TAB 8

Testimony of Donald L. Ware

STATE OF NEW HAMPSHIRE

BEFORE THE

PUBLIC UTILITIES COMMISSION

Docket No. DW 17-128

Pennichuck East Utility, Inc.
Request for Change in Rates

DIRECT TESTIMONY OF DONALD L. WARE

October 18, 2017

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I. INTRODUCTION

Q. What is your name and what is your position with Pennichuck East Utility, Inc.?

A. My name is Donald L. Ware. I am the Chief Operating Officer of the Pennichuck East Utility, Inc. ("PEU" or "the Company") which is a subsidiary of Pennichuck Corporation. I am employed by and have worked for Pennichuck Water Works, Inc. 1995. I am a licensed professional engineer in New Hampshire, Massachusetts and Maine.

Q. Please describe your educational background.

A. I have a Bachelor in Science degree in Civil Engineering from Bucknell University in Lewisburg, Pennsylvania and I completed all the required courses, with the exception of my thesis, for a Master's degree in Civil Engineering from the same institution. I have a Master's in Business Administration from the Whittemore Business School at the University of New Hampshire.

Q. Please describe your professional background.

A. Prior to joining the Company, I served as the General Manager of the Augusta Water District in Augusta, Maine from 1986 to 1995. I served as the District's engineer between 1982 and 1986. Prior to my engagement with the District, I served as a design engineer for the State of Maine Department of Transportation for six months and before that as a design engineer for Buchart-Horn Consulting Engineers from 1979 to 1982.

Q. What are your responsibilities as Chief Operating Officer of PEU?

A. As Chief Operating Officer, I am responsible for PEU's overall operations, including customer service, water supply, distribution and engineering. I work closely with PEU's

Chief Engineer and other senior managers to help develop PEU's Annual and Three-Year Capital Improvement Plans.

II. PURPOSE OF THIS TESTIMONY

Q. What is the purpose of your testimony?

A. I will be discussing the operations of PEU and how these operations relate to and justify the requested rate increase. I have been principally responsible for preparation of the Filing Requirement Schedules and Rate of Return Information filed at Tabs 12 and 13 of PEU's rate case filing. My testimony will address specific details of these schedules. My testimony will interface with Larry Goodhue's and John Boisvert's testimony in regard to addressing the revenue and operational pro formas that are part of 1604.06 Schedule 1 ("Sch 1"), requested changes in rate design that are part of 1604.06 Schedule A ("Sch A") and the capital investments that impact 1604.06 Schedule 3 ("Sch 3") and the financing necessary to support the Company's Capital Improvements in 1604.08 Schedule 5 ("Sch 5").

Q. Do you have any general comments regarding these schedules?

A. Yes. The format of the schedules is generally consistent with the format described in the Settlement Agreement filed in DW16-806. The filed schedules follow the methodology approved by Order No. 25,292 in Docket No. DW 11-026 as well as the methodology described in the 16-806 Settlement Agreement reflecting further modifications to the DW 11-026 methodology. To facilitate review of PEU's proposed rate relief, including the proposals for modifications to the ratemaking structure, I have incorporated within these schedules analysis of several scenarios. One scenario applies the ratemaking structure as it was approved in DW 11-026. This scenario is referred to in the schedules as "Current Rate Model" (see, for example, Exhibit DLW-1, Tab 12) or as "Conventional" (see, for example, Schedule A Perm – Conventional). A second scenario applies the modifications requested by PEU in its Petition for Specific Modifications to its Ratemaking Structure. This scenario is referred to in the schedules as "Modified Rate Model" (see, for example, Exhibit DLW-1, Tab 12) or as "Modified" (see, for example, Schedule A – Modified). A third scenario presented in the schedules is referred to as the "Pre-Acquisition Rate Model" (see, for example, Exhibit DLW-1, Tab 12) or as "Pre-Acquisition Ownership" (see various Schedule A pages). This reference to "Pre-Acquisition" refers to PEU's operating and financial structure as it existed prior to the City of Nashua's acquisition of Pennichuck Corporation ("Pennichuck") in January 2012. In contrast, the schedules also refer at times to "Post-Acquisition," which refers to PWW's operating and financial structure as it exists now after the City's acquisition of Pennichuck.

Q. Why have you incorporated these various scenarios in the ratemaking schedules and rate of return information?

A. As indicated by PEU's full rate case filing, PEU requires rate relief that will allow it to generate revenues sufficient to cover its reasonable operating expenses, it obligations to the City as reflected by the City Bond Fixed Revenue Requirement ("CBFRR"), its principal and interest obligations on its debt, and to remain in compliance with its debt covenants. PEU has prepared the ratemaking schedules and rate of return information to incorporate and demonstrate the effects of the proposed modifications within the same analysis that applies the approved ratemaking structure. I believe that this integrated presentation will allow parties to understand the operation of the proposed modifications in the most effective and efficient manner possible.

