DW 17-165
ABENAKI WATER COMPANY, INC.
ROSEBROOK DIVISION
PERMANENT RATES
REVENUE REQUIREMENT

Proforma Rate Base (Sch 3; Col 9)		$ 594,298
Rate of Return (Sch 2)	x	6.59%
Operating Income Requirement		39,164
Less: Proforma Operating Income (Sch 4; Col 9)		(2,586)
Revenue Deficiency / (Surplus) Before Income Tax Effect		41,750
Divided by Income Tax Divisor (Sch 5)	÷	60.59%
Tax Effected Revenue Deficiency / (Surplus)		68,909
Add: Proforma Annual Water Revenues (Sch 4; Col 9)	+	276,335
Total Proposed Operating Revenue Requirement after Permanent Rates		$ 345,244

Revenue Deficiency Adjusted for 2018 Tax Change:

Tax Effected Revenue Deficiency / (Surplus)		$ 68,909
Tax Rate Change Revenue Adjustment (Sch 4d)		(11,849)
Amortization of Excess Deferred Income Taxes		(534)
Amortization of Excess Deferred Tax Liability (Company Schedule)		-
Adjusted Revenue Deficiency / (Surplus)		$ 56,525
Add: Proforma Annual Water Revenues (Sch 4; Col 9)	+	276,335
Total Proposed Tax Effected Operating Revenue Requirement after Permanent Rates		$ 332,860
Percentage Increase/Decrease in Annual Water Revenues after Permanent Rates		20.46%

Proposed Revenue Requirement		Increase	Increase %
Tax Effected Revenue Requirement after Permanent Rate	$ 332,860	$ 56,525	20.46%
Step Increase I Revenue Requirement	14,039	14,039	5.08%
Step Increase II Revenue Requirement	9,986	9,986	3.61%
	$ 356,885	$ 80,550	29.15%
Proforma Annual Water Revenues	÷ $ 276,335		
Percentage Increase in Annual Water Revenues	29.15%		

DW 17-165
ABENAKI WATER COMPANY, INC.
ALL DIVISIONS INCLUDED
PERMANENT RATES
WEIGHTED AVERAGE COST OF CAPITAL

	Capital Structure		Cost of Debt					Weighted
	Per Test Year	Percent	Interest Rate @ 09/30/17	Annual Interest*	Annual Amortization **	Total Annual Cost of Debt	Cost Rate	Average Cost
Debt								
2014 CoBank Loan, $300,000	$ 205,080	16.69%	3.68%	$ 7,547	$ 2,163	$ 9,710	4.73%	0.79%
2016 CoBank Loan, $400,000	387,201	31.50%	3.55%	13,746	128	13,874	3.58%	1.13%
Total Debt	592,281	48.19%		$ 21,293	$ 2,291	$ 23,584	3.98%	1.92%
Common Equity								
Common Stock	-	0.00%						
Additional Paid in Capital	589,521	47.97%						
Retained Earnings	47,234	3.84%						
Total Common Equity	636,755	51.81%					9.01%	4.67%
								6.59%
Total Capitalization	$ 1,229,036	100.00%						

* Annual Interest calculation: Test Year balance x Interest Rate at 9/30/17

** Per response to Data Request: Tech 1-6

DW 17-165
ABENAKI WATER COMPANY, INC.
ROSEBROOK DIVISION
PERMANENT RATES
PRO-FORMA RATE BASE

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Original Permanent Rate Filing			Revised Permanent Rate Filing			Permanent Rates		
	4-Qtr Average	Company Proforma Adjust's	Proforma Rate Base	Revised Filed 4/30/18 5-Qtr Average	Original Company Proforma Adjust's	Proforma Rate Base	Staff Proforma Adjust's (Sch 3a)	Staff Adj # (Sch 3a)	Proforma Rate Base
Net Utility Plant in Rate Base									
Utility Plant in Service	$ 1,446,627	$ 159,074	$ 1,605,701	$ 1,432,497	$ 159,074	$ 1,591,571	$ 18,555	1-3	$ 1,610,126
Less: Accumulated Depreciation	(663,712)	(18,039)	(681,751)	(661,288)	(18,039)	(679,327)	(1,033)	4-6	(680,360)
Net Utility Plant in Service	782,915	141,035	923,950	771,209	141,035	912,244	17,522		929,766
Utility Plant Acquisition Adjustment	36,234	-	36,234	36,234	-	36,234	(36,234)	7	-
Less: Accum Amortization of Utility Plant Acq Adj	-	(2,265)	(2,265)	-	(2,265)	(2,265)	2,265	8	-
Less: Contributions in Aid of Construction (CIAC)	(448,114)	1,783	(446,331)	(448,233)	1,783	(446,450)	(2,258)	9-11	(448,708)
Add: Accumulated Amortization - CIAC	172,080	4,457	176,537	170,251	4,457	174,708	4,206	12-14	178,914
Net Utility Plant in Rate Base	543,115	145,010	688,125	529,461	145,010	674,471	(14,499)		659,972
Net Working Capital in Rate Base									
Cash Working Capital	26,210	165	26,375	26,210	165	26,375	785	15-16	27,160
Materials and Supplies	4,952	(152)	4,800	5,043	(152)	4,891	152	17	5,043
Prepayments - Other	3,651	503	4,154	4,453	503	4,956	(4,956)	18-19	-
Prepayments - Taxes	-	-	-	-	-	-	-		-
Accumulated Deferred Income Taxes	(89,814)	(8,063)	(97,877)	(88,201)	(8,063)	(96,264)	(1,613)	20-21	(97,877)
Rounding	-	-		-	-		-		-
Net Working Capital in Rate Base	(55,001)	(7,547)	(62,548)	(52,495)	(7,547)	(60,042)	(5,632)		(65,674)
TOTAL RATE BASE	$ 488,114	$ 137,463	$ 625,577	$ 476,966	$ 137,463	$ 614,429	$ (20,131)		$ 594,298

