling \$248,858 for the final project cost. The following represents the costs by vendor:

John H. Lyman	\$ 50,785
John H. Lyman	\$ 98,132
Contractor	\$ 14,703
John H. Lyman	\$ 68,325
John H. Lyman	\$ 15,352
Engineering and IS Overhead	\$ 2,020
Richard D. Bartlett and Associates, LLC	\$ (457)
Total W/O #1901646	<u>\$248,858</u>

Seven invoices in total were included in the work order detail report for the project. Audit reviewed each invoice and noted that charges were for mobilization and demobilization, furnishing and installing water mains and pipe, traffic control and cleanup. Audit reviewed three of the seven invoices, totaling \$217,241, and recalculated the invoice line items. Refer to the Overhead Rates section for details on Audit’s review of the overhead rate calculation.

Audit reviewed the CPR for the North Barnstead Rd. to Eliminate Deadend Piping project and noted the cost of removal totaling \$22,423, as per the most recent depreciation study.

Refer to the Tax Rate section for details regarding Audit's examination of the Company's tax rate calculation.

Audit verified that the removal costs are reflected in the CPR records and noted that the Company calculates the COR at 10% of the gross cost. Audit recalculated the COR and verified the total Gross Plant amount to the general ledger. The Company booked the cost of the project as depicted in the following accounts:

Work Order #1901646 – North Barnstead Road – Eliminate Dead-End Piping

Account	Description	Gross Plant	COR	Gross Book
108001	COR	\$ 4,360	\$ (4,360)	\$ 0
331002	Dist Mains Paving	\$ 63,870	\$ (0)	\$ 63,870
331250	Gates 4" and under	\$ 6,300	\$ (630)	\$ 5,670
331251	Gates 6" and larger	\$ 1,900	\$ (190)	\$ 1,710
331101	Mains 4" and under	\$ 69,528	\$ (6,953)	\$ 62,576
331100	Mains 6" and larger	\$ 84,966	\$ (8,497)	\$ 76,469
333200	Renewed Services	\$ 16,570	\$ (1,657)	\$ 14,913
333200	PEU Services	\$ 1,364	\$ (136)	\$ 1,228
	Totals	\$ 248,858	\$(22,423)	\$ 226,435

While verifying that the project costs were recorded to the general ledger, Audit was not able to locate the following entries: \$63,870, \$6,300, \$69,528, \$84,969, and \$1,364.13. Audit requested that the Company provide the supporting documentation that these assets were booked to the general ledger. The Company responded by stating that, "[The] \$63,870.00 paving is made up of assets capitalized 11/01/19 (62,870.00) and 12/01/19 (1,000.00). [The] \$6,300.00 gates 4 and under are made up of assets capitalized 11/01/19 (4,800.00) and 12/01/19 (1,500.00). [The] \$69,528.30 4" mains assets booked are made up of assets capitalized 11/01/19 (61,525.34) and 12/01/19 (8,002.96). The November GL amount was \$61,723.48 which included the invoice being backed out in 2020. [The] \$84,965.65 6" mains assets booked are made up of assets capitalized 11/01/19 (83,820.65) and 12/01/19 (1,145.00). The November GL amount was \$84,079.94 which included the invoice being backed out in 2020. [The] \$1,364.13 was booked to Renewed Services 333200 which is correct GL, but the Asset Type and GL is incorrect in CPR schedule and in the fixed asset program. This will be corrected in 2020." Refer to Work Order #1901644, Georgetown Drive Water Main Replacement, for details on the invoice being backed out in 2020.

Audit confirmed the amounts of the capitalized assets recorded on the general ledger. The cost of removal, distribution mains, gates (4" and 6"), mains (4" and 6"), renewed services, and PEU services were all posted to the general ledger on November 1st and December 1st of 2019. The project closed on January 16, 2020, as per the work order detail report.

The Company provided a schedule showing the tax rate calculation used to determine the tax rates listed in the filing on Exhibit DLW-1, page 3. Audit recalculated the eligible property tax expense based on the tax rate and the Company's property tax rate calculation. For the final project cost of \$248,858, the Town of Barnstead's tax rate of \$27.59/thousand yields an eligible property tax expense of \$6,866, which agrees with the filing. Refer to the Tax Rate Calculation section of the report for details on how the tax rate was calculated.

Belmont Drive Water Main Replacement, WO#1901647 - \$43,364:

The Company filed an E-22 in March 2019, for work order #1901647, which was for the replacement of 7,800 feet of substandard and deteriorating 2” and 4” diameter polyethylene pipe with 4” and 6” C-900 PVC and (87) main to curb stop water service reconnections. The location of the project involves Georgetown Road, North Barnstead Road, Danbury Road, Bradford Lane and Belmont Drive. This project is part of the substandard Locke Lake distribution system, which is reported as suffering chronic leakage and has a leak repair history. The phase of this project is to reduce the unaccounted water, increase system reliability, reduce maintenance cost and improve customer service. The CAPEX shows that this project was in the approved budget for \$68,200. The final project cost on the work order detail report was for \$43,364, which agrees with the filing.

The Record of Bids and Proposals spreadsheet provided by the Company recorded that John H. Lyman received the winning bid for the project. Refer to the Georgetown Area Water Main Replacement project, work order #1917479, for details on the bid proposal for all projects within the Barnstead community.

The project consisted of one work order totaling \$43,364 for the final project cost. The following represent the project costs by vendor:

John H. Lyman	\$ 32,125
Contractor	\$ 3,154
John H. Lyman	\$ 7,749
Engineering and IS Overhead	\$ 433
Richard D. Bartlett and Associates, LLC	\$ (98)
Total W/O #1901647	<u>\$ 43,364</u>

Five invoices in total were included in the Belmont Drive project. There were two John H. Lyman invoices, totaling \$39,874. Services listed on these invoices were for mobilization and demobilization, furnishing and installing water mains and pipe, traffic control and cleanup. Audit reviewed both of the Lyman invoices and recalculated the line items with no exceptions noted.

Audit reviewed the CPR for the Belmont Drive Water Main Replacement project and noted the cost of removal total of \$3,875, as per the most recent depreciation study. Refer to Work Order #1917479, Georgetown Area Water Main Replacements, for details regarding Audit’s examination of the Company’s cost of removal for projects related to existing systems.

Audit verified that the removal costs are reflected in the CPR records and noted that the Company calculates the COR at 10% of the gross cost. Audit recalculated the COR and verified the total Gross Plant amount to the general ledger. The Company booked the cost of the project as depicted in the following accounts:

Work Order #1901647 – Belmont Drive Water Main Replacement

<u>Account</u>	<u>Description</u>	<u>Gross Plant</u>	<u>COR</u>	<u>Gross Book</u>
331002	Dist Mains Paving	\$ 4,615	\$ (0)	\$ 4,615
331250	Gates 4” and under	\$ 2,325	\$ (233)	\$ 2,093

331251	Gates 6" and larger	\$ 1,900	\$ (190)	\$ 1,710
331101	Mains 4" and under	\$ 1,874	\$ (187)	\$ 1,687
331100	Mains 6" and larger	\$ 23,389	\$ (2,339)	\$ 21,050
333200	Renewed Services	\$ 9,260	\$ (926)	\$ 8,334
	Totals	\$ 43,363	\$ (3,875)	\$ 39,488

The project costs were confirmed to the general ledger, with entries recorded on 11/1/19. Audit noted that the 4" mains, booked for \$1,874, are made up of \$1,849 in assets capitalized on 11/01/19 and \$25 in assets capitalized on 12/01/19. The December general ledger amount was for \$33, which included the invoice being backed out in 2020. Audit also noted that the 6" mains booked for \$23,389 includes assets capitalized on 11/01/19 and 12/01/19 for \$22,989 and \$401, respectively. The November GL Amount was \$23,079.47 which included the invoice being backed out in 2020. Refer to Work Order #1901644, Georgetown Drive Water Main Replacement, for details on the invoice being backed out in 2020.

Audit confirmed the amounts of the capitalized assets recorded on the general ledger. The distribution mains, gates (4" and 6"), mains (4" and 6"), and renewed services were all posted to the general ledger on November 1st and December 1st of 2019. The project closed on January 16, 2020, as per the work order detail report.

Audit recalculated the eligible property tax expense based on the tax rate and the Company's property tax rate calculation. For the final project cost of \$43,364, the Town of Barnstead's tax rate of \$27.59/thousand yields an eligible property tax expense of \$1,196, which agrees with the filing. Refer to the Tax Rate Calculation section of the report for details on how the tax rate was calculated.

PEU-PWW Interconnection (Merrimack to Litchfield) - \$59,691

The project consisted of three separate work orders with the numbers 1900424, 1900434, and 1908514. The CAPEX shows that this entire project, which includes the aforementioned three work orders, was not in the original approved budget but was estimated to cost \$59,691 as of November 30, 2019. The final project cost, including all three work orders, totaled \$59,691.

The Record of Bids and Proposals spreadsheet provided by the Company recorded that they awarded the project to the company with the lowest bid. In total, there were six individual companies who entered a bid for the Interconnection of Merrimack to Litchfield, with PRB Construction offering the winning bid.

Audit reviewed copies of each of the three work order reports provided by the Company. The details of the work orders, as well as their corresponding invoices, are provided throughout the following sections:

Work Order 1900424 for the 2019 PEU-PWW Interconnection - \$34,248

The Company filed the E-22 in July of 2016, stating that work order #1900424 was for conceptual design of an interconnecting pipeline linking Pennichuck Water Works to Pennichuck East Utility. The location of the project was within the Merrimack community. Detailed within the Capital Improvements Request form was the report of a water demand rise over the last

decade, in both Litchfield and Hudson, due to system expansion, such that summer demands have required the Taylor Falls Pump Station to operate throughout the day and over longer periods of the year. There has also been a reduction in the regulatory pressure which has placed additional stress on the sources to meet current water demands with the largest supply out of service.

The Excel spreadsheet of winning bid tabulations was provided by the Company, per Audit’s request. Refer to the PEU-PWW Interconnection (Merrimack to Litchfield) project section for details on the bid proposal for all projects within the Merrimack community.

The project consisted of one work order totaling \$34,248 for the final project cost. The costs by vendor are broken out below:

Engineering and IS Overhead	\$ 1,236
Tighe & Bond	<u>33,013</u>
Total W/O #1900424	<u>\$ 34,248</u>

One invoice, totaling \$33,013, was included in the project for vendor Tighe & Bond. Services listed on the invoice were for construction administration, such as engineers, designers, the project manager, and administrative support. Audit requested the overhead rates that were in effect during the 2019 test-year for labor, general construction and engineering. The Company responded with the following statement:

“For 2019, the Union overhead rate was 63.24% and the general overhead rate was 2%. It is intended to capture the cost of benefits for Union employees and is derived by an analysis of the employee’s benefits which is reviewed / revised annually.”

Audit reviewed the Tighe & Bond invoice for \$33,013, including the expense detail for the construction professional personnel, and recalculated the hourly rates. Audit also reviewed the Engineering and IS Overhead charge of \$1,236. No exceptions were noted.

The PEU-PWW Interconnection was a new project that had no cost of removal. Audit reviewed the project’s CPR and noted that the Company booked the cost of the project as depicted in the following account:

Work Order #1900424 – PEU-PWW Interconnection

Account	Description	Gross Plant	COR	Gross Book
331100	Mains 6”and larger	\$ 34,248	\$ (0)	\$ 34,248
	Totals	<u>\$ 34,248</u>	<u>\$ (0)</u>	<u>\$ 34,248</u>

Audit located the amount of the capitalized assets of \$34,248 on the general ledger. The mains 6” or larger were posted to the general ledger on May 1st of 2019. The project closed on November 26, 2019, as per the work order detail report.

The Company provided copies of the town property bills and a schedule showing the tax rate calculation used to determine the tax rates listed in the filing on Exhibit DLW-1, page 3. Audit recalculated the eligible property tax expense based on the tax rate and the Company’s property tax rate calculation. The Town of Merrimack’s tax rate of \$28.86/thousand yields an

eligible property tax expense of \$1,723 for the following work orders on the PEU-PWW Interconnection project: WO #1900424, WO #1900434, and WO #1908514. Audit’s calculation of the eligible property tax expense agrees with the filing. Refer to the Tax Rate Calculation section of the report for details on how the tax rate was calculated.

Work Order 1900434, 2019 PEU-PWW Interconnection Station Bidding/Construction- \$7,171

Per the Company’s E-22, filed with the Commission on March 8, 2018, work order #1900434 was for the installation of approximately 5,900 linear feet of 12” pipe on both sides of the Merrimack River and 650 linear feet of 16” bell and socket ductile iron pipe beneath the Merrimack River. Additionally, pumps will be added at an existing building on the Merrimack side to provide adequate head within the interconnection.

The Excel spreadsheet of winning bid tabulations was provided by the Company, per Audit’s request. Refer to the PEU-PWW Interconnection (Merrimack to Litchfield) project section for details on the bid proposal for all projects within the Merrimack community.

The project consisted of one work order totaling \$7,171 for the final project cost. The costs by vendor are broken out below:

TI-Sales	\$1,042
Engineering and IS Overhead	\$1,140
Engineering and IS Overhead	\$ 402
PRB Constuction	<u>4,587</u>
Total W/O #1900434	<u>\$7,171</u>

Two invoices, totaling \$5,629, were included in the project for vendors TI Sales and PRB Construction. Charges listed on the TI Sales invoice were for cellular services. The PRB Construction invoice included charges for labor and equipment and Audit reviewed the hourly rates, as well as the Engineering and IS Overhead charge of \$1,236.

The PEU-PWW Interconnection Station Bidding was a new project that had no cost of removal. Audit reviewed the project’s CPR and noted that the Company booked the cost of the project as depicted in the following account:

Work Order #1900434 – PEU-PWW Interconnection

Account	Description	Gross Plant	COR	Gross Book
304550	Booster Stations	\$ 6,130	\$ (0)	\$ 6,130
346000	Comm. Equipment	\$ 1,042	\$ (0)	\$ 1,042
	Totals	<u>\$ 7,171</u>	<u>\$ (0)</u>	<u>\$ 7,171</u>

Audit located the amount of the capitalized assets of \$6,130 and \$1,042 on the general ledger and noted that the Booster Stations and Communication Equipment were posted to the on July 1st of 2019. The project closed on October 18, 2019, as per the work order detail report.

The Company provided copies of the town property bills and a schedule showing the tax rate calculation used to determine the tax rates listed in the filing on Exhibit DLW-1, page 3. Work order #1900424 for the 2019 PEU-PWW Interconnection details the QCPAC eligible

property tax expense of \$1,723, which includes the eligible tax expense for work order #1900434. Refer to the Tax Rate Calculation section of the report for details on how the tax rate was calculated.

Work Order 1908514 for the Interconnection Easement- \$18,272

The Company filed the E-22 in July 2016, stating that work order #1908514 was for the conceptual design of interconnecting pipeline linking Pennichuck East Utility to Pennichuck Water Works.

The Excel spreadsheet of winning bid tabulations was provided by the Company, per Audit’s request. Refer to the PEU-PWW Interconnection (Merrimack to Litchfield) project section for details on the bid proposal for all projects within the Merrimack community.

The project consisted of one work order totaling \$18,272 for the final project cost. The costs by vendor are broken out below:

TD Bank	<u>\$18,272</u>
Total W/O #1908514	<u>\$18,272</u>

The Company provided a copy of the Settlement Statement from the U.S. Department of Housing and Urban Development, detailing the Agreement to Grant Easement, as well as the Inventory of Property Transfer record from the NH Department of Revenue Administration. Audit reviewed the documents for appropriate signatures and dates. The Company also provided the general ledger detail for the land purchase amount of \$18,272 for the easement. The amount was booked to fixed assets as a debit to account 303240, Easements, and a credit to account 105222, CWIP.

The PEU-PWW Interconnection Easement had no cost of removal. Audit reviewed the project’s CPR and noted that the Company booked the cost of the project as depicted in the following account:

Work Order #1908514 – PEU-PWW Interconnection Easement

Account	Description	Gross Plant	COR	Gross Book
303240	Easements	\$ 18,272	\$ (0)	\$ 18,272
	Totals	<u>\$ 18,272</u>	<u>\$ (0)</u>	<u>\$ 18,272</u>

Audit located the amount of the capitalized asset of \$18,272 on the general ledger and noted that the Easements were posted on May 1st of 2019. The project closed on July 10, 2019, as per the work order detail report.

The Company provided copies of the town property bills and a schedule showing the tax rate calculation used to determine the tax rates listed in the filing on Exhibit DLW-1, page 3. Work order 1900424 for the 2019 PEU-PWW Interconnection details the QCPAC eligible property tax expense of \$1,723 for work order #1900434. Refer to the Tax Rate Calculation section of the report for details on how the tax rate was calculated.

Rolling Hills Water Main Replacement - \$188,089

The project consisted of three separate work orders with the numbers 1825265, 1901649, and 1918198. The CAPEX shows that this entire project, which includes the aforementioned three work orders, was in the approved budget for the amount of \$150,000. The final project cost, including all three work orders, totaled \$188,089.

The Record of Bids and Proposals spreadsheet provided by the Company recorded that they awarded the project to the company with the lowest bid. There were a total of three companies who entered bids involving both design and management of the project, as well as its construction. The winning bid was awarded to CSSI Contractors.

Audit reviewed copies of each of the three work order reports provided by the Company. The details of the work orders, as well as their corresponding invoices, are provided throughout the following sections:

Work Order 1825265 for the Rolling Hills Survey Work- \$17,693

The Capital Improvement Request, dated in November of 2018, stating that work order #1825265 was for the survey for a future effort to replace existing HDPE and PVC water main pipes throughout the Rolling Hills community with adequately sized PVC water mains. The total vendor cost is shown below:

Promised Land Survey, LLC	\$17,500
Engineering and IS Overhead	<u>193</u>
Total WO #1825265	<u>\$17,693</u>

One invoice, totaling \$17,500, was included in the project for the vendor Promised Land Survey, LLC. Charges listed on the TI Sales invoice were for land survey work. Audit reviewed the invoice, as well as the Engineering and IS Overhead charge with no exceptions noted.

Audit reviewed the CPR for the Rolling Hills Survey Work and noted a cost of removal totaling \$1,769, as per the most recent depreciation study. Refer to Work Order #1917479, Georgetown Area Water Main Replacements, for details regarding Audit’s examination of the Company’s cost of removal for projects related to existing systems.

Audit verified that the removal costs are reflected in the CPR records and noted that the Company calculates the COR at 10% of the gross cost. Audit recalculated the COR and verified the total Gross Plant amount to the general ledger. The Company booked the cost of the project as depicted in the following accounts:

Work Order #1825265 – Rolling Hills Survey Work

<u>Account</u>	<u>Description</u>	<u>Gross Plant</u>	<u>COR</u>	<u>Gross Book</u>
331100	Mains 6” and Larger	\$ 17,693	\$ (1,769)	\$ 15,923
	Totals	<u>\$ 17,693</u>	<u>\$ (1,769)</u>	<u>\$ 15,923</u>

Audit located the amount of the capitalized assets of \$17,693 on the general ledger and noted that the Mains 6” and Larger were posted to the general ledger on December 1st of 2019. The project closed on January 28, 2019, as per the work order detail report.

The Company provided copies of the town property bills and a schedule showing the tax rate calculation used to determine the tax rates listed in the filing on Exhibit DLW-1, page 3. Audit recalculated the eligible property tax expense based on the tax rate and the Company’s property tax rate calculation. The Town of Plaistow’s tax rate of \$25.93/thousand yields an eligible property tax expense of \$4,877 for the following work orders on the Rolling Hills Water Main Replacement: WO #1825265, WO #1901649, and WO #1918198. Audit’s calculation of the eligible property tax expense agrees with the filing. Refer to the Tax Rate Calculation section of the report for details on how the tax rate was calculated.

Work Order 1901649 for the Rolling Hills Main Replacement - \$0

The work order detail for this project reported a zero balance. Audit questioned the balance and The Company explained that the work order #1901649 was originally opened as part of the design phase of the Rolling Hills Water Main Replacement project but upon later review, the Company realized that the charges in this work order were actually for construction. Therefore, the Company moved the charges to the construction project work order #1918198.

Audit requested a copy of the detail from the work order report to review the removal of these original charges. The Company provided the detail, depicting \$167,560 in original charges. Audit verified that this amount was removed from the work order #1901649 and placed on work order #1918198 (see detail of WO #1918198 reported below).

Work Order 1918198 to Replace Substandard Pipe- \$170,396

The Company filed the E-22 in December of 2019, stating that work order #1918198 was to replace and relocate an existing 2” PVC main, which crosses private property and fails frequently, with a new 4” ductile iron water main. Audit reviewed the work order detail report and noted the total vendor cost, as depicted in the following:

Engineering and IS Overhead	\$17,689
CSSI Contractors	151,984
Imtek	222
Pennichuck	560
CSSI Contractors	(30)
JP Cardillo	(30)
Total WO #1918198	<u>\$170,395</u>

There were a total of four invoices submitted to the project, along with the overhead charges. Audit reviewed one invoice from CSSI Contractors, totaling \$151,984, for permits, trench restoration, materials, installation, and flaggers for traffic control. Audit examined the itemization of charges and recalculated the invoice. Audit also reviewed the Engineering and IS Overhead charge of \$17,689. No exceptions were noted.

Audit reviewed the CPR for Rolling Hills Main Replacement project and noted the cost of removal totaling \$14,276, as per the most recent depreciation study. Refer to Work Order #1917479, Georgetown Area Water Main Replacements, for details regarding Audit's examination of the Company's cost of removal for projects related to existing assets.

Audit verified that the removal costs are reflected in the CPR records and noted that the Company calculates the COR at 10% of the gross cost. Audit recalculated the COR and verified the total Gross Plant amount to the general ledger. The Company booked the cost of the project as depicted in the following accounts:

Work Order #1918198 – Rolling Hills Main Replacement

Account	Description	Gross Plant	COR	Gross Book
331002	Dist. Mains Paving	\$ 27,640	\$ (0)	\$ 27,640
331250	Gates 4" and Under	\$ 3,450	\$ (345)	\$ 3,105
331251	Gates 6" and Larger	\$ 2,550	\$ (255)	\$ 2,295
331101	Mains 4" and Under	\$ 800	\$ (80)	\$ 720
331100	Mains 6" and Larger	\$119,555	\$(11,956)	\$ 107,600
333200	Renewed Services	\$ 16,401	\$ (1,640)	\$ 14,761
	Totals	\$170,396	\$(14,276)	\$ 156,120

Audit located the amount of the capitalized assets totaling \$170,396 on the general ledger and noted that the Mains (paving, 4", and 6"), Gates (4" and 6"), and renewed services to the general ledger on December 1st of 2019. The project closed on January 16, 2019, as per the work order detail report.

The Company provided copies of the town property bills and a schedule showing the tax rate calculation used to determine the tax rates listed in the filing on Exhibit DLW-1, page 3. Work order #1825265 for the Rolling Hills Survey work depicts the QCPAC eligible property tax expense of \$4,877, which includes the eligible tax expense for work order #1918198 and agrees with the filing. Refer to the Tax Rate Calculation section of the report for details on how the tax rate was calculated.

Weinstein/Dame Station Upgrades - \$108,286

The project was located in the Litchfield community and consisted of five separate work orders with the numbers 1506139, 1603114, 1703756, 1813249, and 1907079. The CAPEX shows that this project was not in the approved budget. The earliest estimated project cost, as of June 30, 2019, was for \$108,286. The final project cost, including all the five aforementioned work order numbers, totaled \$108,286.

The Record of Bids and Proposals spreadsheet provided by the Company recorded that there were no bids on the Weinstein/Dame Station Upgrades. Audit questioned why the Company had no bids for this project and they replied with the following statement:

"The wells in question are owned by Hudson. Hudson is responsible to maintain, rebuild or replace the wells and Pennichuck is responsible to pay Hudson for 15% of the cost to maintain, rebuild or replace these wells. Pennichuck has no control over how Hudson hires its contractors."

Exhibit DLW-1, page 3 of the filing reported no QCPAC eligible property tax for the Weinstein/Dame Station Upgrades project. Audit confirmed with the Company that there was no tax expense due to the fact that the Weinstein/Dame Station is owned by Hudson Water Works; therefore, there is no tax impact on PEU.

Audit reviewed copies of each of the five work order reports provided by the Company. The details of the work orders, as well as their corresponding invoices, are provided throughout the following sections and organized by their work order number:

Work Order 1506139 for PEU Share of Weinstein Improvement - \$15,866

The Company filed the E-22 in October of 2015, stating that work order #1506139 was to replace the Weinstein Well. The location of the project was within the Litchfield community and consisted of one work order totaling \$15,866. The costs for the project are separated by vendor and depicted in the following:

Town of Hudson	\$ 15,866
Total W/O #1506139	<u>\$ 15,866</u>

The aggregate amount of \$15,866 for the Town of Hudson consisted of seven invoices. Audit reviewed each invoice and noted that charges were for professional personnel, permits, and construction. Invoices included consultant fees, design, and well construction. Audit understands that, as per the Capital Improvements request, *“PEU Litchfield gets about 40% of its supply from this well and is contractually responsible for paying 15% of the improvements to the well, per its water supply contract with the Town of Hudson.”*

Audit requested the water supply contract from the Company and noted that page 8 of the contract indicates that the Company shares of mutually used Hudson assets to the level of the Company’s benefit. The Company uses 15%, as allowed by contract, of the water from the wells. The Company pays for 15% of the improvements. Audit reviewed the charges and detail of all seven invoices listed on the work order and recalculated the Pennichuck share at 15% with no exceptions noted.

The Share of the Weinstein Improvement project had no cost of removal. Audit reviewed the project’s CPR and noted that the Company booked the cost of the project as depicted in the following account:

Work Order #1506139 – Share of Weinstein Improvement

Account	Description	Gross Plant	COR	Gross Book
303520	SS and Pump Plant	\$ 15,866	\$ (0)	\$ 15,866
	Totals	<u>\$ 15,866</u>	<u>\$ (0)</u>	<u>\$ 15,866</u>

Audit located the amount of the capitalized assets, totaling \$15,866, on the general ledger and noted that these assets for the source of supply and pumping plant were posted to the general ledger on May 1st of 2019. The project closed on June 27, 2016, as per the work order detail report. Audit noted the 2016 closing date for the project and questioned the 2019 recording date of the assets to the general ledger. The Company responded by stating that, *“This project was not used and useful until 2019. The work orders close...within the financial year, therefore the*

work order detail (from the work order system) may have different close dates than used and useful dates and/or GL booked dates.”

The CAPEX reported no eligible tax expense for the Share of the Weinstein Improvement project. Refer to the Weinstein/Dame Station Upgrades section of this report for details regarding why a tax expense for the project was non-applicable.

Work Order 1603114 for the PEU Share of Weinstein Improvement (2019 carryover) - \$6,105

The E-22, filed in October 2015, stated that work order #1603114 was for the replacement design, bidding, construction and oversight of the Weinstein Well, with the project location in Litchfield. The final cost for the PEU share of the Weinstein Improvement project was listed on the work order detail report as totaling \$6,105. The bidding on this project was not required due to the total dollar amount being less than \$10,000. The project consisted of one work order, totaling \$6,105, for the final project cost with the amount, charged by vendor, depicted in the following:

Town of Hudson	<u>\$ 6,105</u>
Total WO #1603114	<u>\$ 6,105</u>

The aggregate amount of \$6,105, for the Town of Hudson, consisted of four invoices. Audit reviewed each invoice and noted that charges were for professional personnel, trucks, labor, and materials. Audit reviewed the charges and detail of all four invoices and recalculated the Pennichuck share at 15%, and noted no exceptions. Refer to Work Order 1506139, PEU Share of Weinstein Improvement, for details regarding the 15% Pennichuck share.

The Share of the Weinstein Improvement project had no cost of removal. Audit reviewed the project’s CPR and noted that the Company booked the cost of the project as depicted in the following account:

Work Order #1603114 – Share of Weinstein Improvement

<u>Account</u>	<u>Description</u>	<u>Gross Plant</u>	<u>COR</u>	<u>Gross Book</u>
303520	SS and Pump Plant	\$ 6,105	\$ (0)	\$ 6,105
	Totals	<u>\$ 6,105</u>	<u>\$ (0)</u>	<u>\$ 6,105</u>

Audit located the amount of the capitalized assets, totaling \$6,105, on the general ledger and noted that these assets, for the source of supply and pumping plant, were posted to the general ledger on May 1st of 2019. The project closed on February 3, 2017, as per the work order detail report. Audit noted the project closing date of 2017, as differing from the 2019 date that the assets were recorded to the general ledger. Refer to work order #1506139 for details on the conflicting close date against the date the assets were posted.

The CAPEX reported no eligible tax expense for the Share of the Weinstein Improvement project. Refer to the Weinstein/Dame Station Upgrades section of this report for details regarding why a tax expense for the project was non-applicable.

Work Order 1703756 for the PEU Share of Weinstein Improvement (2017 carryover) - \$38,324

The E-22, filed in October 2015, stated that work order #1703756 was for the replacement design, bidding, construction and oversight of the Weinstein Well. The total cost of this portion of the project was listed on the work order detail report as totaling \$38,324.

The project consisted of one work order, totaling \$38,324, for the final project cost. The vendor costs listed on the work order detail report are as follows:

Town of Hudson	<u>\$38,324</u>
Total WO #1703756	<u>\$38,324</u>

The aggregate amount of \$38,324, for the Town of Hudson, consisted of four invoices. Audit reviewed each invoice and noted that charges were for internet services for HMI install at Weinstein and Dame well stations, construction, and a standby generator. Audit reviewed the charges and detail of all four invoices and recalculated the Pennichuck share at 15% with no exceptions. Refer to work order #1506139 for details regarding the 15% Pennichuck share.

The Share of the Weinstein Improvement project had no cost of removal. Audit reviewed the project’s CPR and noted that the Company booked the cost of the project as depicted in the following account:

Work Order #1703756 – Share of Weinstein Improvement (2017 carryover)

Account	Description	Gross Plant	COR	Gross Book
303520	SS and Pump Plant	\$ 38,324	\$ (0)	\$ 38,324
	Totals	<u>\$ 38,324</u>	<u>\$ (0)</u>	<u>\$ 38,324</u>

The source of supply and pumping plant, totaling \$38,324, was posted to the general ledger on May 1, 2019. The project closed on January 28, 2019, per the work order detail report. Audit reviewed the invoice with no exceptions noted.

The CAPEX reported no eligible tax expense for the Share of the Weinstein Improvement project. Refer to the Weinstein/Dame Station Upgrades section of this report for details regarding why a tax expense for the project was non-applicable.

Work Order 1813249 for the PEU Share of Weinstein Improvement - \$37,657

The E-22, filed in October 2015, stated that work order #1813249 was for the replacement design, bidding, construction and oversight of the Weinstein Well. The total cost of this portion of the project was listed on the work order detail report as totaling \$37,657. The project consisted of one work order, totaling \$37,657, for the final project cost. The following depicts the costs by vendor:

Town of Hudson	<u>\$37,657</u>
Total WO #1813249	<u>\$37,657</u>

The aggregate amount of \$37,657, for the Town of Hudson, consisted of six separate invoices. Audit reviewed each invoice and noted that charges were for a heater for the electrical

room, construction, and labor and equipment. Audit reviewed the charges and detail of all six invoices and recalculated the Pennichuck share at 15%, with no exceptions noted. Refer to the previous work order #1506139, PEU Share of Weinstein Improvement, for details regarding the 15% Pennichuck share.

The Share of the Weinstein Improvement project had no cost of removal. Audit reviewed the project’s CPR and noted that the Company booked the cost of the project as depicted in the following account:

Work Order #1813249 – Share of Weinstein Improvement

Account	Description	Gross Plant	COR	Gross Book
303520	SS and Pump Plant	\$ 37,657	\$ (0)	\$ 37,657
	Totals	\$ 37,657	\$ (0)	\$ 37,657

Audit located the amount of the capitalized assets, totaling \$37,657, on the general ledger and noted that these assets for the source of supply and pumping plant were posted to the general ledger on May 1st of 2019. The project closed on January 28, 2019 as per the work order detail report.

The CAPEX reported no eligible tax expense for the Share of the Weinstein Improvement project. Refer to the Weinstein/Dame Station Upgrades section of this report for details regarding why a tax expense for the project was non-applicable.

Work Order 1907079 for the PEU Share of Weinstein Improvement - \$10,335

The E-22, filed in October 2015, stated that work order #1907079 was for the replacement design, bidding, construction and oversight of the Weinstein Well. The total cost of this portion of the project was listed on the work order detail report as totaling \$10,335. Also included on the work order detail report is the total vendor cost, as depicted by the following:

Town of Hudson	<u>\$10,335</u>
Total WO #1907079	<u>\$10,335</u>

The aggregate amount of \$10,335, for the Town of Hudson, consisted of three invoices. Audit reviewed each invoice and noted that charges were for construction, and labor and equipment. Audit reviewed the charges and detail of all four invoices and recalculated the Pennichuck share at 15%, with no exceptions noted. Refer to work order #1506139, PEU Share of Weinstein Improvement, for details regarding the 15% Pennichuck share.

The Share of the Weinstein Improvement project had no cost of removal. Audit reviewed the project’s CPR and noted that the Company booked the cost of the project as depicted in the following account:

Work Order #1907079 – Share of Weinstein Improvement

Account	Description	Gross Plant	COR	Gross Book
303520	SS and Pump Plant	\$ 4,983	\$ (0)	\$ 4,983
303520	SS and Pump Plant	\$ 1,092	\$ (0)	\$ 1,092
303520	SS and Pump Plant	\$ 4,260	\$ (0)	\$ 4,260

Totals	<u>\$ 10,335</u>	<u>\$ (0)</u>	<u>\$ 10,335</u>
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Audit located the amount of the capitalized assets on the general ledger, as they are depicted in the above chart, totaling \$10,335. The amounts recorded for the source of supply and pumping plant, were posted to the general ledger in 2019 on May 1st, June 1st, and July 1st respectively. The project closed on October 18, 2019 as per the work order detail report.

The CAPEX reported no eligible tax expense for the Share of the Weinstein Improvement project. Refer to the Weinstein/Dame Station Upgrades section of this report for details regarding why a tax expense for the project was non-applicable.

760-763 Work Orders, Replacement of Small Booster Pumps - \$26,925

The Company provided the Work Order Detail Report for Work Order Types 760-763. Audit reviewed the report and noted that the project consisted of ten separate work orders, all reported within the Work Order Types of 760 and 762 and with a reporting date range of January 1, 2019 – December 31, 2019. The total for the ten work order amounts on this project came to \$26,925 and included service locations in the following towns: Londonderry, Middleton, Raymond, Windham, and Pelham. Audit selected work order #1915255, totaling \$4,075, and work order #1901720, totaling \$5,095, as samples from the project to examine in detail.

Audit understands that when there are routine capital projects they are booked as a lump sum through the monthly work order interface. For work order #1901720, there were two work orders that were booked in the same month to the same account number where one work order (#1901720) was for \$5,095 and the other work order (#1901725) was for \$1,627, for a total of \$6,722. Audit verified that the \$6,722 for the replacement of the booster pumps was booked to the general ledger on 02/28/19.

Audit reviewed the Record of Bids and Proposals spreadsheet provided by the Company and noted that there were no bidders recorded for the replacement of small booster pumps. Each of the ten work orders, listed on the work order detail report for the project, totaled less than \$5,000 individually. Audit understands that these work orders are for small scale pump replacement/rebuilding projects that are in response to failures and therefore are not considered planned routine maintenance. Refer to the Bidding section of the report for further detail on the Company's bidding policy for work orders less than \$5,000.

The Company provided copies of the town property bills and a schedule showing the tax rate calculation used to determine the tax rates listed in the filing on Exhibit DLW-1, page 3. Audit recalculated the eligible property tax expense based on the tax rate and the Company's property tax rate calculation. The tax rate of \$28.64/thousand yields an eligible property tax expense of \$771 for the following work orders on the Replacement of Small Booster Pumps: #1915255 and #1901720. Audit's calculation of the eligible property tax expense agrees with the filing. Refer to the Tax Rate Calculation section of the report for details on how the tax rate was calculated.