III. DISCUSSION OF SPECIFIC SCHEDULES AND INFORMATION

Q. Please discuss the various Schedule A's that are part of the filing.

A. I have included three Schedule A's as part of the 1604.06 schedules titled as follows:

1. Sch A Perm-Conventional ("Sch A P-C")
2. Sch A Perm Five Year Average Consumption ("Sch A 5 Yr Ave") and
3. Schedule A-Modified

Q. Please explain the formation Sch A Perm-Conventional.

A. The first column Sch A P-C reflects data from the Test Year ("TY") ending December 31, 2016 without any pro formas for the City Acquisition. Sch A P-C follows the rate making methodology used by the Post Acquisition Company as approved in DW11-026. The first pro forma column titled "PRO FORMA Adjustments to Test Year" adjusts the 2016 TY data as follows:

(1) The 2016 TY ending rate base was reduced by $17,359,175 reflecting the removal of the equity that was purchased by the City along with the Municipal Acquisition Regulatory Adjustment ("MARA"). The Pre-Acquisition Equity and MARA were removed from the Company's rate base because in DW 11-026, the Commission granted the Post Acquisition Company the CBFRR component to its revenues in lieu of a return on these equity related portions of rate base.

(2) The 2016 TY Adjusted Net Operating Income was pro formed to reflect known and measurable changes to the 2016 TY revenues, operating expenses and

operating deductions that were only partially incurred during 2016 or will be incurred within 12 months of the end of the 2016 TY. These operating expense and deduction pro formas will be discussed in detail later in my testimony when I discuss the formulation of Sch 1.

(3) The 2016 TY Current Revenues w/CBFRR and North Country Capital Recovery Surcharge ("CRS") were pro formed as follows:

(a) The revenues were reduced by the Company's share of the CBFRR, or $926,309, per Sch 1 Attachment A.

(b) The revenues were further reduced by the North Country CRS collected in 2016 or $299,985 per Sch 1 Attachment A.

(c) The revenues were further reduced to reflect a proposed normalization of the Test Year revenues due to the abnormally dry test year that resulted in revenues well in excess of what could be normally expected. The 2016 Revenues were reduced by $197,543 reflecting a reduction of revenues by 50% of the five year average revenues.

Q. Please describe the proforma column on Sch A P-C titled "PRO FORMA Adjustments for 2017 Step Increase".

A. The pro forms in this column adjust the PRO FORMA 12 Months Ending 12/31/2016 to the PRO FORMA 2017 Step Increase for Capital additions as follows:

(1) The consolidated rate base was pro formed to reflect additions to rate base that were completed or the Company expects will be completed and used and useful by the end of 2017, net of asset retirements that occurred during 2017. The 2017

plant additions and the expenses associated with those additions are found in Sch 3-Step Additions. The 2017 plant retirements and the associated reduction in expenses are found in Sch 3 Attachment A-Step.

(2) The PRO FORMA 12 Months Ending 12/31/2017 were pro formed to reflect changes to the Company's operating deductions associated with 2017 plant additions and retirements. These operating expense deduction pro formas will be discussed in detail later in my testimony in regards to the formulation of Sch 1.

Q. Please explain the last two columns of Sch A P-C.

A. The last two columns pro form the revenue requirement of the Post Acquisition Company, including the 2017 Step increase to the projected revenue requirement of the Pre-Acquisition Company, including the Step increase. The pro forma to the rate base of the Post Acquisition to the Pre-Acquisition Company is reflected in Sch 3. The calculation of the Pre-Acquisition versus Post Acquisition Company Rate of Return is reflected in Sch A1. The pro forma to the Post Acquisition Net Operating Income is calculated per Note (3) on Sch A P-C. Lastly, the Current Water Revenues are pro formed by adding back the CBFRR and CRS Revenues.

Q. Please explain the reasoning behind providing two additional Schedule A's, one titled "Schedule A Perm – Five Year Average" ("Sch A 5 Yr Ave") and one titled "Schedule A-Modified".

A. The two additional Schedule A's reflect the Company's request for the use of alternate revenue requirement methodologies to the conventional revenue requirement methodology followed in Schedule A P-C.

Q. Please explain the alternate rate treatment sought by the Company on Schedule A Perm Five Yr Average.

A. The requested rate treatment involves modifying the test year ending revenues to reflect the average of last five years of volumetric sales (2012 through 2016). The purpose of this adjustment is to eliminate the wide swings in revenues that can occur between a wet test year followed by a dry year or a dry test year followed by wet year. The normalization of volumetric sales and expenses from the test year to the average of five years of volumetric sales and the associated production related expenses results in smaller swings in Net Income than would otherwise be associated with swings in summer consumption. The Sch A Perm-5 Yr Ave average consumption uses the base PRO FORMA 12 Months Ending 12/13/16 from Sch A P-C to calculate the required permanent revenue requirement based on the five-year average as well as the base PRO FORMA 2017 Step Increase for Capital Additions to calculate the required Step Increase revenue requirement based on the five-year average. The impact of using the five-year average consumption on the revenues and operating expenses are reflected in Sch 1 in the column titled PRO FORMA for 2017 Step Increase Based on Five Year Average.

Q. Why did the Company not reduce by the the normalized 2016 test year revenues by the 50% of the difference between those revenues and the five year average revenues?

