**UNITIL ENERGY SYSTEMS, INC.**

**DIRECT TESTIMONY**

**OF**

**MARK A. LAMBERT**

**EXHIBIT MAL-1**

**New Hampshire Public Utilities Commission**

**Docket No. DE 21-030**

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## I. INTRODUCTION

**Q. Mr. Lambert, what is your position and what are your responsibilities?**

A. I am the Vice President, Customer Operations for Unitil Service Corp. ("Unitil Service" or the "Company"). Unitil Service provides, at cost, a variety of administrative and professional services, including regulatory, financial, accounting, human resources, engineering, operations, technology and energy supply management services on a centralized basis to its affiliated Unitil companies,[1] including Unitil Energy Systems, Inc. ("UES"). My responsibilities include the development, execution and operations leadership for the five customer functions provided to the utility operating companies: Customer Solutions, Quality Assurance, Accounts Receivables, Customer Billing, Regulatory Rate Compliance and Customer Revenue Reconciliation.

**Q. Please describe your business and educational background.**

A. I earned a Bachelor of Science degree in Business Administration Management from Plymouth State University in 1987. Following graduation, I was employed with United Parcel Service ("UPS"), working in various customer service managerial roles. I joined Unitil Service in August of 1997 as the Manager of Customer Service before being promoted to Director of Customer Services in January 2000. In January 2011, I was provided with the opportunity to head up the Company's government affairs area as the

[1] The "Unitil companies" include Unitil Service and its regulated affiliates, UES, Northern Utilities, Inc., and Fitchburg Gas and Electric Light Company, all of which are wholly-owned subsidiaries of Unitil Corporation.

Director, Government Affairs. Finally after receiving additional responsibilities in the Customer Services area in 2017, I assumed the role of Vice President, Customer Operations in January, 2018.

**Q. Have you previously testified before the Commission or any other Regulatory agencies?**

A. Yes, I have testified before the Commission in previous rate case proceedings, numerous dockets and also in Unitil Corporation's proceeding regarding the acquisition of Northern Utilities, Inc. in 2008. I have also testified before the Massachusetts Department of Public Utilities and the Maine Public Utilities Commission on previous occasions in various proceedings.

**Q. What is the purpose of your testimony?**

A. I discuss the Company's Customer Information System ("CIS") that was implemented in July 2017 and the need to replace the Company's legacy CIS system, which had been in service for more than twenty two years. I also discuss proposed changes to the Company's Terms and Conditions for Distribution Service.

## II. CUSTOMER INFORMATION SYSTEM

Q. **Why did Unitil Service decide to implement a new CIS?**

A. Unitil Service's legacy CIS ("HTE") was implemented over a period of years from 1995 to 1998. Over the next two decades, the energy industry changed rapidly as more complex energy delivery and supply options were made available

to gas and electric customers and the technological avenues of communications with customers continued to evolve. As a result, HTE became functionally obsolete and unable to continue to meet current customer needs and expectations, the complexities of the Unitil companies' business, and evolving regulatory requirements.

**Q. Please explain how Unitil Service's CIS contributes to the Unitil companies' ability to provide safe, reasonable and adequate service to its customers.**

A. The importance of the CIS to a modern utility's provision of service is difficult to overstate. The CIS serves as the core of all of the Unitil companies' business systems and plays a functional role in nearly every aspect of the delivery of service to customers. The critical functional requirements for the CIS include, but are not limited to:

- Customer Billing and Revenue Recognition
- Cash Remittance, Cash Application and Payment Processing
- Regulatory Tariff and Rate Management
- Financial Reporting into the General Ledger
- Metering Validation and Editing
- Credit and Collections
- New Customer Intake and Service Work Orders
- Customer Communications and Customer Service
- Customer Account Portal Web Interface
- Retail Choice and Supplier Billing / Rates; and
- Future-looking Metering / Billing / Rate requirements.

**Q. Please describe the CIS project in more detail.**

A. This project was a major and critical system-wide conversion that included not only a new CIS, but also a Meter Data Management System ("MDMS"), a new "MyUnitil" customer portal, and 34 individual sub-system interfaces required to operate the CIS environments. The CIS was developed and tested over a period of six years and successfully launched into production across Unitil Corporation's footprint in July 2017. Unitil Service has continued to implement additional functionality in the "post go-live" periods of late 2017 and throughout 2018 and 2019.