Work Order #1915255 – Booster Pump Ministerial Heights, \$4,075

The \$4,075 work order amount consisted of a contractor expense for \$3,995 and an overhead charge of \$80. Audit requested a copy of the contractor invoice and the overhead rates that were in effect during the 2019 test-year for labor, general construction and engineering (ENG/ISOH). The Company provided the invoice for Wright Electric Motors with delivery slip, as well as the overhead rate, explaining that, “For 2019, the Union overhead rate was 63.24% and the general overhead rate was 2%. It is intended to capture the cost of benefits for Union employees and is derived by an analysis of the employee’s benefits which is reviewed / revised annually.” Audit noted that the Wright Electric Motors invoice, dated 8/13/19, was for materials relating to the replacement of the booster pump (e.g. impeller, shaft sleeve, seal, gaskets, etc.), its assembly and testing. The overhead charge of \$80 was recalculated by Audit and accurately reflects 2% of the total \$3,995 for the job.

The Booster Pump Ministerial Heights project had no cost of removal. Audit reviewed the project’s CPR and noted that the Company booked the cost of the project as depicted in the following account:

Work Order #1915255 – Booster Pump Ministerial Heights

Account	Description	Gross Plant	COR	Gross Book
311210	Pumping Equipment	\$ 4,075	\$ (0)	\$ 4,075
	Totals	<u>\$ 4,075</u>	<u>\$ (0)</u>	<u>\$ 4,075</u>

Audit located the amount of the capitalized assets on the general ledger, as they are depicted in the above chart, totaling \$4,075. The amounts recorded for the pumping equipment, were posted to the general ledger on August 31, 2019. The project closed on August 22, 2019 as per the work order detail report.

Work Order #1901720 – Booster Pump Rebuild Williamsburg, \$5,095

The \$5,095 work order amount consisted of a contractor expense for \$4,995 and an overhead charge of \$100 for the rebuilding of the booster pump at the Williamsburg location. Audit requested a copy of the contractor invoice and the overhead rates that were in effect during the 2019 test-year for labor, general construction and engineering (ENG/ISOH). The Company provided the invoice for Wright Electric Motors with delivery slip, as well as the overhead rate. Refer to Work Order #1915255 within the Work Order Types 760-763 for an explanation of the overhead rate charge. Audit noted that the Wright Electric Motors invoice, dated 2/4/19, was for the disassembly, cleaning, and inspection of the booster pump, as well as for materials. The overhead charge of \$100 was recalculated by Audit and accurately reflects 2% of the total \$4,995 for the job.

Sampled Work Order #1901720, for the Booster Pump Williamsburg project, had no cost of removal. Audit reviewed the project’s CPR and noted that the Company booked the cost of the project as depicted in the following account:

Work Order #1915255 – Booster Pump Rebuild Williamsburg

Account	Description	Gross Plant	COR	Gross Book
311210	Pumping Equipment	\$ 5,095	\$ (0)	\$ 5,095

Totals \$ 5,095 \$ (0) \$ 5,095

Audit located the amount of the capitalized assets on the general ledger, as they are depicted in the above chart, totaling \$5,095. The amounts recorded for the pumping equipment, were posted to the general ledger on February 1, 2019. The project closed on March 5, 2019 as per the work order detail report.

Work Order 1915423 for the W&E Booster and Replacement of 3 Pump Motors - \$6,697

The Capital Improvements Request, dated 8/28/19, for work order #1915423 was for the 2019 booster pump replacement, the W and E booster to replace three pump motors and install three VFD drives. Audit reviewed the Work Order Detail Report and noted that the location of this project was in Windham. The CAPEX shows that this project was not in the approved budget. The estimated project cost, as of September 30, 2019, was for 8,000. The final project cost on the work order totaled \$6,697.

Due to the fact that the dollar amount for the total work orders was less than \$10,000, bidding for the project and submission of an E-22 form was not required. Also included on the Work Order Detail Report is the total vendor cost, as depicted by the following:

Grainger	\$3,036
Horizon Solutions	3,113
M&M Electric	359
R.E Prescott Co., Inc.	<u>189</u>
Total WO #1915423	<u>\$6,697</u>

There were a total of eleven invoices from four vendors, totaling \$6,697, for the project. Audit reviewed each invoice and noted that charges were for labor and materials.

Audit reviewed the CPR for the W&E Booster Replacement project and noted the cost of removal totaling \$670, as per the most recent depreciation study. Refer to Work Order #1917479, Georgetown Area Water Main Replacements, for details regarding Audit’s examination of the Company’s cost of removal for projects related to existing systems.

Audit verified that the removal costs are reflected in the CPR records and noted that the Company calculates the COR at 10% of the gross cost. Audit recalculated the COR and verified the total Gross Plant amount to the general ledger. The Company booked the cost of the project as depicted in the following accounts:

Work Order #1915423 – W&E Booster, Replace Three Pump Motors

<u>Account</u>	<u>Description</u>	<u>Gross Plant</u>	<u>COR</u>	<u>Gross Book</u>
311200	Elec. Pump Equip.	<u>\$ 6,697</u>	<u>\$ (670)</u>	<u>\$ 6,027</u>
	Totals	<u>\$ 6,697</u>	<u>\$ (670)</u>	<u>\$ 6,027</u>

Audit confirmed the amounts of the capitalized assets recorded on the general ledger. The Electric Pumping Equipment was posted to the general ledger on November 1, 2019. The project closed on December 18, 2019, as per the work order detail report.

The Company provided a schedule showing the tax rate calculation used to determine the tax rates listed in the filing on Exhibit DLW-1, page 3. Audit recalculated the eligible property tax expense based on the tax rate and the Company’s property tax rate calculation. For the final project cost of \$6,697, the Town of Windham’s tax rate of \$28.64/thousand yields an eligible property tax expense of \$192, which agrees with the filing. Refer to the Tax Rate Calculation section of the report for details on how the tax rate was calculated.

760-763 Work Orders, Well Pump and Piping Replacement - \$42,371

Audit reviewed the Work Order Detail Report and noted it included service locations in the following towns: Londonderry, Windham, Exeter, and Pelham. The CAPEX shows that this project was in the approved budget for \$40,000. The final project cost on the work order totaled \$42,371.

The work order detail report listed eight separate work orders, all reported within the Work Order Type 760 and with a reporting date range of January 1, 2019 – December 31, 2019. The total for the eight work order amounts on this project came to \$42,371 and Audit selected work order #1908834, totaling \$9,804, as a sample from the project to examine in detail. The location of this work order was for Pelham.

Work Order #1908834 – Well Pump and Piping, Williamsburg, \$9,804

The \$9,804 amount recorded on the work order consisted of a contractor expense for \$9,612 and an overhead charge of \$192. Audit requested a copy of the contractor invoice and the overhead rates that were in effect during the 2019 test-year for labor, general construction and engineering (ENG/ISOH). The Company provided the invoice for Smith Pump Co. with a work order report, as well as the overhead rate. Refer to Work Order #1915255 within the Work Order Types 760-763 for an explanation of the overhead rate charge. Audit noted that the Smith Pump Co. invoice, dated 5/28/19, was for the installation of a submersible pump. The overhead charge of \$192 was recalculated by Audit and accurately reflects 2% of the total \$9,612 for the job.

Audit reviewed the CPR for the Well Pump and Piping project and noted the cost of removal totaling \$980, as per the most recent depreciation study. Refer to Work Order #1917479, Georgetown Area Water Main Replacements, for details regarding Audit’s examination of the Company’s cost of removal for projects related to existing systems.

Audit verified that the removal costs are reflected in the CPR records and noted that the Company calculates the COR at 10% of the gross cost. Audit recalculated the COR and verified the total Gross Plant amount to the general ledger. The Company booked the cost of the project as depicted in the following accounts:

Work Order #1915423 – Well Pump and Piping, Williamsburg

Account	Description	Gross Plant	COR	Gross Book
307210	Well Pump/Pipe	\$ 9,804	\$ (980)	\$ 8,824
	Totals	\$ 9,804	\$ (980)	\$ 8,824

Audit confirmed that the \$9,804 amount of reviewed capitalized assets was recorded on the general ledger. The well pumping and piping posted on May 31, 2019. The job finished on December 18, 2019, as per the work order detail report.

The Company provided a schedule showing the tax rate calculation used to determine the tax rates listed in the filing on Exhibit DLW-1, page 3. Audit recalculated the eligible property tax expense based on the tax rate and the Company's property tax rate calculation. For the final project cost of \$42,371 the tax rate of \$28.64/thousand yields an eligible property tax expense of \$1,214, which agrees with the filing. Refer to the Tax Rate Calculation section of the report for details on how the tax rate was calculated.

760-763 Work Orders, Replacement of Chemical Feed Pumps - \$8,143

Audit reviewed the Work Order Detail Report for work order types 760-763, The project location was reported for the Town of Windham and consisted of five work orders, totaling \$8,143, for the replacement of the chemical feed pumps as they fail. The CAPEX shows that this project was in the approved budget for 10,000, as of June 2019. The final project cost on the work order summary totaled \$8,143. Due to the dollar amount for the total work orders as being less than \$10,000, bidding for the project and submission of an E-22 form was not required.

There were five work order charges, from four different work orders, listed on the work order summary for the project. Audit sampled one work order, #1914651, in the amount of \$1,643 for further review. Charges for this amount include \$1,611 in contractor costs and \$32 in overhead costs. Audit requested a copy of the contractor invoice and the overhead rates that were in effect during the 2019 test-year for labor, general construction and engineering (ENG/ISOH). The Company provided the invoice for USA BlueBook with a work order report, as well as the overhead rate. Refer to Work Order #1915255 within the Work Order Types 760-763 for an explanation of the overhead rate charge. Audit noted that the USA BlueBook invoice, dated 7/8/19, was for the pump with autoprime. The overhead charge of \$32 was recalculated by Audit and accurately reflects 2% of the total \$1,611 for the job.

Audit reviewed the CPR for the Replacement of Chemical Feed Pumps project and noted the cost of removal totaling \$815, as per the most recent depreciation study. Refer to Work Order #1917479, Georgetown Area Water Main Replacements, for details regarding Audit's examination of the Company's cost of removal for projects related to existing systems.

Audit verified that the removal costs are reflected in the CPR records and noted that the Company calculates the COR at 10% of the gross cost. Audit recalculated the COR and verified the total Gross Plant amount to the general ledger. The Company booked the cost of the project as depicted in the following accounts:

760-763 Work Orders – Replacement of Chemical Feed Pumps

Account	Description	Gross Plant	COR	Gross Book
311230	Chemical Pumps	\$ 1,816	\$ (182)	\$ 1,634
311230	Chemical Pumps	\$ 1,566	\$ (157)	\$ 1,410
311230	Chemical Pumps	\$ 1,643	\$ (164)	\$ 1,479
311230	Chemical Pumps	\$ 1,552	\$ (155)	\$ 1,397
311230	Chemical Pumps	\$ 1,566	\$ (157)	\$ 1,410
	Totals	<u>\$ 8,144</u>	<u>\$ (815)</u>	<u>\$ 7,329</u>

Audit noted that when there are multiple routine work orders within the same asset type within the month, the costs of all work orders are booked as a lump sum into GL for that work order type. For work order #1914651, the total \$1,643 was booked to the general ledger along with work order #1914652 (\$1,552), resulting in a total booked amount of \$3,195 to the general ledger for account # 311230, Electric Pumping Equipment, in on 7/31/19. The project was closed on August 2, 2019, as per the work order detail report.

Audit recalculated the eligible property tax expense based on the tax rate and the Company’s property tax rate calculation. For the final project cost of \$8,143, the tax rate of \$28.64/thousand yields an eligible property tax expense of \$233, which agrees with the filing. Refer to the Tax Rate Calculation section of the report for details on how the tax rate was calculated.

Work Order 1910159 for the Replacement of VFD Booster #3 at Liberty Tree - \$1,712

The Capital Improvements Request, dated 5/20/19, for work order #1910159 was for the replacement of the variable frequency drive (VFD) for pump #3 at the Liberty Tree location in the Town of Raymond. The project was due to the existing drive failing and beyond repair. The CAPEX shows that this project was not in the approved budget. The estimated project cost, as of September 30, 2019, was for \$1,720. The final project cost on the work order totaled \$1,712.

Audit reviewed the Record of Bids and Proposals spreadsheet and noted that there were no bidders recorded for the replacement of VFD Booster #3. Refer to the Bidding section of the report for further detail on the Company’s bidding policy for work orders less than \$5,000.

Due to the dollar amount for the total work orders as being less than \$10,000, submission of an E-22 form was not required. Also included on the detail report is the total vendor cost, as depicted by the following:

Horizon Solutions	<u>\$1,712</u>
Total WO #1910159	<u>\$1,712</u>

There was a total of one invoice from Horizon, in the amount of \$1,712, for the project. Audit reviewed the invoice and noted that charges were for materials related to the replacement of the VFD Booster #3.

Audit reviewed the CPR for the Replacement VFD Booster #3 and noted the cost of removal totaling \$171, as per the most recent depreciation study. Refer to Work Order

#1917479, Georgetown Area Water Main Replacements, for details regarding Audit’s examination of the Company’s cost of removal for projects related to existing systems.

Audit verified that the removal costs are reflected in the CPR records and noted that the Company calculates the COR at 10% of the gross cost. Audit recalculated the COR and verified the total Gross Plant amount to the general ledger. The Company booked the cost of the project as depicted in the following accounts:

Work Order #1910159 – Replace VFD Booster #3, Liberty Tree

Account	Description	Gross Plant	COR	Gross Book
311200	Elec. Pump Equip.	\$ 1,712	\$ (171)	\$ 1,540
	Totals	\$ 1,712	\$ (171)	\$ 1,540

The electric pumping equipment was posted to the general ledger on July 1, 2019. The project closed on August 26, 2019, as per the work order detail report.

Audit reviewed the Company’s tax calculation spreadsheet for the Town of Raymond, as well as the accompanying property tax bill for the year end 2019 and recalculated the eligible property tax expense based on the tax rate and the Company’s property tax rate calculation. For the final project cost of \$1,712, the Town of Raymond’s tax rate of \$30.95/thousand yields an eligible property tax expense of \$53, which agrees with the filing. Refer to the Tax Rate Calculation section of the report for details on how the tax rate was calculated.

Work Order 1915363 for the Replacement of VFD, Booster #2 at Forest Ridge - \$1,742

The Capital Improvements Request, dated 8/21/19, for work order #1915363 was for the replacement of the variable frequency drive (VFD) for pump #2 at the Forest Ridge location in Exeter. The project was due to the existing drive failing and beyond repair. The CAPEX shows that this project was not in the approved budget. The estimated project cost, as of September 30, 2019, was for 1,742. The final project cost on the work order totaled \$1,742.

Audit reviewed the Record of Bids and Proposals spreadsheet and noted that there were no bidders recorded for the replacement of VFD Booster #2. Refer to the Bidding section of the report for further detail on the Company’s bidding policy for work orders less than \$5,000.

Due to the dollar amount for the total work orders as being less than \$10,000 submission of an E-22 form was not required. Also included on the detail report is the total vendor cost, as depicted by the following:

Horizon Solutions	<u>\$1,742</u>
Total WO #1915363	<u>\$1,742</u>

There was a total of one invoice from Horizon, in the amount of \$1,742, for the project. Audit reviewed the invoice and noted that charges were for materials. No exceptions were noted.

The Replacement of VFD Booster #2 at Forest Ridge had no cost of removal. Audit reviewed the project’s CPR and noted that the Company booked the cost of the project as depicted in the following account:

Work Order #1915363 – Replace VFD Booster #2, Forest Ridge

Account	Description	Gross Plant	COR	Gross Book
311200	Elec. Pump Equip.	\$ 1,742	\$ (0)	\$ 1,742
	Totals	\$ 1,742	\$ (0)	\$ 1,742

The electric pumping equipmet was posted to the general ledger on August 1, 2019. The project closed on September 10, 2019, as per the work order detail report.

Audit reviewed the Company’s tax calculation spreadsheet for the Town of Exeter, as well as the accompanying property tax bill for the year end 2019 and recalculated the eligible property tax expense based on the tax rate and the Company’s property tax rate calculation. For the final project cost of \$1,742, the Town of Exeter’s tax rate of \$27.89/thousand yields an eligible property tax expense of \$49, which agrees with the filing. Refer to the Tax Rate Calculation section of the report for details on how the tax rate was calculated.

Work Order 1915856 for the Replacement of VFD Booster #1 at Spruce Pond - \$2,155

The Capital Improvements Request, dated 8/26/19, for work order #1915856 was for the replacement of the variable frequency drive (VFD) for pump #1 at the Spruce Pond location in Windham. The project was due to the existing drive failing and beyond repair. The CAPEX shows that this project was not in the approved budget. The estimated project cost, as of September 30, 2019, was for 2,156. The final project cost on the work order totaled \$2,155.

Audit reviewed the Record of Bids and Proposals spreadsheet and noted that there were no bidders recorded for the replacement of VFD Booster #1. Refer to the Bidding section of the report for further detail on the Company’s bidding policy for work orders less than \$5,000.

Due to the dollar amount for the total work orders as being less than \$10,000, submission of an E-22 form was not required. Also included on the detail report is the total vendor cost, as depicted by the following:

Horizon Solutions	<u>\$2,155</u>
Total WO #1915856	<u>\$2,155</u>

There was a total of one invoice for Horizon Solutions, in the amount of \$2,155, for the project. Audit reviewed the invoice and noted that charges were for materials. No exceptions were noted.

Audit reviewed the CPR for the Replacement VFD Booster #1 and noted the cost of removal totaling \$216, as per the most recent depreciation study. Refer to Work Order #1917479, Georgetown Area Water Main Replacements, for details regarding Audit’s examination of the Company’s cost of removal for projects related to existing systems.

Audit verified that the removal costs are reflected in the CPR records and noted that the Company calculates the COR at 10% of the gross cost. Audit recalculated the COR and verified the total Gross Plant amount to the general ledger. The Company booked the cost of the project as depicted in the following accounts:

Work Order #1915856 – Replace VFD Booster #1, Spruce Pond

Account	Description	Gross Plant	COR	Gross Book
311200	Elec. Pump Equip.	\$ 2,155	\$ (216)	\$ 1,940
	Totals	\$ 2,155	\$ (216)	\$ 1,940

The electric pumping equipment was posted to the general ledger on August 1, 2019. The project closed on September 10, 2019, as per the work order detail report

Audit reviewed the Company’s tax calculation spreadsheet for the Town of Windham, as well as the accompanying property tax bill for the year end 2019 and recalculated the eligible property tax expense based on the tax rate and the Company’s property tax rate calculation. For the final project cost of \$2,155, the Town of Windham’s tax rate of \$26.84/thousand yields an eligible property tax expense of \$58, which agrees with the filing. Refer to the Tax Rate Calculation section of the report for details on how the tax rate was calculated.

Work Order 1916937 for the Replacement of the Generator Control Unit - \$2,115

The Capital Improvements Request, dated 10/27/19, for work order #1916937 was for the replacement of the Generator Control Unit within the Windham community. The project was due to the existing control unit failing and beyond repair. The CAPEX shows that this project was not in the approved budget. The estimated project cost, as of November 30, 2019, was for 2,115. The final project cost on the work order totaled \$2,115.

Audit reviewed the Record of Bids and Proposals spreadsheet and noted that there were no bidders recorded for the replacement of the generator control unit. Refer to the Bidding section of the report for further detail on the Company’s bidding policy for work orders less than \$5,000.

Due to the dollar amount for the total work orders as being less than \$10,000, submission of an E-22 form was not required. Also included on the detail report is the total vendor cost, as depicted by the following:

Power Up Generator Service	<u>\$2,115</u>
Total WO #1916937	<u>\$2,115</u>

There was a total of one invoice, in the amount of \$2,115, for the project. Audit reviewed the invoice from Power UP Generator Service and noted that charges were for labor, mileage, and materials.

The Replacement Generator Control Unit project had no cost of removal. Audit reviewed the project’s CPR and noted that the Company booked the cost of the project as depicted in the following account:

Work Order #191637 – Replace Generator Control Unit, Hardwood

Account	Description	Gross Plant	COR	Gross Book
310000	Power Gen. Equip.	\$ 2,115	\$ (0)	\$ 2,115
	Totals	\$ 2,115	\$ (0)	\$ 2,115

The power generator equipment was posted to the general ledger on October 1, 2019 and the project closed on November 25, 2019, as per the work order detail report.

Audit reviewed the Company’s tax calculation spreadsheet for the Town of Windham, as well as the accompanying property tax bill for the year end 2019 and recalculated the eligible property tax expense based on the tax rate and the Company’s property tax rate calculation. For the final project cost of \$2,115, the Town of Windham’s tax rate of \$26.84/thousand yields an eligible property tax expense of \$57, which agrees with the filing. Refer to the Tax Rate Calculation section of the report for details on how the tax rate was calculated.

Work Order 1901651, Installation of Web Based Communication Equipment - \$4,488

The Capital Improvements Request, dated 7/8/19, for work order #1901651 was for the installation of web based communication equipment at the Forest Ridge location in Nashua. The project is one of four locations budgeted. The CAPEX shows that this project was not in the approved budget. The estimated project cost, as of November 30, 2019, was for 4,488. The final project cost on the work order totaled \$4,488.

Audit reviewed the Record of Bids and Proposals spreadsheet and noted that there were no bidders recorded for the installation of web based communication equipment. Refer to the Bidding section of the report for further detail on the Company’s bidding policy for work orders less than \$5,000.

Due to the dollar amount for the total work orders as being less than \$10,000, bidding for the project and submission of an E-22 form was not required. Also included on the detail report is the total vendor cost, as depicted by the following:

R.E Prescott Co., Inc.	<u>\$4,488</u>
Total WO #1901651	<u>\$4,488</u>

There were two invoices from R. E. Prescott, with a total amount of \$4,488, for the project. Audit reviewed the invoices and noted that charges were for materials and labor.

The Replacement Generator Control Unit had no cost of removal. Audit reviewed the project’s CPR and noted that the Company booked the cost of the project as depicted in the following account:

Work Order #1901651 – Replace Generator Control Unit, Hardwood

Account	Description	Gross Plant	COR	Gross Book
346000	Comm. Equip.	\$ 4,488	\$ (0)	\$ 4,488
	Totals	<u>\$ 4,488</u>	<u>\$ (0)</u>	<u>\$ 4,488</u>

Audit reviewed the 2019 asset list and noted that the communication equipment was posted to the general ledger on October 1, 2019. The project closed on August 1, 2019, as per the work order detail report.

Audit reviewed the Company’s tax calculation spreadsheet for the Town of Nashua, as well as the accompanying property tax bill for the year end 2019 and recalculated the eligible

property tax expense based on the tax rate and the Company’s property tax rate calculation. For the final project cost of \$4,488, the Town of Nashua’s tax rate of \$28.64/thousand yields an eligible property tax expense of \$129, which agrees with the filing. Refer to the Tax Rate Calculation section of the report for details on how the tax rate was calculated.

720, Work Orders, Single Family Owner Build, New Homes - \$14,560

This project provided customers with the ability to tie into the water distribution system, when applicable. The Company provides the service of installing the main to service tie and the work order costs were for vehicles, labor, inventory, and overhead.

There were four work order charges, from four different work orders, listed on the summary report for the project. Audit sampled one work order, #1916863, in the amount of \$4,700 in contractor costs, for further review. Audit requested a copy of the Forcier Contracting and Building Services invoice and noted that the charges, billed on 9/13/19, were for tapping the existing water main, installation, run of copper service line, and regrade and loam any areas that were disturbed.

Audit reviewed the Record of Bids and Proposals spreadsheet and noted that there were no bidders recorded for the single family owner build for new homes. Refer to the Bidding section of the report for further detail on the Company’s bidding policy for work orders less than \$5,000.

The Single Family Owner Build project had no cost of removal. Audit reviewed the project’s CPR and noted that the Company booked the cost of the project as depicted in the following account:

Work Order #720 – Install New Service, Single Family Owner Build

Account	Description	Gross Plant	COR	Gross Book
333100	New Services	\$ 14,560	\$ (0)	\$ 14,560
	Totals	\$ 14,560	\$ (0)	\$ 14,560

Audit reviewed the 2019 asset list and noted that the water connection service was posted to the general ledger on October 31, 2019. The project closed on October 23, 2019, as per the work order detail report.

Audit recalculated the eligible property tax expense based on the tax rate and the Company’s property tax rate calculation. For the final project cost of \$14,560, the tax rate of \$28.64/thousand yields an eligible property tax expense of \$417, which agrees with the filing. Refer to the Tax Rate Calculation section of the report for details on how the tax rate was calculated.

721 & 722 Work Orders, Renewed Services - \$35,824

There were eight work order charges, from eight different work orders, listed on the summary report for the project for the installation of renewed services at Maple Hills. Audit sampled two work order charges, and #1900536 and #1916079, in the amounts of \$11,277 and \$7,909 respectively. The work order details, containing itemized amounts for Audit’s samples of

\$11,277 and \$7,909, were provided by the Company and Audit noted charges were for vehicles, tools, labor, and overhead.

Audit verified that the charges totaling \$11,277 were recorded to the general ledger on February 28, 2019 and the charges totaling \$7,909 were recorded to the general ledger on September 30, 2019. The project was completed on October 1, 2019, as per the work order detail report.

Audit reviewed the Record of Bids and Proposals spreadsheet and noted that there were no bidders recorded for the renewed services. Refer to the Bidding section of the report for further detail on the Company’s bidding policy.

Audit reviewed the CPR for the renewed services project and noted the cost of removal totaling \$3,582, as per the most recent depreciation study. Refer to Work Order #1917479, Georgetown Area Water Main Replacements, for details regarding Audit’s examination of the Company’s cost of removal for projects related to existing systems.

Audit verified that the removal costs are reflected in the CPR records and noted that the Company calculates the COR at 10% of the gross cost. Audit recalculated the COR and verified the total Gross Plant amount to the general ledger. The Company booked the cost of the project as depicted in the following accounts:

Work Order #721 & 722– Renewed Services

Account	Description	Gross Plant	COR	Gross Book
333200	PEU Renewed Svcs	\$ 35,824	\$ (3,582)	\$ 32,242
	Totals	\$ 35,824	\$ (3,582)	\$ 32,242

Audit recalculated the eligible property tax expense based on the tax rate and the Company’s property tax rate calculation. For the final project cost of \$35,824, the tax rate of \$28.64/thousand yields an eligible property tax expense of \$1,026, which agrees with the filing. Refer to the Tax Rate Calculation section of the report for details on how the tax rate was calculated.

730 & 731 Work Orders, Replacement of Non-Functional Hydrants - \$9,911

There were three work order charges, from three different work orders, listed on the summary report for the replacement of non-functional hydrants project, totaling \$9,911. Audit sampled one work order charge, for work order #1906025, in the amount of \$5,651. The work order details, containing itemized amounts for Audit’s sample, were provided by the Company and Audit noted charges were for vehicles, tools, labor, and overhead. Audit verified that the charges posted to the general ledger on March 31, 2019. The project finished on March 13, 2019.

Audit reviewed the Record of Bids and Proposals spreadsheet and noted that there were no bidders recorded for the replacement of non-functional hydrants. Refer to the Bidding section of the report for further detail on the Company’s bidding policy.

Audit reviewed the CPR for the replacement of non-functional hydrants project and noted the cost of removal totaling \$991, as per the most recent depreciation study. Refer to Work Order #1917479, Georgetown Area Water Main Replacements, for details regarding Audit's examination of the Company's cost of removal for projects related to existing systems.

Audit verified that the removal costs are reflected in the CPR records and noted that the Company calculates the COR at 10% of the gross cost. Audit recalculated the COR and verified the total Gross Plant amount to the general ledger. The Company booked the cost of the project as depicted in the following account:

Work Orders #730 & 731 – Replacement of Non-Functional Hydrants

Account	Description	Gross Plant	COR	Gross Book
335000	PEU Hydrants	\$ 9,911	\$ (991)	\$ 8,920
	Totals	\$ 9,911	\$ (991)	\$ 8,920

Audit recalculated the eligible property tax expense based on the tax rate and the Company's property tax rate calculation. For the final project cost of \$9,911, the tax rate of \$28.64/thousand yields an eligible property tax expense of \$284, which agrees with the filing. Refer to the Tax Rate Calculation section of the report for details on how the tax rate was calculated.

712 Work Orders, Replacement of Failed Gates - \$33,630

There were six work order charges, from six different work orders, listed on the summary report for the replacement of the failed gates, totaling \$33,630. Audit sampled one work order charge, for work order #1914520, in the amount of \$10,843. The work order details, containing itemized amounts for Audit's sample, were provided by the Company and Audit noted charges were for vehicles, tools, labor, and overhead. Audit verified that the charges posted to the general ledger on July 31, 2019.

Audit reviewed the Record of Bids and Proposals spreadsheet and noted that there were no bidders recorded for the replacement of failed gates. Refer to the Bidding section of the report for further detail on the Company's bidding policy for work orders.

Audit reviewed the CPR for the replacement of failed gate valves and noted the cost of removal totaling \$3,363, as per the most recent depreciation study. Refer to Work Order #1917479, Georgetown Area Water Main Replacements, for details regarding Audit's examination of the Company's cost of removal for projects related to existing systems.

Audit verified that the removal costs are reflected in the CPR records and noted that the Company calculates the COR at 10% of the gross cost. Audit recalculated the COR and verified the total Gross Plant amount to the general ledger. The Company booked the cost of the project as depicted in the following account:

Work Orders #712 – Replacement of Failed Gate Valves

Account	Description	Gross Plant	COR	Gross Book
331251	Gates 6"	\$ 33,630	\$ (3,363)	\$ 30,267
	Totals	\$ 33,630	\$ (3,363)	\$ 30,267

Audit verified that the charges posted to the general ledger through six entries dated between 3/31/19 and 12/31/19. The project was reported as complete on July 31, 2019.

Audit recalculated the eligible property tax expense based on the tax rate and the Company’s property tax rate calculation. For the final project cost of \$33,630, the rate of \$28.64/thousand yields an eligible property tax expense of \$963, which agrees with the filing. Refer to the Tax Rate Calculation section of the report for details on how the tax rate was calculated.

Work Orders 754, New and Replaced Radios for Meter Reading - \$22,291

There were twenty work order charges, from twenty different work orders, listed on the summary report for the new and replacement radios, totaling \$22,291. Audit sampled two work order charges, one for work order #1916250, in the amount of \$3,944, and one for work order #1917051, in the amount of \$3,053. The work order details, containing itemized amounts for Audit’s sample, were provided by the Company and Audit noted charges were for installation, tools, labor, and overhead. Audit verified that the charges posted to the general ledger on October 31, 2019 and November 30, 2019, respectively.

Audit reviewed the Record of Bids and Proposals spreadsheet and noted that there were no bidders recorded for the new and replaced radios for meter reading. Refer to the Bidding section of the report for further detail on the Company’s bidding policy for work orders less than \$5,000.

The Single Family Owner Build project had no cost of removal. Audit reviewed the project’s CPR and noted that the Company booked the cost of the project as depicted in the following account:

Work Order #720 – New and Replaced Radios for Meter Reading

Account	Description	Gross Plant	COR	Gross Book
334100	Radios for Metering	\$ 22,291	\$ (0)	\$ 22,291
	Totals	\$ 22,921	\$ (0)	\$ 22,921

Audit verified that the Radios for Metering asset posted to the 2019 general ledger. The project was reported as complete on July 31, 2019.

Audit recalculated the eligible property tax expense based on the tax rate and the Company’s property tax rate calculation. For the final project cost of \$22,291, the tax rate of \$28.64/thousand yields an eligible property tax expense of \$638, which agrees with the filing. Refer to the Tax Rate Calculation section of the report for details on how the tax rate was calculated.

750 Work Orders, Installation New Meters - \$69,613

There were forty work order charges listed on the summary report for installation of new 5/8” meters, totaling \$69,613. Audit sampled three work order charges detailed in the following: work order #1915486 for \$5,954, work order #1914696 for \$11,655, and work order #1909836

for \$6,175. The work order details, containing itemized amounts for Audit’s sample, were provided by the Company and Audit noted charges were for installation, equipment checks, and overhead.

Audit noted that the \$5,954, \$11,655, and \$6,175 amounts were routine capital projects and booked as a lump sum through the monthly work order interface. The \$5,954 amount is one of two work orders booked for 09/30/19. The CPR indicates two assets within Meters for September 2019, where one asset was \$150 and the other was \$5,954, for a total of \$6,103. Audit verified this amount was booked to the general ledger on 09/30/19.

The \$11,655 amount for is one of three work orders booked for 08/31/19. The CPR indicates three assets within the meter installation for August 2019 where one asset was for \$11,655, one was for \$816 and one was for \$151, totaling \$12,622. Audit verified this amount was booked to the general ledger on 08/31/19.

The amount of \$6,175 was one of three work orders booked on 07/31/19. The CPR indicated two assets within installation of new meters for July 2019 where one asset was for \$6,175, one was for \$150, and one was for 205, totaling \$6,530. Audit verified this amount was booked to the general ledger on 07/31/19.

Audit reviewed the Record of Bids and Proposals spreadsheet and noted that there were no bidders recorded for the installation of new meters. Refer to the Bidding section of the report for further detail on the Company’s bidding policy for work orders.

Audit reviewed the CPR for new meters and noted the cost of removal totaling \$6,961, as per the most recent depreciation study. Refer to Work Order #1917479, Georgetown Area Water Main Replacements, for details regarding Audit’s examination of the Company’s cost of removal for projects related to existing systems.

Audit verified that the removal costs are reflected in the CPR records and noted that the Company calculates the COR at 10% of the gross cost. Audit recalculated the COR and verified the total Gross Plant amount to the general ledger. The Company booked the cost of the project as depicted in the following account:

750 Work Orders – Installation New Meters

Account	Description	Gross Plant	COR	Gross Book
334000	Metering Equipment	\$ 69,613	\$ (6,961)	\$ 62,652
	Totals	\$ 69,613	\$ (6,961)	\$ 62,652

Audit recalculated the eligible property tax expense based on the tax rate and the Company’s property tax rate calculation. For the final project cost of \$69,613, the tax rate of \$28.64/thousand yields an eligible property tax expense of \$1,994, which agrees with the filing. Refer to the Tax Rate Calculation section of the report for details on how the tax rate was calculated.

Depreciation

Audit requested the depreciation asset list that includes the total 2019 additions to utility plant. The Company provided an Excel spreadsheet, listing the assets by project and work order number. The capitalized date, asset life, acquisition costs, cost of removal, depreciation expense, and gross book value were all listed amounts were all reported. Audit noted a total depreciation charge of \$19,362 from total selected additions of \$1,787,322. This figure represents a half-year depreciation charge for 2019 in accordance with utility accounting standards.

Audit recalculated the annual depreciation expense, verifying the use of the half-year convention for new additions in 2019. The depreciation rates were verified to the Depreciation Asset List provided by the Company.

Revenues

The Company will apply a recoupment charge to recover the cost of the loan and property taxes incurred during the period between the bond issuance date and the date on which the 2019 QCPAC was implemented. Testimony given by Donald Ware, Chief Operating Officer of Pennichuck East Utility, describes the impact of the 2019 QCPAC on monthly residential bills as resulting in , "...A QCPAC of \$3.73 per month., which is an increase of \$1.49 per month over the current surcharge amount of \$2.25 per month.

Summary

Audit reviewed a total of \$1,787,322 in final project costs, as well as the eligible property tax expense of \$45,231, and determined that the Company has shown that these projects were used, useful and booked to the appropriate plant accounts, as of 12/31/2019. Support for the project costs was provided in the form of the general ledger balances, journal entries, work order detail reports, work orders, E-22 reports, invoices, and Excel spreadsheets. Audit found no exceptions in the supporting documents to the filing.