A. The Company is seeking to balance the rate impact of using the five year average revenue instead of the test year revenue as it transitions to the new rate making formula. The worst case scenario in this transition would be the next couple of years being average from a consumption perspective versus 2016 which was a consumption year of record drought which would result in about a $180,000 revenue shortfall. If this happened the revenue shortfall would come out of the requested rate stabilization funds. For further explanation of this, please refer to Mr. Goodhue's testimony on this particular element of the filing request.

Q. Is there any difference between the pro forma to revenues and operating expenses between the pro forma test year ending 12/31/2016 Based on Five Year Ave and the PROI FORMA 2017 Step Increase?

A. No. The only change to Sch 1 between these Five Year Ave columns is the net change in operating deductions associated with depreciation expense and property taxes associated with the additions to and retirements of plant between 1/1/2017 and 12/31/2017.

Q. Please explain how the Rate of Return for Post Acquisition Company was calculated for each of the Sch A's?

A. The Rate of Return for the Post Acquisition Company was calculated on the Rate of Return 1604.08 Sch 1. This schedule reflects the Company's 2016 TY cost of debt as detailed on 1604.08 Sch 5. The Common Equity for the Post Acquisition Company is the Equity on the Company's Books as of 12/31/2016. The Return on Equity of 5.63% is calculated per Order 25,292 in DW 11-026 and as detailed on Rate of Return 1604.08 **Q.**

Please explain how the Rate of Return for Pre Acquisition Company was calculated for each of the Sch A's?

A. The Rate of Return for the Pre Acquisition Company was calculated in the Rate of Return 1604.08 Sch 1. For purposes of calculating the Pre Acquisition Company's Rate of Return the following assumptions were made:

(1) That the Capital Structure would have a debt to equity ratio of 50/50

(2) That the cost of debt for the Pre Acquisition Company would be the same as the cost of debt for the Post Acquisition Company.

(3) The allowed Return on Equity for the Pre Acquisition Company was set at 9.75%.

Q. Please explain Sch A – Modified?

A. Sch A – Modified derives the Company's revenue requirement by adding the sum of:

(1) The CBFRR

(2) The CRS

(3) the revenue required to cover the Company's operating expenses which are the result of adding the Total Operating expenses to the expenses associated with the Amortization Expense and Property tax operating deductions found on Sch 1; and

(3) The revenue necessary to cover the Company's annual debt service (principal and interest payments) associated with all plant in service by the end of the Test Year ending 12/31/2016 and in the case of the requested Step increase for all plant in service as of the end of 12/31/2017 as detailed in Sch 5 of the 1604.08 Schedules. This revenue requirement replaces the conventional revenue requirement methodology that is based on rate base, rate of return and depreciation expense as further detailed in Mr. Goodhue's testimony.

Q. Are the results of the revenue requirement derived from conventional rate making methodology with the CBFRR versus the modified rate making methodology for the Post Acquisition Company versus conventional methodology summarized anywhere within your testimony?

A. Yes. Please see Exhibit DLW-1, Tab 12 for this comparison. The comparison of the revenue requirements includes the requested Step increase. This Exhibit details revenue requirements, inclusive of the requested step increase, as follows:

(1) Post Acquisition Company - Current rate making methodology - $7,630,612 or a 11.01% increase over current revenue requirement. There is a normalization of the revenue requirement in this model to reflect the abnormally high consumption that occurred in 2016 as described earlier in my testimony (8.65% above the 5 year average).

(2) Post Acquisition Company – Modified Rate Model - $8,334,275 or a 21.24% revenue increase over the current revenue requirement including an adjustment reflecting the impact to the Net Operating Income of using 50% of the 5-year average for volumetric sales.

(3) Pre-Acquisition Company - Current rate making methodology - $8,397,210 or a 22.16% increase over current revenue requirement. There is a normalization of the revenue requirement in this model to reflect the abnormally high consumption that occurred in 2016 (8.65% above the 5 year average).

Q. How do these increases impact the average single family residential water bill?

A. Please see Exhibit DLW-1, Tab 12 for the impact of each of the revenue requirement increases detailed above on the average single family residential bill on a monthly basis. In regard to the Company's request for the modified rate making methodology, which resulted in a requested overall rate increase of 21.24%, it would result in an increase of $13.31 per month to the average single family monthly water bill of $62.68 per month. This would result in an average monthly water bill of $75.99.

Q. Please discuss the pro formas to the Total Revenues detailed in Schedule 1, the Operating Income Statement.

A. The Company's Schedule 1 begins with the TY ending 12/31/2016 Revenues. The TY ending Revenues were pro formed in a series of steps as follows:

(1) In arriving at the PRO FORMA Revenues for the 12 months ended 12/31/2016, the TY Revenues were pro formed for the 12 months ending 12/31/2016, by reducing the TY revenues by the sum of: (a) the CBFRR allowed (per Sch 1 Attachment A); (b) by the NC CRS revenues (per Sch 1 Attachment A1); and by normalizing abnormally high 2016 consumption to reflect a more typical year of consumption per Sch 1, Attachment A1)

(2) No adjustments were required to the revenues between the PRO FORMA 12 Months 12/31/16 Revenues and the PRO FORMA 2017 Step Increase for Capital Additions Revenues. The PRO FORMA 2017 Step Increase for Capital Additions Revenues were pro formed to the PROF FORMA 2017 Step Increase revenues Based On Five Year Ave by adjusting the pro forma 2016 Step Increase Revenues by 50% of the difference in

PRO FORMA TY volumetric sales revenues and the average volumetric sales revenues over the past five years (2012-2016) as detailed in Sch 1 Attachment A1.