**Q. Did Unitil Service consider making improvements to its legacy CIS?**

A. Unitil Service concluded that updating or improving HTE was not a viable option. As discussed above, HTE was unable to keep pace with the Unitil companies' needs. Moreover, in May 2010, SunGuard (the vendor of HTE) announced the application to be end-of-life. Prior communications from the vendor had indicated a sunset date of five years after such notification, which meant that by 2015 SunGuard would no longer support HTE.

**Q. What process did Unitil Service undertake to procure a new CIS?**

A. After the project team determined the scope of the CIS functionality, as discussed above, it worked with a consultant, Black & Veatch, to prepare a robust request for proposals ("RFP") to solicit proposals for the new CIS. The RFP was distributed to fifteen different CIS vendors and two MDMS vendors in late May 2012. Unitil Service received nine written proposals in response to the RFP.

Unitil Service, with the assistance of Black & Veatch, conducted a comprehensive evaluation of the proposals that were received.

**Q. Did Unitil Service move forward with a CIS vendor based on its evaluation?**

A. Yes. At the conclusion of the comprehensive evaluation process it was recommended that the Company move forward with Harris Computers' subsidiary Systems & Software's ("S&S") enQuesta CIS product. In addition to submitting a proposal that met Unitil Service's needs, S&S was an attractive vendor for the CIS project for a variety of reasons. S&S's Harris affiliate, SmartWorks, had already developed a MDMS (MeterSense) that interfaced with the enQuesta CIS, and there were efficiency advantages to working with Harris companies for both CIS and MDMS.

**Q. After S&S was selected as the CIS vendor, how did the development of the new CIS proceed?**

A. S&S commenced the project initiation in mid-April 2013 and completed that process in early June 2013. Unitil Service signed a contract with S&S on May 1, 2013 and the design process commenced in early June 2013 with the discovery phase. The goal of the discovery phase was to understand the "as-is" state of the Unitil companies' systems and to aggregate existing documentation, procedures, reports, and other artifacts, as well as document business processes. As part of this phase, in-depth review meetings were organized by each functional business area to solicit discovery feedback. The discovery phase was followed by a series of business process analysis workshops, which produced approximately 70

business process and requirement documents that detailed the configuration of the new CIS and requirements for the upgrades to the related information systems.

**Q. Was S&S's CIS implementation monitored throughout the process?**

A. Yes. Although S&S served as the implementer during the early stages of the project, Unitil Service actively monitored the CIS implementation. In March 2015, Company management determined that a review of the project should be conducted as a result of unexpected delays during the early part of the build phase. The review was performed by Grant Thornton, one of the nation's leading independent audit, tax and advisory firms, with which the Company had significant experience. As a result of the review, Unitil Service assumed control of the work plan for the CIS implementation. Unitil Service reorganized and supplemented its CIS team with additional resources, worked with S&S to revise its quality assurance and code review process, and obtained commitments from S&S to add resources and increase quality control. The Company then engaged Grant Thornton to assist in implementation and project management. Unitil Service determined this supplemental project management and testing expertise was necessary to adequately and independently test the CIS prior to "go-live" to ensure that the CIS launch would be successful for the Unitil companies and their customers.

**Q. Can you describe the testing methodology used?**

A. Unitil Service's standard practice when implementing new information systems is to establish a separate hardware/software "test" environment into which the base

version of the vendor's (or internally developed) software is loaded in preparation for custom configuration and testing in accordance with the Company's business process requirements.

From a project management perspective, Unitil Service tests three critical areas of the new CIS software's performance. First, it confirms that it can successfully convert all required data from the legacy system to the new system and validates and reconciles all customer, financial, regulatory and statistical attributes and information in the test environment. Second, extensive functional, transactional and system performance tests (including data uploads, detailed transactions, and daily business cycle processes) are performed to ensure the new system can perform all monthly business cycle processes according to the Unitil companies' regulatory and customer service standards. Third, the Company tests the new software/hardware's ability to close monthly operations and interface/communicate with all other necessary information systems as required.

**Q. Is such a comprehensive testing methodology process necessary?**

**A.** Yes. Comprehensive testing in a test environment to prevent errors in a production environment is far preferable to, and less expensive than, testing to detect errors after they have occurred in a production environment. This common sense approach is a foundation of the Company's system of internal controls.

Application of this quality standard of preventative testing methodology is required for approval from the Company's Senior Officers prior to "go-live" with any new system. For example, the initial CIS project plan proposed to test the first

critical area listed above, the conversion process, four times before proceeding to "go-live" launch execution.