Pennichuck East Utilities, Inc.
DW 20-019
2020 QCPAC - Qualified Capital Project Adjustment Charge
Responses to Staff Data Requests – Set 1

Date Request Received: 3/19/20
Request No. Staff 1-1

Date of Response: 4/1/2020
Witness: Donald L. Ware

REQUEST: Please provide working excel copies of all applicable schedules included in the Attachments of D. Ware, specifically including the “Explanation” column on page 3.

RESPONSE:

A working Excel copy of Exhibit DLW-1 will be submitted as part of the responses to these data requests.

Pennichuck East Utilities, Inc.
DW 20-019
2020 QCPAC - Qualified Capital Project Adjustment Charge
Responses to Staff Data Requests – Set 1

Date Request Received: 3/19/20
Request No. Staff 1-2

Date of Response: 4/1/2020
Witness: Donald L. Ware

REQUEST: Please describe PEU's general annual main replacement goal for its systems.

RESPONSE:

The current PEU annual main replacement program involves working to replace watermains installed by developers that do not meet AWWA standards and have experienced a significant number of breaks. Additionally, during years where there are a large number of dollars that are being invested in critical vertical assets (Locke Lake Treatment facility, Londonderry tank, Atkinson Booster, Sunrise Estates booster) the Company is deferring the replacement to watermains in order to lessen rate impacts. PEU currently has about 210 miles of watermains that were installed between 1 and 50+/- years ago. As these watermains age toward their expected lives of 60 to 150 years this will result in a targeted annual watermain replacement of 1 to 2 miles of watermains per year.

The Company's annual water main replacement program will ultimately be directed by the Company's asset management plan, which will take into account the criticality, risk of failure and probability of failure of each watermain. The Company hopes to be transitioned to an asset management driven watermain replacement plan within the next couple of years.

Pennichuck East Utilities, Inc.
DW 20-019
2020 QCPAC - Qualified Capital Project Adjustment Charge
Responses to Staff Data Requests – Set 1

Date Request Received: 3/19/20
Request No. Staff 1-3

Date of Response: 4/1/2020
Witness: Donald L. Ware

REQUEST: Attachment DLW-1, Page 3, 2019 PEU QCPAC Additions

Two projects, Alexander Road Water Main Upsizing and Nashua Road 4” Main Relocation, are indicated with a funding source of the 0.1 DSRR rather than CoBank or SRF monies. Please explain.

RESPONSE:

These were two small capital projects where PEU has sufficient 0.1 DSRR cash to pay for the projects as opposed to taking a loan to complete this work. Part of the concept of the 0.1 DSRR cash is for it to be used to offset the need to fund all capital expenditures with debt. This ultimately results in savings to customers due to avoided payment of debt interest and expenses.

Pennichuck East Utilities, Inc.
DW 20-019
2020 QCPAC - Qualified Capital Project Adjustment Charge
Responses to Staff Data Requests – Set 1

Date Request Received: 3/19/20
Request No. Staff 1-4

Date of Response: 4/1/2020
Witness: Donald L. Ware

REQUEST: Attachment DLW-1, Page 3, 2019 PEU QCPAC Additions

The attachment lists DW 19-069 as the source of financing for the majority of the 2020 capital projects. Please explain the following relative to the CoBank Loan:

- a) Does the Company intend to update this reference once the CoBank financing request is filed for approval and assigned a 2020 Docket reference?
- b) In light of recent current events, please provide an update on the status of the CoBank Loan to include revised loan terms if necessary.

RESPONSE:

- a) Yes, the Company will update the reference once that financing docket has been opened and filed.
- b) Nothing has changed as to the terms of the proposed CoBank Loan financing at this time, even in light of the extenuating circumstances in our country. Should something change, the Company will update this response, as appropriate.

Pennichuck East Utilities, Inc.
DW 20-019
2020 QCPAC - Qualified Capital Project Adjustment Charge
Responses to Staff Data Requests – Set 1

Date Request Received: 3/19/20
Request No. Staff 1-5

Date of Response: 4/1/2020
Witness: Donald L. Ware

REQUEST: Petition, Page 7, item (d)

Please explain if this request, to pay the interest incurred by the FALOC with funds from the CoBank Term Loan, is different than the request and authority granted, relative to the inclusion of FALOC interest in the QCPAC, in Order No. 26,313 (December 6, 2019) in Docket No. DW 19-035.

RESPONSE:

Per Order #26,313, dated December 6, 2019, the Company did not need to make the request on Page 7 of this petition to fund the FALOC interest with funds from the CoBank Term Loan.

Pennichuck East Utilities, Inc.
DW 20-019
2020 QCPAC - Qualified Capital Project Adjustment Charge
Responses to Staff Data Requests – Set 1

Date Request Received: 3/19/20
Request No. Staff 1-6

Date of Response: 4/1/2020
Witness: Donald L. Ware

REQUEST: Attachment DLW-1, Page 3, 2019 PEU QCPAC Additions

The Company indicated \$40,401 of Fixed Asset Line of Credit (FALOC) interest is included with the total cost of 2019 capital projects to be recovered through the 2020 QCPAC, and that this amount covers the period of July 2019 thru July 2020. Please explain the following:

- a) How did the Company determine the timeframe of July 2019 to July 2020 (a point in the future as of the filing) was the most appropriate timeframe to choose rather than a calendar year?
- b) Does this amount include interest incurred from capital projects that are not yet used and useful, such as but not limited to the Londonderry Elevated Storage Tank, the Airstrip Well Raw Water Main, and the Locke Lake Surface Water Treatment project?

RESPONSE:

- a) The July 2019 to July 2020 covers the projected time between the July 22, 2019 closing on the CoBank term loan that allowed the CoBank FALOC to be paid off for PEU assets that were used and useful through December 31, 2018 and the projected late June/early July 2020 closing on the CoBank term loan that will allow the Company to pay off the CoBank FALOC for PEU that were used and useful through December 31, 2019.
- b) No. No interest on the CoBank FALOC associated with projects that were not used and useful prior to December 31, 2019 is included in the projected interest calculation of \$40,401 incurred on the FALOC. Please note that the Airstrip Well Raw Water Main and the Locke Lake Surface Water Treatment project were funded with proceeds through the NHDES SRF loan and as such there were no draws on the CoBank FALOC to complete these projects.

Pennichuck East Utilities, Inc.
DW 20-019
2020 QCPAC - Qualified Capital Project Adjustment Charge
Responses to Staff Data Requests – Set 1

Date Request Received: 3/19/20
Request No. Staff 1-7

Date of Response: 4/1/2020
Witness: Donald L. Ware

REQUEST: The Company's FALOC, approved by Order No. 26,117 (March 30, 2018) in Docket No. DW 17-157, was described as expiring on September 30, 2020. Please explain the following:

- a) Does the Company intend on renewing the FALOC or has the Company secured other means of short term financing for their capital projects?
- b) What impact, if any, will the maturity date of September 2020 have on the 2020 capital projects currently under construction? Please explain.

RESPONSE:

- a) The Company does intend to renew the FALOC facility with CoBank. The Company has already procured a Term Sheet for the renewal from CoBank and will be filing for its approval with a financing petition to the Commission in the coming weeks.
- b) The maturity date will have no impact on the 2020 capital projects, as the Company expects to have the renewal facility in place as of the termination date of the current facility, in essence resulting in continuity of the facility for the Company, without interruption.

Pennichuck East Utilities, Inc.
DW 20-019
2020 QCPAC - Qualified Capital Project Adjustment Charge
Responses to Staff Data Requests – Set 1

Date Request Received: 3/19/20
Request No. Staff 1-8

Date of Response: 4/1/2020
Witness: Donald L. Ware

REQUEST: Pre-Filed Direct Testimony of Mr. Donald L. Ware, Page 4 and 5

Page 4 references a loan from the NH Drinking Water State Revolving Loan Fund (SRF) in this Docket is estimated to enter repayment mode June 1, 2020 with the first payment of principal and interest due beginning in July 2020. However, page 5 also describes the SRF loan closing on March 1, 2019 with the first payment of principal and interest due on August 1, 2019. Please explain.

RESPONSE:

I do not see the referred to dates in my testimony noted in the data request above. It appears that the data request is based on pages 4 and 5 of the petition. The correct information regarding the SRF loan required to complete the watermain replacement work in Locke Lake is as follows:

1. Loan was closed on with the NHDES on January 9, 2019. The loan closing allowed the Company to begin work on the Locke Lake watermain replacement work on Georgetown Drive, Bradford Lane, North Barnstead Road and Belmont Drive projects during 2019.
2. Funds were drawn from the NHDES SRF loan during 2019 to complete the watermain replacement work noted above. The NHDES charges a short term interest rate of 1% per year on funds drawn during construction. When the project goes used and useful the NHDES changes the loan from a short-term loan at 1%, to a long-term loan at a rate of 2.704% for 30 years, six months after the project is deemed as used and useful and all project reimbursement requests have been completed. The project went used and useful in October of 2019 but there is still clean up to be finish the project which will occur in late April or early May of 2020. A final reimbursement request on this SRF loan is expected to occur in May of 2020 which will result in this loan entering full repayment mode in November of 2020.

Pennichuck East Utilities, Inc
DW 20-019
2020 QCPAC Filing
2/9/2020
Revised 3/26/2020 per Staff DR1's
Revised 12/8/2020 per Staff 3-3 Supplemental Response
Revised 12/29/2020 per Staff 1-8 Supplemental Response

Exhibit DLW-1
Page 1

	DW17-128 Approved Step Revenue Requirements	QCPAC Revenues approved in DW19-035	Projected QCPAC Surcharge for 2018 Capital Additions	Projected QCPAC For 2019 Capital Additions pro formas	Projected QCPAC Surcharge for 2019 Capital Additions	Projected QCPAC For 2020 Capital Additions pro formas	Projected QCPAC Surcharge for 2020 Capital Additions	Projected QCPAC For 2021 Capital Additions pro formas	Projected QCPAC Surcharge for 2021 Capital Additions	Projected QCPAC For 2022 Capital Additions pro formas	Projected QCPAC Surcharge for 2022 Capital Additions
City Bond Fixed Revenue Requirement (CBFRR)	\$ 926,309		\$ 926,309	\$ -	\$ 926,309	\$ -	\$ 926,309	\$ -	\$ 926,309		\$ 926,309
Operating Expense Revenue Requirement	\$ 5,851,582 (1)	\$ (40,866) (4)(8)	\$ 5,810,716	\$ 45,231 (4)	\$ 5,855,947	\$ 70,930 (10)	\$ 5,926,877	\$ 10,863 (4)(11)	\$ 5,937,741	\$ 34,106 (4)	\$ 5,971,847
Annual Principal and Interest Payments	\$ 1,362,154 (2)	\$ 261,114 (5)(6)	\$ 1,623,268	\$ 51,109 (12)	\$ 1,674,377	\$ 233,482 (12)	\$ 1,907,859	\$ 223,720 (12)	\$ 2,131,579	\$ 86,465 (12)	\$ 2,218,044
Principal and Interest Coverage Requirement	1.10 (3)		1.10		1.10		1.10		1.10		1.10
Principal and Interest Revenue Requirement	\$ 1,498,370		\$ 1,785,595		\$ 1,841,815		\$ 2,098,645		\$ 2,344,737		\$ 2,439,848
Proposed Revenue Requirement excluding NCCRS	\$ 8,276,261		\$ 8,522,620		\$ 8,624,071		\$ 8,951,832		\$ 9,208,787		\$ 9,338,004
Current Water Revenues excluding CBFRR and NCCRS	\$ 5,947,707		\$ 7,349,952		\$ 7,596,311		\$ 7,697,762		\$ 8,025,523		\$ 8,282,478
Add: City Bond Fixed Revenue Requirement	\$ 926,309		\$ 926,309		\$ 926,309		\$ 926,309		\$ 926,309		\$ 926,309
Current Water Revenues with CBFRR less NCCRS	\$ 6,874,016		\$ 8,276,261		\$ 8,522,620		\$ 8,624,071		\$ 8,951,832		\$ 9,208,787
Proposed Percent Revenue Increase	20.40%										
ADD: NC Capital Surcharge Revenue	\$ 178,915		\$ 178,915		\$ 178,915		\$ 178,915		\$ 178,915		\$ 178,915
Proposed New Revenue Requirement	\$ 8,455,176		\$ 8,701,535		\$ 8,802,986		\$ 9,130,746		\$ 9,387,702		\$ 9,516,919
Projected QCPAC Increase ⁷			2.98%		1.23%		3.85%		2.98%		1.44%
Cumulative QCPAC increase ⁹			2.98%		4.20%		8.16%		11.27%		12.83%
Cumulative QCPAC monthly increase in average single family residential bill			\$ 2.25		\$ 3.17		\$ 6.16		\$ 8.50		\$ 9.68
Average monthly single family residential bill with QCPAC			\$ 77.69		\$ 78.62		\$ 81.61		\$ 83.95		\$ 85.13

Notes:

- (1) Operating Expense Revenue requirement is the sum of the Total Operating Expenses, Property Tax Expense and Amortization Expense approved in DW17-128.
- (2) Annual Principal and interest payments for PEU debt associated with all plant in service as approved in DW17-128.
- (3) Principal and interest coverage of 1.10 is as approved in DW17-128.
- (4) QCPAC operating expense proformas are based on the property taxes for plant added during the year.
- (5) See Calculation of annual principal and interest payments on spreadsheet titled "2018 QCPAC PEU Additions."
- (6) Portion of Annual Principal and interest payments paid to CoBank for debt associated with plant placed in service between 1/1/2018 and 12/31/2018 based on a 25 year term loan with an actual total all in interest rate of 4.38% that was not recovered in DW17-128.
- (7) QCPAC percent revenue surcharges based on increase in revenues over the step revenues granted in DW17-128, exclusive of prior QCPAC surcharges.
- (8) 2018 Proforma Operating Expenses include a reduction in purchased water expenses associated with the completion of the PWW-PEU Interconnection in the amount of \$ 180,500
- (9) Cumulative surcharge percentage is based on total surcharge revenues collected divided by the step revenues granted in DW17-128.
- (10) QCPAC operating expense proforma associated with property taxes is reduced by \$ 70,000 to reflect reduction in purchased water costs associated with the completion of the Londonderry Storage Tank.
- (11) QCPAC operating expense proforma associated with property taxes is reduced by \$ 28,000 to reflect reduction in arsenic treatment costs associated with the completion of the Locke Lake raw water well line to the Peacham Road Treatment plant.
- (12) Portion of Annual Principal and interest payments paid to CoBank for debt associated with plant placed in service between 1/1 and 12/31 for designated year based on a 25 year term loan with an actual total all in interest rate of 5.50% that was not recovered in DW17-128.

Impact on PEU Single Family Residential Home:

Monthly meter charge granted in DW17-128, inclusive of Step increase -	\$ 20.70
Average Single Family Consumption (CCF) -	7.29
Consumption Charge granted in DW17-128, inclusive of Step increase -	\$ 7.51 per CCF
Average Single Family monthly bill with rates granted in DW17-128, inclusive of step -	\$ 75.45

2/15/2019, Revised 6/17/19 to reflect elimination of AFDUC and funding of FALOC and SRF short term interest expense via CoBank term loan, Revised 7/25/2019

Project Name/Description	Project Description	Work Order #	Financing Docket No.	NHPUC Order No.	Date of NHPUC Order	2018 Board Approved Budgeted Amount	Estimated Project Cost as of 10/31/2018	Final Project cost as of 12/31/2018	Community	Eligible for 2018 QCPAC Surcharge?	Taxable	Tax Rate (1)	QCPAC Eligible Property Tax Expense	Explanation for Change/Addition/Deletion since 1/30/2018
Brady Avenue ⁶	Replace 2,400 linear feet of existing 1.5" thin wall HDPE water main with new 8" diameter ductile iron water main.	1703684 & 1807069	DW17-055	26,006	4/19/2017	\$ 379,600	\$ 598,000	\$ 618,983	Derry	Yes	Yes	\$ 30.59	\$ 18,935	
Hillcrest Road	Replace approximately 1,200 linear feet of existing 12" thin wall ductile iron water main with high break history through swamp with 12" HDPE.	1707188 & 1807072	DW17-055	26,006	4/19/2017	\$ 242,000	\$ 240,000	\$ 254,860	Litchfield	Yes	Yes	\$ 26.84	\$ 6,840	
PEU-PWW Interconnection ⁸	Interconnect PEU to PWW under Merrimack River.	See Below	DW17-055/Pending filing ⁷	26,006	4/19/2017	\$ 3,300,000	See Below		Merrimack/Litchfield	Yes	Yes	\$ 27.88		
PEU-PWW Interconnection	Interconnecting Water Main - Owned by PEU	1807155, 1807362, 1608938, 1701789	See above	See above	See above	\$ Included above	\$ 3,515,850	\$ 3,335,078	Merrimack/Litchfield	Yes	Yes	\$ 27.88	\$ 92,982	
PEU Contribution toward PWW water main upgrade	Interconnecting Water Main - Owned by PWW (50% PEU paid portion)	1807148				\$ 33,925	\$ 33,925	\$ 33,925	Merrimack/Litchfield	Yes	No	\$ 27.88	\$ -	No property tax obligation for PEU as this is a PWW asset. PEU contribution to this PWW asset per NHPUC Order #26,049 in DW17-071.
PEU-PWW Interconnection Station Bidding & Construction	Booster Station, including purchase of building and meter from PWW.	1813395				\$ 340,000	\$ 339,864	\$ 339,864	Merrimack	Yes	Yes	\$ 28.92	\$ 9,829	
Locke Lake Treatment Design	Design treatment for new Source of Supply required by NHDES Corrective Action Plan.	1813409	DW18-132			\$ 100,000	\$ -	\$ -	Barnstead	No	Yes	\$ 27.10	\$ -	Design work for project that is not used and useful is not eligible for QCPAC Surcharge.
Atkinson Commerce Park Station Imp.	Rebuild Booster Station, Replace Atmospheric Storage Tanks	Deferred	Pending Filing ⁷			\$ 330,000	\$ -	\$ -	Atkinson	Yes	Yes	\$ 22.35	\$ -	Project deferred due to Engineering resources being diverted to design Bedford/Litchfield PFOA facilities.
Booster/Well/Chem Feed pump replacements	Replace small booster/well/chemical feed pumps as they fail (run rate) (21).	760 - 763 workorders	Pending Filing ⁷			\$ 60,000	\$ 100,200	\$ 92,476	Various	Yes	Yes	\$ 27.72	\$ 2,563	24 through December 31, 2018.
Install/replace treatment systems in small CWS	Replace failed CWS treatment systems. Install new CWS treatment system if water quality or standards requires it.	n/a	Pending Filing ⁷			\$ 25,000	\$ 5,000	\$ -	Various	Yes	Yes	\$ 27.72	\$ -	
Misc. Structural Improvements	Repair/replace aging/failed station structures as needed.	n/a	Pending Filing ⁷			\$ 20,000	\$ -	\$ -	Various	Yes	Yes	\$ 27.72	\$ -	
Miscellaneous Fencing and Security projects	Install fencing/security facilities as needed.	n/a	Pending Filing ⁷			\$ 10,000	\$ -	\$ -	Various	Yes	Yes	\$ 27.72	\$ -	
Miscellaneous SCADA/Electrical	Install/repair/replace SCADA/Electrical equipment as needed.		Pending Filing ⁷			\$ 30,000	See Below	\$ -	Various	Yes	Yes	\$ 27.72	\$ -	2 more VFD failures are projected through year end.
Miscellaneous SCADA/Electrical	Replace Pump #4 VFD at Castle Reach	1819462	Pending Filing ⁷			\$ 3,944	\$ 3,944	\$ 3,944	Various	Yes	Yes	\$ 27.72	\$ 109	
Miscellaneous SCADA/Electrical	Replace Pump #2 VFD at W&E	1816163	Pending Filing ⁷			\$ 3,013	\$ 3,013	\$ 3,013	Various	Yes	Yes	\$ 27.72	\$ 84	
Miscellaneous SCADA/Electrical	Replace Pump #5 VFD at Castle Reach	1807058	Pending Filing ⁷			\$ 4,145	\$ 4,145	\$ 4,145	Various	Yes	Yes	\$ 27.72	\$ 115	
Miscellaneous SCADA/Electrical	Replace Well Pump #13 VFD at Locke Lake	1818296	Pending Filing ⁷			\$ 2,639	\$ 2,684	\$ 2,684	Various	Yes	Yes	\$ 27.72	\$ 74	
Well Rehabilitation	Rehab wells as necessary to restore efficiency as needed.	n/a	Pending Filing ⁷			\$ 60,000	\$ 15,000	\$ -	Various	Yes	Yes	\$ 27.72	\$ -	Only one projected well rehab to occur in 2018 vs. 4 in budget.
3 New Services	Single Family, Owner Build, New Homes	720 workorders	Pending Filing ⁷			\$ 23,000	\$ 32,800	\$ 27,558	Various	Yes	Yes	\$ 27.72	\$ 764	8 services added through December.
10 Renewed Services	Replacement of failed services.	721 & 722 workorders	Pending Filing ⁷			\$ 40,000	\$ 17,400	\$ 18,667	Various	Yes	Yes	\$ 27.72	\$ 517	9 services replaced through December.
2 Hydrants	Replacement of non-functional hydrants.	730 & 731 workorders	Pending Filing ⁷			\$ 10,000	\$ 10,000	\$ -	Various	Yes	Yes	\$ 27.72	\$ -	None Repaired in 2018.
10 Valve Replacements	Replacement of Failed Gate Valves	712 workorders	Pending Filing ⁷			\$ 30,000	\$ 12,000	\$ -	Various	Yes	Yes	\$ 27.72	\$ -	None Repaired in 2018.
75 New Meters (growth) 5/8"-2"	New meters for new customers.	750 workorders	Pending Filing ⁷			\$ 22,500	\$ 14,500	\$ 70,429	Various	Yes	Yes	\$ 27.72	\$ 1,952	531 replacements through December 31, 2018 inclusive of new and replacement meters.
719 New Meters for Lead Meter exchanges 5/8"-6"	Replace High lead brass meter with new no lead brass meter.	750 workorders	Pending Filing ⁷			\$ 144,000	\$ 143,400	\$ -	Various	Yes	Yes	\$ 27.72	\$ -	
Radio Reads	New and replaced radios for meter reading (123).	754 workorders	Pending Filing ⁷			\$ -	\$ 17,100	\$ 18,606	Various	Yes	Yes	\$ 27.72	\$ 516	249 Radio replacements were completed through December 31, 2018.
Investment in Developer Installed Services	One times revenue tariffed amount (\$7).	n/a	Pending Filing ⁷			\$ -	\$ 42,500	\$ 47,838	Various	Yes	Yes	\$ 27.72	\$ 1,326	Required by Tariff. Not in 2018 Board Approved Budget.
Insertion Valve Install	Installation of Insertion Valve on 16" Main MWW	1824544	Pending Filing ⁷			\$ -	\$ 25,000	\$ -	Londonderry	Yes	No	\$ 26.15	\$ -	MWW was going to shut service off for all of Londonderry for a hydrant repair. Insertion valve allowed hydrant replacement without losing service to any of Londonderry. Not included in QCPAC as this will be funded with 0.1 DSRP cash.
Chlorine Transfer Pump for NC Operations	Purchase new chlorine transfer pump to transfer bleach solution from large drum containers to smaller transportable containers.	1817322	Pending Filing ⁷			\$ -	\$ 2,587	\$ 2,587	Various	Yes	Yes	\$ 27.72	\$ 72	
Hardwood New Source	Hardwood New Source	1701877	Pending Filing ⁷			\$ -	\$ 6,285	\$ -	Windham	Yes	Yes	\$ 27.57	\$ 173	
Locke Lake, Varney Rd Area	Locke Lake, Varney Rd Area - Clean up and final Paving	1817280	Pending Filing ⁷			\$ -	\$ 94,050	\$ -	Barnstead	Yes	Yes	\$ 27.10	\$ 2,549	
Locke Lake Well 14 VFD	Locke Lake Well 14 VFD	1900391	Pending Filing ⁷			\$ -	\$ 8,608	\$ -	Barnstead	Yes	Yes	\$ 27.10	\$ 233	
Short term interest	Short term interest on FALOC and SRF loans to fund 2018 Capex.					\$ -	\$ 39,547	\$ -		Yes	No	\$ -	\$ -	
Total 2018 Board Approved PEU Capital Expenditures -						\$ 4,826,100	\$ 5,179,004	\$ 5,023,146				\$ -	\$ 139,634	
						PEU QCPAC	\$ 5,179,004							

Projected Annual P&I Payments	
Amount to be funded with 2019 Loan from CoBank ^{2,7}	\$ 1,153,000
Amount to be funded SRF loan for Brady Avenue watermain replacements ⁴	\$ 570,000
Amount to be funded SRF loan for PWW/PEU Interconnection ⁵	\$ 2,400,000
Amount to be funded SRF loan for Hillcrest Road watermain replacements ⁴	\$ 244,389
Amount to be funded with Drinking Water and Groundwater Trust Fund Grant	\$ 600,000
Total Projected 2018 QCPAC P&I -	\$ 2,611,144

1. Tax rate is the sum of the local community rate plus the Statewide Utility tax rate of \$6.60/\$1000.
 2. Final CoBank Loan Terms are 25 Years at 4.38%
 3. Projected Brady Ave. SRF Terms are 30 Years at 1.96% with 10% Principal forgiveness
 4. Projected PWW/PEU Interconnection SRF Terms are 20 Years at 1.96%
 5. Projected Hillcrest Road SRF Terms are 20 Years at 1.96%
 6. Brady Ave was budgeted in 2 phases by the Board, Phase I was in the 2017 Capital Budget and Phase II was in the 2018 Capital Budget with the total project budget estimated at \$ 570,000 exclusive of internal engineering costs.
 7. The cash to fund the "pending filing" projects in 2018 was borrowed from Cobank through the short term Fixed Asset Line of Credit (FALOC) approved in DW17-157. PEU will be filing for approval to borrow long term funds from CoBank in the Winter of 2019 to repay the CoBank FALOC.
 8. Eliminate AFDUC on PWW-PEU Interconnect Project in the amount of \$ 95,807

Pennichuck East Utilities, Inc
DW 20-019
2020 QCPAC Filing
Board Approved 2020 Capital Expenditures²
Revised 3/26/2020 per Staff DR1's
Revised 4/25/2020 per Staff DR2's
Revised 5/20/2020 per Staff DR3's
9/30/2020 Update

Project Name/Description	Project Description	Work Order #	Board Approved 2020 Capex Budget	Financing Docket No.
Elevated Storage Tank in Londonderry2	Construct 1.25 MG Elevated Storage Tank.	1818349, 1901641, 2000372	\$ 1,545,000	CoBank
Middleton Station Re-build	Re-build Sunrise Estates CWS Station. Existing Station is over 40 years old.	n/a	\$ -	CoBank
Airstrip alternative arsenic treatment	Raw Water Pipeline from Air Strip well to Peacham Road WTP.	2000371	\$ 540,000	DW18-132
Georgetown Drive water main replacement	Replace 4600 LF of 4 inch schedule 40 PVC with 6 inch C900 PVC.	2000363	\$ 10,000	DW18-132
Bradford Lane water main replacement	Replace 1825 LF of 4 inch schedule 40 PVC with 6 inch C900 PVC.	2000364	\$ 10,000	DW18-132
N.Barnstead Road - Eliminate deadend piping	Add 680 LF of 4 inch C-900 PVC to eliminate dead end. Replace 275 LF of 4 inch sch 40 PVC with 6 inch C900 PVC.	2000365	\$ 239,000	DW18-132
Belmont Drive water main replacement	Replace 500 LF of 4 inch schedule 40 PVC with 6 inch C900 PVC.	2000366	\$ 5,000	DW18-132
Route 28 Replacement	Replace 720 LF of 2" PE with 720 LF of 4" C-900 PVC.	2000370	\$ 80,000	DW18-132
Rolling Hills Water Main Replacement - Site Restoration from 2019 Project	Replace substandard 2 inch diameter pipe with 4 inch C900 PVC.	2000392	\$ 32,000	
Locke Lake Surface Water Treatment ⁴	Intake & Treatment Facility Construction	2000369	\$ 835,000	DW18-132
Pelham Main Replacement/Addition	Replace 1600 LF of 3 inch PE with 12 in C-900 and add 775 LF of 12 in C-900 Monticello & Lane.	2001241	\$ 285,000	CoBank
Pelham Main Replacement/Addition	Replace Lane Road.	2003563	\$ -	CoBank
Pelham Main Replacement/Addition	Replace Simpson Road.	2003564	\$ -	CoBank
Pelham Main Replacement/Addition	Replace Andrea Lane.	2003565	\$ -	CoBank
Pelham Main Replacement/Addition	Replace Mont Vernon Drive.	2004325	\$ -	CoBank
1 x revenue investments Normal Run Rate	Per Tariff	n/a	\$ 100,000	CoBank
Sunrise Estates	Station Replacement (design)	2003613	\$ 40,000	0.1 DSR
Londonderry Core Re-Chloramination	Re-chloramination Evaluation and Preliminary Design	2003760	\$ 35,000	0.1 DSR
Atkinson Booster pump station design	Atkinson Booster pump station design	2000717	\$ 30,000	0.1 DSR
Booster Pump replacement/rebuild	Booster Pump replacement/rebuild	760 - 763 workorders	\$ 40,000	CoBank
Well Pump replacements	Well Pump replacements	760 - 763 workorders	\$ 40,000	CoBank
Chemical Feed pump replacements	Chemical Feed pump replacements	760 - 763 workorders	\$ 10,000	CoBank
Install/replace treatment systems in small CWS	Install/replace treatment systems in small CWS.	n/a	\$ 25,000	CoBank
Misc. Structural Improvements	Misc. Structural Improvements	n/a	\$ 20,000	CoBank
Miscellaneous Fencing and Security projects	Miscellaneous Fencing and Security projects	n/a	\$ 10,000	CoBank
Miscellaneous SCADA/Electrical	Miscellaneous SCADA/Electrical	n/a	\$ 30,000	CoBank
Miscellaneous SCADA/Electrical	Replace Well #1 VFD, Lamplighter Village	2001215	\$ -	CoBank
Miscellaneous SCADA/Electrical	Replace Pump #4 VFD, Liberty Tree	2005248	\$ -	CoBank
Miscellaneous SCADA/Electrical	Replace Pump #1 VFD, Liberty Tree	2006387	\$ -	CoBank
Well Rehabilitation	Well Rehabilitation	n/a	\$ 60,000	CoBank
Atkinson Station Rebuild	Station cannot provide required fire flow. Hydropneumatic tank is in need of replacement.	n/a	\$ 500,000	CoBank
Install web based communication equipment, 4 locations	Install web based communication equipment, 4 locations.	n/a	\$ 20,000	CoBank
Install web based communication equipment, 4 locations	Fletcher's Corner, Install Cellular Based Communication	2002270	\$ -	CoBank
Interconnect the W&E CWS to the Town of Salem Water System.	Interconnect the W&E CWS to the Town of Salem Water System.	2004243	\$ -	CoBank/Grant
New Services (5)	Single Family, Owner Build, New Homes	20 workorders	\$ 25,000	CoBank
Renewed Services (10)	Replacement of failed services.	& 722 workorders	\$ 55,000	CoBank
Hydrants (5)	Replacement of non-functional hydrants.	& 731 workorders	\$ 30,000	CoBank
Meters 5/8"-6" Lead Meter Exchange - PEU (600)	Replace High lead brass meter with new no lead brass meter.	50 workorders	\$ 22,000	CoBank
Gates (8)	Replacement of Failed Gate Valves	12 workorders	\$ 32,000	CoBank
Radios (300)	New Customers (220) and replaced failed radios (80) for meter reading.	754 workorders	\$ 32,000	CoBank
Meters (Growth) 5/8"-2" - PEU (220)	New meters for new customers (220).	750 workorders	\$ -	CoBank
Pennichuck East Utilities Projected 2020 Total Capital Expenditure Budget -			\$ 4,737,000	

1. Tax rate is the sum of the local community rate plus the Statewide Utility tax rate of \$6.60/\$1000.
 2. The 2020 PEU Capital Expenditures Budget presented were approved by the Board in January of 2020.
 3. Projected CoBank Loan Terms are 25 Years at 5.5% resulting in P&I of
 4. Remainder of Locke Lake Surface Water Treatment project to completed in early 2021 at a total projected cost of \$ 1,900,000
 5. Projected SRF Terms for Locke Lake project are 30 Years at 2.704% resulting in P&I of

Pennichuck East Utilities, Inc.
DW 20-019
2020 QCPAC Filing
Board Approved 2021 Capital Expenditures²
Revised 3/26/2020 per Staff DR1's
Revised 5/20/2020 per Staff DR3's
6/30/2020 Update, No change as of 9/30/2020

Project Name/Description	Project Description	Work Order #	2021 Approved Budgeted Amount, Revised to reflect 2020 QCPAC activity	Financing Docket No.	NHPUC Order No.	Date of NHPUC Order
Locke Lake Surface Water Treatment ⁵	Intake & Treatment Facility Construction		\$ 410,000	DW18-132	26,189	11/26/2018
1 x revenue investments Normal Run Rate	Per Tariff		\$ 72,000	CoBank		Pending Filing
Londonderry Storage, Booster Station, and Transmission Main	Construct 1.25 MG Ground Level Storage Tank, 3,500 gpm Booster Station and 6300 LF 16 inch Transmission Main.		\$ 1,545,000	CoBank		Pending Filing
Atkinson Station Rebuild	Station cannot provide required fire flow. Hydropneumatic tank is in need of replacement. Estimated cost includes engineering design.		\$ 530,000	CoBank		Pending Filing
Booster Pump replacement/rebuild	Booster Pump replacement/rebuild		\$ 40,000	CoBank		Pending Filing
Well Pump replacements	Well Pump replacements		\$ 40,000	CoBank		Pending Filing
Chemical Feed pump replacements	Chemical Feed pump replacements		\$ 10,000	CoBank		Pending Filing
Install/replace treatment systems in small CWS	Install/replace treatment systems in small CWS		\$ 25,000	CoBank		Pending Filing
Misc. Structural Improvements	Misc. Structural Improvements		\$ 20,000	CoBank		Pending Filing
Miscellaneous Fencing and Security projects	Miscellaneous Fencing and Security projects		\$ 10,000	CoBank		Pending Filing
Miscellaneous SCADA/Electrical	Miscellaneous SCADA/Electrical		\$ 30,000	CoBank		Pending Filing
Well Rehabilitation	Well Rehabilitation		\$ 60,000	CoBank		Pending Filing
New Services (5)	Single Family, Owner Build, New Homes		\$ 25,000	CoBank		Pending Filing
Renewed Services (10)	Replacement of failed services.		\$ 55,000	0.1 DSRR		Pending Filing
Hydrants (5)	Replacement of non-functional hydrants		\$ 30,000	CoBank		Pending Filing
Gates (8)	Replacement of Failed Gate Valves.		\$ 32,000	CoBank		Pending Filing
Radios (300)	New Customers (220) and replaced failed radios (80) for meter reading		\$ 32,000	CoBank		Pending Filing
New meters for new customers (220). Replacement of failed meters (80).	New meters for new customers (220).		\$ 30,000	CoBank		Pending Filing
Meters 5/8"-6" Lead Meter Exchange - PEU (400)	Replace High lead brass meter with new no lead brass meter.		\$ 40,000	CoBank		Pending Filing
2021 Radios (1000)	Begin 7 year replacement of all PEU radios (all initial radios installed in 2007).		\$ 130,000	CoBank		Pending Filing
2021 Meters (Growth) 5/8"-2" (220), Replacement (80)	New meters for new customers (220). Replacement of failed meters (80).		\$ 30,000	CoBank		Pending Filing
Pennichuck East Utilities Projected 2020 Total Capital			Expenditure Budget -	\$ 3,196,000		

Pennichuck East Utilities Projected 2020 Capital Expenditure Budget - \$ 3,196,000

- Tax rate is the sum of the local community rate plus the Statewide Utility tax rate of \$6.60/\$1000.
- The 2021 PEU Capital Expenditures Budget presented were approved by the Board in January of 2020.
- Projected CoBank Loan Terms are 25 Years at 5.5% resulting in P&I of \$ 203,594
- Projected SRF Terms for Locke Lake project are 30 Years at 2.704% resulting in P&I of \$ 20,126
- Locke Lake Surface Water Treatment project started in 2020. Expected 2020 expense of \$ 1,490,000 in 2020. Project will be used and useful in 2021 with a total expected cost of \$ 410,000

Pennichuck East Utilities, Inc.
DW 20-019
2020 QCPAC Filing
Board Approved 2022 Capital Expenditures²
Revised 3/26/2020 per Staff DR1's
6/30/2020 Update, No Change as of 9/30/2020

Project Name/Description	Project Description	Work Order #	2022 Approved Budgeted Amount, Revised to reflect 2020 QCPAC activity	Financing Docket No.	NHPUC Order No.	Date of NHPUC Order
New Services (5)	Single Family, Owner Build, New Homes		\$ 25,000	CoBank		Pending Filing
Renewed Services (10)	Replacement of failed services		\$ 55,000	0.1 DSRR		Pending Filing
Hydrants (5)	Replacement of non-functional hydrants		\$ 30,000	CoBank		Pending Filing
Gates (8)	Replacement of Failed Gate Valves		\$ 32,000	CoBank		Pending Filing
Radios (300)	New Customers (220) and replaced failed radios (80) for meter reading		\$ 31,500	CoBank		Pending Filing
New meters for new customers (220). Replacement of failed meters (80)	New meters for new customers (220)		\$ 30,000	CoBank		Pending Filing
2022 Radios (1000)	Year 2 of a 7 year replacement of all PEU radios (all initial radios installed in 2007)		\$ 130,000	CoBank		Pending Filing
2022 Meters (Growth) 5/8"-2" - Core & CWS (TBD)	New meters for new customers (220). Replacement of failed meters (80)		\$ 30,000	CoBank		Pending Filing
Wellesley Drive water main replacement ⁵	Replace 1760 LF of 2 inch PE with 1760 LF of C900 PVC		\$ 240,000	SRF		Pending Filing
Radcliffe Drive water main replacement ⁵	Replace 720 LF of 1.5 inch PE with 720 LF of C900 PVC		\$ 100,000	SRF		Pending Filing
Vassar Drive water main replacement ⁵	Replace 1740 LF of 2 inch PE with 1740 LF of C900 PVC		\$ 250,000	SRF		Pending Filing
1 x revenue investments Normal Run Rate	Per Tariff		\$ 72,000	CoBank		Pending Filing
Booster Pump replacement/rebuild	Booster Pump replacement/rebuild		\$ 40,000	CoBank		Pending Filing
Well Pump replacements	Well Pump replacements		\$ 40,000	CoBank		Pending Filing
Chemical Feed pump replacements	Chemical Feed pump replacements		\$ 10,000	CoBank		Pending Filing
Install/replace treatment systems in small CWS	Install/replace treatment systems in small CWS		\$ 25,000	CoBank		Pending Filing
Misc. Structural Improvements	Misc. Structural Improvements		\$ 20,000	CoBank		Pending Filing
Miscellaneous Fencing and Security projects	Miscellaneous Fencing and Security projects		\$ 10,000	CoBank		Pending Filing
Miscellaneous SCADA/Electrical	Miscellaneous SCADA/Electrical		\$ 30,000	CoBank		Pending Filing
Well Rehabilitation	Well Rehabilitation		\$ 60,000	CoBank		Pending Filing
Pennichuck East Utilities Projected 2020 Total Capital Expenditure Budget -			\$ 1,260,500			

Pennichuck East Utilities Projected 2020 C

1. Tax rate is the sum of the local community rate plus the Statewide Utility tax rate of \$6.60/\$1000
2. The 2022 PEU Capital Expenditures Budget presented were approved by the Board in January of 2020.
3. Projected CoBank Loan Terms are 25 Years at 5.5% resulting in P&I of \$ 45,885
4. Projected SRF Terms for Locke Lake project are 20 Years at 3.250% resulting in P&I of \$ 40,580
5. The Wellesley, Radcliffe and Vassar Drive water main replacements will be completed over 2 years with water main replacement occurring in 2022 and final pavement in 2023

Pennichuck East Utilities, Inc.
DW 20-019
 2020 QCPAC - Qualified Capital Project Adjustment Charge
 Responses to Staff Data Requests – Set 1

Date Request Received: 3/19/20

Date of Response: 4/2/20

Date of Supplemental Response: 12/29/20

Request No. Staff 1-8

Witness: Donald L. Ware

Request No. Staff 1-8 Supplemental

REQUEST: Pre-Filed Direct Testimony of Mr. Donald L. Ware, Page 4 and 5

Page 4 references a loan from the NH Drinking Water State Revolving Loan Fund (SRF) in this Docket is estimated to enter repayment mode June 1, 2020 with the first payment of principal and interest due beginning in July 2020. However, page 5 also describes the SRF loan closing on March 1, 2019 with the first payment of principal and interest due on August 1, 2019. Please explain.