Q. Please discuss the pro formas to the Total Operating Expenses detailed in Schedule 1, the Operating Income Statement.

A. PEU's Schedule 1 begins with the TY ending 12/31/2016. The Pro forma adjustments reflect known and measurable increases/decreases to the 12/31/2016 Test Year Operating Expenses that occurred during the test year or will occur within 12 months of the end of 2016 TY resulting in the PRO FORMA 12 Months ending 12/31/2016 Operating Expenses. The next PRO FORMA column reflects changes in the Operating Expenses associated with the 2017 Step Increase for Capital Additions. The final PRO FORMA Adjustments to the Operating Expenses on Sch 1 are associated with the change in pumpage expenses associated with using 50% of the Five Year average production versus the 2016 TY production. Each of the PRO FORMA adjustments in Schedule 1 are explained on the Schedule 1 support schedules.

Q. Please discuss each of the Sch 1 Support Schedules between the Twelve Months 12/31/2016 and the Pro Forma Test Year ending 12/31/2016 in regard to Operating Expenses.

A. **Sch 1 Attachment B Page 1 – Production Account**. Pro forma Production expenses are expected to be $12,254 less than the actual 2016 TY production expenses or about a 0.6% decrease. This decrease is associated with increases to union labor rates and purchased water costs offset by an expected decrease in hauled water expenses and purchased power expenses. The Company also adjusted these expenses by $17,217 to reflect the proforma adjustment to these expenses reflecting the proforma revenue levels it is seeking in this case.

Sch 1 Attachment B Page 2 – Distribution Account. Pro forma Distribution expenses are expected to be $11,265 greater than the 2016 TY Distribution expenses or about a 1.8% increase. This increase is associated with increases in union labor wage rates.

Sch 1 Attachment B Page 3 Customer Accounts and Collection. Pro forma Customer Accounts and Collection expenses are expected to be $310 greater than the 2016 TY expenses or about a 0.2% increase. The increase in expenses is the result of increased print management costs of $929 which, in turn, are partially offset by a projected $619 decrease in mailing expense.

Sch 1 Attachment C Page 1 Administrative and General Account. Pro forma Administrative and General expenses are expected to be $7,881 greater than the actual 2016 TY expenses or about an 5.1% increase reflecting increases in insurance expense and regulatory commission expenses.

Q. Please explain the pro forma changes to the Inter Divisional Management Fee expenses of $102,584.

A. The increase of $102,584 is the result of:

1. The Company's 17.20% share Annualized Salary increases of $282,640 in Pennichuck Water Works increase in wages and benefits or $48,614.
2. The Company's 17.20% share of the $37,162 increase in Pennichuck Water Works office lease or $6,392.

3. The Company's 17.20% share of the $276,614 increase in Pennichuck Water Works Pension and Health Retirement expenses or $47,578.

Q. Please compare the total operating expenses for the pro formed Year Ending ("YE") 12/31/16 operating expenses when compared to the actual YE 2013 total operating expenses.

A. The Pro forma TY 16 operating expenses (which is the equivalent to the projected YE 2017 operating expenses) are $768,769 greater than the YE 13 operating expenses. During 2016 the Company pumped 6.4% more water than in 2013 resulting in a year over year increase in production costs of $250,126. Therefore the comparable Pro forma TY 16 operating expenses (adjusted for reduced pumpage expenses) were $518,643 greater than the YE 13 operating expenses or an increase of about 12.6% over four years resulting in an average annual increase in total operating expenses of about 3.0%.

Q. Please discuss the pro formas to the Total Operating Deductions as detailed in Schedule 1, the Operating Income Statement.

A. The progression of pro formas to the Company's Total Operating Deductions as detailed in Schedule 1 follows the same steps as detailed in response to the question regarding pro formas to Total Operating Expenses, detailed previously in this testimony.

Q. Please discuss each of the Sch 1 Support Schedules between the Twelve Months 12/31/2016 and the Pro Forma Test Year ending 12/31/2016 in regards to Operating Deductions.

A. The pro forma to the Operating Deductions associated with changes to Depreciation and the Acquisition Adjustment Expenses are as reflected in Sch 1 Attachment E. These expenses were reduced by $228,330 reflecting the impact of four (4) pro formas as follows:

(1) The annualization of a half year of depreciation expense to a full year of depreciation expense for plant placed in service between 1/1/2016 and 12/31/2016. This resulted in a pro forma increase in depreciation expense of $46,144

(2) The elimination of a full year's worth of depreciation associated with plant that was retired from service between 1/1/2016 and 12/31/2016. This resulted in a pro forma decrease in depreciation expense of $2,638.

