UNITIL ENERGY SYSTEMS, INC.

DIRECT TESTIMONY OF

DAVID L. CHONG

EXHIBIT DLC-1

REVISED

New Hampshire Public Utilities Commission

Docket No. DE 18-036

Table of Contents

SCHEDULES

Schedule DLC-1	2018 Step Adjustment
Schedule DLC-2	Federal Energy Regulatory Commission Order 475
Schedule DLC-3	TCJA - Tax Reduction Last Base Rate Case
Schedule DLC-4	TCJA - Tax Reduction 2017 Step Adjustment
Schedule DLC-5	TCJA - Tax Reduction Regulatory Liability
Schedule DLC-6	SRAF Amortization
(Schedule DLC-7)	(DELETED)
Schedule DLC-8	NH PUC 2017 F-1
Schedule DLC-9 REVISED	Rate Design
Schedule DLC-10 REVISED	Bill Impacts

I. INTRODUCTION

Q. Please state your name and business address.

A. David L. Chong, 6 Liberty Lane West, Hampton, New Hampshire 03842.

Q. What is your position and what are your responsibilities?

A. I am Director of Finance and Treasurer for Unitil Service Corp., a subsidiary of Unitil Corporation that provides managerial, financial, regulatory, engineering and other shared services to Unitil Corporation's utility subsidiaries. I am also the Treasurer of Unitil Energy Systems, Inc. (hereinafter referred to as "Unitil Energy" or the "Company") and Unitil Corporation's other utility subsidiaries. My responsibilities are primarily in the areas of financial planning and analyses, regulatory projects, treasury operations and banking relationships.

Q. Please describe your business and educational background.

A. I have approximately sixteen years of professional experience in the energy and utilities industries. From 2001 through 2005, I worked for Exxon Mobil Corporation in various facilities engineering roles with my last position as a Senior Project Engineer. From 2005 through 2008, I worked for RBC Capital Markets Corporation in the energy investment banking group, where I provided corporate finance and mergers and acquisitions advisory services. While at RBC, I raised equity and debt capital on numerous occasions for various energy companies. I also advised on several buy-side and sell-side mergers and acquisitions transactions. From 2008 through 2009, I worked for El Paso Exploration & Production Company in its business development group as an Acquisition & Divestiture Principal. I began working for Unitil Service Corp. in August 2009 as Director of Finance. I hold a Master's Degree in Business Administration from Tulane University and a Bachelor of Science degree in Mechanical Engineering with Honors from the University of Texas at Austin.

Q. Have you previously testified before this Commission?

A. Yes, I have testified before the New Hampshire Public Utilities Commission (the "Commission") on various financial, ratemaking and utility regulation matters, including utility cost of service and revenue requirements analysis. I have also testified before the Maine Public Utilities Commission and Massachusetts Department of Public Utilities on similar matters on several occasions.

II. SUMMARY OF TESTIMONY

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to present and support Unitil Energy's revenue requirement for its 2018 Step Adjustment based on 2017 capital spending. I also explain and calculate the proposed reduction in distribution rates relating to the recently passed federal tax legislation signed into law by the President of the United States on December 22, 2017. The Tax Cuts and Jobs Act of 2017 (referred to herein as the "Tax Act") substantially reduced the federal tax rate from 34% to 21%. Since income taxes are collected from rate payers as an operating cost, the Company proposes a corresponding reduction in rates to correspond to the lower federal tax rate. Additionally, I also support and explain proposed changes to the Storm Reconciliation Adjustment Factor ("SRAF") and the Major Storm Cost Reserve ("MSCR"). Lastly, I provide calculations and schedules pertaining to the removal of Recoupment, Vegetation Management Program / Reliability Enhancement Plan ("VMP / REP") reconciliation, Earnings Sharing, Exogenous Events, Rate Design and Bill Impacts.

Q. Please summarize the impacts to distribution revenue.

A. The Company is proposing a 2018 Step Adjustment of $3,302,989 to reflect the recovery of 2017 capital additions of $32,687,415. The Company is also proposing a reduction of $2,244,744 to reflect the impact of the Tax Act. Lastly, the Company is removing Recoupment revenue of $1,411,065. All of these issues will be discussed in greater detail throughout this testimony. The below table summarizes these three proposed changes and nets to a zero change in base rates.