DW 17-165
ABENAKI WATER COMPANY, INC.
ROSEBROOK DIVISION
PERMANENT RATES
PRO-FORMA ADJUSTMENTS TO RATE BASE

Adj #			
	Proforma Adjustments to Utility Plant in Service:		
1	To reverse Company proforma for Utility Plant in Service.		(159,074)
2	To record Staff proforma adjusting Utility Plant in Service to year-end balance. (See Schedule 3b)		125,698
3	To record Organization Costs associated with the acquisition of Rosebrook by Abenaki		51,931
	Total Adjustments - Utility Plant in Service		18,555
	Proforma Adjustments to Accumulated Depreciation		
4	To reverse Company proforma for Accumulated Depreciation.		18,039
5	To record Staff proforma adjusting Accumulated Depreciation to year-end balance. (See Schedule 3b)		(17,217)
6	To record Accumulated Depreciation for Organization Costs	($51,931 / 14 yrs) / 2	(1,855)
	Total Adjustments - Accumulated Depreciation		(1,033)
	Proforma Adjustments to Utility Plant Acquisition Adjustment:		
7	To remove Utility Plant Acquisition Adjustment from Plant as an unallowable recovery amount. (See Schedule 3b)		(36,234)
	Proforma Adjustments to Accumulated Amortization of Utility Plant Acq Adjustment		
8	To remove Accumulated Amortization of Utility Plant Acq Adjustment as an unallowable recovery amount.		2,265
	Proforma Adjustments to Contributions in Aid of Construction (CIAC)		
9	To reverse Company proforma for Contributions in Aid of Construction (CIAC)		(1,783)
10	To record Staff proforma adjusting Contributions in Aid of Construction to year-end balance. (See Schedule 3b)		1,902
11	To correct misposted amortization per <u>Audit Issue</u> #5		(2,377)
	Total Proforma Adjustments to Contributions in Aid of Construction (CIAC)		(2,258)
	Proforma Adjustments to Accumulated Amortization - CIAC		
12	To reverse Company proforma for Accumulated Amortization - CIAC		(4,457)
13	To record Staff proforma adjusting Accumulated Amortization - CIAC to year-end balance. (See Schedule 3b)		6,286
14	To correct misposted amortization per <u>Audit Issue</u> #5		2,377
	Total Proforma Adjustments to Accumulated Amortization - CIAC		4,206
	Working Capital:		
	<u>Cash Working Capital</u>		
15	To reverse Company proforma for Cash Working Capital		(165)
16	To adjust Cash Working Capital to reflect adjusted year end O & M balances reported on the Income Statement, Schedule 4, column 9. (See Schedule 3b)		
	Working Capital per Staff based on Proforma Test Year	27,160	

DW 17-165
ABENAKI WATER COMPANY, INC.
ROSEBROOK DIVISION
PERMANENT RATES
PRO-FORMA ADJUSTMENTS TO RATE BASE

Adj #			
	less Working Capital per the Company based on Actual Test Year	(26,210)	950
	Total Adjustments - Cash Working Capital		785
	Proforma Adjustments to Materials and Supplies		
17	To reverse Company proforma for Material and Supplies.		152
	Total Proforma Adjustments to Materials and Supplies		152
	Prepayments - Other		
18	To reverse Company proforma adjustment for Prepayments - Other.		(503)
19	To adjust Prepaid expenses to include only those prepaids not included in Cash Working Capital. (See Schedule 3b)		(4,453)
	Total Adjustments - Prepayments - Other		(4,956)
	Proforma Adjustments to Accumulated Deferred Income Taxes		
20	To reverse Company proforma adjustment to Accumulated Deferred Income Taxes		8,063
21	To record Staff proforma adjust ing Accumulated Deferred Inocme Taxes to year-end balance. (See Schedule 3b)		(9,676)
			(1,613)
	Total Pro Forma Adjustments to Rate Base		(20,131)