(3) A reduction in depreciation expense in the amount of $151,981. This was associated with the elimination of depreciation expense related to the elimination of $6,939,755 of equity-related assets in accordance with Order 25,292 in Docket No. DW11-026.(4)A reduction in depreciation expense in the amount of $119,855 associated with the elimination of depreciation expense related to the elimination of $4,234,285 of assets associated with the North Country Surcharge in accordance with Order 25,051 in Docket No. DW 09-051.

Q. Please discuss the pro forma to the Operating Deductions related to Amortization Expense.

A. The pro forma to the Operating Deductions associated with changes to Amortization Expenses are as reflected in Sch 1 Attachment F. These Expenses were reduced by $212,485 reflecting the impact of five pro formas as follows:

(1) The annualization of deferred charges that the Company began amortizing during 2016. This resulted in a pro forma increase in the amount of $4,140.

(2) The elimination of amortization expenses associated with deferred charges that the Company had fully amortized before the end of 2016. This resulted in a reduction in amortization expenses of $5,090.

(3) The elimination of the amortization of the MARA in accordance with Order 25,292 (DW11-026) in the amount of $200,394.

(4) The elimination of the amortization of the North Conway Water Precinct amortization expense associated with the North Country Capital Recovery Surcharge in accordance with Order 25,051 (DW 09-051) in the amount of $6,003.

(5) The elimination of amortization expenses associated with deferred charges that will be fully amortized during 2017 in the amount of $5,139.

Q. Please discuss the pro forma to the Operating Deductions related to Property Tax Expense.

A. The pro forma to the Operating Deductions associated with Property Tax Expense are as reflected in Sch 1 Attachment G and reflect the change in property tax expenses associated with Plant additions and retirements that occurred during 2016 as well as property tax abatements that were granted in 2017 as a result of the Company seeking corrections to its tax valuations in the Towns of Derry and Pelham. This resulted in a pro forma decrease in the amount of $58,924.

Q. What is the overall impact of the change in Property Taxes between the YE 16 and YE 13?

A. Property tax expenses increased $246,440 between the YE 2013 and YE 2016 or 30.6%. During this same time frame Plant in Service, net of depreciation expense and the Municipal Acquisition Regulatory Asset, increased by about 1.6%.

Q. Please explain the Pro Forma adjustments to Sch 1 in regard to the request Step Increase associated with the plant additions made between 1/1/2017 and 12/31/2017.

A. There are no pro forma adjustments to the Total Operating Expenses associated with the Step Increase request. There is a total pro forma increase of $20,046 related to increased Operating Deduction expenses associated with the Step Increase as follows:

(1) An Increase in depreciation expense of $22,005per Sch 3 – STEP Additions. The increase in depreciation expense is associated with the plant projected to be added and retired between 1/1/2017 and 12/31/2017.

(2) An increase in property tax expense of $16,220 per Sch 3 – STEP Additions. The increase in property tax expenses are associated with the plant projected to be added and retired between 1/1/2016 and 12/31/2016.

(3) A reduction in Income tax expense of $13,040 per Sch 1 Attachment G associated with the reduction in Net Income created by higher depreciation and property tax expenses associated with the 2017 plant additions.

Q. Please explain the Pro Forma adjustments made in Sch 1 to the Total Operating Expenses applied to the PRO FORMA 2017 Step Increase for Capital Additions

resulting from using the FIVE YEAR AVE for volumetric sales as opposed to the TY 2016 volumetric sales.

A. Just as revenue levels were normalized in Sch 1 to reflect half the difference between the 2016 volumetric sales and the Five Year average of volumetric sales, all operating expenses that are impacted by the change in volumetric sales have been normalized to reflect the expenses associated with producing volumetric sales equal to 50% of the difference between the Five Year Average volumetric sales volumes and the TY 2016 volumetric sales volumes. This proforma was made to the Test Year expenses. No proforma was made between the test year expenses and the Five year average expenses based on the Company not seeking to incorporate the remaining 50% difference between the normalized test year expenses and the Five year average volumetric expenses.

Q. What operating expenses are impacted by a change in volumetric sales.

A. The primary expenses impacted by a change in volumetric sales are the electric expenses required to produce and deliver the water to customers, as well as the cost of purchasing water for the Company's customers from other water systems.

Q. What is the total impact on the operating expenses detailed above as a result of adjusted volumetric sales as detailed previously?

A. The impact on operating expenses, per Sch 1 Attachment B Page 1, is a reduction of $17,217 in expenses which are the result of the following pro forma adjustments:

(1) A reduction in purchased water expenses in the amount of $17,333

(2) A slight increase in electrical expenses associated with a .17% increase in plant electrical expenses in the amount of $116.50.

Q. Why did electrical production costs go up for the five year average pumpage versus the 2016 pumpage levels?

A. Due to the drought in 2016 volumetric sales were 63,315 CCF higher than the five year average (9.5% higher). The drought forced the Company to purchase more water due to reduced well production. Hence, while 2016 sales were up 9.5% the amount of water that was produced during the 2016 TY was 0.17% less than the 5 year average as the production in the wells was throttled back and the increased sales were made up through increases in purchased water.