Following Unitil Service's assumption of control and reorganization of the project in 2015-2016, the Company determined that more testing of this critical area was necessary. Ultimately, the Company performed nineteen data conversions in the test environment. The twentieth data conversion occurred, successfully, during "go-live" over the July 4th weekend in 2017. Thus, for proper implementation of this project, twenty data conversions were necessary. By investing in five times the preventative testing measures (i.e, twenty versus four), Unitil Service was able to avoid the significant expense associated with executing a poor conversion and then detecting and fixing errors while in live billing production mode, which would affect the customers we serve.

**Q. Were the investments in preventative testing worthwhile?**

**A.** Yes. The cost of "cure" attributable to error detection and correction in the production environment will always far exceed the cost of prevention in the test environment. Consider further the intangible costs associated with the inconvenience to and frustration of customers, and the resulting loss of hard-earned trust by customers, regulators and state and local officials, and the true cost of an insufficiently tested CIS implementation is nearly impossible to overstate.

**Q. How much testing did Unitil Service perform on the CIS prior to "go-live"?**

**A.** Since many tests are not passed the first time, thousands of tests and re-tests were performed during the project. More than 200 Unitil and outside consulting personnel were involved in the development and testing of the CIS systems. The goal was to "go-live" in a manner which would have little to no disruption and impact on the customer experience. Testing is an iterative and exhaustive process. If a problem is discovered during a functional test, an attempt must be made to identify and rectify the problem, at which the time process is repeated until the system requirements are satisfied. If issues were discovered during the CIS testing process, Grant Thornton and Unitil Service worked with S&S to identify the issue, determine the solution, establish a timeline for the delivery of a revised system component for retesting, and test the component until it satisfied system requirements. Testing occurred in parallel for enQuesta (CIS), MDMS, and MyUnitil. This comprehensive testing process resulted in thousands of functional tests being conducted over approximately 36 months.

**Q. How does the comprehensive testing and training affect the cost and schedule for a project of this magnitude and importance?**

**A.** The importance of sufficient testing and training for a system as important as the CIS cannot be overstated. The time and expense required to comprehensively test a system of this breadth is difficult to predict at the outset because a CIS is not a "plug and play" product. A new CIS must be customized to meet a company's business functionality needs and every aspect of that customized product must be thoroughly vetted for the reasons discussed in this testimony. Accordingly, the

time and expense necessary to complete testing and training are driven by factors that include the complexity of the new system and the extent to which it must interface and interact with other business platforms.

**Q. How does the new CIS benefit customers?**

A. The new CIS provides numerous benefits to customers. In addition to enhancing the Company's ability to provide efficient and accurately measured and billed service to customers, an important goal of the CIS was to meet evolving customer expectations. Customers expect more information to be made available from their utility and that the information be available through modern communications channels including web, mobile, e-mail, text and chat. The new CIS provides many such benefits to customers, including:

- Web interface that includes bill view and print access, recent billing and payment activity.
- Customers can sign-up for communication preferences for their bills and account management alerts. These communication preferences allow the customers to choose a message delivery option for paper, e-mail or SMS text message.
- Improvement in a customer's ability to read and understand bills, including rates, consumption and historical comparison tools for usage data.
- Customer bills include payment arrangement information and due dates.
- Customers can pay all their bills (including multiples) in a consolidated fashion. Unipay (Automatic Bank draft) is able to be utilized on active payment arrangements.
- Real-time payment interface with approval codes and account balance information.

- Automatic voiding of pending service turn-offs due to collection activity when a payment is made.
- Automatic reconnection work orders are generated for electric customers when a payment is made after being turned off.
- The CIS has more functionality to allow Customer Service Representatives ("CSRs") to assist with answering customer questions concerning the billing, account status and other communications.
- Up-to-date outage estimated times for restoration are automatically uploaded to the customer's enQuesta account, which are made available to the CSR and to the customer through the appropriate interactive voice response option.

**Q. How would you characterize the implementation process for the new CIS?**

A. After exhaustive testing and Quality Assurance/Quality Control assurance, the CIS was implemented over the 2017 Independence Day holiday without any material complications. The CIS implementation process was highly successful, has remained active, and has performed well since it was brought on line nearly four years ago. Today, the Company has a CIS that serves its customers well and is reflective of a modern-day service provider. Unitil Service understood from the beginning that the replacement of its legacy CIS with a completely new system would be a complicated undertaking and would require significant testing in a test environment before it would be allowed to function in the production environment. Unitil Service's thorough information systems testing methodology was the key attribute to its successful CIS implementation.