DW 17-165
ABENAKI WATER COMPANY, INC.
ROSEBROOK DIVISION
PERMANENT RATES
CALCULATION OF 5-QUARTER AVERAGE RATE BASE

	For the Quarter Ended						Staff 5-Quarter Average	Staff Proforma Adjustments	Adj #	Proforma Rate Base
	09/30/16	12/31/16	03/31/17	06/30/17	09/30/17					
Net Utility Plant in Rate Base										
Total Utility Plant	$ 1,362,703	$ 1,382,473	$ 1,403,009	$ 1,456,106	$ 1,558,195		$ 1,432,497	$ 125,698	2	$ 1,558,195
Less: Accumulated Depreciation	(651,590)	(651,169)	(660,169)	(665,005)	(678,505)		(661,288)	(17,217)	5	(678,505)
Net Utility Plant in Service	711,113	731,304	742,840	791,101	879,690		771,209	108,481		879,690
Utility Plant Acquisition Adjustment	36,234	36,234	36,234	36,234	36,234		36,234	(36,234)	7	-
Less: Accum Amortization of Utility Plant Acq Adj	-	-	-	-	-		-	-		-
Less: Contributions in Aid of Construction	(448,708)	(448,708)	(448,708)	(448,708)	(446,331)		(448,233)	1,902	10	(446,331)
Add: Accumulated Amortization - CIAC	162,938	168,217	168,217	175,348	176,537		170,251	6,286	13	176,537
Net Utility Plant in Rate Base	$ 461,577	$ 487,047	$ 498,583	$ 553,975	$ 646,130		$ 529,461	$ 80,435		$ 609,896
Net Working Capital in Rate Base										
Cash Working Capital (b)	[redacted]				26,210	(b)	27,160	950	16	27,160
Materials and Supplies	5,408	5,408	4,800	4,800	4,800		5,043	-		5,043
Prepayments - Other	7,660	851	4,788	4,811	4,154		4,453	(4,453)	19	-
Accumulated Deferred Income Taxes - Liabilities	(81,751)	(81,751)	(81,751)	(97,877)	(97,877)		(88,201)	(9,676)	21	(97,877)
Net Working Capital in Rate Base	$ (68,683)	$ (75,492)	$ (72,163)	$ (88,266)	$ (62,713)		$ (51,545)	$ (13,179)		$ (65,674)
TOTAL RATE BASE	$ 392,894	$ 411,555	$ 426,420	$ 465,709	$ 583,417		$ 477,916	$ 67,256		$ 544,222

		Original Actual Test Year (Sch 4, Col 1)		Proforma Test Year (Sch 4, Col 9)
(b) Staff's Calculation of Cash Working Capital:				
Adjusted Total O & M Expenses (Sch 4)		212,574		220,279
Cash Working Capital % (45 days / 365 days)	x	12.33%	x	12.33%
Cash Working Capital		26,210		27,160

Attachment A
Schedule 4

DW 17-165
ABENAKI WATER COMPANY, INC.
ROSEBROOK DIVISION
PERMANENT RATES
PRO-FORMA OPERATING INCOME STATEMENT

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	Original Permanent Rate Filing			Revised Permanent Rate Filing			Permanent Rates				
	Actual Test Year	Company Proforma Adjust's	Proforma Test Year	Revised Test Year Filed 4/23/18	Original Company Proforma Adjust's	Revised Proforma Test Year	Staff Proforma Adjust's (Sch 4a)	Adj # (Sch 4a)	Proforma Operating Income	Revenue Deficiency (Surplus) (Sch 1)	Operating Income Requirement (Sch 1)
Operating Revenue:											
Sales of Water	$ 270,092	$ 102,232	$ 372,324	$ 276,335	$ 102,232	$ 378,567	$ (102,232)	22	$ 276,335	$ 68,909	$ 345,244
Other Operating Revenue	-	-	-	-	-	-	-		-		-
Total Operating Revenues	270,092	102,232	372,324	276,335	102,232	378,567	(102,232)		276,335	68,909	345,244
Operating Expenses:											
Operation & Maintenance Expenses:											
Source of Supply	212,574	1,342	213,916	-	-	-	-		-		-
Pumping Expenses	-	-	-	69,265	-	69,265	-		69,265		69,265
Water Treatment Expenses	-	-	-	34,871	-	34,871	-		34,871		34,871
Transmission & Distribution Expenses	-	-	-	18,287	-	18,287	-		18,287		18,287
Customer Accounts Expenses	-	-	-	11,255	-	11,255	-		11,255		11,255
Administrative & General Expenses	-	-	-	83,356	1,342	84,698	1,903	23	86,601		86,601
Total Operation & Maintenance Expenses	212,574	1,342	213,916	217,034	1,342	218,376	1,903		220,279	-	220,279
Depreciation Expense	57,272	6,491	63,763	57,272	6,491	63,763	(2,782)	24	60,981		60,981
Amortization Expense - CIAC	(15,975)	-	(15,975)	(15,975)	-	(15,975)	-		(15,975)		(15,975)
Amortization Expense - Other	(1,124)	4,529	3,405	(1,124)	4,529	3,405	(4,529)	25	(1,124)		(1,124)
Taxes Other Than Income	22,704	-	22,704	22,704	-	22,704	(8,704)	26	14,000		14,000
Total Operating Expenses	275,451	12,362	287,813	279,911	12,362	292,273	(14,112)		278,161	-	278,161
Net Operating Income before Income Taxes	(5,359)	89,870	84,511	(3,576)	89,870	86,294	(88,120)		(1,826)	68,909	67,083
Less: Income Taxes	10,626	25,211	35,837	10,626	25,211	35,837	(35,077)	27-28	760	27,158	27,918
NET OPERATING INCOME	$ (15,985)	$ 64,659	$ 48,674	$ (14,202)	$ 64,659	$ 50,457	$ (53,043)		$ (2,586)	$ 41,750	$ 39,164