Q. Please describe Sch 3 and the pro fromas made to it:

A. Sch 3 is used to develop the Company's Total Rate Base. The Schedule begins with the Company's 2016 TY Average Rate Base. The following pro formas were made to the 2016 TY Ave. Rate Base to create the Pro forma Test Year Rate Base:

(1) Plant in Service was adjusted per Sch 3 Attachment A as follows:

(a) A reduction of $6,410,053 in the 2016 TY Average rate base resulting from the elimination of the equity on the Company's books at the time of the acquisition by the City of Nashua.

(b) An increase in the 2016 TY Average rate base of $1,304,371 to reflect the difference between the 13 month average and 2016 TY rate base value for plant additions that occurred between 1/1/2016 and 12/31/2016.

(c) A reduction in 2016 TY Average rate base of $87,599 to reflect the difference between the 13 month average and 2016 YE rate base value for plant retirements that occurred between 1/1/2016 and 12/31/2016.

(d) A reduction of $4,234,285 in the 2016 TY Average rate base resulting from the elimination of the plant associated with the North Country Capital Recovery Surcharge.

(2) Accumulated Depreciation was increased by $46,144 reflecting the net impact of adjusting depreciation expense for plant additions and retirements made between 1/1/2016 and 12/31/2016 to reflect a full year's depreciation expense per Sch 3 Attachment A, Exhibit 1.

(3) Accumulated Depreciation was decreased by $1,079,833 to eliminate the accumulated depreciation associated with the North Country Capital Recovery Surcharge assets per Schedule 3C.

(3) Accumulated Depreciation Loss was decreased by $463,240 to eliminate the accumulated depreciation loss associated with the North Country Capital Recovery Surcharge assets per Schedule 3C.

(4) Accumulated Depreciation Cost of Removal was decreased by $71,549 to eliminate the accumulated depreciation Cost of Removal associated with the North Country Capital Recovery Surcharge assets per Schedule 3C.

(5) Working Capital was increased by $11,414 reflecting the 2016 pro forma increases to the 2016 TY operating expenses and a 12.33% Working Capital Rate per Sch 3 Attachment D.

(6) Other & Deferred Charges were reduced by $8,121,034 reflecting the elimination of the MARA and adjustments for other deferred debits per Sch 3 Attachment B.

Q. Please explain the pro formas made to the Pro Forma 2016 Test Year Rate Base to reflect the impact of the 2017 Capital additions associated with the requested 2017 Step Increase.

A. A net increase of Plant in Service in the amount of $864,497. The net increase reflects the year end rate base values of plant added or to be added between 1/1/2017 and 12/31/2017 less the elimination of any rate base associated with plant retirements that occurred between 1/1/2017 and 12/31/2017 .

Q. Why is there no pro forma reduction to working capital associated with using the Five Year Average Revenue modification to rate making.

A. There is no reduction in working capital due to the fact that annual operating expenses associated with the normalized expenses associated with the 2016 TY proforma, which were based on 50% of the five year average volumetric sales were already adjusted in the proforma 2016 test year. The Company, for reasons previously explained, chose not to incorporate proformas associated with the 50% of the five year volumetric sales that it did not capture in its 2016 TY test year normalization..

Q. Please explain the pro formas made to the Post Acquisition Pro Forma 2017 Step Increase for Capital Additions Rate Base to the Pro Forma Pre Acquisition Ownership for 2017 Step Increase Rate Base.

A. (1) Increase in Plant in Service by $6,410,053 for the equity related plant that was eliminated from the Post Acquisition Company plant.

(2) Increase working capital by $37,798 reflecting the estimated increased operating costs of $306,556 associated with operating the Pre Acquisition Company (See Sch A Perm Conventional) versus the Post Acquisition Company.

(4) Decrease in Deferred Debits in the amount of $8,121,034 associated with the elimination of the MARA and the North Country Capital Recovery Surcharges.

Q. Please explain Sch 3 – STEP additions.

A. Sch 3 STEP Additions schedule provides the information necessary to calculate the pro formas to Sch 1, Sch 3 and the Sch A's necessary to calculate the requested Step increase revenue requirements. Sch 3 STEP Additions provides the following information:

A list of each capital project that the Company plans to complete between 1/1/2017 and 12/31/2017. Each project has the following information contained within this schedule:

a. Project Name

b. Project Description

c. c. Estimated project cost. The final cost for each project through 12/31/2017 will be available for audit by the end of January 2018.

d. The NHPUC Chart of Account number for each project.

e. The estimated cost that will be assigned to NHPUC Chart of Account for each project.

f. The community in which each project is being completed.

g. Whether the project is subject to the Statewide utility tax or not.

h. The combined local property and State utility tax rate where each project is being constructed.

i. The projected Annual Utility and property tax associated with each project.

Q. Please explain the Sch 1 pro formas associated with the requested 2017 Step Increase.

A. The three pro forma adjustments to the Sch 1 expenses associated with the proposed 2017 additions to plant are as follows:

(1) The net increase in depreciation expense of $22,005 associated with the plant additions and the plant retirements projected to be completed between 1/1/2017 and 12/31/2017. The additional depreciation expense associated with the plant additions are calculated on Sch 3 – STEP additions. The reduction in depreciation expense associated with plant retirements is detailed on Sch 3 Attachment A – STEP.