2018 Step Adjustment	$3,302,989
Less: Tax Act Revenue Reduction	$2,244,744
Less: Recoupment Removal	$1,411,065
Net Change in Distribution Revenue	**$(352,820)**

Q. Please explain the increase for the 2018 Step Adjustment?

A. The proposed 2018 Step Adjustment of $3,302,989 is for 2017 capital spending and is included in this testimony pursuant to the Settlement Agreement in DE 16-

384. The 2018 Step Adjustment was derived by calculating the revenue requirement associated with 80% of the changes in Net Plant in Service for the period January 1, 2017 through December 31, 2017. Additional details for the 2018 Step Adjustment will be provided later in this testimony.

Q. Please explain the reduction in distribution revenues for the Tax Act?

A. Unitil Energy is complying with Commission Order No. 26,096 in Docket IR 18-001, "Investigation to Determine Rate Effects of Federal and State Corporate Tax Reductions". The Company has calculated a reduction in distribution revenue for the Tax Act of $2,244,744. This calculation is explained in detail below. As the rate reduction will not occur until May 1, 2018 the Company is accruing a Regulatory Liability relating to the Tax Act for the periods January 1, 2018 through April 30, 2018 to properly reflect operating revenues at lower statutory tax rates (per Order No. 26,096 at 2).

Q. Are you proposing any changes to the SRAF?

A. Yes. The Company is proposing that the costs of $1,233,742 from a major wind storm in October 2017 plus associated carrying charges be transferred from the MSCR to the SRAF effective May 1, 2018. Also, on May 1, 2018, the recovery of Hurricane Sandy will terminate. Thus, the net change to the SRAF will be a 14.4% reduction on May 1, 2018 after including the October 2017 wind storm and the drop-off of Hurricane Sandy.

Q. Please explain the reduction in distribution revenues for Recoupment?

A. Pursuant to paragraph 2.3 of Settlement Agreement in DE 16-384, Recoupment revenue in the amount of $1,411,065 is being recovered from customers on a uniform per kWh basis from all classes for services rendered from May 1, 2017 through April 30, 2018. Recoupment revenue will no longer be collected as of May 1, 2018 which results in a reduction to distribution revenue of $1,411,065.

Q. What other topics do you address in your testimony?

A. Later in my testimony, I discuss and quantify the 2017 calendar year VMP / REP reconciliation, Earnings Sharing, Exogenous Events, Rate Design and Bill Impacts. Of importance is the minimal impact that the collective proposals above will have on ratepayers. A typical 600 kWh residential customer on default energy service will see a monthly bill decrease of ($0.11), or (0.1%), with similar impacts to other rate classes.

III. 2018 STEP ADJUSTMENT

Q. What was the Company's forecasted capital spending for calendar year 2017 for the 2018 Step Adjustment in DE 16-384?

A. As described in the pre-filed direct Testimony of Kevin Sprague in DE 16-384 on page 14 of 26 (Bates 246), the 2017 forecasted capital spending was $21,828,456. This was based upon a 5 year capital budgeted forecast that was developed in 2015. The actual 2017 plant additions and cost of removal closed to plant was $32,687,415.

Q. Please explain the major variances for actual capital additions closed to plant compared to the capital spending forecast amount for 2017.

A. The primary difference between the forecasted capital spending and the amount closed to plant in 2017 was the Broken Ground Substation project. The Broken Ground Substation project was marked operationally in service in 2016 and most of the spending was completed by 2016, but the project was not closed to plant until 2017. Approximately $10.8 million of plant additions in 2017 relate to the Broken Ground Substation which was expended during 2014-2017. Similarly, in last year's Step Adjustment, the Kingston Substation was closed to plant in 2016 for a total of $12.2 million of plant additions, but expenditures occurred during the period 2013-2016. Therefore, because of these two large capital projects with spending in multiple years, capital spending and plant additions in any particular year may not necessarily line up.