DW 17-165
ABENAKI WATER COMPANY, INC.
ROSEBROOK DIVISION
PERMANENT RATES
PRO-FORMA ADJUSTMENTS TO NET OPERATING INCOME

Adj #					
	Proforma Adjustments to Sales of Water				
22	To reverse Company proforma.				(102,232)
	Total adjustments to Sales of Water				(102,232)
	Proforma Adjustments to Administrative & General Expenses				
23	To adjust Company proforma for lease agreement costs.				
	Actual lease expense incurred during Test Year:				
	Laconia: 10 months @ $1,000/mo	10,000			
	Connecticut: 3 mos @ $257.50, 9 mos @ 273.25	3,232			
		13,232			
	Proformed lease expense:				
	Laconia: 3 mos @ $1,000, 9 mos @ 1,022	12,198			
	Connecticut: 12 mos @ $273.25	3,279			
		15,477			
	Staff proformed lease expense:			15,477	
	Less: Staff actual lease expense:			(13,232)	
	Staff proforma adjustment			2,245	
	Less: Company proforma adjustment			(342)	1,903
	Total Adjustments to Administrative & General Expenses				1,903
	Proforma Adjustments to Depreciation Expense				
24	To adjust Company proforma for depreciation expense related to Organizational Costs.				
	Acquisition Costs: 51,931 /	14 years		3,709	
	Less: Company proforma adjustment			(6,491)	(2,782)
	Total Proforma Adjustments to Depreciation Expense				(2,782)
	Proforma Adjustments to Amortization Expense - Other				
25	To remove Amortization Expense for Utility Plant Acq Adjustment as an unallowable recovery amou				(4,529)
	Total Proforma Adjustments to Amortization Expense - Other				(4,529)
	Proforma Adjustments to Taxes Other Than Income				
26	To adjust Taxes Other than Income to reflect actual property taxes. (See Schedule 4b)				
	Taxes Other than Income per Income Statement (Schedule 4)		22,704		
	Actual Taxes Other than Income per Staff (Schedule 4b)		(14,000)		(8,704)
	Total Proforma Adjustments to Taxes Other Than Income				(8,704)

DW 17-165
ABENAKI WATER COMPANY, INC.
ROSEBROOK DIVISION
PERMANENT RATES
PRO-FORMA ADJUSTMENTS TO NET OPERATING INCOME

Adj #		
	Total Pro-forma Adjustments to Net Operating Income before Income Taxes	**(88,120)**
	Income Tax	
27	To adjust Income Tax Expense per Schedule 4c	(34,730)
28	To adjust Income Tax Expense per Schedule 4d	(347)
	Total Adjustments - Income Taxes	(35,077)

Attachment A
Schedule 4b

DW 17-165
ABENAKI WATER COMPANY, INC.
ROSEBROOK DIVISION
PERMANENT RATES
ANALYSIS OF MUNICIPAL AND STATE REAL ESTATE TAX
AND CALCULATION OF PROFORMA PROPERTY TAX EXPENSE