RESPONSE:

I do not see the referred to dates in my testimony noted in the data request above. It appears that the data request is based on pages 4 and 5 of the petition. The correct information regarding the SRF loan required to complete the watermain replacement work in Locke Lake is as follows:

1. Loan was closed on with the NHDES on January 9, 2019. The loan closing allowed the Company to begin work on the Locke Lake watermain replacement work on Georgetown Drive, Bradford Lane, North Barnstead Road and Belmont Drive projects during 2019.
2. Funds were drawn from the NHDES SRF loan during 2019 to complete the watermain replacement work noted above. The NHDES charges a short-term interest rate of 1% per year on funds drawn during construction. When the project goes used and useful the NHDES changes the loan from a short-term loan at 1%, to a long-term loan at a rate of 2.704% for 30 years, six months after the project is deemed as used and useful and all project reimbursement requests have been completed. The project went used and useful in October of 2019 but there is still clean up to be finish the project which will occur in late April or early May of 2020. A final reimbursement request on this SRF loan is expected to occur in May of 2020 which will result in this loan entering full repayment mode in November of 2020.

SUPPLEMENTAL RESPONSE:

The NHPUC approved a \$4.24 million SRF loan in Docket No. 18-132 via Order No. 26,189. As noted above, the Company signed the loan documents for this loan on January 9, 2019

allowing it to draw on funds from the available \$4.24 million as necessary to complete the improvements to the Locke Lake water system that being funded with this loan. The funded improvements fell into three phases as follows:

1. Georgetown Area Watermain Improvements - The improvements associated with this part of the project were completed, used and useful in early December 2019.
2. Locke Lake - Airstrip Well Alternative Arsenic Treatment Project – This project was completed, used and useful in August 2020.
3. The Surface Water Treatment Project – This project became used and useful during the third week of December 2020, but will not be completed until April or May 2021.

NHDES initially planned to convert the short-term portion of the overall \$4.24 million loan to long-term in 3 phases, each conversion happening upon the completion of each of the three phases noted above. When the data request was completed in April, NHDES was planning to convert the short-term loan for Phase I, the Georgetown Area Watermain Improvements (approximate cost of \$966,252) to a long-term loan in May 2020. As it turned out the final cleanup work associated with the Phase I project was not completed until early June 2020.

When NHDES reviewed the status of Phase II of the Locke Lake project, the Airstrip Well Alternative Arsenic Treatment Project they proposed that instead of separate conversions of short-term to long-term debt closings, one closing occurring in July and one in September 2020, the closings on the long term notes for both Phase I and Phase II would occur together in September 2020.

While the Company and NHDES began to discuss a closing date in August 2020 for the first two Phases of the overall project; the Phase III project was well underway, and it was anticipated that Phase III might be completed in early December 2020. Based on the projected completion date for Phase III, NHDES proposed one single closing on the conversion of all the short-term debt to long-term debt for all three phases, which would take place in early to mid-December of 2020.

During the second week of December, the Company and NHDES discussed the fact that there would be about \$300,000 worth of Spring 2021 clean up on the Surface Water Treatment Project remaining. The concern was that if closed on the long-term financing for all three phases of the project in December 2020, that Spring 2021 clean-up work could not be funded with the SRF loan. NHDES also expressed that they were willing to holding off on closing on the long-term debt until as late as June 2021, to allow the Company to fund the Spring 2021 clean-up work with SRF funds. Since SRF funds are the Company's least expensive form of capital, and the carrying rate on the short-term loan was 1% per annum; the Company agreed that it made sense to hold off on closing on the \$4.24 million in long term debt until June of 2021. As a result, the projected principal and interest that was requested for the Georgetown Watermain Replacement is not required as part of the requested 2020 QCPAC.

Please find attached a revised set of QCPAC schedules which removes \$57,173 of Principal and Interest (P&I) payments and 0.1 DSRR revenues originally requested which drops the projects'

QCPAC surcharge from 1.86% to 1.23%. Please note that the Company still seeks recovery of the property taxes associated with the Georgetown Watermain Improvements as the value of the watermain improvements is part of the Town of Barnstead's 2020 valuation and reflected in the Company's property tax expenses.

The Company anticipates all Spring 2021 clean-up work will be completed and does not anticipate any delays to the closing of the SRF funds with NHDES in June 2020 for the full amount of \$4.24 million.

Pennichuck East Utilities, Inc.
DW 20-019
2020 QCPAC - Qualified Capital Project Adjustment Charge
Responses to Staff Data Requests – Set 1

Date Request Received: 3/19/20
Request No. Staff 1-9

Date of Response: 4/1/2020
Witness: Donald L. Ware

REQUEST: Pre-Filed Direct Testimony of Mr. Donald L. Ware, Page 4 and 5

This page references amounts (\$966,252 million), dates (November 16, 1018), dockets (DW 18-0132), references (short term debt incurred in 2018), and loan amounts (\$799,439) that do not appear to coincide with similar information throughout the rest of the filing. Please explain.

RESPONSE:

The reference to “\$966,252 million” in both the petition and my testimony should not have the “million” as the projected amount of the SRF loan to be entered into relative to the Locke Lake watermain improvements is \$966,252. The \$966,252 is detailed in Exhibit DLW-1, Page 3 as the total amount of the loan based on 12/31/2019.

The referenced CoBank loan amount of \$799,439 in my testimony was not updated to the final amount sought of \$803,275, as detailed in the petition on Page 4 which is derived from Exhibit DLW-1, Page 3 as the total amount of the loan based on 12/31/2019.

Pennichuck East Utilities, Inc.
DW 20-019
2020 QCPAC - Qualified Capital Project Adjustment Charge
Responses to Staff Data Requests – Set 1

Date Request Received: 3/19/20
Request No. Staff 1-10

Date of Response: 4/1/2020
Witness: Donald L. Ware

REQUEST: Pre-Filed Direct Testimony of Mr. Donald L. Ware

The 2018 capital additions that were authorized for recovery through the 2019 QCPAC were financed, in part, by SRF monies that included a reduction in the annual principal and interest obligation as a result of one or more of the projects financed by that loan as eligible for SRF Loan Forgiveness. Do any of the 2019 capital projects financed by 2020 SRF monies qualify for SRF Loan Forgiveness? Please explain and update any schedules as necessary.

RESPONSE:

No. None of the 2019 capital project financed by 2020 SRF monies qualifies for SRF Loan Forgiveness.

Pennichuck East Utilities, Inc.
DW 20-019
2020 QCPAC - Qualified Capital Project Adjustment Charge
Responses to Staff Data Requests – Set 1

Date Request Received: 3/19/20
Request No. Staff 1-11

Date of Response: 4/1/2020
Witness: Donald L. Ware

REQUEST: Pre-Filed Direct Testimony of Mr. Donald L. Ware, Page 8

The Company stated it is hoping to have a Commission Order approving the 2020 QCPAC by the end of September 2020. In the event an Order is not issued by the end of September 2020, how does the Company plan to meet the monthly payment obligations of the SRF and CoBank financings? What impact does this have on the Company? Please explain.

RESPONSE:

The Company will pay its monthly SRF and CoBank obligations with funds borrowed from its Working Capital Line of Credit. The Corporate Capital Line of Credit will be paid down with the cash recouped through the QCPAC after the order is issued. The Company currently has no vehicle to recover the cash impact of the interest paid by the Company on the short term borrowing through its Corporate Capital Line of Credit other than to pay for it out of either the 0.1 DSRR or the DSRR RSF.

Pennichuck East Utilities, Inc.
DW 20-019
2020 QCPAC - Qualified Capital Project Adjustment Charge
Responses to Staff Data Requests – Set 1

Date Request Received: 3/19/20
Request No. Staff 1-12

Date of Response: 4/1/2020
Witness: Donald L. Ware

REQUEST: Attachment DLW-1, Page 3, 2019 PEU QCPAC Additions

Regarding the replacement of high lead brass meters totaling \$69,613. Does either the budget or final amount include any of the labor associated with replacing meters? Please reference Staff 3-8 in Docket No. DW 19-035, the 2019 QCPAC, regarding meter replacement/ exchange labor costs.

RESPONSE:

There is no labor expense included in the \$69,613 for the replacement of high lead brass meters.

Pennichuck East Utilities, Inc.
DW 20-019
2020 QCPAC - Qualified Capital Project Adjustment Charge
Responses to Staff Data Requests – Set 1

Date Request Received: 3/19/20
Request No. Staff 1-13

Date of Response: 4/1/2020
Witness: Donald L. Ware

REQUEST: Attachment DLW-1, Page 3, 2019 PEU QCPAC Additions

Several of the rows contain notes in the explanation column that appear to indicate that the totals listed may be through 11/30 with a corresponding additional amount projected by years end. Please explain and confirm.

RESPONSE:

The 12/31/2019 column reflects the total expenditures for the year. I have revised any notes on Attachment DLW-1, Page 3 to reflect the year end information.

Pennichuck East Utilities, Inc.
DW 20-019
2020 QCPAC - Qualified Capital Project Adjustment Charge
Responses to Staff Data Requests – Set 1

Date Request Received: 3/19/20
Request No. Staff 1-14

Date of Response: 4/1/2020
Witness: Donald L. Ware

REQUEST: Attachment DLW-1, Page 1, 2018-2022 PEU QCPAC Rev Req

Based upon the Company's calculations, it appears that the QCPAC for 2023, based on 2022 capital additions, decreases from 11.58% to 9.87%. Please explain.

RESPONSE:

This was a calculation error which used the wrong current revenue in the calculation. This calculation error has been corrected on the revised Exhibit DLW-1. The correction results in the increase in the cumulative QCPAC from 11.58% in 2021 to 13.33% in 2022.

Pennichuck East Utilities, Inc.
DW 20-019
2020 QCPAC - Qualified Capital Project Adjustment Charge
Responses to Staff Data Requests – Set 1

Date Request Received: 3/19/20
Request No. Staff 1-15

Date of Response: 4/1/2020
Witness: Donald L. Ware

REQUEST: Attachment DLW-1, Page 3, 2019 PEU QCPAC Additions

It appears the total amount requested for recovery includes carryover costs of \$59,691 for the PEU-PWW Interconnection. Please explain.

RESPONSE:

The PEU-PWW Interconnection was used and useful in November of 2018 but the final project was not completed until the spring of 2019. The Company paid the contractor \$59,691 to complete loaming, seeding, gabion installation (slope protection) and the regraveling and regrading of the access road in the Spring of 2019.

Pennichuck East Utilities, Inc.
DW 20-019
2020 QCPAC - Qualified Capital Project Adjustment Charge
Responses to Staff Data Requests – Set 1

Date Request Received: 3/19/20
Request No. Staff 1-16

Date of Response: 4/1/2020
Witness: John Boisvert

REQUEST: Attachment DLW-1, Page 3, 2019 PEU QCPAC Additions

According to the information submitted, it appears the cost per linear foot (LF) for the North Barnstead Road (\$261), Rolling Hills (\$236), and Bradford Lane (\$184) are substantially more than Georgetown Drive (\$92) and Belmont Drive (\$87). Please explain.

RESPONSE:

It appears that the total cost for North Barnstead Road (which reflected work completed in 2018 and 2019) was used to calculate the \$261 per lineal feet by using only the footage of watermain installed in 2019 (955 LF). The total footage installed on North Barnstead Road (in 2018 and 2019) is around 3,425 linear feet. With a total project cost of approximately \$487,000 the linear foot price will be about \$140 per foot. The price per lineal foot of \$140 is higher than the other two streets in Locke Lake listed above, Bradford Lane and Belmont Drive, because North Barnstead Road is a paved road while the other two are gravel. The North Barnstead Road includes pavement restoration, the cost to interconnect with cross street water mains, and two deep culvert crossings.

Rolling Hills is a different project in a different part of the State that involved a completely different low bidder. The project was much smaller therefore contractor mobilization costs were not able to be spread out over a larger pipe footage quantity. The nature of this project required considerably more fittings and pipe connections when compared to the longer straight pipe runs in the Locke Lake project. Rolling Hills also includes pavement restoration.

Pennichuck East Utilities, Inc.
DW 20-019
2020 QCPAC - Qualified Capital Project Adjustment Charge
Responses to Staff Data Requests – Set 1

Date Request Received: 3/19/20
Request No. Staff 1-17

Date of Response: 4/1/2020
Witness: Donald L. Ware

**REQUEST: Pre-Filed Direct Testimony of Mr. Donald L. Ware, Page 10 & Page 27-
Customer Notice**

It appears the cumulative QCPAC referenced in the testimony of Mr. Ware is different from that referenced in the customer notice that was sent with either the December 2019 or January 2020 customer bills, \$3.73 and \$4.28 respectively. Please explain.

RESPONSE:

The December notice to customers assumed total QCPAC expenditures of \$2,056,304 that were projected as of 11/30/2019 which ended up being greater than the final QCPAC expenditures in the amount of \$1,769,527 that was filed in the petition. The difference in amount to be financed as well as the associated property taxes resulted in the amount noticed to customers being slightly greater than the final amount the Company is seeking.

Pennichuck East Utilities, Inc.
DW 20-019
2020 QCPAC - Qualified Capital Project Adjustment Charge
Responses to Staff Data Requests – Set 1

Date Request Received: 3/19/20
Request No. Staff 1-18

Date of Response: 4/1/2020
Witness: John Boisvert

REQUEST: Testimony of Mr. John Boisvert, Page 15

Regarding backup power generation:

- a) Approximately what portion of the company's pump stations currently have on-site backup power generation?
- b) What portion have other forms of backup power capability (wiring to accept portable generation, etc.)?
- c) Please indicate generally the history of implementation in recent years, the forces behind that implementation (NHDES, etc.), and the extent to which backup power remains a current capex priority.

RESPONSE:

- a) All but 6 of Pennichuck East's 42 Booster/CWS Stations have on-site emergency generators.
- b) All the remaining stations either have Meltric Connections or dual hydrants that can pump from the suction side of the station to the discharge side of the station with an emergency portable station.
- c) NHDES regulations in the 1970's and the 1980's did not require emergency generators for small community water systems and booster stations. The February 2007 Ice Storm, in conjunction with December 2008 Ice Storm and the October 2011 snow storm that resulted in many of the Company's small community water systems being without power for extended periods of time resulting in a total loss of service to its customers. Many of those customers who had lost service called up to explain that they could be a generator for temporary power but there was no way get temporary water. The Company concurred that it was essential that it provide emergency power to each location where water service would be lost during a power outage within a couple of hours. Consequently, the Company installed 36 on-site emergency generators between 2008 and the present. Of the remaining six locations without emergency power only one of those locations loses water service during the power outage. The remaining five locations either have gravity storage that provides water during a power outage or has an emergency, automatic connection with a system that has back up power. The one system that loses power is the Pioneer park system located in Atkinson, which provides service to commercial customers only. The Company plans to incorporate emergency onsite power as part of the station rebuild scheduled in 2020.

Pennichuck East Utilities, Inc.
DW 20-019
2020 QCPAC - Qualified Capital Project Adjustment Charge
Responses to Staff Data Requests – Set 1

Date Request Received: 3/19/20
Request No. Staff 1-19

Date of Response: 4/1/2020
Witness: John Boisvert

REQUEST: Attachment DLW-1, Page 1, 2018-2022 PEU QCPAC Rev Req and Testimony of Mr. John Boisvert Page 8

The list of 2020 capital projects includes a project in North Barnstead to eliminate 680 linear feet of dead end piping estimated to cost \$239,000. This project appears similar to another North Barnstead project to eliminate 680 linear feet of dead end piping indicated as completed in 2019 that totaled \$248,858. Please explain and include updated schedules as necessary.

RESPONSE:

The pipeline work on North Barnstead Road is all the same project. Part of the project was completed and went into service in 2019. The remainder of the project (\$239,000) will be completed in 2020.

Pennichuck East Utilities, Inc.
DW 20-019
2020 QCPAC - Qualified Capital Project Adjustment Charge
Responses to Staff Data Requests – Set 1

Date Request Received: 3/19/20
Request No. Staff 1-20

Date of Response: 4/1/2020
Witness: Donald L. Ware

REQUEST: Attachment DLW-1, Page 1, 2018-2022 PEU QCPAC Rev Req

The Airstrip Well Raw Water Transmission Line that was originally approved in Order No. 26,189 (November 6, 2018) in Docket No. DW 18-132, financed by a SRF Loan, contained an original estimated cost of \$400,000. That amount increased to \$595,088 in Docket No. DW 19-035, the prior PEU QCPAC. The total listed under the 2020 Board Approved PEU CAPEX tab appears to be \$540,000. Please explain.

RESPONSE:

The 2020 Board Approved PEU Capex project budget is based on the final scope of pipeline work and the low bid received.

Pennichuck East Utilities, Inc.
DW 20-019
2020 QCPAC - Qualified Capital Project Adjustment Charge
Responses to Staff Data Requests – Set 1

Date Request Received: 3/19/20
Request No. Staff 1-21

Date of Response: 4/1/2020
Witness: John Boisvert

REQUEST: Attachment DLW-1, Page 4, 2020 PEU QCPAC Additions and Testimony of Mr. John Boisvert, Page 11

The Company explains that one of the capital projects scheduled for 2020 is the Atkinson CWS Station Reconstruction project. In Docket No. DW 19-035, the prior PEU QCPAC, the Company estimated the cost at \$330,000. In the instant filing, the Company estimates the project will now cost \$530,000 (\$30,000 for design and \$500,000 for construction). Has the Company conducted an analysis and considered any other options for this standalone community water system given the number of customers the Company serves in the Town of Atkinson, the expected costs of the improvements, and the proximity to known contaminants and another regulated water utility. Please explain.

RESPONSE:

The Company investigated an interconnection between the Atkinson CWS and the Hampstead Area Water Company (HAWC). The HAWC distribution system is approximately 4,400 linear feet away from the Atkinson CWS. At an estimated cost of \$200 per linear foot for 8 inch water main the budget capital cost to connect to HAWC would approach \$880,000. Since the new main would be in HAWC's franchise and it would be CIAC to HAWC for which the Company would be responsible to cover HAWC's income tax burden on the contributed capital. This could add an additional \$334,400 to the project. These values lead the Company to conclude rebuilding the station to be a lower cost alternative. The Company also offered ownership of the Atkinson CWS to HAWC, to which HAWC declined the offer.

Pennichuck East Utilities, Inc.
DW 20-019
2020 QCPAC - Qualified Capital Project Adjustment Charge
Responses to Staff Data Requests – Set 1

Date Request Received: 3/19/20
Request No. Staff 1-22

Date of Response: 4/1/2020
Witness: Donald L. Ware

REQUEST: Attachment DLW-1, Page 1, 2018-2022 PEU QCPAC Rev Req

Note 10 on the Schedule contains a reduction in purchased water costs of \$70,000 in the 2020 QCPAC associated with the completion of the Londonderry Storage Tank. Given the current status of the Londonderry Storage Tank, is this note still accurate? Please explain.

RESPONSE:

Yes. PEU's purchased water contract with Manchester Water Works has two rates, one where Manchester is providing storage and fire protection and one where PEU has its own storage and does not depend upon Manchester for fire protection. The corresponding purchased water rates at the end of 2019 were \$1.513 per CCF and \$1.171 per CCF. In 2019 PEU purchased 206,800 CCF of water from MWW. If PEU had a tank in 2019 it would have saved slightly over \$70,000 in purchased water expense.

Pennichuck East Utilities, Inc.
DW 20-019
2020 QCPAC - Qualified Capital Project Adjustment Charge
Responses to Staff Data Requests – Set 1

Date Request Received: 3/19/20
Request No. Staff 1-23

Date of Response: 4/1/2020
Witness: John Boisvert

REQUEST: Testimony of Mr. John Boisvert, Pages 13 and 15

Given that the Londonderry zoning board denied the variance for the proposed Londonderry Storage Tank and the Company recently filed a revision of that proposal with the Commission in Docket No. DW 18-101, please explain the following:

- a) Does the Company believe approval from the Commission and a construction timeframe of 12 to 18 months will accurately result in the Londonderry Storage Tank completed, used and useful, in 2020 and eligible for inclusion in the 2021 QCPAC?
- b) In the event the Londonderry Storage Tank is completed, used and useful, during 2021, and therefore eligible for inclusion in the 2022 QCPAC, in what way(s) does this project, and the resulting increase in the QCPAC, coincide with the increase of the QCPAC resulting from PEU's other large, multi-year project, the Locke Lake Surface Water Treatment solution also scheduled for completion in 2021 and therefore eligible for inclusion in the 2022 QCPAC?

RESPONSE:

- a) At this point in 2020 it is unlikely that the project, or any component thereof, will be used and useful in 2020. The local permitting process is likely to see significant delays due to the cancellation of public events (Planning Board Meetings) due to the COVID-19 situation. A 2021 construction completion (used and useful) date is more realistic at this time. However, the Commission's approval of DW18-101 is a critical path item before final designs are complete and Planning Board approval is sought.
- b) Both the Londonderry and Locke Lake projects are critical to complete. Both will end up being completed in 2021 and be included in the 2022 QCPAC. To help offset the increase in the 2022 QCPAC request, the Company proposes to move construction of the Sunrise Estates station originally scheduled for 2021, back into 2020 (Budget: \$300,000). This is a significantly smaller project and can be placed into service before the end of 2020.

The Exhibit DLW-1 attached in response to these data requests has been revised to reflect the movement between years of the projects noted above.

Pennichuck East Utilities, Inc.
DW 20-019
2020 QCPAC - Qualified Capital Project Adjustment Charge
Responses to Staff Data Requests – Set 1

Date Request Received: 3/19/20
Request No. Staff 1-24

Date of Response: 4/1/2020
Witness: Donald L. Ware

REQUEST: In light of recent events, please indicate the impact, if any and known, to the capital projects currently under construction.

RESPONSE:

The recent events surrounding the Corona virus, as mentioned in John Boisvert's response Staff DR1-23, has resulted in a slowing of the start date for the Londonderry Tank. As such, this project will not be completed in 2020 as originally assumed in the February petition filing. The Tank will be finished in 2021 and Exhibit DLW-1 has been altered accordingly. At this stage that is the only known impact.

Pennichuck East Utilities, Inc.
DW 20-019
2020 QCPAC - Qualified Capital Project Adjustment Charge
Responses to Staff Data Requests – Set 1

Date Request Received: 3/19/20
Request No. Staff 1-25

Date of Response: 4/1/2020
Witness: John Boisvert

REQUEST: Testimony of Mr. John Boisvert, Page 5, Line 6

The testimony references completion of the first phase of an Asset Management Initiative. Please explain the following:

- a) The differences between this Initiative and the Asset Management system of PWW.
- b) What subsequent phases are anticipated before the Initiative is considered fully operational, including time frames.

RESPONSE:

- a) The process is essentially the same. Other than Londonderry and Litchfield, the PEU systems are relatively small and many do not provide fire protection therefor there will be less of a reliance on hydraulic modeling to help establish repair/replacement priorities. This is especially true for pipeline assets.
- b) It will be concurrent with the Asset Management system of PWW (2020 -2021).

Pennichuck East Utilities, Inc.
DW 20-019
2020 QCPAC - Qualified Capital Project Adjustment Charge
Responses to Staff Data Requests – Set 1

Date Request Received: 3/19/20
Request No. Staff 1-26

Date of Response: 4/1/2020
Witness: John Boisvert

REQUEST: Testimony of Mr. John Boisvert, Page 15

Regarding the Sunrise Estates pump station replacement planned for 2021, please indicate:

- a) The approximate age of the existing station.
- b) Whether options other than total pump station replacement were considered or assessed and, if so, why full replacement of the entire station appears to be the most cost effective option.

RESPONSE:

- a) It is original to the system. As this was an acquired system, versus a system installed by PEU, the Company has incomplete records related to the station. The best estimate, based on building permits issued for this project is that the station was completed in the mid 1970's.
- b) The existing station was a "below ground station" in poor condition when the Company acquired the system in 2006. The Company completed a minimal number of repairs including the addition of a walk-in entry eliminating the confined space for staff to work safely, sump pump dewatering, painting the heavily corroded section of the storage tanks that protruded through the station wall, some piping repairs and meter replacement. These repairs were completed to extend the life of the station pushing out the need for replacement while other much more need work was done at Locke Lake in Barnstead and Birch Hill in Conway. The Company was successful in buying time while other priority projects we completed in other PEU locations and it is time to replace the station. There are no other public water systems in this area of New Hampshire that could offer a more feasible (least costly) interconnection alternative.

Pennichuck East Utilities, Inc.
DW 20-019
2020 QCPAC - Qualified Capital Project Adjustment Charge
Responses to Staff Data Requests – Set 2

Date Request Received: 4/16/20
Request No. Staff 2-1

Date of Response: 4/30/20
Witness: Donald L. Ware

REQUEST: Referencing Staff 1-6

Please provide the estimated amount of FALOC interest that will be incurred from January 1, 2020 to the estimated closing of the 2020 CoBank Term Loan. In addition, if the estimated amount of FALOC interest from January 1, 2020 to the closing of the CoBank Term Loan is not eligible for recovery until the 2021 QCPAC, provide an estimated timeline for recovery of that cash based upon normal QCPAC approval timeline and the impact to the Company's cash position and cash flow.

RESPONSE:

The Company projects the FALOC interest incurred from January 1, 2020 through July 31, 2020 will be \$25,277 for projects that are eligible for recovery via the 2020 QCPAC. Currently, interest on the CoBank FALOC is accumulating at a rate of \$119.86 per day at the current interest rate of 3.900%.

If the estimated amount of the FALOC interest incurred from January 1, 2020 to the loan closing is not eligible for recovery until 2021 the cash required to pay for this interest would need to be borrowed from the Parent Company line of credit at the a current interest rate of 3.39525% resulting in an estimated \$750 of additional interest expense. The total amount of interest of about \$26,027 would reduce the available cash from the Corporate line of credit, which needs to be reserved to deal with cash shortfalls that can occur when expenses exceed revenues. In the current climate revenues are down due to reduced commercial activity and receivables are increasing due to the CoVID-19 pandemic making it essential that the Company has full access to its Corporate line of credit, not one that has been reduced by the interest on capital invested in 2019.

Pennichuck East Utilities, Inc.
DW 20-019
2020 QCPAC - Qualified Capital Project Adjustment Charge
Responses to Staff Data Requests – Set 2

Date Request Received: 4/16/20
Request No. Staff 2-2

Date of Response: 4/30/20
Witness: Donald L. Ware

REQUEST: Referencing Staff 1-12

Please indicate the status of the Company's high lead brass meter replacement program and if the Company has an estimated completion date.

RESPONSE:

The Company has about 1,000 high lead brass meters left to replace. The Company estimates that it will complete the replacement of the high lead brass meters by the end of 2021. The plan was to complete about 600 replacements this year and about 400 replacements in 2021. It should be noted that the 600 replacements planned for this year are missing from the 2020 PEU Capex budget submitted in DW 20-019. This has been corrected on the attached, revised 2020 QCPAC budget tab. It should also be noted, that certain activities related to meter replacements in the field have been impacted by the safety and security measures in place at this time, for both customers and employees, as it relates to the COVID-19 pandemic. As such, the actual number of meters that are deficient from the 600-meter replacement goal in 2020, would be added to the total to be replaced in 2021.

Pennichuck East Utilities, Inc.
DW 20-019
2020 QCPAC - Qualified Capital Project Adjustment Charge
Responses to Staff Data Requests – Set 2

Date Request Received: 4/16/20
Request No. Staff 2-3

Date of Response: 4/30/20
Witness: John Boisvert

REQUEST: Referencing Staff 1-19

Please further explain the details of this project; including the total estimated and actual length of pipe installed per year, the total and estimated cost per year with an explanation for the 2019 cost variance, and how the Company determined that the 2019 portion of the project should be eligible for recovery pending further construction in 2020.

RESPONSE:

All costs accumulated in 2019 were for water main and related assets that went into service in 2019 (used and useful in 2019). The Company originally pulled some of the water main on North Barnstead Road out of the plans that went out to bid based on the estimated construction costs and those cost exceeding the amount of the SRF loan that was allocated to this portion of the project. The North Barnstead water main that was pulled from the bid documents was added back into the final scope of work based on favorable (lower than anticipated bid prices) and the ability to redirect some of the SRF funds from other parts of the overall SRF loan.

A break out of this project by year is as follows:

2019

- Total Water Main estimated and installed 12,150'
- Total cost of project \$940,387 into service in 2019

2020

- Total estimated water main to be installed 1,850' (North Barnstead Road and Route 28)
- Total estimated cost of work \$205,000 in 2020

Pennichuck East Utilities, Inc.
DW 20-019
2020 QCPAC - Qualified Capital Project Adjustment Charge
Responses to Staff Data Requests – Set 2

Date Request Received: 4/16/20
Request No. Staff 2-4

Date of Response: 4/30/20
Witness: John Boisvert

REQUEST: Referencing Staff 1-21

Please indicate the timeframe when the Company estimated the cost and the conversations with HAWC took place.

RESPONSE:

It was in the September 2020 time frame when the conversation took place with HAWC as to where the connection point would be made. It was quickly determined that the cost and distance (approximately 4,400 linear feet estimated to cost between \$700,000 and \$1,000,000) to extend water service to the Atkinson CWS was significantly more costly than reconstructing the station.

Pennichuck East Utilities, Inc.
DW 20-019
2020 QCPAC - Qualified Capital Project Adjustment Charge
Responses to Staff Data Requests – Set 2

Date Request Received: 4/16/20
Request No. Staff 2-5

Date of Response: 4/30/20
Witness: John Boisvert

REQUEST: Referencing Staff 1-23

Please provide any rule, guideline, or otherwise to support the following statement relative to the Town of Londonderry approval for the proposed 1.25 million gallon water tank in Londonderry, “However, the Commission’s approval of DW18-101 is a critical path item before final designs are complete and Planning Board approval is sought.”

RESPONSE:

If the Commission does not approve the revised special contract within docket no. DW18-101, which includes the revised proposal from that of a 156’ tall elevated tank, to a ground level 35’ foot tall 1.25 million gallon tank, an interconnection transmission main, and a booster station, is not the least cost option due to the loss of contributions from Pillsbury, LLC. Thus, if DW18-101 is not approved by the Commission, the proposed tank, transmission main, and booster station would need to be modified to meet existing Londonderry customer needs only, and as such would require a total redesign before this project proceeds. The Company may need to redirect resources planned for final design to a different option.

Pennichuck East Utilities, Inc.
DW 20-019
2020 QCPAC - Qualified Capital Project Adjustment Charge
Responses to Staff Data Requests – Set 2

Date Request Received: 4/16/20
Request No. Staff 2-6

Date of Response: 4/30/20
Witness: John Boisvert

REQUEST: Referencing Prefiled Direct Testimony of John J. Boisvert, p. 7
Regarding Rolling Hills, please indicate why upsizing from 2-inch to 6-inch main was necessary.