Q. How is Net Utility Plant derived?

A. Page 1 of Schedule DLC-1 shows Beginning Utility Plant, Plant Additions, Retirements, and Ending Utility Plant on lines 1-4. Plant Additions and Retirements are detailed on Page 2 by FERC account. Then Page 1, lines 5-9 show Beginning Accumulated Depreciation, Depreciation, Retirements, Cost of Removal, and Ending Accumulated Depreciation. The difference between Ending Utility Plant and Ending Accumulated Depreciation results in Ending Net Utility Plant shown on line 10.

Q. What is the change in the Net Utility Plant in Service for calendar year 2017?

A. The Ending Net Utility Plant seen on Page 1 of Schedule DLC-1, Line 10, is $209,795,605. This figure will be the amount filed in the Company's 2017 FERC Form 1. The Beginning Net Utility Plant of $188,269,043, the difference of Line 1 and Line 5, matches the Ending Net Utility Plant from the Settlement Agreement of DE 16-384. Line 11 shows the Change in Net Utility Plant of $21,526,562.

Q. How is the Revenue Requirement derived?

A. The method used to calculate the Revenue Requirement matches the prior year step adjustment as settled upon in DE 16-384. The annual Change in Net Utility Plant provided above is multiplied by a factor of 80% and is shown in line 12. Then, line 12 is multiplied by line 13, pre-tax rate of return, to derive the Return and Taxes on line 14. The Pre-Tax Rate of Return of 10.15% has been updated for the Tax Act and is calculated on Page 5, line 5. Next, Depreciation Expense is calculated on 80% of the annualized depreciation of Plant Additions for 2017. Then, Property Taxes are calculated on 80% of the Change in Net Utility Plant (line 12). A property tax rate of 2.91% was calculated by dividing the latest annualized Property Tax Payments of $6,110,668 by 2017 Net Utility plant of $209,795,605. Finally, Return and Taxes, Depreciation Expense and Property Taxes are added together to arrive at the Revenue Requirement in Line 17.

Q. What is the final Revenue Requirement that you derived?

A. Page 1 of Schedule DLC-1, Line 17, shows the Revenue Requirement of $3,302,989 which is under the cumulative cap for all three step increases of $4.5 million established in DE 16-384 (see paragraph 2.6 of the Settlement Agreement). The Company calculates the remaining revenue requirement cap for the 2019 Step Adjustment to be $341,808 as shown in Line 25. The cap for the 2019 Step Adjustment has largely been affected by the timing of plant closings for the two substation projects discussed earlier.

IV. TAX CUTS AND JOBS ACT OF 2017 RATE REDUCTION

Q. Please explain how the Tax Act impacts the Company?

A. In December 2017, the Tax Act, which included a reduction to the corporate federal income tax rate to 21% effective January 1, 2018, was signed into law. Utilities will now reflect a lower federal income tax provision for collection through cost of service rate making. The Tax Act also eliminated bonus depreciation for capital placed in service after September 27th, 2017. The Modified Accelerated Cost Recovery System was not changed by the Tax Act.

Q. Have you reduced the Company's distribution revenues for the new federal income tax rate as a result of the Tax Act and recent changes in the state income tax rate?

A. The Company has calculated a revenue reduction of $2,244,744 as a result of the lower federal and state income tax rates. The methodology used by the Company to reflect the lower tax rate is a formula specified by the Federal Energy Regulatory Commission in FERC Order 475 (effective June 26, 1987), published when federal tax rates last changed. See Schedule DLC-2. As precedent, this formula is technically sound and properly reflects the reduction in revenue requirements related to a lower income tax provision. Schedule DLC-3, Line 13, shows a revenue reduction of $2,199,753 pertaining to the Company's last base rate case (Docket DE 16-384). This amount is calculated by applying the FERC formula to the pro forma income taxes to the Company's pro forma 2015 test year cost of service after all adjustments and rate relief awarded in that proceeding. This formula encompasses both the change in federal and state income tax rates. This methodology was also used for Unitil Energy's sister affiliate, Northern Utilities, Inc. - Maine Division, in its base rate case approved in Docket 2017-00065. This methodology has been agreed to by the Company's affiliate Northern Utilities, Inc., the Commission Staff and the Office of Consumer Advocate in the Settlement Agreement which is pending approval by the Commission in Docket DG 17-070. Schedule DLC-3 also shows a revenue reduction of $44,991 (Line 17) pertaining to the 2017 Step Adjustment (reflecting 2016 capital spending) which is calculated by taking the original 2017 Step Adjustment less the revenue requirement for the 2017 Step Adjustment calculated with the new income tax rates. See Schedule DLC-4. Schedule DLC-3, Line 18, shows the grand total revenue reduction for the lower tax rates of $2,244,744.