Invoice Date	Taxing Entity	Identification		Valuation	Actual Billing Total Rate	Tax	Payment
12/19/2016	Carroll	999-UTL-WAT-000	Bretton Woods Pump Station	$ 558,506	$ 16.65	$ 9,299	$ 4,406
7/6/2017	Carroll	999-UTL-WAT-000	Bretton Woods Pump Station	$ 625,907	16.65	$ 10,421	$ 5,211
12/21/2017	Carroll	999-UTL-WAT-000	Bretton Woods Pump Station	$ 357,700	17.40	$ 6,224	$ 1,013
6/8/2018	Carroll	999-UTL-WAT-000	Bretton Woods Pump Station	$ 357,700	17.40	$ 6,224	$ 3,116
12/20/2016	Bethlehem	422-006-011-000	B/O Land of Bretton Wds (Water Tank)	$ 128,981	26.24	$ 3,384	$ 1,712
7/7/2017	Bethlehem	422-006-011-000	B/O Land of Bretton Wds (Water Tank)	$ 132,315	26.24	$ 3,472	$ 1,894
12/20/2017	Bethlehem	422-006-011-000	B/O Land of Bretton Wds (Water Tank)	$ 73,300	29.66	$ 2,174	$ 445
7/2/2018	Bethlehem	422-006-011-000	B/O Land of Bretton Wds (Water Tank)	$ 73,300	29.66	$ 2,174	$ 1,087
12/15/2016	State of NH		04/01/16 - 03/31/17	$ 750,200	6.60	$ 4,951	$ 4,951
12/15/2017	State of NH		04/01/17 - 03/31/18	$ 848,200	6.60	$ 5,598	$ 5,598

	Test Year: October 1, 2016 - September 30, 2017		Proforma: October 1, 2017 - September 30, 2018	
Carroll	1/2 of 12/19/16 Billing (Oct - Mar)	$ 4,650	1/2 of 12/21/17 Billing (Oct - Mar)	$ 3,112
	1/2 of 12/21/17 Billing (Apr - Sept)	3,112	All of 6/8/18 Payment (Apr - Sept)	3,116
		$ 7,762		$ 6,228
Bethlehem	1/2 of 12/20/16 Billing (Oct - Mar)	$ 1,692	1/2 of 12/20/17 Billing (Oct - Mar)	$ 1,087
	1/2 of 12/20/17 Billing (Apr - Sept)	1,087	All of 7/2/18 Payment (Apr - Sept)	1,087
		$ 2,779		$ 2,174
State of NH	1/2 of 12/15/16 Billing (Oct - Mar)	$ 2,476	1/2 of 12/15/17 Billing (Oct - Mar)	$ 2,799
	1/2 of 12/15/17 Billing (Apr - Sept)	2,799	1/2 of 12/15/17 Billing as EST (Apr - Se	2,799
		$ 5,275		$ 5,598
	Total Tax for Test Year	$ 15,816	Total Tax for Proforma	$ 14,000

DW 17-165
ABENAKI WATER COMPANY, INC.
ROSEBROOK DIVISION
PROFORMA ADJUSTMENTS TO INCOME TAXES

INCOME TAXES
To reflect the income tax effect of proforma adjustments to revenue and expenses:

Total proforma adjustments to Water Revenue	$ (102,232)
Total proforma adjustments to Administrative & General Expenses	(1,903)
Total proforma adjustments to Depreciation Expense	2,782
Total proforma adjustments to Amortization Expense - Other	4,529
Total proforma adjustments to Taxes Other than Income	8,704
Additional Revenue/(Expense) Subject to New Hampshire Business Profits Tax	(88,120)
New Hampshire Business Profits Tax @ 8.2%	7,226
Additional Revenue/(Expense) Subject to Federal Income Tax	(80,894)
Federal income Tax @ 34%	27,504
Staff Proforma Adjustments Net of Income Taxes	$ (53,390)

DW 17-165
ABENAKI WATER COMPANY, INC.
ROSEBROOK DIVISION
PERMANENT RATES
INCOME TAX COMPUTATION

Interest Expense Synchronization :

Rate Base (Schedule 3; column 9)	$	594,298
Debt Portion (Schedule 2)		48.19%
Debt Component	$	286,392
Debt Cost (Schedule 2)		3.98%
Syncronized Interest Expense	$	11,404
Less: Test Year Interest Expense	$	(12,285)
Income Tax Expense Interest Adjustment	$	(881)
Composite Income Tax Rate (Schedule 5)		39.41%
Income Tax Expense - Normalized	$	(347)

Tax Change Effect - FERC Methodology:

Income Tax Expense prior to Gross-up	$	760
Income Tax Gross-up		27,158
Composite Income Tax Expense		27,918
2018 Tax Rate Factor		0.37440
2017 Tax Rate Factor	÷	0.65049
2018 Tax Rate Factor ÷ 2017 Tax Rate Factor		0.57557
Adjusted Composite Income Tax Expense		16,069
Revenue Adjustment	$	(11,849)

Amortization of Excess Deferred Income Taxes

Excess Tax Reserve: $14,900 / 27.92 years	$	(534)