RESPONSE:

Two-inch water main is insufficient in size and capacity to support the number of homes in the Rolling Hills system. The need to replace the current 2-inch line offered an opportunity to install an appropriately sized water main on Lower Road that will ultimately create a loop between the Rolling Hills and Twin Ridge systems as part of a future project. In that future project, the remaining 2-inch plastic pipe in Rolling Hills is planned to be replaced with 4-inch C-900 PVC.

Pennichuck East Utilities, Inc.
DW 20-019
2020 QCPAC - Qualified Capital Project Adjustment Charge
Responses to Staff Data Requests – Set 3

Date Request Received: 5/14/20
Request No. Staff 3-1

Date of Response: 5/27/20
Witness: Donald L. Ware

REQUEST: Testimony of Don Ware, Attachment A

Please prepare a copy of the first column of this schedule with the following parameters:

- a. The 2019 Capital Projects Budget of \$2,058,625 as of September 30, 2019 as provided to the Commission on November 14, 2019 in the prior QCPAC docket of DW 19-035 and the final amount of \$1,787,322 and the variances between the two totals.
- b. The 2020 Capital Projects budget of \$2,552,000 and the updated 2020 Capital Projects budget of \$2,612,000 and the variances between the two.

RESPONSE:

- a) A column has been added to Attachment A with an explanation of the differences between the Sept 30, 2019 project estimated and the final 2019 project costs.
- b) The difference between the two projects is the addition of 600 lead based meter replacements at \$100 each or a total of \$60,000 that were inadvertently left out of the original budget but added to the revised schedules provided in response to Staff DR 2-2..

From: [Ware, Don](#)
To: [Leone, Anthony](#); [Richard W. Head](#)
Cc: [Laflamme, Jayson](#); [Tuomala, Christopher](#); ["larry.goodhue@pennichuck.com"](mailto:larry.goodhue@pennichuck.com)
Subject: RE: [EXTERNAL] Re: DW 20-019 PEU QCPAC Petition
Date: Wednesday, June 3, 2020 4:57:13 PM
Attachments: [PEU 2018-2021 QCPAC Filing Sch - Updated for Staff_email_re_3-1.xlsx](#)

Anthony -

When Staff referred to "Attachment A" I mistakenly assumed it was referring to DLW Exh 1 which has the Board approved listed 2019 and 2020 Board approved Capex budgets. In regard to 2019 difference I added a column U, but the explanation given was the difference between the Nov 2019 update and year end not the 9/30 update and year end. The Staff DR reference to the Nov date of the Sept update threw me off. I was also thrown off by the request in that the Nov 2019 update given in Jan 2020 explained the difference between that update and the Sept 30 update and the Feb filing provided an explanation for the difference between the Nov 30 update and final year end numbers so a path/explanation for the Sep 30 to year end difference had already been provided. All that said I have attached a revised DLW Exh 1, Page 3 where Column U provides an explanation from September 30, 2019 update to the actual 2019 capex spend as requested in DR3-1.

Richard will also submit this updated formally but I wanted to get this response to you.

Thank you.

Don

Donald L. Ware, PE
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-----Original Message-----

From: Leone, Anthony <Anthony.Leone@puc.nh.gov>
Sent: Wednesday, June 3, 2020 3:45 PM
To: Richard W. Head <rwh@rathlaw.com>
Cc: Laflamme, Jayson <[Christopher.Tuomala@puc.nh.gov](https://urldefense.proofpoint.com/v2/url?u=http-3A__Jayson.Laflamme-40puc.nh.gov&d=DwIFAw&c=euG7stcaTDilvimEN8b7jXrwqOf-v5A_CdpgnVfiiMM&r=G1qSENBiCwqcPV6ZOXTPiA&m=i63iaTcEzS35MrHeTdErhFp7VzV1tgFTBfbr0UR9Spg&s=SLum9DH0nrRTcv9VCsxAYx8et3jIGFNoBhWBScfl4dk&e=> >; Tuomala, Christopher <; Ware, Don <donald.ware@PENNICHUCK.com>; 'larry.goodhue@pennichuck.com'
Subject: [EXTERNAL] Re: DW 20-019 PEU QCPAC Petition

Hi Richard, I am looking over the responses and Staff 3-1 references that a column has been added to a revised Attachment A, but I do not see any Attachment A included as part of the response. I see the responses themselves and an updated Schedule DLW-1. Is there perhaps another file that was supposed to be attached? I have included a copy of Attachment A from the original filing for reference. If you have any questions regarding my intent please do not hesitate to contact me to discuss.

Thank you very much,

Anthony J Leone
 Utility Analyst
 NH Public Utilities Commission
 21 South Fruit Street, Suite 10
 Concord, NH 03301
 603-271-4081

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From: Richard W. Head <rwh@rathlaw.com>
Sent: Wednesday, May 27, 2020 12:11 PM
To: PUC - Discovery; Noonan, Amanda; Leone, Anthony; 'carolann.howe@pennichuck.com'; Shute, Christa; Tuomala, Christopher; 'donald.ware@pennichuck.com'; 'douglas.brogan@gmail.com'; Brennan, James J; 'jay.kerrigan@pennichuck.com'; Laflamme, Jayson; 'larry.goodhue@pennichuck.com'; PUC - OCA Litigation; Descoteau, Robyn; Richard W. Head; Susan M. Walker; Frink, Stephen
Subject: DW 20-019 PEU QCPAC Petition

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To the DW 20-019 Discovery Docket

Attached are PEU's responses to Staff's Data Requests, Set 3. Please let me know if you have any questions.

Thank you.

-Richard

Richard W. Head
Of Counsel

Rath, Young and Pignatelli, P.C.

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Pennichuck East Utilities, Inc.
DW 20-019
2020 QCPAC - Qualified Capital Project Adjustment Charge
Responses to Staff Data Requests – Set 3

Date Request Received: 5/14/20
Request No. Staff 3-2

Date of Response: 5/27/20
Witness: Donald L. Ware

REQUEST: Referencing Schedule DLW-1 Updated for DR2

Schedule DLW-1 references Order No. 26,006 as the approving Order in Docket no. DW 18-132. Should the schedule instead reference Order No. 26,189?

RESPONSE:

Yes. The schedule has been corrected to reflect the proper Order number.

Pennichuck East Utilities, Inc.
DW 20-019
2020 QCPAC - Qualified Capital Project Adjustment Charge
Responses to Staff Data Requests – Set 3

Date Request Received: 5/14/20
Request No. Staff 3-3

Date of Response: 5/27/20
Witness: Larry Goodhue

REQUEST: Referencing Schedule DLW-1, Staff 1-4

Please provide an update on the status of the CoBank Loan the Company indicated in their Petition and Testimony.

RESPONSE:

A financing petition was filed with the Commission on 5/22/2020.

Pennichuck East Utilities, Inc.
DW 20-019
2020 QCPAC - Qualified Capital Project Adjustment Charge
Responses to Staff Data Requests – Set 3

Date Request Received: 5/14/20
Request No. Staff 3-3

Date of Response: 5/28/20
Date of Supplemental Response: 12/9/20
Witness: Larry Goodhue

REQUEST: Referencing Schedule DLW-1, Staff 1-4

Please provide an update on the status of the CoBank Loan the Company indicated in their Petition and Testimony.

RESPONSE:

A financing petition was filed with the Commission on 5/22/2020.

SUPPLEMENTAL RESPONSE

The Company closed on the loan with CoBank on November 25, 2020. The loan was for \$800,122 for a period of 25 years at a fixed rate of 3.98% with monthly principal and interest payments due as detailed on the attached amortization schedule for the CoBank Loan. Per the attached schedule, the first payment is scheduled for December 21, 2020 and will consist of interest only.

As part of this response, please see the attached, revised PEU QCPAC Workbook reflecting the final terms of the CoBank loan. Based on the information in the QCPAC workbook, the QCPAC surcharge calculated for the 2019 eligible QCP's would be 1.86%, which would be added to the current QCPAC surcharge of 2.98% resulting in a combined QCPAC surcharge of 4.83%. Per the Company's initial testimony, it is seeking that this surcharge be effective on a service rendered basis as of November 25, 2020, the date of the closing on the CoBank loan.

The requested 1.86% QCPAC surcharge would increase the average PEU Single Family Residential monthly bill from \$77.69 (this bill amount is inclusive of the current QCPAC surcharge of 2.98%) to \$79.09 per month or a monthly increase of \$1.40 (See the 2018-2022 PEU QCPAC Rev Req tab of the QCPAC Workbook) based on an average monthly usage of 7.29 CCF (5,453 gallons).

If an order was issued in early February, the QCPAC revised tariff sheet was submitted and approved by the end of February, the proposed QCPAC surcharge would go into effect in the March bills. This would result in about 2-1/2 months of recoupment (actual time would be

dependent upon the billing cycle read dates) for the average bill or a one-time recoupment of about \$3.50 for the average single family residential customer.

Pennichuck East Utilities, Inc.
DW 20-019
2020 QCPAC - Qualified Capital Project Adjustment Charge
Responses to Staff Data Requests – Set 3

Date Request Received: 5/14/20
Request No. Staff 3-4

Date of Response: 5/27/20
Witness: John Boisvert

REQUEST: Referencing Staff 1-19 and 2-3

Please describe, generally, the need to eliminate the North Barnstead Road dead-end piping via nearly 700 LF of new main.

RESPONSE:

The 700 feet of new main closed a gap in the existing water system between Tamworth Trail and Dalton Drive. The existing 2 inch main on Tamworth Drive is a single feed into the northeast section of the Locke Lake distribution system for more than 140 customers. The added water main along North Barnstead Road adds a second feed into this area by connecting to the main at the intersection of Dalton Drive and North Barnstead Road. The loop provides improved water delivery.

Pennichuck East Utilities, Inc.
DW 20-019
2020 QCPAC - Qualified Capital Project Adjustment Charge
Responses to Staff Data Requests – Set 3

Date Request Received: 5/14/20
Request No. Staff 3-5

Date of Response: 5/27/20
Witness: John Boisvert

REQUEST: Referencing overall Locke Lake project

Is the overall project proceeding essentially as originally anticipated in DW 18-132 (SRF approval docket)? Please explain.

RESPONSE:

Yes, the project has proceeded in accordance with DW 18-132. The overall quantity of water main being replaced or installed has changed (subtracted then added) based on bid results and the budget costs for other aspects of the project including the new surface water source and the connection of the Airstrip Well to the Peacham Road treatment facility. Water main on North Barnstead Road was once removed from the project scope but added back in because of favorable bid pricing and water main replacement to replace substandard pipe along Route 28 was added to take advantage of savings in road reconstruction and right of way restoration associated with a NHDOT project.

Pennichuck East Utilities, Inc.
DW 20-019
2020 QCPAC - Qualified Capital Project Adjustment Charge
Responses to Staff Data Requests – Set 3

Date Request Received: 5/14/20
Request No. Staff 3-6

Date of Response: 5/27/20
Witness: John Boisvert

REQUEST: Referencing Staff 1-21 and 2-4

Regarding the Atkinson Booster Station reconstruction, please comment on:

- a) The reasons for the substantial increase in the cost estimate.
- b) Why the estimate is significantly higher than, for example, the 2021 Sunrise/Middleton station rebuild at \$300,000 (plus \$40,000 design in 2020).

RESPONSE:

- a) The Atkinson station provides fire service. Therefore larger pumps and storage capacity are needed. The increase includes replacement of the heavily corroded steel atmospheric tanks with new concrete tanks.
- b) Middleton does not provide fire service, only domestic service. Smaller equipment is anticipated for the Sunrise Estates Station.

Pennichuck East Utilities, Inc.
DW 20-019
2020 QCPAC - Qualified Capital Project Adjustment Charge
Responses to Staff Data Requests – Set 3

Date Request Received: 5/14/20
Request No. Staff 3-7

Date of Response: 5/27/20
Witness: Donald L. Ware

REQUEST: Referencing 2019 W&E booster pump replacements

Regarding the pump failures, please indicate:

- a) What caused all three pumps to fail.
- b) How many total pumps are in the station.
- c) Whether the replacements were covered by warranties or insurance.

RESPONSE:

a) The three pumps were each 2HP with a VFD integral to their motor. The VFD failed on the first motor which shut the pump down. While we were looking for a replacement VFD/motor combination the second pumps VFD failed. After a substantial search we were unable to find a replacement for the VFD/motor combination as the manufacturer of this unit was no longer in business. This necessitated the replacement of the third pump motor/VFD combination and the stations programmable logic controller as all were integral to one another. The Company retained the wet ends of each of the pumps and purchased new 2 HP motors for each pump and purchased and installed separate wall mount VFD's and a new PLC to repair the station. There was no obvious cause for the failure of the VFD's other than wear and tear as these pumps were installed in 2004.

- b) There are three pumps in this station.
- c) The replacements ere not covered by either warranties or insurance.

Pennichuck East Utilities, Inc.
DW 20-019
2020 QCPAC - Qualified Capital Project Adjustment Charge
Responses to Staff Data Requests – Set 3

Date Request Received: 5/14/20
Request No. Staff 3-8

Date of Response: 5/27/20
Witness: John Boisvert

REQUEST: Referencing John Boisvert testimony, p. 13, lines 4-12

Previous discovery (see Staff 4-5 in DW 19-035) indicated the purpose of the proposed work in the Michel's Way PRV pit was to allow the PRV to function in conjunction with the Gilcrest Road PRV; yet Mr. Boisvert's testimony indicates the Michells Way PRV will now replace the Gilcrest Road PRV. Please explain, including any impacts on cost of the project.

RESPONSE:

DW 18-101 describes water system improvements to the Londonderry Core water system including a storage tank, a transmission main, and a new booster station. The new booster station will incorporate the Michel's Way PRV into it and the lower pressure zone (498 Pressure Zone) will ride off of and atmospheric storage tank. The Michel's Way PRV in the new booster station will add redundancy to the atmospheric storage tank thus, making the Gilcrest Road PRV unnecessary. If the improvement plan outlined in DW 18-101 does not move forward as planned, the reconstruction of the Gilcrest Road PRV may become necessary again in the future.

Pennichuck East Utilities, Inc.
DW 20-019
2020 QCPAC - Qualified Capital Project Adjustment Charge
Responses to Staff Data Requests – Set 3

Date Request Received: 5/14/20
Request No. Staff 3-9

Date of Response: 5/27/20
Witness: John Boisvert

REQUEST: Referencing proposed 2020 Pelham Main Replacement/Addition

Please explain the need to upgrade from a 3-inch main to a 12-inch main.

RESPONSE:

The 3-inch main is undersized for the number of customers it currently serves and once looping of the water main is complete in this section of Pelham the larger main will improve water delivery and at the same time replace substandard plastic water main. In addition, the 12-inch main will connect to existing 12-inch water main (currently served by the 3-inch main) that runs from Lane Road cross country to Andrea Lane then to Smith Road. The Company has a hydrant at the intersection of Andrea Lane and Smith Road that has never been active due to the lack pipeline capacity in the existing 3-inch water main. The main will support existing customers as well as properties currently under development and main extensions. The project also allows hydrants to be added on Lane Road and Monticello Drive.

Pennichuck East Utilities, Inc.
DW 20-019
2020 QCPAC - Qualified Capital Project Adjustment Charge
Responses to Staff Data Requests –Tech Session Set 1

Date Request Received: 6/10/20
Request No. Staff Tech 1-1

Date of Response: 6/22/20
Witness: Donald L. Ware

REQUEST: Testimony of Don Ware, Attachment A

Please provide a copy of the most left hand column (titled Total Budgeted for 2019) of Bates Page 36, Attachment A- 2020 Capital Budget using actual amounts, keeping the separate categories as already listed.

RESPONSE:

Please see an updated Attachment A as requested.

Pennichuck East Utilities, Inc
DW 20-019
2020 QCPAC Filing
2/9/2020
Revised 3/26/2020 per Staff DR1's
9/30/2020 Update
11/30/2020 Update - Revised per Staff DR5 - Ex DR5-1

Exhibit DLW-1
Page 1

	DW17-128 Approved Step Revenue Requirements	QCPAC Revenues approved in DW19-035	Projected QCPAC Surcharge for 2018 Capital Additions	Projected QCPAC For 2019 Capital Additions pro formas	Projected QCPAC Surcharge for 2019 Capital Additions	Projected QCPAC For 2020 Capital Additions pro formas	Projected QCPAC Surcharge for 2020 Capital Additions	Projected QCPAC For 2021 Capital Additions pro formas	Projected QCPAC Surcharge for 2021 Capital Additions	Projected QCPAC For 2022 Capital Additions pro formas	Projected QCPAC Surcharge for 2022 Capital Additions
City Bond Fixed Revenue Requirement (CBFRR)	\$ 926,309		\$ 926,309	\$ -	\$ 926,309	\$ -	\$ 926,309	\$ -	\$ 926,309	\$ -	\$ 926,309
Operating Expense Revenue Requirement	\$ 5,851,582 (1)	\$ (40,866) (4)(8)	\$ 5,810,716	\$ 45,231 (4)	\$ 5,855,947	\$ 106,588 (11)	\$ 5,962,535	\$ 10,863 (4)(10)	\$ 5,973,398	\$ 34,106 (4)	\$ 6,007,504
Annual Principal and Interest Payments	\$ 1,362,154 (2)	\$ 261,114 (5)(6)	\$ 1,623,268	\$ 51,109 (12)	\$ 1,674,377	\$ 267,982 (12)	\$ 1,942,359	\$ 223,720 (12)	\$ 2,166,079	\$ 86,465 (12)	\$ 2,252,544
Principal and Interest Coverage Requirement	1.10 (3)		1.10		1.10		1.10		1.10		1.10
Principal and Interest Revenue Requirement	\$ 1,498,370		\$ 1,785,595		\$ 1,841,815		\$ 2,136,595		\$ 2,382,687		\$ 2,477,798
Proposed Revenue Requirement excluding NCCRS	\$ 8,276,261		\$ 8,522,620		\$ 8,624,071		\$ 9,025,439		\$ 9,282,395		\$ 9,411,612
Current Water Revenues excluding CBFRR and NCCRS	\$ 5,947,707		\$ 7,349,952		\$ 7,596,311		\$ 7,697,762		\$ 8,099,130		\$ 8,356,085
Add: City Bond Fixed Revenue Requirement	\$ 926,309		\$ 926,309		\$ 926,309		\$ 926,309		\$ 926,309		\$ 926,309
Current Water Revenues with CBFRR less NCCRS	\$ 6,874,016		\$ 8,276,261		\$ 8,522,620		\$ 8,624,071		\$ 9,025,439		\$ 9,282,395
Proposed Percent Revenue Increase	20.40%										
ADD: NC Capital Surcharge Revenue	\$ 178,915		\$ 178,915		\$ 178,915		\$ 178,915		\$ 178,915		\$ 178,915
Proposed New Revenue Requirement	\$ 8,455,176		\$ 8,701,535		\$ 8,802,986		\$ 9,204,354		\$ 9,461,309		\$ 9,590,526
Projected QCPAC Increase ⁷			2.98%		1.23%		4.71%		2.98%		1.43%
Cumulative QCPAC increase ⁹			2.98%		4.20%		9.05%		12.16%		13.72%
Cumulative QCPAC monthly increase in average single family residential bill			\$ 2.25		\$ 3.17		\$ 6.83		\$ 9.17		\$ 10.35
Average monthly single family residential bill with QCPAC			\$ 77.69		\$ 78.62		\$ 82.28		\$ 84.62		\$ 85.80

Notes:

- Operating Expense Revenue requirement is the sum of the Total Operating Expenses, Property Tax Expense and Amortization Expense approved in DW17-128.
- Annual Principal and interest payments for PEU debt associated with all plant in service as approved in DW17-128.
- Principal and interest coverage of 1.10 is as approved in DW17-128.
- QCPAC operating expense proformas are based on the property taxes for plant added during the year.
- See Calculation of annual principal and interest payments on spreadsheet titled "2018 QCPAC PEU Additions."
- Portion of Annual Principal and interest payments paid to CoBank for debt associated with plant placed in service between 1/1/2018 and 12/31/2018 based on a 25 year term loan with an actual total all in interest rate of 4.38% that was not recovered in DW17-128.
- QCPAC percent revenue surcharges based on increase in revenues over the step revenues granted in DW17-128, exclusive of prior QCPAC surcharges.
- 2018 Proforma Operating Expenses include a reduction in purchased water expenses associated with the completion of the PWW-PEU Interconnection in the amount of \$ 180,500
- Cumulative surcharge percentage is based on total surcharge revenues collected divided by the step revenues granted in DW17-128.
- QCPAC operating expense proforma associated with property taxes is reduced by \$ 70,000 to reflect reduction in purchased water costs associated with the completion of the Londonderry Storage Tank.
- QCPAC operating expense proforma associated with property taxes is reduced by \$ 28,000 to reflect reduction in arsenic treatment costs associated with the completion of the Locke Lake raw water well line to the Peacham Road Treatment plant.
- Portion of Annual Principal and interest payments paid to CoBank for debt associated with plant placed in service between 1/1 and 12/31 for designated year based on a 25 year term loan with an actual total all in interest rate of 5.50% that was not recovered in DW17-128.

Impact on PEU Single Family Residential Home:

Monthly meter charge granted in DW17-128, inclusive of Step increase -	\$ 20.70
Average Single Family Consumption (CCF) -	7.29
Consumption Charge granted in DW17-128, inclusive of Step increase -	\$ 7.51 per CCF
Average Single Family monthly bill with rates granted in DW17-128, inclusive of step -	\$ 75.45

2/15/2019, Revised 6/17/19 to reflect elimination of AFDUC and funding of FALOC and SRF short term interest expense via CoBank term loan, Revised 7/25/2019

Project Name/Description	Project Description	Work Order #	Financing Docket No.	NHPUC Order No.	Date of NHPUC Order	2018 Board Approved Budgeted Amount	Estimated Project Cost as of 10/31/2018	Final Project cost as of 12/31/2018	Community	Eligible for 2018 QCPAC Surcharge?	Taxable	Tax Rate (l)	QCPAC Eligible Property Tax Expense	Explanation for Change/Addition/Deletion since 1/30/2018
Brady Avenue ⁶	Replace 2,400 linear feet of existing 1.5" thin wall HDPE water main with new 8" diameter ductile iron water main.	1703684 & 1807069	DW17-055	26,006	4/19/2017	\$ 379,600	\$ 598,000	\$ 618,983	Derry	Yes	Yes	\$ 30.59	\$ 18,935	
Hillcrest Road	Replace approximately 1,200 linear feet of existing 12" thin wall ductile iron water main with high break history through swamp with 12" HDPE.	1707188 & 1807072	DW17-055	26,006	4/19/2017	\$ 242,000	\$ 240,000	\$ 254,860	Litchfield	Yes	Yes	\$ 26.84	\$ 6,840	
PEU-PWW Interconnection ⁸	Interconnect PEU to PWW under Merrimack River.	See Below	DW17-055/Pending filing ⁷	26,006	4/19/2017	\$ 3,300,000	See Below		Merrimack/Litchfield	Yes	Yes	\$ 27.88		
PEU-PWW Interconnection	Interconnecting Water Main - Owned by PEU	1807155, 1807362, 1608938, 1701789	See above	See above	See above	\$ \$ Included above	\$ 3,515,850	\$ 3,335,078	Merrimack/Litchfield	Yes	Yes	\$ 27.88	\$ 92,982	
PEU Contribution toward PWW water main upgrade	Interconnecting Water Main - Owned by PWW (50% PEU paid portion)	1807148				\$ 33,925	\$ 33,925	\$ 33,925	Merrimack/Litchfield	Yes	No	\$ 27.88	\$ -	No property tax obligation for PEU as this is a PWW asset. PEU contribution to this PWW asset per NHPUC Order #26,049 in DW17-071.
PEU-PWW Interconnection Station Bidding & Construction	Booster Station, including purchase of building and meter from PWW.	1813395				\$ 340,000	\$ 339,864	\$ 339,864	Merrimack	Yes	Yes	\$ 28.92	\$ 9,829	
Locke Lake Treatment Design	Design treatment for new Source of Supply required by NHDES Corrective Action Plan.	1813409	DW18-132			\$ 100,000	\$ -	\$ -	Barnstead	No	Yes	\$ 27.10	\$ -	Design work for project that is not used and useful is not eligible for QCPAC Surcharge.
Atkinson Commerce Park Station Imp.	Rebuild Booster Station, Replace Atmospheric Storage Tanks	Deferred	Pending Filing ⁷			\$ 330,000	\$ -	\$ -	Atkinson	Yes	Yes	\$ 22.35	\$ -	Project deferred due to Engineering resources being diverted to design Bedford/Litchfield PFOA facilities.
Booster/Well/Chem Feed pump replacements	Replace small booster/well/chemical feed pumps as they fail (run rate) (21).	760 - 763 workorders	Pending Filing ⁷			\$ 60,000	\$ 100,200	\$ 92,476	Various	Yes	Yes	\$ 27.72	\$ 2,563	24 through December 31, 2018.
Install/replace treatment systems in small CWS	Replace failed CWS treatment systems. Install new CWS treatment system if water quality or standards requires it.	n/a	Pending Filing ⁷			\$ 25,000	\$ 5,000	\$ -	Various	Yes	Yes	\$ 27.72	\$ -	
Misc. Structural Improvements	Repair/replace aging/faded station structures as needed.	n/a	Pending Filing ⁷			\$ 20,000	\$ -	\$ -	Various	Yes	Yes	\$ 27.72	\$ -	
Miscellaneous Fencing and Security projects	Install fencing/security facilities as needed.	n/a	Pending Filing ⁷			\$ 10,000	\$ -	\$ -	Various	Yes	Yes	\$ 27.72	\$ -	
Miscellaneous SCADA/Electrical	Install/repair/replace SCADA/Electrical equipment as needed.		Pending Filing ⁷			\$ 30,000	See Below	\$ -	Various	Yes	Yes	\$ 27.72	\$ -	2 more VFD failures are projected through year end.
Miscellaneous SCADA/Electrical	Replace Pump #4 VFD at Castle Reach	1819462	Pending Filing ⁷			\$ 3,944	\$ 3,944	\$ 3,944	Various	Yes	Yes	\$ 27.72	\$ 109	
Miscellaneous SCADA/Electrical	Replace Pump #2 VFD at W&E	1816163	Pending Filing ⁷			\$ 3,013	\$ 3,013	\$ 3,013	Various	Yes	Yes	\$ 27.72	\$ 84	
Miscellaneous SCADA/Electrical	Replace Pump #5 VFD at Castle Reach	1807058	Pending Filing ⁷			\$ 4,145	\$ 4,145	\$ 4,145	Various	Yes	Yes	\$ 27.72	\$ 115	
Miscellaneous SCADA/Electrical	Replace Well Pump #13 VFD at Locke Lake	1818296	Pending Filing ⁷			\$ 2,639	\$ 2,684	\$ 2,684	Various	Yes	Yes	\$ 27.72	\$ 74	
Well Rehabilitation	Rehab wells as necessary to restore efficiency as needed.	n/a	Pending Filing ⁷			\$ 60,000	\$ 15,000	\$ -	Various	Yes	Yes	\$ 27.72	\$ -	Only one projected well rehab to occur in 2018 vs. 4 in budget.
3 New Services	Single Family, Owner Build, New Homes	720 workorders	Pending Filing ⁷			\$ 23,000	\$ 32,800	\$ 27,558	Various	Yes	Yes	\$ 27.72	\$ 764	8 services added through December.
10 Renewed Services	Replacement of failed services.	721 & 722 workorders	Pending Filing ⁷			\$ 40,000	\$ 17,400	\$ 18,667	Various	Yes	Yes	\$ 27.72	\$ 517	9 services replaced through December.
2 Hydrants	Replacement of non-functional hydrants.	730 & 731 workorders	Pending Filing ⁷			\$ 10,000	\$ 10,000	\$ -	Various	Yes	Yes	\$ 27.72	\$ -	None Repaired in 2018.
10 Valve Replacements	Replacement of Failed Gate Valves	712 workorders	Pending Filing ⁷			\$ 30,000	\$ 12,000	\$ -	Various	Yes	Yes	\$ 27.72	\$ -	None Repaired in 2018.
75 New Meters (growth) 5/8"-2"	New meters for new customers.	750 workorders	Pending Filing ⁷			\$ 22,500	\$ 14,500	\$ 70,429	Various	Yes	Yes	\$ 27.72	\$ 1,952	531 replacements through December 31, 2018 inclusive of new and replacement meters.
719 New Meters for Lead Meter exchanges 5/8"-6"	Replace High lead brass meter with new no lead brass meter.	750 workorders	Pending Filing ⁷			\$ 144,000	\$ 143,400	\$ -	Various	Yes	Yes	\$ 27.72	\$ -	
Radio Reads	New and replaced radios for meter reading (123).	754 workorders	Pending Filing ⁷			\$ -	\$ 17,100	\$ 18,606	Various	Yes	Yes	\$ 27.72	\$ 516	249 Radio replacements were completed through December 31, 2018.
Investment in Developer Installed Services	One times revenue tariffed amount (57).	n/a	Pending Filing ⁷			\$ -	\$ 42,500	\$ 47,838	Various	Yes	Yes	\$ 27.72	\$ 1,326	Required by Tariff. Not in 2018 Board Approved Budget.
Insertion Valve Install	Installation of Insertion Valve on 16" Main MWW	1824544	Pending Filing ⁷			\$ -	\$ 25,000	\$ -	Londonderry	Yes	No	\$ 26.15	\$ -	MWW was going to shut service off for all of Londonderry for a hydrant repair. Insertion valve allowed hydrant replacement without losing service to any of Londonderry. Not included in QCPAC as this will be funded with 0.1 DSRP cash.
Chlorine Transfer Pump for NC Operations	Purchase new chlorine transfer pump to transfer bleach solution from large drum containers to smaller transportable containers.	1817322	Pending Filing ⁷			\$ -	\$ 2,587	\$ 2,587	Various	Yes	Yes	\$ 27.72	\$ 72	
Hardwood New Source	Hardwood New Source	1701877	Pending Filing ⁷				\$ 6,285	\$ -	Windham	Yes	Yes	\$ 27.57	\$ 173	
Locke Lake, Varney Rd Area	Locke Lake, Varney Rd Area - Clean up and final Paving	1817280	Pending Filing ⁷				\$ 94,050	\$ -	Barnstead	Yes	Yes	\$ 27.10	\$ 2,549	
Locke Lake Well 14 VFD	Locke Lake Well 14 VFD	1900391	Pending Filing ⁷				\$ 8,608	\$ -	Barnstead	Yes	Yes	\$ 27.10	\$ 233	
Short term interest	Short term interest on FALOC and SRF loans to fund 2018 Capex.						\$ 39,547	\$ -			No	\$ -	\$ -	
Total 2018 Board Approved PEU Capital Expenditures -						\$ 4,826,100	\$ 5,179,004	\$ 5,023,146					\$ 139,634	
							PEU QCPAC	\$ 5,179,004						

Projected Annual P&I Payments

Amount to be funded with 2019 Loan from CoBank ^{2,7}	\$ 1,153,000	\$ 76,800
Amount to be funded SRF loan for Brady Avenue watermain replacements ¹	\$ 570,000	\$ 23,215
Amount to be funded SRF loan for PWW/PEU Interconnection ⁴	\$ 2,400,000	\$ 146,210
Amount to be funded SRF loan for Hillcrest Road watermain replacements ⁵	\$ 244,389	\$ 14,888
Amount to be funded with Drinking Water and Groundwater Trust Fund Grant -	\$ 600,000	\$ -
Total Projected 2018 QCPAC P&I -		\$ 261,114

1. Tax rate is the sum of the local community rate plus the Statewide Utility tax rate of \$6.60/\$1000.
 2. Final CoBank Loan Terms are 25 Years at 4.38%
 3. Projected Brady Ave. SRF Terms are 30 Years at 1.96% with 10% Principal forgiveness
 4. Projected PWW/PEU Interconnection SRF Terms are 20 Years at 1.96%
 5. Projected Hillcrest Road SRF Terms are 20 Years at 1.96%
 6. Brady Ave was budgeted in 2 phases by the Board, Phase I was in the 2017 Capital Budget and Phase II was in the 2018 Capital Budget with the total project budget estimated at \$ 254,860 of which \$ 10,471 is internal engineering that can not be funded with SRF funds.
 7. The cash to fund the "pending filing" projects in 2018 was borrowed from Cobank through the short term Fixed Asset Line of Credit (FALOC) approved in DW17-157. PEU will be filing for approval to borrow long term funds from CoBank in the Winter of 2019 to repay the CoBank FALOC.
 8. Eliminate AFDUC on PWW-PEU Interconnect Project in the amount of \$ 95,807

Pennichuck East Utilities, Inc.
DW 20-019
2020 QCPAC
2019 Unaudited QCPAC Expenditures
Revised 5/20/2020 in response to Staff DR 3-1
Revised 6/3/2020 in response to Staff DR 3-1
Revised 12/20/2020 due to change in NHDES SRF closing
Revised 1/18/2020 per DR 5-1