(2) The net increase in property tax expense of $16,220 associated with the plant additions and the plant retirements projected to be completed between 1/1/2017 and 12/31/2017. The additional property tax expense associated with the plant additions are calculated on Sch 3 – STEP additions. The reduction in property tax expense associated with the plant retirements is detailed on Sch 3 Attachment A – STEP.

(3) The decrease in income tax expense in the amount of $13,040 resulting from the taxable deductions due to increased depreciation and property tax expenses associated with the 2017 additions to plant as detailed in Sch 1 Attachment G.

Q. Please explain the Sch 3 pro forma associated with the requested 2017 Step Increase.

A. There is a net increase of $864,497 to Plant in Service associated with the projected plant additions and retirements that are projected to be completed between 1/1/2017 and 12/31/2017. The projected cost of the plant additions are detailed on Sch 3 – STEP Additions. The projected reduction in Plant in Service associated with projected plant retirements are detailed on Sch 3 Attachment A – STEP.

Q. Please describe Sch 5 of the 1604.08 schedules

A. Sch 5 of the 1604.08 schedules provides a complete listing of all of the Company's outstanding debt instruments along with specific information for each instrument. The debt instrument specific information is detailed in the columns between and including the columns titled "Term" to "Coupon Rate". The bottom line to this schedule is that the Company is projecting $20,116,862 of outstanding debt as of 12/31/2017 (inclusive of $2,592,412 of debt associated with the North Country Surcharge) with an average Funded Effective Rate of 4.09% which is the Component Cost Rate for the Company's Long-term Debt used in the calculation of the company's Overall Rate of Return. All the columns to the right of the "Coupon Rate" in Sch 5 of the 1604.08 schedules are new to this schedule and reflect the calculation of the Principal and Interest payments ("P&I") made on these bonds as follows:

(1) The P&I payments made by the Company during the 2016 TY in the amount of $1,263,358 exclusive of $314,670 of P&I payments associated with the North Country Surcharge.

(2) The pro formed 2016 P&I payments in the amount of $1,308,798 reflecting the total annual P&I payments that the Company will need to make on the

outstanding bond and loan amounts of about $16,925,452 borrowed, exclusive of the $2,592,412 of outstanding debt associated with the North Country Surcharge, to fund the Company's Plant in Service as of 12/31/2016.

(3) The pro formed 2017 P&I payments in the amount of $1,371,633 reflecting the total P&I payments that the Company will need to make on the projected outstanding bond and loan amounts of $17,474,303, exclusive of the $2,592,412 of outstanding debt associated with the North Country Surcharge, borrowed to fund the Company's Plant in Service as of 12/31/2017.

Q. How were the annual P&I payments detailed in para. 1 through 3 above calculated?

A. The P&I payments made during the 2016 TY reflect actual cash payments on the actual outstanding debt instruments during 2017. The pro forma 2016 P&I payments of $1,308,799 reflect the following pro formas:

(1) A reduction of P&I payments of $314,671 associated with the P&I payments associated with the North Country Surcharge

(2) The elimination of $259,708 of P&I payments made on the Intercompany 2013 and 2015 Intercompany debt.

(3) The addition of $89,069 in P&I payments associated with the refinancing and reterming of the Intercompany 2013 and 2015 Intercompany debt.

(4) The addition of $50,551 in P&I payments associated with the projected 2017 Step additions funded by new SRF Debt in the amount of $250,000 for the Brady Avenue water main replacement project – Phase I in Derry and $298,851

associated with a new term loan with CoBank to fund the projected remaining capex projects in 2017.

Q. Would you please explain the recalculation and redistribution of the North Country Capital Recovery Surcharge detailed on Schedule 5 of the 1604.08 schedules?

A. Yes. As noted in this schedule the North Country Capital Recovery Surcharge is set up to collect $314,671 in P&I payments per year. The current outstanding balances on the two loans associated with the North Country Capital Recovery Surcharge are $1,435,010 associated with the State of NH SRF loan to Birch Hill and $1,157,403 associated with the Intercompany 2013 North Country loan. The Company is proposing to refinance the Intercompany 2013 North Country loan balance of $1,157,403 over 30 years at 3.2% reducing the annual P&I payment associated with this loan from $196,343 per year to $60,587 per year resulting in the reduction of the P&I payments associated with the North Country Capital Recovery Surcharge from $314,617 to $178,914.

Q. How will this reduction in P&I payments for the North Country Capital Recovery Surcharge translate to the surcharge in each of the North Country Systems?

A. The surcharges per month are proposed to change as follows:

	Current	Proposed
Sunrise Estates:	$10.74	$10.74
Birch Hill:	$46.05	$12.81
Locke Lake	$16.36	$12.81

DISCUSSION OF OTHER OPERATIONAL MATTERS

Q. Thank you for walking through the schedule details. Are there any operational issues you would like to discuss?

A. Yes, I would like to discuss the Company's request and calculations regarding the Rate Stabilization Funds ("RSF") it is seeking to undergird the Company's payment of its CBFRR obligation, its payment of Material Operating Expenses Revenue Requirement (MOERR) and its payment of outstanding Principal and Interest ("P&I").