DW 17-165
ABENAKI WATER COMPANY, INC.
ROSEBROOK DIVISION
PERMANENT RATES
EFFECTIVE TAX FACTOR

	Effective 2017	Effective 2018
Taxable Income	100.00%	100.00%
Less: NH Busines Profits Tax	-8.20%	-7.90%
Federal Taxable Income	91.80%	92.10%
Federal Income Tax Rate	34.00%	21.00%
Effective Federal Income Tax Rate	31.21%	19.34%
Add: NH Business Profits Tax	8.20%	7.90%
Effective Tax Rate	39.41%	27.24%
Percent of Income Available if No Tax	100.00%	100.00%
Effective Tax Rate	-39.41%	-27.24%
Percent Used as a Divisor to Determine Revenue Requirement	60.59%	72.76%
Tax Multiplier (Effective Tax Rate ÷ Percent Used as a Divisor)	0.65049	0.37440

DW 17-165
ABENAKI WATER COMPANY, INC.
ROSEBROOK DIVISION
PERMANENT RATES
CALCULATION OF RATES

Total Annual Water Revenues Proposed per Settlement (Sch 1)						$ 332,860	
Less: Fire Protection Revenues							
Municipal					$ -		
Private					-	-	
Revenues from General Metered Customers						$ 332,860	

Customer Charge Revenues:

Meter Size	Present Rate	Percent Increase	Proposed Rate	Proforma # of Meters	Annual Revenues		
5/8" Meter	$ 9.91	20.46%	**$ 11.94**	107	$ 15,331		
5/8"X3/4" Meter	9.91	20.46%	**11.94**	254	36,393		
1" Meter	32.69	20.46%	**39.38**	46	21,738		
2" Meter	106.00	20.46%	**127.68**	2	3,064		
3" Meter	230.83	20.46%	**278.05**	3	10,010		
6" Meter	924.29	20.46%	**1,113.36**	1	13,360		
			(a)	413	$ 99,896	(99,896)	30.01%

Consumption Charge Revenues:				$ 232,964	69.99%
Consumption Charge Revenues			$ 232,964		
Total Proforma Annual Consumption (1,000 gals)	(b)	÷	35,244		
Consumption Rate per Customer (per 1,000 gals)			**$ 6.61**		
Total Proforma Annual Consumption (per 1,000 gals)		x	35,244	(232,964)	
Unallocated Water Revenues				$ -	

(b) Pro-forma Consumption:	**2017 Actual Water Sales:**			
	Gallons		35,243,804	
	Conversion to Cubic Feet	÷	7.48	
	Cubic Feet		4,711,411	
	Conversion to CCF	÷	100	47,114

NEW RATE:								
Average usage for a Residential Customer per month:	1.31	x	6.61	=	8.66	x 12 =	$ 103.92	
Meter charge					11.94	x 12 =	143.28	
					$ 20.60		$ 247.20	
OLD RATE:								
Average usage for a Residential Customer per month:	1.31	x	5.33	=	6.98	x 12 =	83.76	
Meter charge					9.91	x 12 =	118.92	
					$ 16.89		$ 202.68	
AVERAGE MONTHLY INCREASE PER RESIDENTIAL CUSTOMER:					$ 3.71		$ 44.52	
AVERAGE YEARLY INCREASE PER RESIDENTIAL CUSTOMER:					$ 44.52			

DW 17-165
ABENAKI WATER COMPANY INC
ROSEBROOK DIVISION
STEP I INCREASE - UNAUDITED
REVENUE REQUIREMENT

Increase in Net Income Requirement:		
2018 Plant Additions (Att B; Sch 3)	$	72,243
Less: Accumulated Depreciation (Att B; Sch 3)		(3,474)
Net 2018 Plant in Service		68,769
Net 2018 Plant in Rate Base	$	68,769
Rate of Return (Att B; Sch 2)	x	6.59%
Increase in Operating Income Requirement	$	4,532
Net Increase in Operating Expenses:		
Annual Depreciation Expense for 2018 Plant Additions (Att B; Sch 3)	$	6,943
Annual Income Tax Expense (Rate Base x 1.75%)		1,203
Property Tax Expense for 2018 Plant Additions (Att B; Sch 3)		1,361
Step Increase in Revenue Requirement	**$**	**14,039**
Adjusted Test Year Water Sales (Att A; Sch 1)	**$**	**332,860**
Percent Increase / (Decrease) in Revenue Requirement from Water Sales		**4.22%**

DW 17-165
ABENAKI WATER COMPANY INC
ROSEBROOK DIVISION
STEP I INCREASE - UNAUDITED
WEIGHTED AVERAGE COST OF CAPITAL

	Capital Structure		Cost of Debt					Weighted
	Per Test Year	Percent	Interest Rate @ 09/30/17	Annual Interest*	Annual Amortization **	Total Annual Cost of Debt	Cost Rate	Average Cost
Debt								
2014 CoBank Loan, $300,000	$ 205,080	16.69%	3.68%	$ 7,547	$ 2,163	$ 9,710	4.73%	0.79%
2016 CoBank Loan, $400,000	387,201	31.50%	3.55%	13,746	128	13,874	3.58%	1.13%
Total Debt	592,281	48.19%		$ 21,293	$ 2,291	$ 23,584	3.98%	1.92%
Common Equity								
Common Stock	-	0.00%						
Additional Paid in Capital	589,521	47.97%						
Retained Earnings	47,234	3.84%						
Total Common Equity	636,755	51.81%					9.01%	4.67%
								6.59%
Total Capitalization	$ 1,229,036	100.00%						