Q. What is the proposed effective date of the rate change?

A. As directed by the Commission in Order No. 26,096, the Company has recognized a Regulatory Liability of $769,342 as shown in Schedule DLC-5 to reflect reduced rates from January through April 2018 as a result of the Tax Act. This amount will be refunded to customers through the Company's External Delivery Charge (EDC) and included in the annual reconciliation of the EDC, to be filed on or about June 15, 2018, for effect on August 1, 2018.

Q. Have you revalued the Accumulated Deferred Income Tax balance for the year ended December 31, 2017?

A. In conformity with Generally Accepted Accounting Principles ("U.S GAAP" [ASC 740]), the tax rate reduction also requires a revaluation (downward) of the Company's net Accumulated Deferred Income Tax ("ADIT") liabilities on its balance sheet as of December 31, 2017 to reflect a 21% federal income tax rate and a 7.9% state income tax rate. The excess ADIT liabilities as of December 31, 2017 have been recognized by the Company as a Regulatory Liability for U.S. GAAP and regulatory accounting purposes in future rate proceedings. The excess ADIT reflects the difference between the historical recognition of income taxes for book normalization at a corporate income tax rate of 34% which was the federal statutory tax rate for the Company prior to the passage of the Tax Act and the new federal income tax rate of 21%. The Regulatory Liability is included in the Company's rate base along with the adjusted (lower) net ADIT liability balance, so there is no initial net change to rate base.

Q. What will become of the excess ADIT balance?

A. The Company proposes to resolve the flow back of distribution-related excess ADIT to ratepayers during its next base rate case. Any changes to ADIT should coincide with changes in the other components of rate base used for setting base rates. Clearly, the best time to reflect these changes is in a distribution rate case when all parties have the opportunity to fully examine the changes. This is consistent with the way rate base is updated in rate cases. Importantly, rate base is not reconciled from year to year in the periods between rate cases, but is only updated when a new rate case is filed. As such, there are material portions of excess ADIT that are from capital spending that are not reflected in rate base and current rates. Excess ADIT reflects year-end 2017 utility assets, but the Company's last base rate case utilized a 2015 test year. Accordingly, a flow back of 2017 excess ADIT would not be properly matched with base rates currently in place. While the Company has step adjustments for capital additions, they are not fully inclusive for all spending. Furthermore, the step adjustments do not reflect deferred taxes, nor do they roll forward the deferred tax position of its 2015 assets from its last base rate to 2017 which would be necessary to reflect the Company's current rate base in rates. In conclusion, the Company believes there is not a mathematically correct way to match excess ADIT with its rate base currently reflected in rates without a full base rate proceeding with a 2017 test year.

Q. Do you have any other concerns about the Tax Act?

A. The Company is concerned about the impact on cash and funds from operations. The reduced base rates per the Tax Act will reduce collections and stress the Company's credit ratios that are used by credit agencies to determine credit worthiness. The Company estimates that its funds from operations will be reduced approximately 8% with a negative impact of 1.5% to its funds from operations-to debt ratio. With lower funds from operations, the Company's financing requirements will increase with higher borrowings and debt leverage, all else being held equal. The Company believes that the Tax Act has certain negative consequences for utilities as compared to other industries, and expects the required returns of both equity and debt investors to increase as a result of the Tax Act.

V. STORM RECONCILIATION ADJUSTMENT FACTOR

Q. Are you proposing an increase to the SRAF?

A. Yes, as outlined in the testimony of Mr. Francazio (Exhibit RLF-1), the Company experienced a significant wind storm in October 2017. The capitalized cost of the storm is currently in the MSCR, but the Company believes it should be removed from there and amortized and collected through the SRAF mechanism effective May 1, 2018.