Project Name/Description	Project Description	Work Order #	Board Approved 2019 Capex Budget	Financing Docket No.	NHPUC Order No.	Date of NHPUC Order	Source of Funding	Eligible for 2020 QCPAC Surcharge	Eligible for 2020 QCPAC Surcharge	Estimated Project Cost as of 6/30/2019	Estimated Project Cost as of 9/30/2019	Estimated Project Cost as of 11/30/2019	Final Project Cost as of 12/31/2019	Community	Taxable	Tax Rate (1)	QCPAC Eligible Property Tax Expense	Expansion for \$\$ difference between 9/30 update and final \$\$ invested in 2019	Explanation for Change/Addition/Deletion since Petition Filing	
Elevated Storage Tank in Londonderry ²	Construct 1.25 MG Elevated Storage Tank	181849, 1901641	\$ 700,000	DW19-069	26,253	5/22/2019	CoBank Loan	No	\$ -	\$ 700,000	\$ -	\$ -	\$ -	Londonderry	Yes	\$ 24.08	\$ -		Project will not start in 2019 due to local permitting, cost in 2019 are for engineering	
Airstrip alternative arsenic treatment	Raw Water Pipeline from Air Strip well to Peacham Road WTP	1901642	\$ 440,000	DW18-132	26,189	11/16/2018	SRF	No	\$ -	\$ 595,088	\$ -	\$ -	\$ -	Barnstead	Yes	\$ 27.59	\$ -		Project update includes revised estimate based on final design and also a portion of \$164,500 of engineering and survey work note below.	
Locke Lake Surface Water Treatment	Design and Permitting of treatment and intake for Locke Lake surface water	combined with below	\$ 200,000	DW18-132	26,189	11/16/2018	SRF	No	\$ -	\$ 200,000	\$ -	\$ -	\$ -	Barnstead	Yes	\$ 27.59	\$ -		Project will not be used and useful in 2019	
Locke Lake treatment evaluation	Plot different treatment technologies to treat Locke Lake surface water	1813409, 1900433	\$ 75,000	DW18-132	26,189	11/18/2018	SRF	No	\$ -	\$ 75,000	\$ -	\$ -	\$ -	Barnstead	Yes	\$ 27.59	\$ -		Project will not be used and useful in 2019	
Georgetown Area water main replacements	2018 Surveying costs	1917479	\$ -	DW18-132	26,189	11/16/2018	SRF	Yes	\$ -	\$ -	\$ -	\$ 20,845	\$ 20,845	Barnstead	Yes	\$ 27.59	\$ 573		Survey costs incurred in 2018 to design 2019 project. Not recovered in 2019 QCPAC. Not included in \$\$ above.	
Georgetown Drive water main replacement	Replace 4600 LF of 4 inch schedule 40 PVC with 6 inch C900 PVC	1901644	\$ 619,300	DW18-132	26,189	11/16/2018	SRF	Yes	\$ 619,300	\$ 682,478	\$ 640,567	\$ 580,142	\$ 400,377	Barnstead	Yes	\$ 27.59	\$ 11,046		Project \$\$ for these two projects were not properly divided in 9/30/2019 update. Total estimated project costs of about \$919K was more than the final 12/31 total of \$757K due to the fact that there are some project carry over \$\$ into 2020 plus actual bid numbers were lower the those used in the September update.	
Bradford Lane water main replacement	Replace 1823 LF of 4 inch schedule 40 PVC with 6 inch C900 PVC	1901645	\$ 253,000	DW18-132	26,189	11/18/2018	SRF	Yes	\$ 253,000	\$ 278,810	\$ 278,810	\$ 219,136	\$ 336,562	Barnstead	Yes	\$ 27.59	\$ 9,286		Board Approved project budgets did not include initial survey expenses (incurred in 2018) or internal engineering and field inspection on the Locke Lake projects, including the Airstrip project. These items are estimated to add about \$164,500 to these project costs.	
N.Barnstead Road - Eliminate deadend piping	Add 600 LF of 4 inch C900 PVC to eliminate dead end. Replace 275 LF of 4 inch sch 40 PVC with 6 inch C900 PVC	1901646	\$ 132,000	DW18-132	26,189	11/16/2018	SRF	Yes	\$ 132,000	\$ 145,466	\$ 265,466	\$ 415,239	\$ 248,858	Barnstead	Yes	\$ 27.59	\$ 6,866			
Belmont Drive water main replacement	Replace 500 LF of 4 inch schedule 40 PVC with 6 inch C900 PVC	1901647	\$ 68,200	DW18-132	26,189	11/16/2018	SRF	Yes	\$ 68,200	\$ 75,157	\$ 75,157	\$ 41,868	\$ 43,564	Barnstead	Yes	\$ 27.59	\$ 1,196		Actual Bid numbers for the project were less than the estimated \$\$ used in September Estimate were	
PEU-PWW Interconnection (Merrimack to Litchfield)	Carryover Costs (over 2018 SRF Funding)	1900424, 1900434, 1908514	\$ -	DW19-069	26,253	5/22/2019	CoBank Loan	Yes	\$ -	\$ -	\$ -	\$ 59,691	\$ 59,691	Merrimack	Yes	\$ 28.86	\$ 1,723		These \$\$ had not been identified during the 9/30 update. The end analysis revealed that there were still work order \$\$ into 2020 plus actual bid numbers were lower the those used in the September update.	
Upgrade Michels Way PRV Pit	Add additional pit with power and motor control valve to work with dist. system.		\$ -	DW19-069	26,253	5/22/2019	CoBank Loan	Yes	\$ -	\$ 45,000	\$ 45,000	\$ -	\$ -	Londonderry	Yes	\$ 24.08	\$ -		It was thought that this project would still occur in 2019 at 9/30 update. The project was deferred until 2020	
Rolling Hills Water Main Replacement	Replace substandard 2 inch diameter pipe with 4 inch C900 PVC	1825265, 1901649, 1918198	\$ 150,000	DW19-069	26,253	5/22/2019	CoBank Loan	Yes	\$ 150,000	\$ 150,000	\$ 165,000	\$ 210,000	\$ 188,089	Platow	Yes	\$ 25.93	\$ 4,877		Project scope changed slightly between 9/30 update and work actually completed.	
1x revenue investments Normal Run Rate with two months of PFOA in LA	Per Tariff	n/a	\$ 96,000	DW19-069	26,253	5/22/2019	CoBank Loan	Yes	\$ 96,000	\$ 94,880	\$ 44,000	\$ 37,500	\$ 37,724	Various	Yes	\$ 28.64	\$ 1,080		Least actual investment required per tariff during the year then was estimated in 9/30 update.	
Alexander Road, Water Main Upsizing	Alexander Road, Water Main Upsizing	1908374	\$ -	DW19-069	26,253	5/22/2019	0.1 DSRRR	No	\$ -	\$ 1,120	\$ 1,120	\$ 1,119	\$ 1,119	Londonderry	Yes	\$ 28.64	\$ 27		Fund with 0.1 DSRRR	
Nashua Rd 4" Main Relocation - Carryover Charges	Nashua Rd 4" Main Relocation - Carryover Charges	1829926 & 1906036	\$ -	DW19-069	26,253	5/22/2019	0.1 DSRRR	No	\$ -	\$ -	\$ 1,201	\$ 16,676	\$ 16,676	Various	Yes	\$ 28.64	\$ 478		Fund with 0.1 DSRRR	
Weinstein/Dame Station Upgrades	Weinstein/Dame Station Upgrades	1506139, 1603114, 1703756, 1813249, 1907079	\$ -	DW19-069	26,253	5/22/2019	CoBank Loan	Yes	\$ -	\$ 108,286	\$ 108,286	\$ 108,286	\$ 108,286	Litchfield	No	\$ 27.95	\$ -		PEU must pay for 15% of improvements to Hudson wells. It took the Town 5 years to complete this project and as a result the project did not go used and useful until this year.	
Booster Pump replacement/rebuild	Replace small booster pumps as they fail (run rate)	760 - 763 workorders	\$ 40,000	DW19-069	26,253	5/22/2019	CoBank Loan	Yes	\$ 40,000	\$ 40,000	\$ 32,000	\$ 30,000	\$ 26,925	Various	Yes	\$ 28.64	\$ 771		9/30/2019 includes a projection for work that we assume might happen based on YTD work. 12/31 is report of actual work.	
Booster Pump replacement/rebuild	W&E Booster, Replace 3 pump motors, install 3 VFD drives	1915423	\$ -	DW19-069	26,253	5/22/2019	CoBank Loan	Yes	\$ -	\$ -	\$ 8,000	\$ 8,000	\$ 6,697	Various	Yes	\$ 28.64	\$ 192		Final cost. 9/30/2019 was a high level estimate for the replacements.	
Well Pump replacements	Replace well pumps as they fail (run rate)	760 - 763 workorders	\$ 40,000	DW19-069	26,253	5/22/2019	CoBank Loan	Yes	\$ 40,000	\$ 40,000	\$ 48,000	\$ 48,000	\$ 42,371	Various	Yes	\$ 28.64	\$ 1,214		9/30/2019 includes a projection for work that we assume might happen based on YTD work. 12/31 is report of actual work.	
Chemical Feed pump replacements	Replace Chemical feed pumps as they fail (run rate)	760 - 763 workorders	\$ 10,000	DW19-069	26,253	5/22/2019	CoBank Loan	Yes	\$ 10,000	\$ 10,000	\$ 8,200	\$ 10,000	\$ 8,143	Various	Yes	\$ 28.64	\$ 233		9/30/2019 includes a projection for work that we assume might happen based on YTD work. 12/31 is report of actual work.	
Install/replace treatment systems in small CWS	Install/replace treatment systems in small CWS	n/a	\$ 25,000	DW19-069	26,253	5/22/2019	CoBank Loan	Yes	\$ 25,000	\$ 25,000	\$ 25,000	\$ 15,000	\$ -	Various	Yes	\$ 28.64	\$ -		9/30/2019 includes a projection for work that we estimated might happen. As it turned out no treatment systems needed to be replaced.	
Misc. Structural Improvements	Misc. Structural Improvements	n/a	\$ 20,000	DW19-069	26,253	5/22/2019	CoBank Loan	Yes	\$ 20,000	\$ 20,000	\$ 20,000	\$ 10,000	\$ -	Various	Yes	\$ 28.64	\$ -		9/30/2019 includes a projection for work that we assumed might happen. As it turned out no Fencing or security work occurred in 2019.	
Miscellaneous Fencing and Security projects	Miscellaneous Fencing and Security projects	n/a	\$ 10,000	DW19-069	26,253	5/22/2019	CoBank Loan	Yes	\$ 10,000	\$ 10,000	\$ 10,000	\$ -	\$ -	Various	Yes	\$ 28.64	\$ -		9/30/2019 includes a projection for work that we assumed might happen. As it turned out no Misc structural work occurred in 2019.	
Miscellaneous SCADA/Electrical	Miscellaneous SCADA/Electrical	n/a	\$ 30,000	DW19-069	26,253	5/22/2019	CoBank Loan	Yes	\$ 30,000	\$ 30,000	\$ 10,000	\$ 2,500	\$ -	Various	Yes	\$ 28.64	\$ -		9/30/2019 includes a projection for work that we assumed might happen. As it turned out no Misc SCADA work occurred in 2019.	
Miscellaneous SCADA/Electrical	Replace VFD Booster #3, Liberty Tree	1910159	\$ -	DW19-069	26,253	5/22/2019	CoBank Loan	Yes	\$ -	\$ -	\$ 1,720	\$ 1,720	\$ 1,712	Raymond	Yes	\$ 30.95	\$ 53			
Miscellaneous SCADA/Electrical	Replace VFD, Booster #2 - Forest Ridge	1915363	\$ -	DW19-069	26,253	5/22/2019	CoBank Loan	Yes	\$ -	\$ -	\$ 1,742	\$ 1,742	\$ 1,742	Exeter	Yes	\$ 27.89	\$ 49			
Miscellaneous SCADA/Electrical	Replace VFD, Booster #1 - Spruce Pond	1915856	\$ -	DW19-069	26,253	5/22/2019	CoBank Loan	Yes	\$ -	\$ -	\$ 2,156	\$ 2,156	\$ 2,153	Windham	Yes	\$ 26.84	\$ 58			
Miscellaneous SCADA/Electrical	Replace Generator Control Unit, Hardwood	1916937	\$ -	DW19-069	26,253	5/22/2019	CoBank Loan	Yes	\$ -	\$ -	\$ -	\$ 2,115	\$ 2,115	Windham	Yes	\$ 26.84	\$ 57		Emergency replacement that occurred after 9/30 update.	
Well Rehabilitation	Well Rehabilitation	n/a	\$ 60,000	DW19-069	26,253	5/22/2019	CoBank Loan	Yes	\$ 60,000	\$ 60,000	\$ 60,000	\$ -	\$ -	Various	Yes	\$ 28.64	\$ -		9/30/2019 includes a projection for work that we assumed might happen. As it turned out no well rehab work was required in 2019.	
Atkinson Booster pump station design	Atkinson Booster pump station design	n/a	\$ 30,000	DW19-069	26,253	5/22/2019	CoBank Loan	No	\$ -	\$ -	\$ -	\$ -	\$ -	Atkinson	Yes	\$ 22.13	\$ -		Project deferred until future date.	
Replace softner media, W and E	Replace softner media, W and E	1901650	\$ 10,000	DW19-069	26,253	5/22/2019	CoBank Loan	Yes	\$ 10,000	\$ 10,000	\$ -	\$ -	\$ -	Windham	Yes	\$ 26.84	\$ -		Upon further evaluation media was determined to be functioning properly and not in need of replacement.	
Add communications between remote facility and Nashua WTP.	Install web based communication equipment, 4 locations.	n/a	\$ 20,000	DW19-069	26,253	5/22/2019	CoBank Loan	Yes	\$ 20,000	\$ 20,000	\$ 20,000	\$ -	\$ -	Various	Yes	\$ 28.64	\$ -		9/30/2019 includes a projection for work that we assumed might happen. As it turned out only \$4,488 was spent on web based communications occurred in 2019.	
Pennichuck East Survey Work	Install web based communication equipment, Forest Ridge.	1901651	\$ -	DW19-069	26,253	5/22/2019	CoBank Loan	Yes	\$ -	\$ -	\$ -	\$ 4,488	\$ 4,488	Various	Yes	\$ 28.64	\$ 129		Part of annual run rate budget. 1 of 4 installed in 2019.	
New Services (5)	Pennichuck East Survey Work	1702834	\$ -					No	\$ -	\$ -	\$ -	\$ -	\$ -	Various	Yes	\$ -	\$ -			
Renewed Services (10)	Single Family, Owner Build, New Homes	730 workorders	\$ 23,000	DW19-069	26,253	5/22/2019	CoBank Loan	Yes	\$ 23,000	\$ 23,000	\$ 13,200	\$ 14,560	\$ 14,560	Various	Yes	\$ 28.64	\$ 417		4 installed through 12/31/2019.	
Hydrants (5)	Replacement of failed services	721 & 722 workorders	\$ 46,000	DW19-069	26,253	5/22/2019	CoBank Loan	Yes	\$ 46,000	\$ 46,000	\$ 35,000	\$ 35,824	\$ 35,824	Various	Yes	\$ 28.64	\$ 1,026		8 installed through 12/31/2019.	
Gates (8)	Replacement of non functional hydrants	730 & 731 workorders	\$ 25,000	DW19-069	26,253	5/22/2019	CoBank Loan	Yes	\$ 25,000	\$ 25,000	\$ 11,000	\$ 9,911	\$ 9,911	Various	Yes	\$ 28.64	\$ 284		2 installed through 12/31/2019.	
Radios (550)	Replacement of Failed Gate Valves	712 workorders	\$ 32,000	DW19-069	26,253	5/22/2019	CoBank Loan	Yes	\$ 32,000	\$ 32,000	\$ 21,500	\$ 27,255	\$ 33,630	Various	Yes	\$ 28.64	\$ 963		9/30/2019 includes a projection for work that we assumed might happen based on YTD work. 12/31 is report of actual work.	
Meters (Growth) 5/8"-2" - PEU (220)	New and replaced radios for meter reading.	754 workorders	\$ 55,000	DW19-069	26,253	5/22/2019	CoBank Loan	Yes	\$ 15,000	\$ 15,000	\$ 16,500	\$ 21,500	\$ 22,291	Various	Yes	\$ 28.64	\$ 638		222 installed through 12/31/2019.	
Meters 5/8"-6" Lead Meter Exchange - PEU (550)	New meters for new customers	750 workorders	\$ 22,000	DW19-069	26,253	5/22/2019	CoBank Loan	Yes	\$ 22,000	\$ 22,000	\$ -	\$ -	\$ -	Various	Yes	\$ 28.64	\$ -			
PEU Capitalized short term project interest	Replace High lead brass meter with new no lead brass meter.	750 workorders	\$ 55,000	DW19-069	26,253	5/22/2019	CoBank Loan	Yes	\$ 55,000	\$ 55,000	\$ 90,000	\$ 85,000	\$ 69,613	Various	Yes	\$ 28.64	\$ 1,194		9/30/2019 reflected the goal to replace 900 meters while at year end only 650 were actually replaced.	
	Short term interest on CoBank FALOC from July 2019 through July 2020.							Yes				\$ 40,401	\$ -	No		\$ 28.64	\$ -		FALOC interest was not included in the Sept 30, 2019 update.	
Pennichuck East Utilities Board approved 2019 Capital Expenditures -			\$ 3,286,500						\$ 1,801,500	\$ 3,634,285	\$ 2,058,625	\$ 2,040,274	\$ 1,784,169	Projected annual property tax expenses for QCPAC eligible projects -			\$ 45,231			
Pennichuck East Utilities Projected 2019 QCPAC Eligible Capital Investment (Based on Board approved 2019 Budget) -			\$ 1,841,500																	
Pennichuck East Utilities Projected 2019 QCPAC Eligible Capital Investment, June 30 Update -			\$ 2,063,077																	
Pennichuck East Utilities Projected 2019 QCPAC Eligible Capital Investment, Sept 30 Update -			\$ 2,056,304																	
Pennichuck East Utilities Projected 2019 QCPAC Eligible Capital Investment, Nov 30 Update -			\$ 2,022,478																	
Pennichuck East Utilities Projected 2019 QCPAC Eligible Capital Investment, Final Update ² -			\$ 1,766,374																	
Funded with SRF Funds -			\$ 1,072,500	\$ 1,100,000	\$ 1,100,000	\$ 1,100,000	\$ 966,252													
Amount to be funded with 2020 Loan from CoBank ¹ -			\$ 769,000	\$ 963,077	\$ 956,304	\$ 922,478	\$ 800,122													

1. Tax rate is the sum of the local community rate plus the Statewide Utility tax rate of \$6.60/\$1000.
2. The Londonderry Tank will not be used and useful in 2019 and hence it is not qualified to be included in QCPAC.

Pennichuck East Utilities, Inc.
 DW 20-019
 2020 QCPAC Filing
 Board Approved 2020 Capital Expenditures²
 Revised 3/26/2020 per Staff DR1's
 Revised 4/25/2020 per Staff DR2's
 Revised 5/20/2020 per Staff DR3's
 9/30/2020 Update
 11/30/2020 Update

Project Name/Description	Project Description	Work Order #	Board Approved 2020 Capex Budget	Financing Docket No.	NHPUC Order No.	Date of NHPUC Order
Elevated Storage Tank in Londonderry2	Construct 1.25 MG Elevated Storage Tank.	1818349, 1901641, 2000372	\$ 1,545,000	CoBank		Pending Filing
Middleton Station Re-build	Re-build Sunrise Estates CWS Station. Existing Station is over 40 years old.	n/a	\$ -	CoBank		Pending Filing
Airstrip alternative arsenic treatment	Raw Water Pipeline from Air Strip well to Peacham Road WTP.	2000371	\$ 540,000	DW18-132	26,189	11/16/2018
Georgetown Drive water main replacement	Replace 4600 LF of 4 inch schedule 40 PVC with 6 inch C900 PVC.	2000363	\$ 10,000	DW18-132	26,189	11/18/2018
Bradford Lane water main replacement	Replace 1825 LF of 4 inch schedule 40 PVC with 6 inch C900 PVC.	2000364	\$ 10,000	DW18-132	26,189	11/20/2018
N.Barnstead Road - Eliminate deadend piping	Add 680 LF of 4 inch C-900 PVC to eliminate dead end. Replace 275 LF of 4 inch sch 40 PVC with 6 inch C900 PVC.	2000365	\$ 239,000	DW18-132	26,189	11/22/2018
Belmont Drive water main replacement	Replace 500 LF of 4 inch schedule 40 PVC with 6 inch C900 PVC.	2000366	\$ 5,000	DW18-132	26,189	11/24/2018
Route 28 Replacement	Replace 720 LF of 2" PE with 720 LF of 4" C-900 PVC.	2000370	\$ 80,000	DW18-132	26,189	11/26/2018
Rolling Hills Water Main Replacement - Site Restoration from 2019 Project	Replace substandard 2 inch diameter pipe with 4 inch C900 PVC.	2000392	\$ 32,000		26,189	
Locke Lake Surface Water Treatment ⁴	Intake & Treatment Facility Construction	2000369	\$ 835,000	DW18-132	26,189	11/26/2018
Pelham Main Replacement/Addition	Replace 1600 LF of 3 inch PE with 12 in C-900 and add 775 LF of 12 in C-900 Monticello & Lane.	2001241	\$ 285,000	CoBank		Pending Filing
Pelham Main Replacement/Addition	Replace Lane Road.	2003563	\$ -	CoBank		Pending Filing
Pelham Main Replacement/Addition	Replace Simpson Road.	2003564	\$ -	CoBank		Pending Filing
Pelham Main Replacement/Addition	Replace Andrea Lane.	2003565	\$ -	CoBank		Pending Filing
Pelham Main Replacement/Addition	Replace Mont Vernon Drive.	2004325	\$ -	CoBank		Pending Filing
1 x revenue investments Normal Run Rate	Per Tariff	n/a	\$ 100,000	CoBank		Pending Filing
Sunrise Estates	Station Replacement (design)	2003613	\$ 40,000			0.1 DSR
Londonderry Core Re-Chloramination	Re-chloramination Evaluation and Preliminary Design	2003760	\$ 35,000			0.1 DSR
Atkinson Booster pump station design	Atkinson Booster pump station design	2000717	\$ 30,000			0.1 DSR
Booster Pump replacement/rebuild	Booster Pump replacement/rebuild	760 - 763 workorders	\$ 40,000	CoBank		Pending Filing
Well Pump replacements	Well Pump replacements	760 - 763 workorders	\$ 40,000	CoBank		Pending Filing
Chemical Feed pump replacements	Chemical Feed pump replacements	760 - 763 workorders	\$ 10,000	CoBank		Pending Filing
Install/replace treatment systems in small CWS	Install/replace treatment systems in small CWS.	n/a	\$ 25,000	CoBank		Pending Filing
Misc. Structural Improvements	Misc. Structural Improvements	n/a	\$ 20,000	CoBank		Pending Filing
Miscellaneous Fencing and Security projects	Miscellaneous Fencing and Security projects	n/a	\$ 10,000	CoBank		Pending Filing
Miscellaneous SCADA/Electrical	Miscellaneous SCADA/Electrical	n/a	\$ 30,000	CoBank		Pending Filing
Miscellaneous SCADA/Electrical	Replace Well #1 VFD, Lamplighter Village	2001215	\$ -	CoBank		Pending Filing
Miscellaneous SCADA/Electrical	Replace Pump #4 VFD, Liberty Tree	2005248	\$ -	CoBank		Pending Filing
Miscellaneous SCADA/Electrical	Replace Pump #1 VFD, Liberty Tree	2006387	\$ -	CoBank		Pending Filing
Well Rehabilitation	Well Rehabilitation	n/a	\$ 60,000	CoBank		Pending Filing
Atkinson Station Rebuild	Station cannot provide required fire flow. Hydropneumatic tank is in need of	n/a	500,000	CoBank		Pending Filing
Install web based communication equipment, 4 locations.	Install web based communication equipment, 4 locations.	n/a	20,000	CoBank		Pending Filing
Install web based communication equipment, 4 locations.	Fletcher's Comer, Install Cellular Based Communication	2002270	-	CoBank		Pending Filing
Interconnect the W&E CWS to the Town of Salem Water System.	Interconnect the W&E CWS to the Town of Salem Water System.	2004243	-	CoBank/Grant		Pending Filing
New Services (5)	Single Family, Owner Build, New Homes	720 workorders	25,000	CoBank		Pending Filing
Renewed Services (10)	Replacement of failed services.	721 & 722 workord	55,000	CoBank		Pending Filing
Hydrants (5)	Replacement of non-functional hydrants.	730 & 731 workord	30,000	CoBank		Pending Filing
Meters 5/8"-6" Lead Meter Exchange - PEU (600)	Replace High lead brass meter with new no lead brass meter.	750 workorders	22,000	CoBank		Pending Filing
Gates (8)	Replacement of Failed Gate Valves	712 workorders	\$ 32,000	CoBank		Pending Filing
Radios (300)	New Customers (220) and replaced failed radios (80) for meter reading.	754 workorders	\$ 32,000	CoBank		Pending Filing
Meters (Growth) 5/8"-2" - PEU (220)	New meters for new customers (220).	750 workorders	\$ -	CoBank		Pending Filing
Interest on CoBank FaLOC	Short term interest from 11/23/2020 - 7/31/2021		\$ -	CoBank		Pending Filing
Pennichuck East Utilities Projected 2020 Total Capital Expenditure Budget -			\$ 4,737,000			

Pennichuck East Utilities Projected 2020

- Tax rate is the sum of the local community rate plus the Statewide Utility tax rate of \$6.60/\$1000.
- The 2020 PEU Capital Expenditures Budget presented were approved by the Board in January of 2020.
- Projected CoBank Loan Terms are 25 Years at 5.5% resulting in P&I of
- Remainder of Locke Lake Surface Water Treatment project to completed in early 2021 at a total projected cost of \$ 2,050,000
- Projected SRF Terms for Locke Lake project are 30 Years at 2.704% resulting in P&I of

Pennichuck East Utilities, Inc.
DW 20-019
2020 QCPAC Filing
Board Approved 2021 Capital Expenditures²
Revised 3/26/2020 per Staff DR1's
Revised 5/20/2020 per Staff DR3's
6/30/2020 Update, No change as of 9/30/2020

Project Name/Description	Project Description	Work Order #	2021 Approved Budgeted Amount, Revised to reflect 2020 QCPAC activity	Financing Docket No.	NHPUC Order No.	Date of NHPUC Order
Locke Lake Surface Water Treatment ⁵	Intake & Treatment Facility Construction		\$ 410,000	DW18-132	26,189	11/26/2018
1 x revenue investments Normal Run Rate	Per Tariff		\$ 72,000	CoBank		Pending Filing
Londonderry Storage, Booster Station, and Transmission Main	Construct 1.25 MG Ground Level Storage Tank, 3,500 gpm Booster Station and 6300 LF 16 inch Transmission Main.		\$ 1,545,000	CoBank		Pending Filing
Atkinson Station Rebuild	Station cannot provide required fire flow. Hydropneumatic tank is in need of replacement. Estimated cost includes engineering design.		\$ 530,000	CoBank		Pending Filing
Booster Pump replacement/rebuild	Booster Pump replacement/rebuild		\$ 40,000	CoBank		Pending Filing
Well Pump replacements	Well Pump replacements		\$ 40,000	CoBank		Pending Filing
Chemical Feed pump replacements	Chemical Feed pump replacements		\$ 10,000	CoBank		Pending Filing
Install/replace treatment systems in small CWS	Install/replace treatment systems in small CWS		\$ 25,000	CoBank		Pending Filing
Misc. Structural Improvements	Misc. Structural Improvements		\$ 20,000	CoBank		Pending Filing
Miscellaneous Fencing and Security projects	Miscellaneous Fencing and Security projects		\$ 10,000	CoBank		Pending Filing
Miscellaneous SCADA/Electrical	Miscellaneous SCADA/Electrical		\$ 30,000	CoBank		Pending Filing
Well Rehabilitation	Well Rehabilitation		\$ 60,000	CoBank		Pending Filing
New Services (5)	Single Family, Owner Build, New Homes		\$ 25,000	CoBank		Pending Filing
Renewed Services (10)	Replacement of failed services.		\$ 55,000	0.1 DSRR		Pending Filing
Hydrants (5)	Replacement of non-functional hydrants		\$ 30,000	CoBank		Pending Filing
Gates (8)	Replacement of Failed Gate Valves.		\$ 32,000	CoBank		Pending Filing
Radios (300)	New Customers (220) and replaced failed radios (80) for meter reading		\$ 32,000	CoBank		Pending Filing
New meters for new customers (220). Replacement of failed meters (80).	New meters for new customers (220).		\$ 30,000	CoBank		Pending Filing
Meters 5/8"-6" Lead Meter Exchange - PEU (400)	Replace High lead brass meter with new no lead brass meter.		\$ 40,000	CoBank		Pending Filing
2021 Radios (1000)	Begin 7 year replacement of all PEU radios (all initial radios installed in 2007).		\$ 130,000	CoBank		Pending Filing
2021 Meters (Growth) 5/8"-2" (220), Replacement (80)	New meters for new customers (220). Replacement of failed meters (80).		\$ 30,000	CoBank		Pending Filing
Pennichuck East Utilities Projected 2020 Total Capital			Expenditure Budget -			
			\$ 3,196,000			

Pennichuck East Utilities Projected 2020 Capital Expenditure Budget - \$ 3,196,000

- Tax rate is the sum of the local community rate plus the Statewide Utility tax rate of \$6.60/\$1000.
- The 2021 PEU Capital Expenditures Budget presented were approved by the Board in January of 2020.
- Projected CoBank Loan Terms are 25 Years at 5.5% resulting in P&I of \$ 203,594
- Projected SRF Terms for Locke Lake project are 30 Years at 2.704% resulting in P&I of \$ 20,126
- Locke Lake Surface Water Treatment project started in 2020. Expected 2020 expense of \$ 1,490,000 in 2020. Project will be used and useful in 2021 with a total expected cost of \$ 410,000

Pennichuck East Utilities, Inc.
DW 20-019
2020 QCPAC Filing
Board Approved 2022 Capital Expenditures²
Revised 3/26/2020 per Staff DR1's
6/30/2020 Update, No Change as of 9/30/2020

Project Name/Description	Project Description	Work Order #	2022 Approved Budgeted Amount, Revised to reflect 2020 QCPAC activity	Financing Docket No.	NHPUC Order No.	Date of NHPUC Order
New Services (5)	Single Family, Owner Build, New Homes		\$ 25,000	CoBank		Pending Filing
Renewed Services (10)	Replacement of failed services		\$ 55,000	0.1 DSRR		Pending Filing
Hydrants (5)	Replacement of non-functional hydrants		\$ 30,000	CoBank		Pending Filing
Gates (8)	Replacement of Failed Gate Valves		\$ 32,000	CoBank		Pending Filing
Radios (300)	New Customers (220) and replaced failed radios (80) for meter reading		\$ 31,500	CoBank		Pending Filing
New meters for new customers (220). Replacement of failed meters (80)	New meters for new customers (220)		\$ 30,000	CoBank		Pending Filing
2022 Radios (1000)	Year 2 of a 7 year replacement of all PEU radios (all initial radios installed in 2007)		\$ 130,000	CoBank		Pending Filing
2022 Meters (Growth) 5/8"-2" - Core & CWS (TBD)	New meters for new customers (220). Replacement of failed meters (80)		\$ 30,000	CoBank		Pending Filing
Wellesley Drive water main replacement ⁵	Replace 1760 LF of 2 inch PE with 1760 LF of C900 PVC		\$ 240,000	SRF		Pending Filing
Radcliffe Drive water main replacement ⁵	Replace 720 LF of 1.5 inch PE with 720 LF of C900 PVC		\$ 100,000	SRF		Pending Filing
Vassar Drive water main replacement ⁵	Replace 1740 LF of 2 inch PE with 1740 LF of C900 PVC		\$ 250,000	SRF		Pending Filing
1 x revenue investments Normal Run Rate	Per Tariff		\$ 72,000	CoBank		Pending Filing
Booster Pump replacement/rebuild	Booster Pump replacement/rebuild		\$ 40,000	CoBank		Pending Filing
Well Pump replacements	Well Pump replacements		\$ 40,000	CoBank		Pending Filing
Chemical Feed pump replacements	Chemical Feed pump replacements		\$ 10,000	CoBank		Pending Filing
Install/replace treatment systems in small CWS	Install/replace treatment systems in small CWS		\$ 25,000	CoBank		Pending Filing
Misc. Structural Improvements	Misc. Structural Improvements		\$ 20,000	CoBank		Pending Filing
Miscellaneous Fencing and Security projects	Miscellaneous Fencing and Security projects		\$ 10,000	CoBank		Pending Filing
Miscellaneous SCADA/Electrical	Miscellaneous SCADA/Electrical		\$ 30,000	CoBank		Pending Filing
Well Rehabilitation	Well Rehabilitation		\$ 60,000	CoBank		Pending Filing
Pennichuck East Utilities Projected 2020 Total Capital Expenditure Budget -			\$ 1,260,500			

Pennichuck East Utilities Projected 2020 C

1. Tax rate is the sum of the local community rate plus the Statewide Utility tax rate of \$6.60/\$1000
 2. The 2022 PEU Capital Expenditures Budget presented were approved by the Board in January of 2020.
 3. Projected CoBank Loan Terms are 25 Years at 5.5% resulting in P&I of \$ 45,885
 4. Projected SRF Terms for Locke Lake project are 20 Years at 3.250% resulting in P&I of \$ 40,580
 5. The Wellesley, Radcliffe and Vassar Drive water main replacemts will be completed over 2 years with water main replacement occurring in 2022 and final pavement in 2023

Pennichuck East Utilities, Inc.
DW 20-019
2020 QCPAC - Qualified Capital Project Adjustment Charge
Responses to Staff Data Requests – Set 5

Date Request Received: 1/15/21
Request No. Staff 5-1

Date of Response: 1/20/21
Witness: Donald L. Ware

REQUEST: Schedule DLW-1/ Page 1 of the PEU 2020 QCPAC Quarterly Update filed on 1/11/2021 and the Company's Supplemental Response to Staff 1-8 filed on 12/29/2020

In the most recent quarterly update, it appears as if the incremental QCPAC percentage proposed from the 2019 Capital Additions is 1.34% resulting in a cumulative QCPAC of 4.32%. In Supplemental Data Response 1-8, Schedule DLW-1 indicates these figures as 1.23% and 4.20%. Please explain.

RESPONSE:

The correct response is Supplemental Data Response 1-8. Please see the attached, revised 11/30/2020 update which previously failed to change the estimated interest rate for the 2020 Cobank loan from the estimated 5.5% to the actual CoBank loan rate of 3.98% for the loan closed on 11/23/2020. The revised 11/30/2020 update is attached hereto as Exhibit DR5-1.

Pennichuck East Utilities, Inc.
DW 20-019
2020 QCPAC - Qualified Capital Project Adjustment Charge
Responses to Staff Data Requests – Set 5

Date Request Received: 1/15/21
Request No. Staff 5-2

Date of Response: 1/20/21
Witness: Donald L. Ware

REQUEST: Schedule DLW-1/ Page 1 of the PEU 2020 QCPAC Quarterly Update filed on 1/11/2021 and the Company's Supplemental Response to staff 1-8 filed on 12/29/2020

In the most recent quarterly update filed on 1/11/2021, it appears as if the estimated QCPAC percentage based on 2020 capital additions is not based upon the estimated costs of the 2020 capital additions as of the date of the quarterly update, 11/30/2020. Please explain and provide updated estimations as necessary.

RESPONSE:

Staff is correct. The QCPAC % for 2020 is derived from two components:

Component 1 – Increased property taxes associated with plant placed in service in 2020 (Cell J11 in the “2018-2022 PEU QCPAC Rev Req tab”) was drawing its data from the 2021 QCPAC additions tab instead of the 2020 QCPAC tab. The revised workbook attached to these data responses at DR5-1 corrects this error.

Component 2 – The principal and interest pro forma (Cell J12 in the “2018-2022 PEU QCPAC Rev Req tab”) was pointing to cell N63 (which was the estimated P&I on the 9/30/2020 update) instead of Cell O63. The revised workbook attached to these data responses as DR5-1 corrects this error.

Pennichuck East Utilities, Inc.
DW 20-019
2020 QCPAC - Qualified Capital Project Adjustment Charge
Responses to Staff Data Requests – Set 5

Date Request Received: 1/15/21
Request No. Staff 5-3

Date of Response: 1/20/21
Witness: Donald L. Ware

REQUEST: Schedule DLW-1/ Page 1 of the PEU 2020 QCPAC Quarterly Update filed on 1/11/2021

It appears as if the Board Approved 2020 Capex Budget is \$4,737,000. The same schedule also indicates the current cost estimation for 2020 Capex additions is \$4,951,522. Please explain and provide supporting documentation should additional Board approval be required.

RESPONSE:

The change from \$4,737,000 to \$4,951,522 resulted from delaying the \$1,545,000 Londonderry Storage tank project and the inclusion of the Locke Lake water main work (which was completed in 2019) into the 2020 Locke Lake total. The completion of the Locke Lake Surface Water Treatment in 2020 at \$2,050,000 versus the partial completion that was budgeted at \$835,000 at the beginning of 2020.

No additional Board approval should be necessary as the total Locke Lake project budget of \$4.24 million was approved by the Board in 2018. This project was expected to be completed over 2019, 2020 and 2021, and funded with NHDES SRF funds. Instead, the project ended up being completed in two years instead of three years and the dollars that were budgeted for 2021 ended up in the 2020 capital expenditures.

Pennichuck East Utilities, Inc.
DW 20-019
2020 QCPAC - Qualified Capital Project Adjustment Charge
Responses to Staff Data Requests – Set 5

Date Request Received: 1/15/21
Request No. Staff 5-4

Date of Response: 1/20/21
Witness: Donald L. Ware

REQUEST: Schedule DLW-1/ Page 1 of the PEU 2020 QCPAC Quarterly Update filed on 1/11/2021

It appears as if the estimated cost of the 2020 capital project costs as of 11/30/2020 is \$4,951,522. This represents an increase of \$1,236,567 over the estimated total 2020 capital project costs as of 9/30/2020 of \$3,714,995. Relative to that increase, please provide an analysis and summary on the cost variances with specific emphasis on the projects with changed costs, projects that were deferred or projects that were added, such as the Londonderry Storage Tank, Locke Lake Surface Water project, as well as the Georgetown Drive, Bradford Lane and Pelham Road water main replacements.