* Annual Interest calculation: Test Year balance x Interest Rate at 9/30/17
** Per response to Data Request: Tech 1-6

	Weighted Tax Effect Due to Use of Internal Cash			
	Weighted Cost	Tax Multiplier	Pre-Tax Cost	Tax Gross-up
Debt:	1.92%	1.0000	1.92%	0.00%
Equity:	4.67%	1.3744	6.42%	1.75%
	6.59%		8.34%	1.75%

DW 17-165
ABENAKI WATER COMPANY INC
ROSEBROOK DIVISION
STEP I INCREASE - UNAUDITED
COST ADDITIONS AND RETIREMENTS

2018 Plant Additions:

Account	Estimated Amount *	Depreciation Rate	Estimated Annual Depreciation	Estimated Accumulated Depreciation 12 mos 9/30/18	Estimated Net Plant in Service	Estimated State Property Taxes	Estimated Town Property Taxes
311: Well 1 Pump Replacement	$ 34,768	10.00%	$ 3,477	$ (1,739)	$ 33,029	$ 229	$ 605
333: Services & Renewals (2017)	506	2.50%	13	(7)	499	3	9
333: Services & Renewals (2018)	13,116	2.50%	328	(164)	12,952	87	228
335: Hydrant & Hydrant Install	8,355	1.90%	159	(80)	8,275	55	145
343: Tools, Shop & Garage Equipment	909	5.30%	48	(24)	885	-	-
347: SCADA System Estimate	10,735	20.00%	2,147	(1,074)	9,661	-	-
347: Purchase & Install SCADA Extended	2,098	20.00%	420	(210)	1,888	-	-
347: Website Design	1,067	20.00%	213	(107)	960	-	-
347: NH Server	689	20.00%	138	(69)	620	-	-
	$ 72,243		$ 6,943	$ (3,474)	$ 68,769	$ 374	$ 987

* Estimate: Final invoices pending as of 9/27/18

DW 17-165
ABENAKI WATER COMPANY INC
ROSEBROOK DIVISION
STEP I INCREASE - UNAUDITED
CALCULATION OF RATES

Total Annual Water Revenues Proposed per Settlement (Sch 1)						$ 346,899	
Less: Fire Protection Revenues							
Municipal					$ -		
Private					-	-	
Revenues from General Metered Customers						$ 346,899	

Customer Charge Revenues:

Meter Size	Att A, Sch 6a Adjusted Rate	Percent Increase	Proposed Rate	Pro-forma # of Meters	Annual Revenues		
5/8" Meter	$ 11.94	4.22%	**$ 12.44**	107	$ 15,973		
5/8"X3/4" Meter	11.94	4.22%	**12.44**	254	37,917		
1" Meter	39.38	4.22%	**41.04**	46	22,654		
2" Meter	127.68	4.22%	**133.07**	2	3,194		
3" Meter	278.05	4.22%	**289.78**	3	10,432		
6" Meter	1,113.36	4.22%	**1,160.32**	1	13,924		
			(a)	413	$ 104,094	(104,094)	30.01%

Consumption Charge Revenues:				$ 242,805	69.99%
Consumption Charge Revenues			$ 242,805		
Total Proforma Annual Consumption (1,000 gals)	(b)	÷	35,244		
Consumption Rate per Customer (per 1,000 gals)			**$ 6.89**		
Total Proforma Annual Consumption (per 1,000 gals)		x	35,244	(242,805)	
Unallocated Water Revenues				$ -	

(b) Pro-forma Consumption:	**2017 Actual Water Sales:**			
	Gallons		35,243,804	
	Conversion to Cubic Feet	÷	7.48	
	Cubic Feet		4,711,411	
	Conversion to CCF	÷	100	47,114

NEW RATE:							
Average usage for a Residential Customer per month:	1.31	x	6.89	=	9.02	x 12 =	$ 108.24
Meter charge					12.44	x 12 =	149.28
					$ 21.46		$ 257.52
OLD RATE:							
Average usage for a Residential Customer per month:	1.31	x	5.33	=	6.98	x 12 =	83.76
Meter charge					9.91	x 12 =	118.92
					$ 16.89		$ 202.68
AVERAGE MONTHLY INCREASE PER RESIDENTIAL CUSTOMER:					$ 4.57		$ 54.84
AVERAGE YEARLY INCREASE PER RESIDENTIAL CUSTOMER:					$ 54.84		