Q. **What was the capitalized cost of this storm?**

A. The total cost of the October 2017 wind storm was $1,233,742 and was deferred in the MSCR fund.

Q. **Does the Company believe this should be considered a major storm that qualifies for the SRAF?**

A. Yes. Mr. Francazio further describes and justifies why this storm is appropriate for the SRAF.

Q. What is the Company's specific cost recovery proposal?

A. The Company seeks recovery of the October 2017 wind storm costs through an adjustment to its SRAF effective May 1, 2018. The Company proposes to recover these costs over a five year period with carrying charges calculated at 5.20%, the annual rate equaling the Company's currently approved cost of debt, net of deferred taxes reflecting the Tax Act.

Q. Did the Company consider adding these costs to its MSCR?

A. Yes. However, the MSCR was not designed to include low frequency storms that are extraordinary in magnitude, such as this storm. The current reserve amount of $800,000 annually, was set at a level to deal with more frequent storms that are generally not considered to be extraordinary in magnitude.

Q. Why does the Company propose to recover these costs over five years?

A. The Company proposes to recover these costs over five years consistent with the time period of recovery approved for previous storms (Tropical Storm Irene, the October Snowstorm, and Hurricane Sandy). This proposal provides the Company with a reasonable timeframe to reduce the deferred balance while providing for reasonable bill impacts. In this instance, the net change in the SRAF is a decrease because cost recovery of Hurricane Sandy ends on May 1, 2018.

Q. What is the proposed adjustment to the SRAF?

A. As shown on Schedule DLC-6, Page 1 of 3, the proposed rate adjustment is $0.00023 per kWh effective May 1, 2018.

Q. Is the Company currently recovering other storm costs through the SRAF?

A. Yes. The costs of the December 2008 ice storm and February 2010 wind storm are being recovered through the current SRAF over a period of eight years from May 2011 through April 2019 at a rate of $0.00096 per kWh. The cost of Hurricane Sandy is being recovered through the SRAF over a period of five years at a rate of $0.00043 per kWh, and is set to terminate effective April 30, 2018. The total SRAF proposed for effect May 1, 2018 is $0.00119 per kWh. This factor reflects termination of the recovery of Hurricane Sandy, continuing recovery of the costs associated with the December 2008 ice storm and February 2010 wind storm, and adding recovery of the costs from the October 2017 wind storm. The net effect to the SRAF is a decrease of $0.00020 per kWh, or a reduction of 14.4% on May 1, 2018, even after including this October 2017 wind storm.

Q. Will the Company track the account balance of these prior storms separately from the account balance of the October 2017 wind storm?

A. Yes. The recoveries made through the SRAF will be allocated to the prior storms and the October 2017 wind storm based on the proportion of the rate as specified in the Company's tariff, Schedule SRAF (i.e., $0.00096/$0.00119 or 80.7% will be charged against the costs from the December 2008 ice storm and February 2010 wind storm and $0.00023/$0.00119 or 19.3% will be charged against the costs from the October 2017 wind storm).

Q. Please describe Schedule DLC-6.

A. Page 1 of Schedule DLC-6 shows the calculation of the rate based on an annual levelized cost divided by actual kWh sales for the 12 month period ending December 31, 2017. Page 2 shows the costs, including carrying charges, recovered on a levelized basis over a period of five years beginning May 1, 2018. Page 3 shows the calculation of the beginning balance, including carrying charges, to be recovered. The methodology for calculating the rate is the same as used in previous storm recovery proposals.

Q. Will the reconciliation of costs and revenues be performed on a monthly basis?

A. Yes. As discussed above, the Company will apply an allocated portion of actual revenue from the SRAF to the May 1, 2018 balance. Carrying charges will be calculated monthly based on the average monthly account balance.

Q. Has the Company filed any tariff changes associated with this proposal?

A. A redline and clean version of the Company's tariff, Schedule SRAF, is provided to the cover letter of this filing. If approved, the Company will also update its SRAF in its Summary of Delivery Service Rates tariff page through a compliance filing.

Q. What is the bill impact of this proposed rate change?

A. Based on the decrease to the SRAF of $0.00020 per kWh, a residential customer on Default Service using 600 kWh will see a bill decrease of $0.12 or 0.1%.