RESPONSE:

The increase from the 9/30/2020 estimated total of \$3,714,995 and the 11/30/2020 total was primarily driven by the following two additions to the 9/30/2020 total:

1. Georgetown Water Main replacement project at a cost of \$1,056,000 was added to the 2020 total even though it was completed in 2019, because of to the timing of NHDES SRF financing for this portion of the Locke Lake project as explained in the Staff 1-8 Supplemental response submitted on 12/29/2020.

2. The increase in the Locke Lake Surface Water treatment project of in the amount of \$350,000 between 9/30/2020 and 11/30/2020 updates resulted from failed nozzle bottoms on the existing Locke Lake filters in September. The replacement of the failed filters was projected to cost \$350,000.

The sum of these two changes is \$1,406,000 that explains the majority of the \$1,236,567 difference between the two updates. Cost savings and adjustments to other projects account for the remaining difference.

MEMO REPORT

Date: December 22, 2020

From: Douglas W. Brogan, P.E.**To:** Jayson Laflamme, Asst. Director, Gas & Water Division, NHPUC**Re:** DW 20-019 Pennichuck East Utility, Inc.
Petition for Approval of 2020 Qualified Capital Project Annual Adjustment Charge

I am writing this memo report as an engineering consultant to the Gas-Water Division to summarize my findings in the above-referenced docket. The Qualified Capital Project Annual Adjustment Charge (QCPAC) program was initially authorized for Pennichuck East Utility, Inc. (PEU or company) in DW 17-128 (Order 26,179, October 4, 2018). In the current docket PEU is seeking approval of a QCPAC surcharge for projects completed in 2019; preliminary approval of projects proposed for 2020; and has provided its capital budgets for 2021 and 2022 for informational purposes. My review is limited primarily to the engineering and operational aspects of the filing and is based on review of the filing, subsequent updates (in particular the most recent quarterly update filed November 9, 2020, containing data last updated September 30, 2020), case discovery, and associated materials.

Quoting relevant language from Order 26,179 (p. 11):

Proposed QCPAC eligible capital projects must meet three criteria: (1) the projects must be completed, in service, used, and useful during the previous year; (2) the projects must be financed by debt previously approved by the Commission, pursuant to RSA 369; and (3) the projects' costs must be associated with an annual capital budget that was previously submitted by PEU and approved by the Commission.

The Commission will review the proposed surcharge and make a prudence determination on the projects completed in the previous year upon which the surcharge is based.

The Commission will also review the budget and the underlying projects planned for the current year, and if deemed appropriate, issue a ruling preliminarily approving that budget.

2019 Projects

The most significant expenditures in 2019 involve supply, treatment and distribution system upgrades to the Locke Lake system in Barnstead. The projects are primarily funded by a \$4.24 million Drinking Water State Revolving Loan Fund (SRF) loan approved by the Commission in DW 18-132 (Order 26,189, November 6, 2018). While a small amount of initial survey and design work occurred in 2018, the bulk of the projects are slated for completion in 2019 through 2021. Some changes were made to distribution main projects as a result of both favorable bid pricing and flexibility in transferring SRF funds among the three principal upgrade projects. Work completed and placed in service in 2019 consisted of distribution system upgrades primarily involving replacement of various poor quality mains for a total cost of **\$1,050,006**.

Other larger expenditures in 2019 include:

- 1) Rolling Hills Water Main Replacement, **\$188,089**. Involves replacement of an undersized (2-inch diameter) main located under a deck on private property and near the foundation of an existing home; with new main in a public right of way along Lower Road. The cost of the project was impacted by the difficulty locating the original main. Some site restoration and pavement repair work remains for 2020.
- 2) Weinstein/Dame Station Upgrades, **\$108,286**. Involves completion of a five year project by the Town of Hudson to replace the Weinstein well. PEU is contractually obligated to pay 15 percent of the cost of the project in conjunction with its right to 15 percent of the water produced.
- 3) New and Replacement Meters, **\$69,613**. Consists of meters for new customers and replacement of high-lead brass meters.
- 4) PEU-PWW Interconnection (Merrimack to Litchfield), **\$59,691**. Although this amount was not in the 2019 capital budget approved in Order 26,313 (December 6, 2019) in last year's QCPAC docket (DW 19-035), the Company indicated the amount relates to carryover costs for final project cleanup (loaming, seeding, slope protection and final access road work) in the spring of 2019 for this larger project, the major costs of which were included in the approved DW 19-035 QCPAC surcharge for work completed in 2018.

The remainder of 2019 costs include a variety of smaller projects such as replacement of water mains, service lines, and equipment. The company has affirmed that all of the included projects were in service and used and useful as of December 31, 2019 (testimony of Donald L. Ware, p. 6, line 4). Several projects from the approved 2019 budget that are not proposed for recovery at this time were either deferred (Londonderry tank and related Michels Way PRV upgrade; Atkinson booster pump station design), not yet in service (Locke Lake surface water treatment), or determined to be unnecessary (replacement of W&E softener media).

2020 Projects

Some of the largest expenditures proposed for 2020 again relate to the Locke Lake projects and involve all three of its chief components:

- 1) A surface water treatment project will bring new, additional supply from Locke Lake itself to the Peacham Road facility for treatment. The project is anticipated to be about two thirds completed in 2020 (**\$1,700,000**), with final completion in 2021 (additional \$410,000).
- 2) Installation of a raw water main from the Airstrip Well to the Peacham Road facility to enable more cost-effective treatment of arsenic under a maximum contaminant level that will drop by 50 percent (from 10 to 5 parts per billion) in 2021 (**\$600,000**). A related license for the main to cross beneath Locke Lake was granted by the Commission in DW 19-198 (Order 26,342, March 26, 2020).
- 3) Balance of main replacement projects including the second half of work on North Barnstead Road (**\$255,000**) and additional work along Route 28, the latter made possible by favorable pricing and funding circumstances (**\$59,500**).

Other larger projects include:

- 1) Pelham Main Replacement/Addition, **\$658,600**. Involves replacement of substandard, small diameter main in the Williamsburg system.
- 2) Interconnect the W&E Community Water System to the Town of Salem Water System, **\$125,000**. The project will provide additional supply from Salem to the W&E system in neighboring Windham and was added in conjunction with a separate transfer of franchise area request (from PEU to Salem in Town of Windham, related to the Southern NH Regional Water Project) in open docket DW 20-080.

Again a variety of smaller projects make up the balance of the proposed work for 2020; and several substantial projects were deferred (Londonderry tank, Middleton/Sunrise Estates pump station rebuild, Atkinson pump station rebuild) for various reasons.

Conclusion

For 2019 projects, I would support a finding that each of the listed projects indicated as completed and in service at year end were prudent, used and useful.

For 2020, while the typical juggling of projects to balance project deferrals and funding availability is in evidence, the projects as proposed appear appropriate.

RE: DW 20-019 (PEU) & DW 20-020 (PWW)

James J. Steinkrauss <jjs@rathlaw.com>

Tue 1/12/2021 1:10 PM

To: Tuomala, Christopher <Christopher.R.Tuomala@puc.nh.gov>**Cc:** Descoteau, Robyn <Robyn.J.Descoteau@puc.nh.gov>; 'douglas.brogan@gmail.com' <douglas.brogan@gmail.com>;

Laflamme, Jayson <Jayson.P.Laflamme@puc.nh.gov>; Leone, Anthony <Anthony.J.Leone@puc.nh.gov>;

'donald.ware@pennichuck.com' <donald.ware@pennichuck.com>; William F. Ardinger <wfa@rathlaw.com>

 2 attachments (280 KB)

2021 1-11 PEU 2018-2021 QCPAC 11-30-2020 Update.xlsx; 2021 1-11 PWW QCPAC 2020 11-30-2020 Update.xlsx;

EXTERNAL: Do not open attachments or click on links unless you recognize and trust the sender.

Dear Attorney Tuomala,

Please see the attached, live Excel versions of both the PEU (20-019) and PWW (20-020) QCPAC updates. If you or Staff need anything else, please let me know.

Thanks,

Jim

James J. Steinkrauss

Of Counsel

Rath, Young and Pignatelli, P.C.

One Capital Plaza
Concord, NH 03302-1500[https://urldefense.com/v3/ http://www.rathlaw.com ;!!Oai6dtTQULp8Sw!EpwNr3_q8hrngy5PdPw53cpKzOmof4wK2wpT0x04PRCobf7WQEbfGSLAHW5eOANs602vz_pxZbXI\\$](https://urldefense.com/v3/http://www.rathlaw.com_!!Oai6dtTQULp8Sw!EpwNr3_q8hrngy5PdPw53cpKzOmof4wK2wpT0x04PRCobf7WQEbfGSLAHW5eOANs602vz_pxZbXI$)

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Admitted in New Hampshire and Massachusetts.

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-----Original Message-----

DW 20-019 (PEU) 2020-QCPAC

From: Tuomala, Christopher <Christopher.R.Tuomala@puc.nh.gov>

Sent: Tuesday, January 12, 2021 12:04 PM

To: James J. Steinkrauss <jjs@rathlaw.com>

Cc: Descoteau, Robyn <Robyn.J.Descoteau@puc.nh.gov>; 'douglas.brogan@gmail.com'

<douglas.brogan@gmail.com>; Laflamme, Jayson <Jayson.P.Laflamme@puc.nh.gov>; Leone, Anthony

<Anthony.J.Leone@puc.nh.gov>; 'donald.ware@pennichuck.com' <donald.ware@pennichuck.com>

Subject: DW 20-019 (PEU) & DW 20-020 (PWW)

Dear Attorney Steinkrauss,

Staff requests that you please forward the live excel version of the schedules submitted in the most recent reports for the above-mentioned matters. Staff is having difficulty reading the hard-coded pdfs.

Best,

Christopher R. Tuomala

Staff Attorney/Hearings Examiner

New Hampshire Public Utilities Commission

21 South Fruit Street

Concord, NH 03301

(603) 271.6011

Christopher.Tuomala@puc.nh.gov <mailto:Christopher.Tuomala@puc.nh.gov>

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DW 20-019 (PEU) 2020 QCPAC

Pennichuck East Utilities, Inc.
DW 20-019
2020 QCPAC Filings
Board Approved 2020 Capital Expenditures¹
Revised 3/26/2020 per Staff DR's
Revised 4/25/2020 per Staff DR's
9/30/2020 Update
11/30/2021 Update

Exhibit DME-1
Page 4

Project Name/Description	Project Description	Work Order #	Board Approved 2020 Capital Budget	Financing Docket No.	NHPUC Order No.	Date of NHPUC Order	Source of Funding	Eligible for 2021 QCPAC Exchange	Eligible for 2021 QCPAC Exchange	Estimated Project Cost as of 6/30/2020	Estimated Project Cost as of 9/30/2020	Estimated Project Cost as of 11/30/2020	Final Project Cost as of 12/31/2020	Community	Taxable	Tax Rate (%)	2021 QCPAC Eligible Property Tax Expenditure	Explanation for Change/Addition/Deletion since Petition Filing
Elevated Storage Tank at Londonderry2	Construct 1.25 MG Elevated Storage Tank	1818345, 1905441, 2000372	\$ 1,545,000	Colback	Pending Filing	Colback	No	\$	\$	\$	\$	\$	\$	Londonderry	Yes	24.08	\$	Project deferred to 2021 due to no revenue.
Middletown Station Re-build	Re-build Sunrise Estates CWS Station. Existing Station is over 40 years old	n/a	\$ -	Colback	Pending Filing	SRF	No	\$	\$ 349,000	\$ -	\$ -	\$ -	\$ -	Middletown	Yes	11.42	\$	Project deferred to 2021 due to the need to install additional treatment due to lower Arsenic standard.
Airstrip alternative arsenic treatment	Raw Water Pipeline from Air Strip well to Peacham Road WTP.	2000371	\$ 540,000	DPW18-132	26,189	11/16/2018	SRF	Yes	\$ 540,000	\$ 635,000	\$ 690,000	\$ 635,000	Barnstead	Yes	27.59	\$ 17,664	Based on final low bid and actual construction. Different soil conditions encountered than bid estimate during construction.	
Geogorham Drive water main replacement	Replace 4600 LF of 4 inch schedule 40 PVC with 6 inch C900 PVC.	2000363	\$ 10,000	DPW18-132	26,189	11/16/2018	SRF	Yes	\$ 10,000	\$ 10,000	\$ -	\$ 1,056,000	Barnstead	Yes	27.59	\$ 29,131	Recovery of these 2019 used and used Capex was sought in DW20-019 filing. While the projects are completed the Company will not be closing on the loan supporting these capital improvements until June 2021 as it is seeking the P&I associated with these projects in 2021 QCPAC as opposed to the 2020 QCPAC.	
Bradford Lane water main replacement	Replace 1825 LF of 4 inch schedule 40 PVC with 6 inch C900 PVC.	2000364	\$ 10,000	DPW18-132	26,189	11/20/2018	SRF	Yes	\$ 10,000	\$ 10,000	\$ -	\$ -	Barnstead	Yes	27.59	\$ -	Recovery of these 2019 used and used Capex was sought in DW20-019 filing. While the projects are completed the Company will not be closing on the loan supporting these capital improvements until June 2021 as it is seeking the P&I associated with these projects in 2021 QCPAC as opposed to the 2020 QCPAC.	
N Barnstead Road - Eliminate deadend piping	Add 880 LF of 4 inch C900 PVC to eliminate dead end. Replace 375 LF of 4 inch sch 40 PVC with 6 inch C900 PVC.	2000365	\$ 239,000	DPW18-132	26,189	11/20/2018	SRF	Yes	\$ 239,000	\$ 265,420	\$ 255,000	\$ 255,000	Barnstead	Yes	27.59	\$ 7,035	Recovery of these 2019 used and used Capex was sought in DW20-019 filing. While the projects are completed the Company will not be closing on the loan supporting these capital improvements until June 2021 as it is seeking the P&I associated with these projects in 2021 QCPAC as opposed to the 2020 QCPAC.	
Beltmont Drive water main replacement	Replace 500 LF of 4 inch schedule 40 PVC with 6 inch C900 PVC.	2000366	\$ 6,000	DPW18-132	26,189	11/20/2018	SRF	Yes	\$ 6,000	\$ 6,000	\$ -	\$ -	Barnstead	Yes	27.59	\$ -	Recovery of these 2019 used and used Capex was sought in DW20-019 filing. While the projects are completed the Company will not be closing on the loan supporting these capital improvements until June 2021 as it is seeking the P&I associated with these projects in 2021 QCPAC as opposed to the 2020 QCPAC.	
Road 28 Replacement	Replace 224 LF of PE with 120 LF of C-900 PVC.	2000370	\$ 80,000	DPW18-132	26,189	11/20/2018	SRF	Yes	\$ 80,000	\$ 95,500	\$ 95,500	\$ 95,500	Barnstead	Yes	27.59	\$ 1,539	Recovery of these 2019 used and used Capex was sought in DW20-019 filing. While the projects are completed the Company will not be closing on the loan supporting these capital improvements until June 2021 as it is seeking the P&I associated with these projects in 2021 QCPAC as opposed to the 2020 QCPAC.	
Rolling Hills Water Main Replacement - Site Restoration from 2019 Project	Replace substandard 2 inch diameter pipe with 4 inch C900 PVC.	2000392	\$ 32,000	Colback	Pending Filing	Colback	Yes	\$	\$ 32,000	\$ 32,000	\$ 32,000	\$ 32,000	Pharos	Yes	25.93	\$ 830	Based on final low bid and actual construction.	
Locke Lake Surface Water Treatment ²	Intake & Treatment Facility Construction	2000360	\$ 835,000	DPW18-132	26,189	11/26/2018	SRF	Yes	\$ -	\$ 1,490,000	\$ 1,700,000	\$ 2,050,000	Barnstead	Yes	27.59	\$ 56,560	Existing Arsenic filters failed in Sept 2020. Increase in price reflects replacement of those filters. More work was completed in 2020 than anticipated, therefore there will be less cost in 2021.	
Peaham Main Replacement/Addition	Replace 1600 LF of 3 inch PE with 12 in C-900 and add 775 LF of 12 in C-900 Monticello & Lane.	2001241	\$ 285,000	Colback	Pending Filing	Colback	Yes	\$	\$ 285,000	\$ 596,530	\$ 658,600	\$ 658,600	Pharos	Yes	24.91	\$ 16,836	Project scope expanded for streets lined below over original budget.	
Peaham Main Replacement/Additional	Replace Lane Road.	2003563	\$ -	Colback	Pending Filing	Colback	Yes	\$	\$ -	\$ -	\$ -	\$ -	Pharos	Yes	24.91	\$ -	Work on this street is in project total for Monticello & Lane Project above.	
Peaham Main Replacement/Additional	Replace Simpson Road.	2003564	\$ -	Colback	Pending Filing	Colback	Yes	\$	\$ -	\$ -	\$ -	\$ -	Pharos	Yes	24.91	\$ -	Work on this street is in project total for Monticello & Lane Project above.	
Peaham Main Replacement/Additional	Replace Andrea Lane.	2003565	\$ -	Colback	Pending Filing	Colback	Yes	\$	\$ -	\$ -	\$ -	\$ -	Pharos	Yes	24.91	\$ -	Work on this street is in project total for Monticello & Lane Project above.	
Peaham Main Replacement/Additional	Replace Mont Vernon Drive.	2004235	\$ -	Colback	Pending Filing	Colback	Yes	\$	\$ -	\$ -	\$ -	\$ -	Pharos	Yes	24.91	\$ -	Work on this street is in project total for Monticello & Lane Project above.	
1 x revenue Investments Normal Run Rate	See Staff	n/a	\$ 300,000	Colback	Pending Filing	Colback	No	\$	\$ 300,000	\$ 400,000	\$ 400,000	\$ 400,000	Adrian	Yes	24.91	\$ -	33. Decisions: Invested Services: Deferred thru 11/30/2020. Projecting 70 for year end.	
Stormwater	Station Replacement (design)	2000313	\$ 40,000	Colback	01 DSRB	01 DSRB	No	\$	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000	Adrian	No	24.08	\$ 1,406	43. Decisions: Invested Services: Deferred thru 11/30/2020. Projecting 70 for year end.	
Londonderry Core Re-Chloramination	Re-chloramination Evaluation and Preliminary Design	2003760	\$ 35,000	Colback	01 DSRB	01 DSRB	No	\$	\$ 35,000	\$ 35,000	\$ 35,000	\$ 35,000	Londonderry	No	24.08	\$ -	44. Decision: core incorporated into Station rebuild above.	
Adrian Booster pump station design	Adrian Booster pump station design	2000317	\$ 30,000	Colback	01 DSRB	01 DSRB	No	\$	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	Adrian	No	25.13	\$ 46	45. Decision: core incorporated into Station rebuild above.	
Booster Pump replacement/upgrade	Booster Pump replacement/upgrade	760 - 763 workorders	\$ 40,000	Colback	Pending Filing	Colback	Yes	\$	\$ 40,000	\$ 35,000	\$ 25,000	\$ 24,000	Varston	Yes	29.00	\$ 532	46. Booster Pump Rebuild/Rebuild thru 11/30/2020. Projecting 6 for year end.	
Well Pump replacements	Well Pump replacements	760 - 763 workorders	\$ 40,000	Colback	Pending Filing	Colback	Yes	\$	\$ 40,000	\$ 16,000	\$ 15,000	\$ 15,000	Varston	Yes	29.00	\$ 435	47. Well Pumps Rebuild/Rebuild thru 11/30/2020. Projecting 4 for year end.	
Chemical Feed pump replacements	Chemical Feed pump replacements	760 - 763 workorders	\$ 10,000	Colback	Pending Filing	Colback	Yes	\$	\$ 10,000	\$ 5,000	\$ 2,000	\$ 2,000	Varston	Yes	29.00	\$ 58	48. Chemical Feed Pumps Rebuild/Rebuild thru 11/30/2020. Projecting 2 for year end.	
Install/replace treatment systems in small CWS	Install/replace treatment systems in small CWS	n/a	\$ 25,000	Colback	Pending Filing	Colback	Yes	\$	\$ 25,000	\$ -	\$ -	\$ -	Varston	Yes	29.00	\$ -	49. None year to date. None planned for the remainder of the year.	
Misc. Structural Improvements	Misc. Structural Improvements	n/a	\$ 20,000	Colback	Pending Filing	Colback	Yes	\$	\$ 20,000	\$ 10,000	\$ 5,000	\$ 5,000	Varston	Yes	29.00	\$ -	50. None year to date. None planned for the remainder of the year.	
Microbaceous Fencing and Security projects	Microbaceous Fencing and Security projects	n/a	\$ 10,000	Colback	Pending Filing	Colback	Yes	\$	\$ 10,000	\$ 5,000	\$ -	\$ -	Varston	Yes	29.00	\$ -	51. None year to date. None planned for the remainder of the year.	
Miscellaneous SCADA/Electrical	Miscellaneous SCADA/Electrical	n/a	\$ 30,000	Colback	Pending Filing	Colback	Yes	\$	\$ 30,000	\$ 27,602	\$ -	\$ 5,000	Varston	Yes	29.00	\$ 145	52. None year to date. None planned for the remainder of the year.	
Microbaceous SCADA/Electrical	Replace Well #1 VFD, Lamp/alarms/Village	2001312	\$ -	Colback	Pending Filing	Colback	Yes	\$	\$ 2,398	\$ 2,398	\$ -	\$ -	Remond	Yes	28.84	\$ 54	53. None year to date. None planned for the remainder of the year.	
Miscellaneous SCADA/Electrical	Replace Pump #4 VFD, Liberty Tree	2002248	\$ -	Colback	Pending Filing	Colback	Yes	\$	\$ -	\$ 1,735	\$ 1,735	\$ -	Remond	Yes	29.00	\$ -	54. None year to date. None planned for the remainder of the year.	
Miscellaneous SCADA/Electrical	Replace Pump #1 VFD, Liberty Tree	2004367	\$ -	Colback	Pending Filing	Colback	Yes	\$	\$ -	\$ 1,735	\$ 1,735	\$ -	Remond	Yes	29.00	\$ -	55. None year to date. None planned for the remainder of the year.	
Well Rehabilitation	Well Rehabilitation	n/a	\$ 60,000	Colback	Pending Filing	Colback	No	\$	\$ 15,000	\$ 15,000	\$ -	\$ -	Varston	Yes	29.00	\$ -	56. None year to date. None projected to occur for remainder of year.	
Adrian Station Rebuild	Station cannot provide required flow. Hydroponic tank is in need of replacement.	n/a	\$ 500,000	Colback	Pending Filing	Colback	No	\$	\$ -	\$ -	\$ -	\$ -	Adrian	Yes	22.13	\$ -	57. Project deferred into 2021 subject to evaluation of financial analysis of building the station vs. interconnect with HAWC.	
Install web based communication equipment, 4 locations.	Install web based communication equipment, 4 locations.	n/a	\$ 20,000	Colback	Pending Filing	Colback	Yes	\$	\$ 20,000	\$ 17,001	\$ 17,001	\$ 17,001	Varston	Yes	29.00	\$ 119	58. Project deferred into 2021 subject to evaluation of financial analysis of building the station vs. interconnect with HAWC.	
Initial web based communication equipment, 4 locations.	Fletcher's Corner, install Cellular Based Communication	2002270	\$ -	Colback	Pending Filing	Colback	Yes	\$	\$ 2,092	\$ 2,092	\$ -	\$ -	Varston	Yes	29.00	\$ 61	59. Project deferred into 2021 subject to evaluation of financial analysis of building the station vs. interconnect with HAWC.	
Interconnect the WAE CWS to the Town of Salem Water System.	Interconnect the WAE CWS to the Town of Salem Water System.	2004243	\$ -	Colback/Grant	Pending Filing	DPWC/F/Colback	No	\$	\$ 125,000	\$ 125,000	\$ -	\$ -	Washburn	Yes	26.84	\$ -	60. Added in part of PEU-Salem Washburn Franchise exchange. MDC change paid for by PEU. Work will not be Used and Useful in 2020.	
New Services (5)	Single Family, Owner Buil, New Homes	720 workorders	\$ 25,000	Colback	Pending Filing	Colback	Yes	\$	\$ 25,000	\$ 15,000	\$ 7,500	\$ 10,500	Varston	Yes	29.00	\$ 307	61. 2 new services installed through 11/30/2020. Projecting 2 for year end.	
Renewed Services (10)	Replacement of failed sensors	721 & 722 workorders	\$ 55,000	Colback	Pending Filing	Colback	Yes	\$	\$ 55,000	\$ 1,012	\$ 7,014	\$ 7,014	Varston	Yes	29.00	\$ 201	62. 4 Renewed Services installed thru 11/30/2020. 4 Renewed services requested through end of year.	
Hydrants (5)	Replacement of non-functional hydrants	720 & 721 workorders	\$ 30,000	Colback	Pending Filing	Colback	Yes	\$	\$ 30,000	\$ 18,000	\$ 18,000	\$ 6,000	Varston	Yes	29.00	\$ 174	63. None Year to date. Projecting 1 for year end.	
Meters 58" Lead Meter Exchange - PEU (600)	Replace high lead brass meter with new no lead brass meter.	750 workorders	\$ 22,000	Colback	Pending Filing	Colback	Yes	\$	\$ 22,000	\$ 30,000	\$ 26,000	\$ 26,000	Varston	Yes	29.00	\$ 204	64. 195 Meters installed/ replaced thru 11/30/2020. This is new and replaces together. Projecting 240 installed/ replaced through year end.	
Gates (8)"	Replacement of Failed Gate Valves	712 workorders	\$ 32,000	Colback	Pending Filing	Colback	Yes	\$	\$ 32,000	\$ 6,109	\$ 18,000	\$ 17,554	Varston	Yes	29.00	\$ 521	65. 4 Gates installed/ replaced thru 09/30/2020. requesting 5 replacements by year end.	
Radios (200)	New Customers (220) and replaced failed radios (80) for meter readings	754 workorders	\$ 32,000	Colback	Pending Filing	Colback	Yes	\$	\$ 32,000	\$ 18,500	\$ 15,025	\$ 21,000	Varston	Yes	29.00	\$ 609	66. 137 Radios installed/ replaced thru 11/30/2020. Projecting 240 by year end.	
Meters (down) SRF 2" - PEU (240)	New meters for new customers (240)	750 workorders	\$ -	Colback	Pending Filing	Colback	Yes	\$	\$ -	\$ -	\$ -	\$ -	Varston	Yes	29.00	\$ -	67. Interconnect in Reg. 48 above.	
Interest on Colback FALOC	Short term interest from 11/23/2009 - 7/31/2021	n/a	\$ -	Colback	Pending Filing	Colback	Yes	\$	\$ 1.8	\$ 1.8	\$ -	\$ -	Varston	NO	80.00	\$ -	68. Anticipates change in Colback base term loan from term of Colback FALOC on 8/1/2021.	
Pennichuck East Utilities Projected 2020 Total Capital Expenditure Budget - \$ 4,573,800																		
										Pennichuck East Utilities Projected 2020 QCPAC Eligible Capital Investment - \$ 1,692,000								
										Funded with Colback Loan ³ - \$ 1,692,000								
										Funded with SRF ⁴ - \$ -								
										Funded with Colback Loan ³ - \$ 1,692,000								
										Funded with SRF ⁴ - \$ -								
										Locke Lake SRF loan expected to close in Mar of 2021.								
										Projected annual project tax expenses for QCPAC eligible projects - \$ 134,588								

1. Tax rate is the sum of the local community rate plus the Statewide Utility tax rate of \$6.60/\$1000.
2. The 2020 PEU Capital Expenditures Budget presented was approved by the Board on January 20, 2020.
3. Presented Colback Loan Terms are 30 Years at 5.5% resulting in P&I of \$ 731,139
4. Remainder of Locke Lake Surface Water Treatment project to completed in early 2021 as a total investment cost of \$ 2,050,000 resulting in P&I of \$ 194,997
5. Presented SRF Terms for Locke Lake project are 30 Years at 2.750% resulting in P&I of \$ 247,962

Total projected P&I on debt incurred to support 2020 used and useful capex - \$ 249,018

Total projected annual P&I for 2020 used and useful QCP's - \$ 233,661

\$ 247,962

Narrative and Discussion of the Revenue Requirements and Rate Stabilization Funds as well as associated Fixed Revenue Restricted Cash accounts

Pennichuck East Utility, Inc.'s (PEU) overall revenue requirement consists of the following three components:

1. City Bond Fixed Revenue Requirement (CBFRR) and associated RSF.
2. Operating Expense Revenue Requirement (OERR) which is further composed of the following:
 - a) Material Operating Expense Revenue Requirement (MOERR) and associated RSF
 - b) Non-Material Operating Expense Revenue Requirement (NOERR).
3. Debt Service Revenue Requirement (DSRR) which is further composed of the following:
 - a) Debt Service Revenue Requirement - 1.0 (DSRR-1.0) and associated RSF.
 - b) Debt Service Revenue Requirement - 0.1 (DSRR-0.1)

In this instant rate case, PEU also seeks to add a Material Operating Expense Factor (MOEF), which would be included as a part of the second component of PEU's overall revenue requirement, coupled together with the MOERR.

Flowcharts attached to this narrative describe the requirements of each component and how funds flow to and from each account created for each component.

The revenue requirement components are further described as follows:

1. City Bond Fixed Revenue Requirement and Rate Stabilization Fund

The purpose of the CBFRR RSF is to provide a cash reserve to be accessed or replenished based upon the amount in the CBFRR Checking Account. The CBFRR RSF may only be accessed if necessary to supplement the amount recorded in the CBFRR Checking Account for PEU to meet its portion of the monthly note payment obligation to the City and/or its quarterly standard dividend payment to the City, both as approved under DW 11-026 (i.e. if the monthly amount accrued to the CBFRR Checking Account is less than PEUPEU's approved monthly CBFRR amount to the City). The cash amount is only used for the payment of the CBFRR and is reconciled monthly. Conversely, PEU deposits additional funds in the CBFRR RSF Account when it accumulates cash in the CBFRR Checking Account in excess of the amount needed to meet its monthly and quarterly obligations to the City. At the time of each rate case, the CBFRR RSF Account is subject to replenishment or reduction to an amount equal to the original balance of \$13,000. The replenishment or reduction amount will be reflected in PEUPEU rates through a deferred debit or credit amortized over a three- year period.

In DW 16-806, Pennichuck Water Works (PWW) proposed that the \$5,000,000 CBFRR Rate Stabilization Fund (RSF) maintained by PWW, (which was established under the Original Rate Structure approved in the acquisition docket DW 11-026), should be re-allocated amongst the three Pennichuck Corporation Utilities: PWW, PEU, and Pittsfield Aqueduct Company, Inc. (PAC) such that PWW's allocated share of the CBFRR RSF would be \$3,920,000, PEU's allocated share of the CBFRR RSF would be \$980,000, with the remaining balance of \$100,000 of the CBFRR RSF being allocated to PAC. This allocation of the \$5,000,000 CBFRR RSF was based on the revenue requirements established in Dockets DW13-126 for PEU, DW13-128 for PAC, and 13-130 for PWW, divided by the total revenue requirement of all three utilities as established in those dockets.

2. Material Operating Expense Revenue Requirement Rate Stabilization Fund (MOERR RSF)

This account is used to fund cash flow needs related to allowable expenses (as defined above) which amount to costs of approximately 99.9% of the operating expenses of the Company, excluding interest expense. To facilitate accountability related to the MOERR RSF, a separate restricted cash bank account has been established and is maintained, known as the MOERR Checking Account. This fund operates as an imprest fund from which funds could be drawn upon or deposited into on a monthly basis, based upon anomalies in the specified and covered operating expenses, as well as revenue fluctuations above or below levels. It serves to provide rate stabilization and cash flow coverage for operating expenses between permanent rate filings. At the time of each rate case, the MOERR RSF is subject to replenishment or reduction to an amount equal to the original balance of \$898,000.

3. Debt Service Revenue Requirement 1.0 Rate Stabilization Fund (DSRR-1.0 RSF)

The DSRR-1.0 RSF is used to ensure that, even in adverse revenue conditions such as wet weather, there will be a sufficient cash reserve available to enable to pay the debt service obligations on its long-term debt. To facilitate accountability related to the DSRR-1.0 RSF, establishes and maintain a separate restricted cash bank account, known as the DSRR-1.0 RSF Account. This fund operates as an imprest fund from which funds could be drawn upon if needed based upon the cash flow requirements to meet principal and interest payment obligations on outstanding debt and in meeting its debt covenant requirements. It serves to provide adequate cash flow coverage for debt servicing between permanent rate filings. At the time of each rate case, the DSRR-1.0 RSF is subject to replenishment or reduction to an amount equal to the established original balance of \$51,000.

4. CBFRR, DSRR-1.0, DSRR-0.1 and MOERR Bank Accounts

These accounts have funds transferred into them from the main operating cash account on a weekly basis, based upon weekly cash collections for billed water revenues, for their pro-rata shares of the overall allowed revenue requirement. This is a consistent methodology to the accepted methodology established for the CBFRR account in DW 11-026.

5. Material Operating Expense Factor

This is a component being added into the calculation of the allowed revenue requirement as a part of the OERR allowed revenues. It is designed to minimize the impact of regulatory lag coming out of a rate case, as necessary and prudent operating expenses which vary and increase leading up to the next full rate case. As such, it is not only a component of the OERR portion of allowed revenues, but works in concert with the MOERR expenses in the usage of, and refilling of, the MOERR RSF account (as described above).

6. Funding of Stabilization Funds Based Upon Allocation of Revenue Requirement

In conformity with the manner in which the RSF fund established under DW 11-026 is funded or utilized, each of the Rate Stabilization Fund Restricted Cash accounts noted above (CBFRR RSF, DSRR-1.0 RSF, MOERR RSF) have money transferred into them, or withdrawn from them on a monthly basis based upon the actual monthly revenue performance, compared to 1/12 of the annual allowed revenue from the most recent rate case for the Company. If in any month, the actual revenues earned are less than 1/12 of the annual allowed revenue requirement, the pro-rata share of the deficit applicable to each of the RSF accounts will be extracted from each of the RSF accounts and transferred to the Company's main operating accounting. Conversely, if in any month, the actual revenues earned are in excess of 1/12 of the annual allowed revenue requirement, the pro-rata share of the excess applicable to each of the RSF accounts will be deposited into each of the RSF accounts from the Company's main operating account.

7. Weekly Deposits into the Revenue Requirement Restricted Checking Accounts (CBFRR, DSRR-1.0, and DSRR-0.1, MOERR)

In conformity with the manner in which the CBFRR account methodology was established under DW 11-026, on a weekly basis, the pro-rata share of cash collections on total revenues for each of these revenue accounts is transferred from the Company's main operating cash account, into each of the respective restricted checking accounts.

8. Usage of Funds in the Revenue Requirement Restricted Checking Accounts (CBFRR, DSRR-1.0, DSRR-0.1, MOERR)

A. As payments are due to the City of Nashua for the monthly note payment and/or the quarterly required dividend in support of the full CBFRR requirement, these payments will be made out of the CBFRR Checking Account, as established under DW 11-026. To the extent there are insufficient funds in the CBFRR Checking Account to make these payments; funds are transferred into the CBFRR Checking Account from the Company's main operating account to fund these payments. To the extent that funds in the CBFRR Checking Account are in excess of the monthly payment need (and/or quarterly dividend need, in the month paid), the excess funds is transferred back into the main operating account.

B. On a monthly basis, the actual Material Operating Expenses for that month is compared to the monthly revenue requirement provided from the

MOERR/MOEF portion of the last allowed revenue requirement, from the most recent rate case. To the extent that the identified expenses under the MOERR, for the month, are in excess of the pro-rata revenue allowance for these expenses, money is transferred out of the MOERR Checking Account to the main operating account. To the extent that the identified expenses under the MOERR, for the month, are less than the pro-rata revenue allowance for these expenses, money will be transferred to the MOERR Checking Account from the main operating account.