DW 17-165
ABENAKI WATER COMPANY INC
ROSEBROOK DIVISION
STEP II INCREASE - UNAUDITED
REVENUE REQUIREMENT

Increase in Net Income Requirement:		
2018 Plant Additions (Att C; Sch 3)	$	100,000
Less: Accumulated Depreciation (Att C; Sch 3)		(1,250)
Net 2018 Plant in Service		98,750
Net 2018 Plant in Rate Base	$	98,750
Rate of Return (Att C; Sch 2)	x	5.15%
Increase in Operating Income Requirement	$	5,086
Net Increase in Operating Expenses:		
Annual Depreciation Expense for 2018 Plant Additions (Att C; Sch 3)	$	2,500
Property Tax Expense for 2018 Plant Additions (Att C; Sch 3)		2,400
Step Increase in Revenue Requirement	**$**	**9,986**
Adjusted Test Year Water Sales (Att A; Sch 1 + Att B; Sch 1)	**$**	**346,899**
Percent Increase / (Decrease) in Revenue Requirement from Water Sales		**2.88%**

DW 17-165
ABENAKI WATER COMPANY INC
ROSEBROOK DIVISION
STEP II INCREASE - UNAUDITED
WEIGHTED AVERAGE COST OF CAPITAL

	Per Test Year	Percent	Annual Interest*	Annual Amortization **	Total Annual Cost of Debt	Cost Rate
Debt Financing	$ 100,000	5.00%	$ 5,000	$ 150	$ 5,150	5.15%

* Based on estimate interest rate as of 9/27/18

** Calculation of projected amortization of finance costs:

Estimated 2019 Financing Costs:	Bank Fees	$ 500
	Consultant Fees	2,500
	Other Fees	-
	Total	$ 3,000
Loan Term in Years		20
Annual Amortization of Finance Costs		$ 150

DW 17-165
ABENAKI WATER COMPANY INC
ROSEBROOK DIVISION
STEP II INCREASE - UNAUDITED
COST ADDITIONS AND RETIREMENTS

2019 Plant Additions:

Account	Estimated Amount *	Depreciation Rate	Estimated Annual Depreciation	Estimated Accumulated Depreciation 12 mos 9/30/19	Estimated Net Plant in Service	Estimated State Property Taxes	Estimated Town Property Taxes
304: Pressure Reduction Design	$ 100,000	2.50%	$ 2,500	$ (1,250)	$ 98,750	$ 660	$ 1,740
	$ 100,000		$ 2,500	$ (1,250)	$ 98,750	$ 660	$ 1,740

* Estimate: Final invoices pending as of 9/27/18

DW 17-165
ABENAKI WATER COMPANY INC
ROSEBROOK DIVISION
STEP II INCREASE - UNAUDITED
CALCULATION OF RATES

Total Annual Water Revenues Proposed per Settlement (Sch 1)		$ 356,885
Less: Fire Protection Revenues		
Municipal	$ -	
Private	-	-
Revenues from General Metered Customers		$ 356,885

Customer Charge Revenues:

Meter Size	Att A, Sch 6a Adjusted Rate	Percent Increase	Proposed Rate	Pro-forma # of Meters	Annual Revenues		
5/8" Meter	$ 12.44	2.88%	**$ 12.80**	107	$ 16,435		
5/8"X3/4" Meter	12.44	2.88%	**12.80**	254	39,014		
1" Meter	41.04	2.88%	**42.22**	46	23,305		
2" Meter	133.07	2.88%	**136.90**	2	3,286		
3" Meter	289.78	2.88%	**298.12**	3	10,732		
6" Meter	1,160.32	2.88%	**1,193.72**	1	14,325		
			(a)	413	$ 107,097	(107,097)	30.01%

Consumption Charge Revenues:			$ 249,788	69.99%
Consumption Charge Revenues		$ 249,788		
Total Proforma Annual Consumption (1,000 gals)	(b) ÷	35,244		
Consumption Rate per Customer (per 1,000 gals)		**$ 7.09**		
Total Proforma Annual Consumption (per 1,000 gals)	x	35,244	(249,788)	
Unallocated Water Revenues			$ -	

(b) Pro-forma Consumption:

2017 Actual Water Sales:			
Gallons		35,243,804	
Conversion to Cubic Feet	÷	7.48	
Cubic Feet		4,711,411	
Conversion to CCF	÷	100	47,114

NEW RATE:							
Average usage for a Residential Customer per month:	1.31	x	7.09	=	9.28	x 12 =	$ 111.36
Meter charge					12.80	x 12 =	153.60
					$ 22.08		$ 264.96
OLD RATE:							
Average usage for a Residential Customer per month:	1.31	x	5.33	=	6.98	x 12 =	83.76
Meter charge					9.91	x 12 =	118.92
					$ 16.89		$ 202.68
AVERAGE MONTHLY INCREASE PER RESIDENTIAL CUSTOMER:					$ 5.19		$ 62.28
AVERAGE YEARLY INCREASE PER RESIDENTIAL CUSTOMER:					$ 62.28		