VI. RECOUPMENT, STORM RESILIENCY PROGRAM, AND VMP / REP RECONCILIATION

Q. Please explain the reduction in the revenue requirement for Recoupment?

A. Recoupment revenue in the amount of $1,411,065 was recovered from customers on a uniform per kWh basis from all classes for services rendered from May 1, 2017 through April 30, 2018. As provided in the Settlement Agreement in DE 16-384, Recoupment revenue will no longer be collected as of May 1, 2018. That will result in a reduction to distribution revenue of $1,411,065.

Q. Have you calculated 2017's reconciliation of vegetation management program / reliability enhancement plan O&M expenditures?

A. Yes. As required by Section 7.2 of the DE 16-384 Settlement, Unitil Energy will continue to reconcile actual VMP and REP program O&M expenses for future calendar years to an amount of $4,858,739. For calendar year 2017, the Company spent $5,290,789 in VMP expense, $71,143 of REP expenses related to VMP, and $220,000 for reliability inspection and maintenance for a grand total of $5,581,932. In calendar year 2017, the Company collected $754,016 from Fairpoint Communications, providing for a net total expenditure of $4,827,916. The net expenditure of $4,827,916 is subtracted from the $4,858,739 for a total over-collection of $30,823, which will be credited to the Company's External Delivery Charge mechanism on May 1, 2018. Historically, the Company has credited the VMP / REP reconciliation since 2014 when it began. Since 2014, the Company has credited the External Delivery Charge for VMP / REP reconciliations 5 out of 5 years, for a total credit of $2,254,232.

VII. EARNINGS SHARING AND EXOGENOUS EVENTS

Q. What was the Company's return on equity in 2017 per its F-1? Does the Company qualify for earnings sharing in 2017?

A. The Company's return on equity for 2017 was 8.09% as shown in Schedule DLC-8. The Company does not qualify for earnings sharing in 2017.

Q. Were there exogenous events in 2017?

A. The Company believes that the Tax Act would qualify for an exogenous event under its Settlement Agreement in Docket DE 16-384 which would imply a rate effective date of May 1, 2018. However, the Company has implemented the Tax Act revenue reduction effective January 1, 2018 in accordance with NH PUC Order No. 26,906. The Company does not believe there were any other exogenous events in 2017.

VIII. RATE DESIGN

Q. Please explain the rate design for each component a) 2018 Step Adjustment, b) adjustments due to the Tax Act and c) Recoupment.

A. Schedule DLC-9 shows the rate design from current rates to the rates proposed in this filing for each of the individual adjustments. The current rates in column (c) do not reflect the recoupment rate of $0.00116 per kWh since it was not shown that way with the original settlement in DE 16-384. Rather, there is a line at the bottom of the schedule showing the rate and $ and their removal on May 1, 2018. Columns (d) – (f) show the rate design for the step adjustment of $3,302,989 which is done in accordance with the settlement and applied equi-proportionally to all rate components except the fixed transformer ownership credits. The net of the step adjustment and the removal of the recoupment is $1,891,924. Finally, the rate design for the Tax Act is shown in columns (j) – (l). The adjustment amount of -$2,244,744 is applied proportionally to each rate class in such a way that customer charges and fixed transformer ownership discounts are left unchanged. The decrease is applied to distribution energy charges, demand charges and outdoor lighting luminaire charges such that each class received the same overall percent increase. The net of all the changes proposed effective May 1, 2018 is $(352,820).

Q. Is the Company filing a revised Summary of Delivery Rates tariff schedule, pages 4 and 5, at this time?

A. No. Unitil Energy plans to make such a filing for effect May 1 as part of a compliance tariff filing once rates included in this filing are approved.

IX. BILL IMPACTS

Q. What are the class bill impacts proposed for May 1, 2018?

A. Bill impacts are computed and shown in Schedule DLC-10. These reflect the distribution rates and the Storm Recovery Adjustment Factor as proposed in this filing versus currently effective rates. As a result of this filing, a typical 600 kWh residential customer on default energy service will see a monthly bill decrease of ($0.11) or (0.1%). Impacts to other rate classes will be similar, but may vary based on size and consumption pattern.

X. CONCLUSION

Q. Does this conclude your testimony?

A. Yes.

(This Page is Intentionally Blank)