C. As payments are due to all other external debt holders of the Company on a monthly, quarterly, or semi-annual basis, these payments will be made out of the DSRR-1.0 Checking Account, consistent with the methodology for the CBFRR account under DW 11-026. To the extent there are insufficient funds in the DSRR-1.0 Checking Account to make these payments; funds is transferred into the DSRR-1.0 Checking Account from the main operating account. And, to the extent that there are excess funds in the DSRR Checking Account, the excess funds is transferred back to the Company's main operating account.

i. The monthly payment funding obligation will be based upon, and equal to the following:

- a.** The sum of all monthly debt service payment obligations in the aggregate;
- b.** 1/3 of the sum of all quarterly debt service payment obligations in the aggregate for the quarter; and
- c.** And 1/12 of the sum of all semi-annual debt service obligations in the aggregate for the fiscal year.

D. The funds that accumulate in the DSRR-0.1 Checking Account is considered on an annual basis, at the end of each fiscal year. The accumulated funds in this account as of the close of each year-end will be utilized as the funding source for capital expenditure needed in the first months of the succeeding year, leading up to an annual bonding or financing event in support of capital expenditures for that succeeding year.

9. Accounting for the CBFRR, DSRR-1.0 and MOERR Allocation Amounts

In conformity with the methodology established in DW 11-026 for the CBFRR account, monthly accounting is prepared by the Company, to establish and calculate the actual revenue performance versus the allowed revenue levels, on a monthly basis. These calculations will be the basis for the transfer of cash into and out of the Rate Stabilization funds for each fiscal month end.

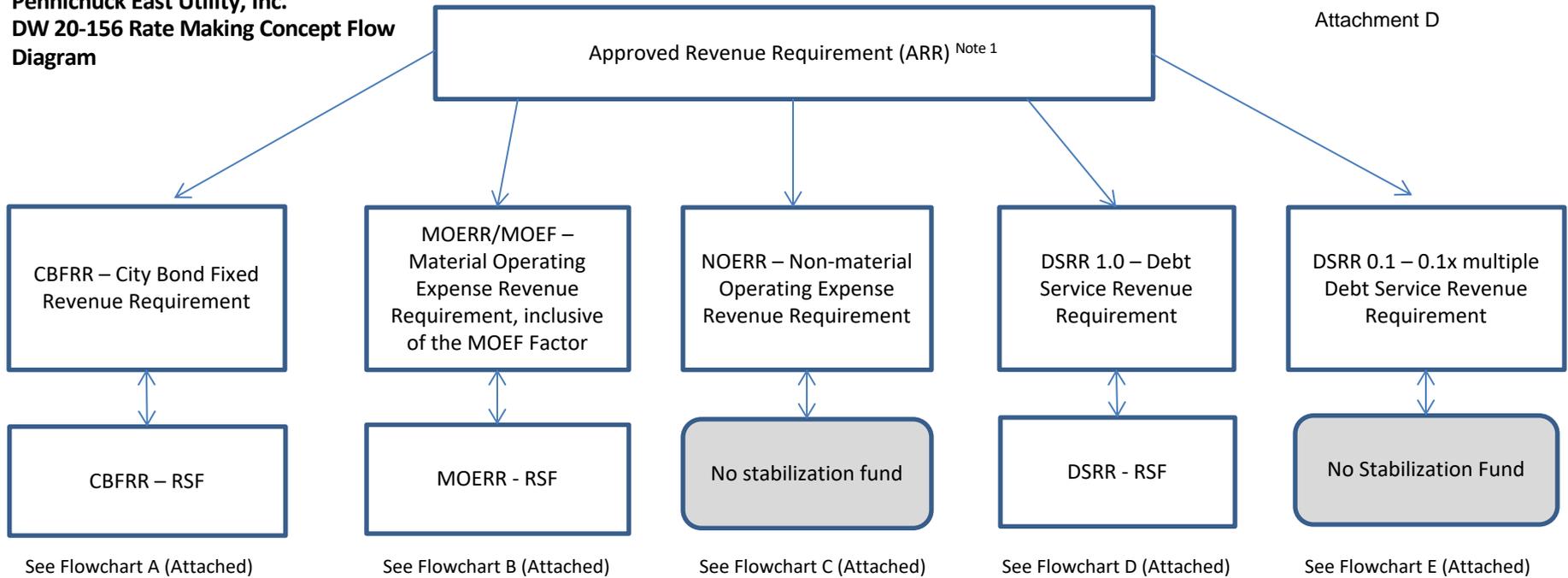
At each successive rate case, the excess or deficit in the CBFRR RSF, DSRR-1.0 RSF, and MOERR RSF, is either refunded to or collected from ratepayers over the succeeding three years, in the form of a Deferred Credit or Deferred Debit on the books of the Company, as established in that successive rate case proceeding.

10. Impact of Annual Step Increases for Incremental Debt Approved and Incurred between Rate Cases, under the Qualified Capital Project Adjustment Charge

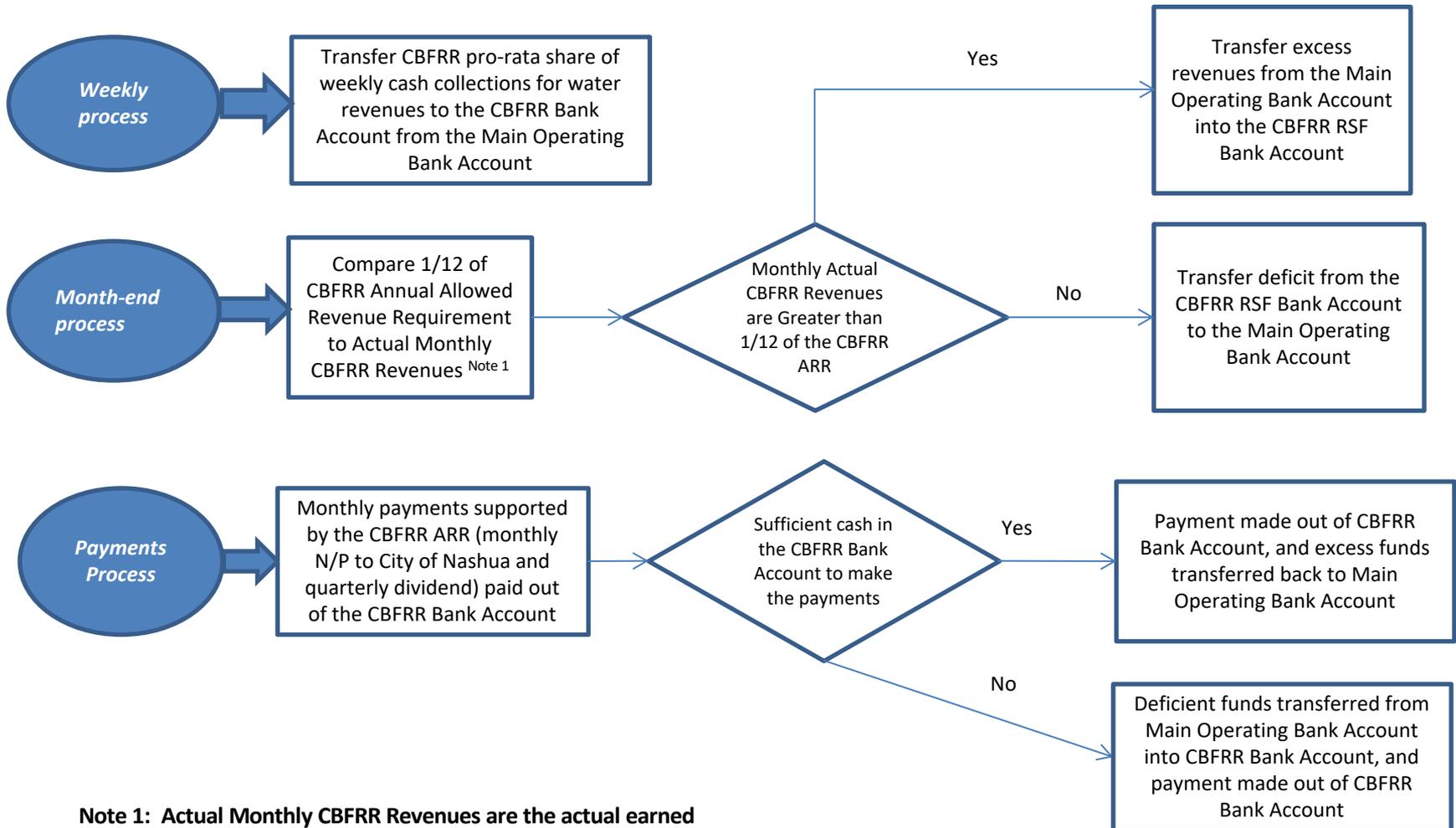
Upon approval of the annual Qualified Capital Project Adjustment Charge (QCPAC), the incremental revenues generated from this QCPAC at a 1.1x multiple of total incremental approved debt service, plus property taxes, will incrementally impact the deposit of funds, or withdrawal of funds from the DSRR-1.0, DSRR-0.1 and MOERR Checking Accounts, for their prospective shares of the total incremental debt service, the 0.1x multiple of debt service, and the amount collected for incremental property taxes. The balance of the accounting for these incremental amounts will be accounted for as an incremental amount to the processed described immediately above.

**Pennichuck East Utility, Inc.
DW 20-156 Rate Making Concept Flow
Diagram**

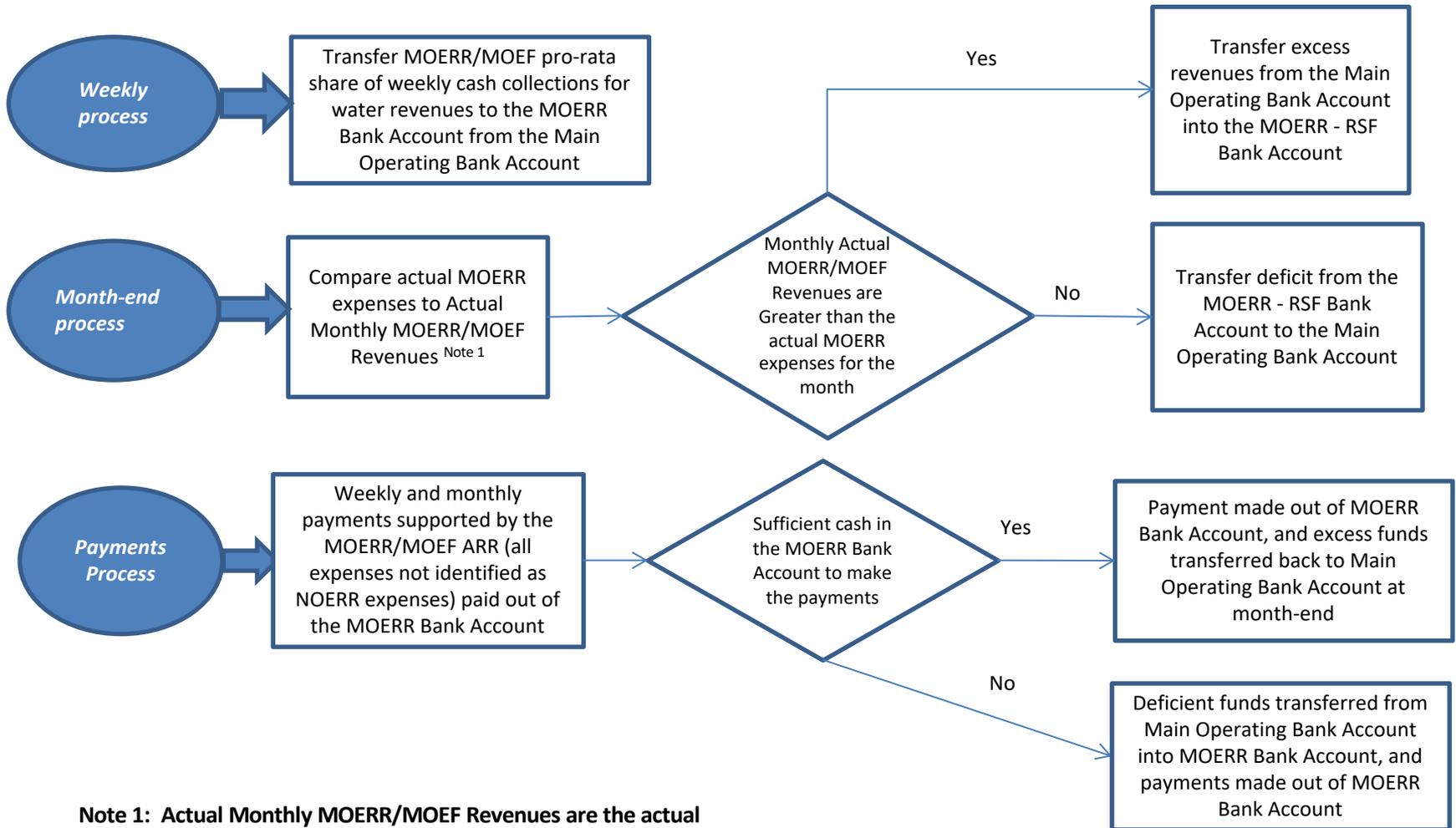
Attachment D



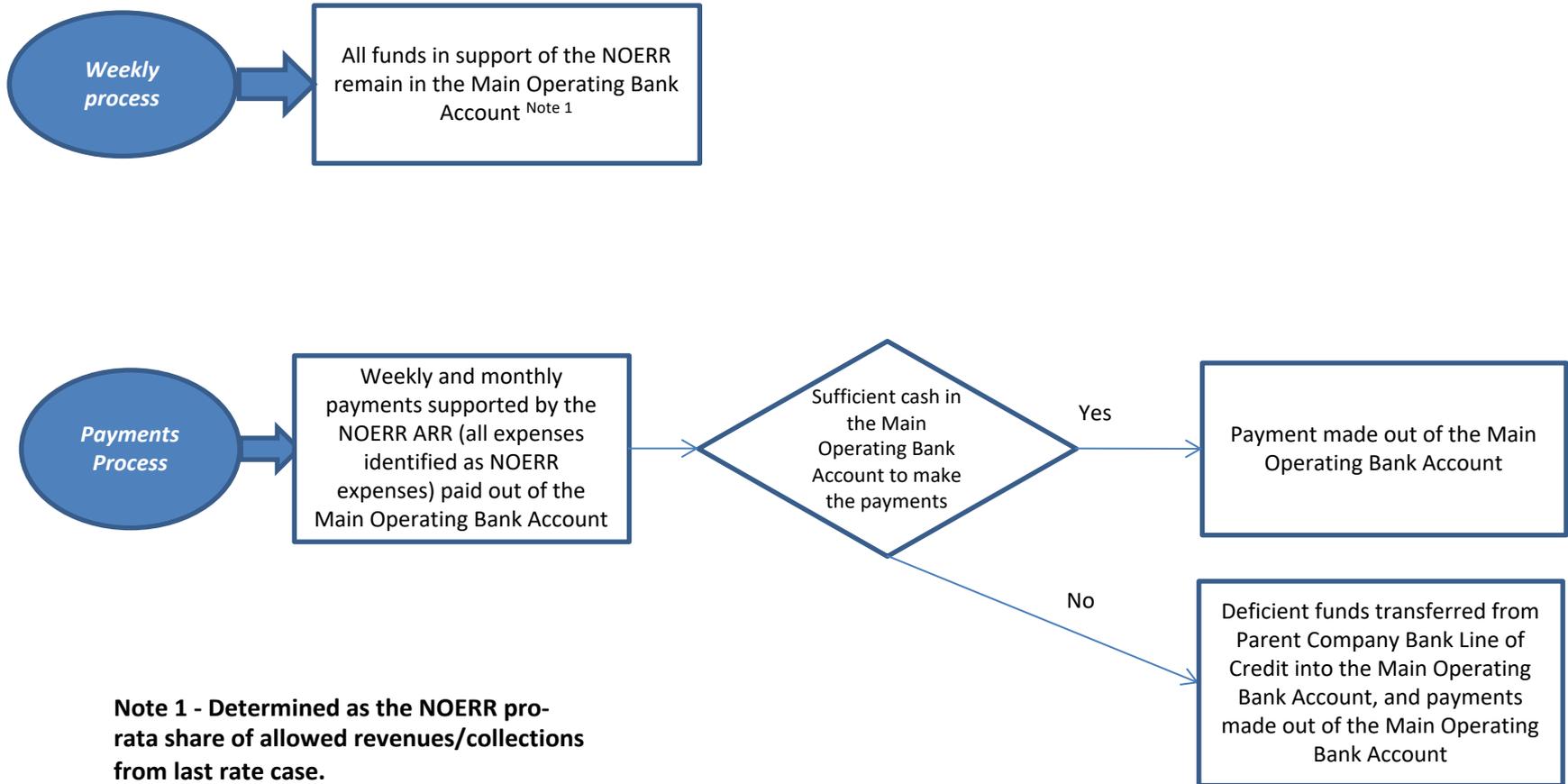
Note 1 – The Approved Revenue Requirement equals the annual revenue requirement established at the most recent rate case. This ARR is divided amongst the component Revenue Requirement items into the identified CBFR, MOERR/MOEF, NOERR, DSRR-1.0 and DSRR 0.1 revenue “buckets.”

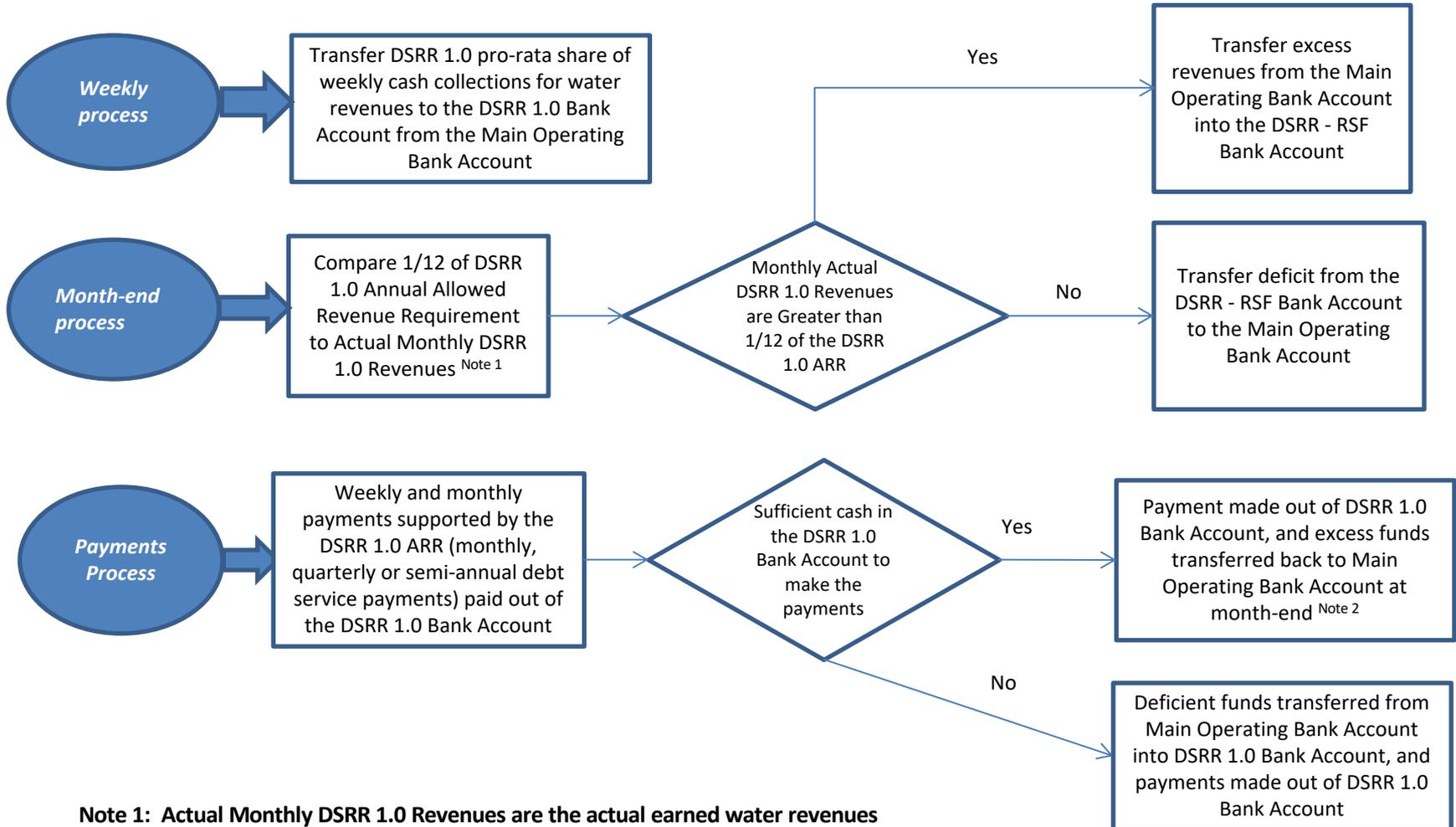


Note 1: Actual Monthly CBFRR Revenues are the actual earned water revenues in the month multiplied times the pro-rata percentage of revenues allocated to the CBFRR, per the last rate case.



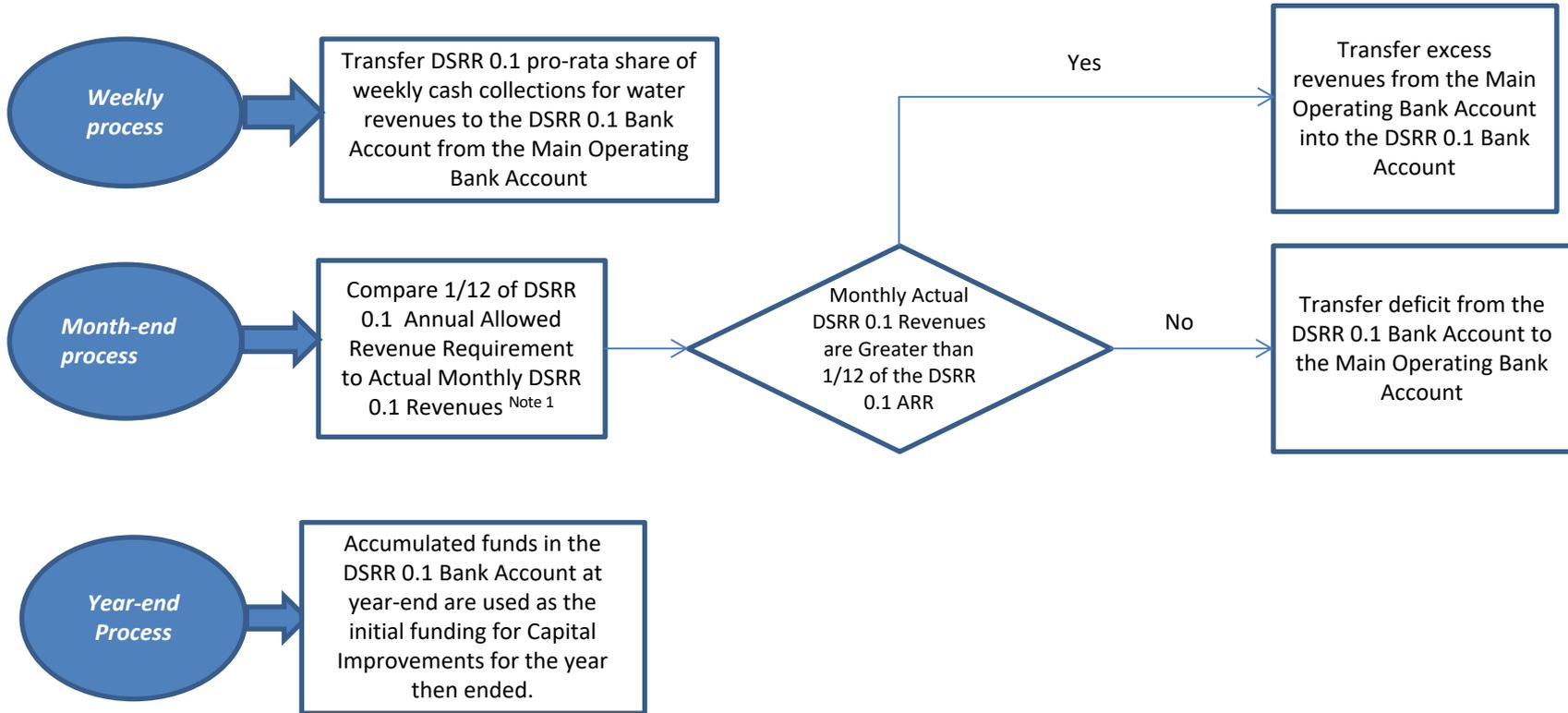
Note 1: Actual Monthly MOERR/MOEF Revenues are the actual earned water revenues in the month multiplied times the pro-rata percentage of revenues allocated to the MOERR/MOEF, per the last rate case.



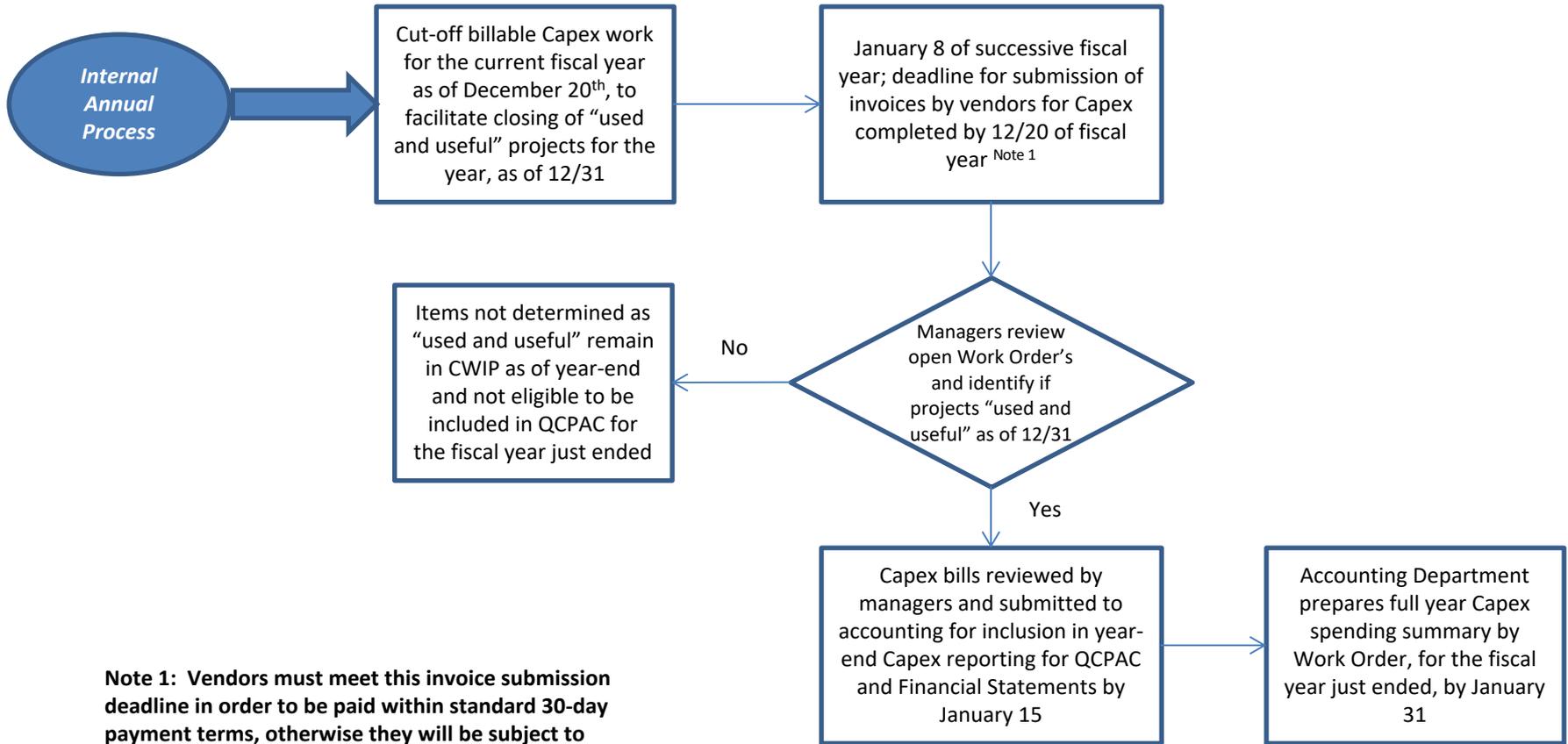


Note 1: Actual Monthly DSRR 1.0 Revenues are the actual earned water revenues in the month multiplied times the pro-rata percentage of revenues allocated to the DSRR 1.0, per the last rate case.

Note 2: Adequacy of funds in the DSRR Bank Account each month will be determined as 100% of monthly payment obligations, 33 1/3% of quarterly payment obligations and 1/12 of the annual debt service for semi-annual payment obligations.



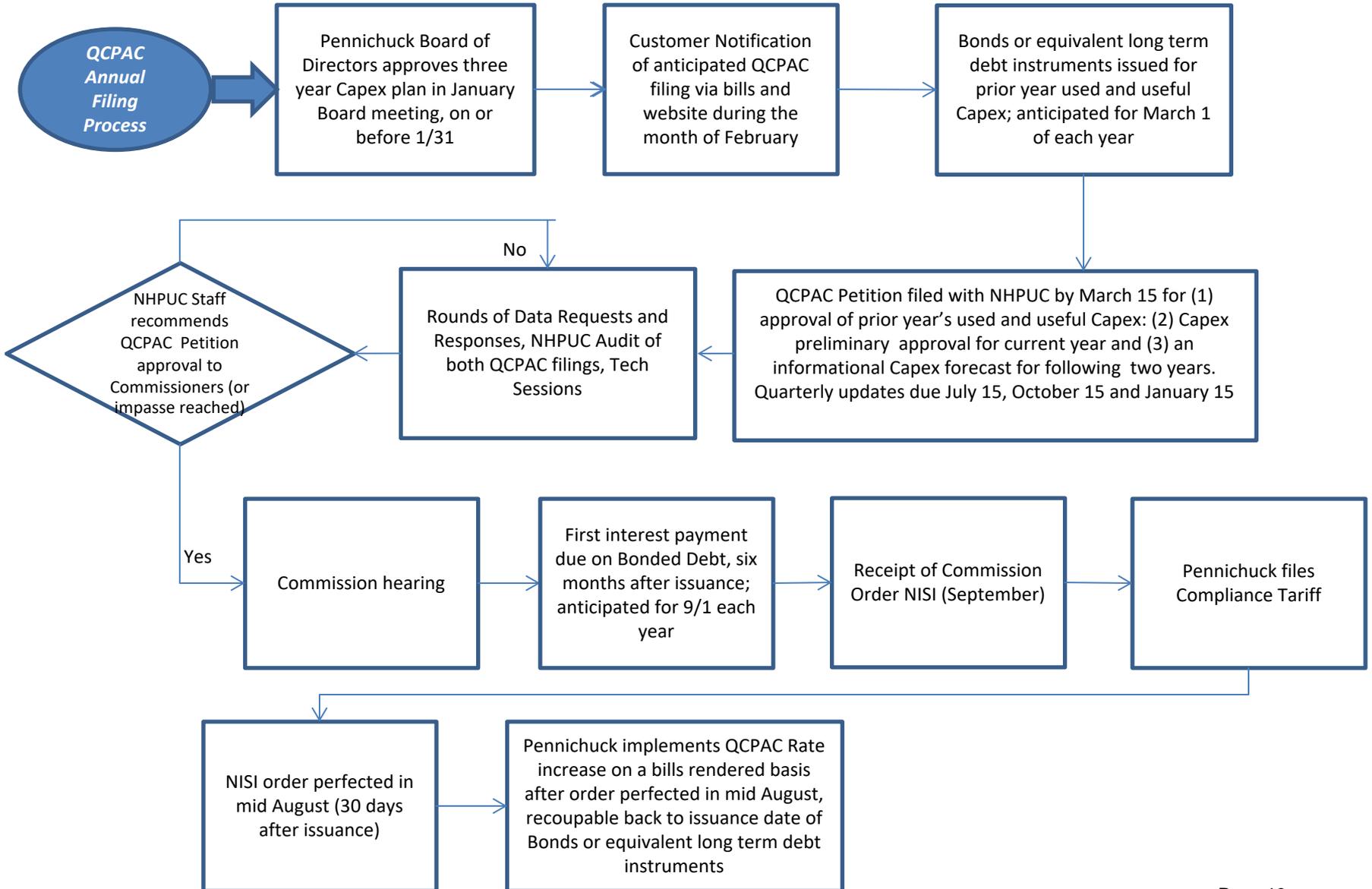
Note 1: Actual Monthly DSRR 0.1 Revenues are the actual earned water revenues in the month multiplied times the pro-rata percentage of revenues allocated to the DSRR 0.1, per the last rate case.



Note 1: Vendors must meet this invoice submission deadline in order to be paid within standard 30-day payment terms, otherwise they will be subject to delayed "penalty" payment terms. This requirement to be implemented in all vendor contracts going forward.

Note 2: No Capex projects/purchases allowed except for emergencies and/or essential carryover projects – 1/1-2/28 of successive fiscal year

Note 3: Submission of invoices by vendors for Capex completed by 12/20 of fiscal year, after January 8 of successive fiscal year, subject to delayed 60-day payment terms (as a facilitator to receive invoices timely for year-end QCPAC and Financial reporting purposes).



Pennichuck East Utility, Inc. - DW 20-156
Definition of Terms

- **Approved Revenue Requirement:** equals the annual revenue requirement established at the most recent rate case. This ARR is divided amongst the component Revenue Requirement items, inclusive of the annual QCPAC surcharge increase allocated amounts, into the identified CBFRR, OERR and DSRR revenue “buckets.”
- **Actual Revenues and Actual Expenses:** In all cases with regards to the flowcharts and processes included on Flowcharts A thru E, Actual Revenues and Actual Expenses are on a GAAP basis, inclusive of accrued amounts.
- **CBFRR RSF:** Same as the former RSF as authorized and described in DW 11-026 and reaffirmed in DW 17-128. Allows for the maintenance of stable water utility rates, while providing a mechanism to ensure the Company’s ability to meet its obligations under the promissory note to the City.
- **MOERR RSF:** Funds used to provide cash flow for allowable expenses, defined as PAC’s Operation and Maintenance Expenses (less those in the NOERR), Property Tax Expense, Payroll Tax Expense, and Amortization Expense.
- **MOEF and MOERR/MOEF:** The MOEF is a factor embedded in the calculation of overall allowed revenues allocated to the MOERR portion of those revenues from the Company’s last rate case. This factor is included in the pro-rata allocation of allowed revenues by multiplying the allowed MOERR portion of the OERR revenues by a factor inclusive of the allowed MOEF. It calculated as:
 - $(\text{MOERR allowed revenues}) \times (1 + \text{MOEF}) = \text{MOERR/MOEF allowed revenues.}$
- **NOERR:** Funds expenses that are potentially imprudent expenditures within the context of a rate proceeding. The categorization of an expense item in the NOERR does not preclude PAC’s recovery of such in rates, as long as that expense item is found to be prudently incurred within the pro forma test year. They may not, however, be included in any use of or replenishment from the MOERR RSF.
- **DSRR-1.0 RSF:** used to support the payments related to the principal and interest obligations for PAC, in existence as of the most recent rate case test year. The establishment of this DSRR-1.0 RSF bucket is to allow the collection of revenues sufficient to pay the principal and interest of PAC’s debt and to satisfy the debt service coverage ratio requirements of PAC’s bond financings and Pennichuck Corporation’s covenant requirements of its line of credit, which is used by Pennichuck Corporation and its subsidiaries as a “back stop” to short-term working capital needs.
- **DSRR-0.1:** The intended purposes for the establishment of the DSRR-0.1 are 1) to allow for the collection of revenues sufficient to satisfy the debt service coverage ratio requirements of PAC’s bond financings and Pennichuck Corporation’s covenant requirements for its line of credit, which is used by Pennichuck Corporation and its subsidiaries as a “back stop” for short-term capital needs; and 2) to allow PAC to collect revenues over-and-above its actual debt service in order to comply with cash flow coverage requirements which are typical for such financings.