Q. What are the requested levels for each RSF?

A. The Company is seeking to establish each RSF as follows:

CBFRR RSF - $70,000

MOERR RSF - $1,120,000

P&I 1.0 RSF - $120,000

Q. Please explain how the requested RSF levels were calculated?

A. The calculations established the requested RSF levels can be found in Exhibit 1 of my testimony. Each RSF is calculated to provide sufficient cash to meet the Company's obligations over three years of reduced revenues resulting from wet weather as well as 3 years of inflation at 3.5% in regards to the Material Operating Expenses.

Q. How did you determine the revenue reduction associated with three years of wet weather?

A. The Company compared the 5 year average consumption against the worst year of consumption during the past five years. This comparison results in a 3.79% reduction in consumption. In calculating the revenue impact of this reduced consumption the Company adjusted the consumption related expenses by reducing them by 3.79%.

Q. How does the Company plan to fund the initial Rate Stabilization funds?

A. The Company plans to fund $980,000 of the desired $1,310,000 with the Company's prorated share of the $5,000,000 RSF fund set up in DW11-026. Mr. Goodhue's testimony address the options being considered by the Company to fund the $350,000 shortfall between available and desired RSF fund levels.

Q. The Company sought approval for $2.4 million of SRF Financing to construct an interconnection between Pennichuck Water and the Company under the Merrimack River. The approval indicated that the interconnection would be completed during 2017. Why aren't there any dollars in the 2017 Step Addition schedule associated with this interconnection?

A. The completion of the interconnection has been postponed until either 2018 or 2019. The postponement to 2018 resulted due to:

1. The environmental permit approvals required to complete this project were not issued until late July. The permits constrained the time of year in which the work in the Merrimack River could be completed to May and June or December through April. Consequently this project could not be started before December of 2017 and completion would not be until March or April of 2018 and as such would not be includable as used and useful in the 2017 Step increase being sought.
2. The State has set up a Commission to disburse the approximately $280 million that resulted from the Exxon/Mobil MTBE suit. These funds may be available to help meet both water quality and water quantity issues. At

present it appears that these funds may be available at 50% grant, 50% loan funds. Initial discussions between this new Commission and the NHDES indicate that the interconnection process may be an ideal project to fund as it solves a water quality problem driven by PFOA contamination of private wells in Litchfield and reduced capacity from the Hudson Wells in Litchfield associated with Darrah Pond. It appears at present that this money would not be available until 2019. If this money does become available then the Company will wait to complete this project with the new funding source due to the projected 50% grant as this would lower the impact of this project on the Company's future revenue requirements.

Q. Mr. Goodhue's testimony indicates that the Company is seeking to implement the QCPAC process for PEU in a similar fashion as described in the Settlement Agreement filed in Docket DW16-806. Do you have a projection of the Company's capital expenditures for 2017 through 2019 that would form the basis of the initial QCPAC filing?

A. Yes. Attached please find the Company's projected capital expenditure spending for 2017 through 2019. The basis of the proposed schedule are the 2017, 2018 and 2019 capital budgets that the Company's Board approved in January of 2017,

Q. Is the Company doing anything to promote conservation by its customers?

A. Yes. The Company continues to work with its customers in regards to sustainable conservation efforts through the use of semi-annual mailings promoting water saving fixtures, good water use habits and proper lawn irrigation practices. The Company is a member of the EPA WaterSense program and uses its website to direct customers to the EPA WaterSense program where there is an extension amount of information regarding water conservation and water saving fixtures.

Q. Is the Company continuing to see a reduction in base residential water use as a result of conservation efforts by its customers?

A. Yes. The average single family water usage for the months of December through March, which reflects indoor water usage patterns, has shown a drop in average monthly usage of 9.6% between 2013 and 2017.

Q. Was a Cost of Service Study prepared as part of this case?

A. No. The last cost of service study was prepared as part of DW 07-032. Because there has been little change in the mix of customers, assets, and expenses since DW 07-032, the Company believes that preparing a Cost of Service Study is not justified.

Q. Please summarize the impact of the Company's rate increase request by Customer Class.

A. The Tariff pages and Report of Proposed Changes sheets which detail the impact or the rate increase by customer class are found in Sections 6 and 13 of the filing. The Company proposes to spread the propose rate increase uniformly across all customers classes.

Q. How does the Company plan to notify its customers of the pending rate increase?

A. In accordance with Puc 1203.02(c) and (d), the Company will be notifying its customers regarding the rate filing by providing a form of notice. The notice will be sent via a direct mailing to its customers, along with a FAQ document, as further explained in Mr.

Goodhue's testimony. The direct mailing will also include information regarding the suspension of the Company's rates and the date of the prehearing conference. Additionally, when the Commission issues the order to suspend the proposed tariffs and schedule a prehearing conference, the Company will provide notification in area newspaper(s) in addition to the individual customer notification.

Q. Do you have any other testimony to offer?

A. No.