**Q. What was the cost of the new CIS investment?**

**A.** Unitil Service invested $36,832,636 in the CIS, MDMS, Customer Communications / Web Portal and System Interfaces projects.

**Q. How was the new CIS investment accounted for?**

**A.** Throughout the development process, the costs of the project were accumulated on the books of Unitil Service. In December 2017, the project was transferred from Construction Work in Process (account 107) to Plant in Service (account 101). At that time, the costs associated with the MDMS were transferred from Unitil Service to the Unitil operating companies. This balance was transferred because there were no material post "go-live" or Phase 2 items associated with the MDMS. At the end of 2018, it was determined that the CIS and other remaining systems had been operating effectively for 18 months, and in the first quarter of 2019 the balance at Unitil Service was transferred to the operating companies.

**Q. Are any costs associated with the project currently being recovered in rates?**

A. Yes, the costs associated with the MDMS portion of the project were included for recovery as part of the 2018 step adjustment in Docket No. DE 18-036.

**Q. How much of the costs associated with the MDMS portion of the project are currently being recovered in rates?**

A. The total cost of the MDMS was $7,268,134. This total project cost includes all MDMS related costs through December of 2017 when that system was completed. The total project cost was apportioned to UES in the amount of $2,398,474 using

the 3-factor allocator ratio of 33%. This amount was included as part of the step increase in DE 18-036.

**Q. How much is the non-MDMS portion of the project that has yet be included for recovery in UES's rates?**

**A.** The total cost of the CIS project after removing MDMS costs is $29,564,503. Applying the three-factor allocator, the total cost of the CIS project that has yet to be included for recovery in UES's rates is $9,756,286 ($29,564,503 x 33%).

**Q. How much of this cost is included in the Company's filed revenue requirement?**

**A.** The unamortized balance at the end of the test year and included in rate base is $8,273,283.

**Q. Why does the total project cost not match the amount included in the test year?**

A. The difference of $1,483,003 represents the amount that has already been amortized at UES through the end of the test year prior to inclusion of the costs for recovery in rates.

**Q. The CIS has been operating since July 2017. Please describe the Company's experience since that time.**

A. Following the CIS implementation and related information system upgrades in July 2017:

- All bills have been processed accurately with a 100% accuracy rate and 99.8% of all bills passing the first automated checkpoint. The remaining bills are transitioned to a manual check through a daily quality assurance review.
- Nearly 90,000 customers have been enrolled in the new and improved "MyUnitil" customer portal, which is a 300% increase over the legacy site.

As Unitil Service executed its first 100 Days Transition Plan, a "bill review" team was assembled and every customer's July 2017 invoice produced by the new CIS was compared to the customer's invoice produced in the legacy CIS in June 2017 and July 2016 to ensure bill accuracy. Similarly, every customer's August and September 2017 invoice was compared to the legacy system invoice for the same months in 2016. A report was developed to compare, at the customer meter level, prior year and prior month history that occurred in the legacy CIS against current invoices produced in the new CIS. Once an invoice was deemed accurate, it was released for mailing to the customer. Over 550,000 customer invoices were issued from the new CIS in the three months following the "go-live" date, at which time Unitil Service ended this daily manual bill review effort.

A scaled down bill validation protocol remains in use today that allows the Company's billing personnel to identify and review any bills that appear to be outliers from prior historical bills.

Finally, perhaps the best indicator of the success of the new CIS is that the "go-live" occurred without notice by customers or the New Hampshire Public Utilities Commission. In fact, Unitil had not received a single complaint from a

regulatory agency in any of the jurisdictions it serves about billing or other issues related to the new CIS.

**Q. Have the CIS project costs been included in rates for UES's affiliate companies?**

A. The portion of the CIS project costs allocated to UES's Massachusetts affiliate's gas and electric divisions were included in rates as a part of the settlement of those divisions' last base rate cases (DPU 19-130 and DPU 19-131). The CIS project costs allocated to UES's Maine natural gas affiliate, Northern Utilities, Inc. d/b/a Unitil ("Northern Utilities Maine"), are currently subject to an audit proceeding, MPUC 2021-00022. Northern Utilities Maine is participating actively in the audit proceeding to demonstrate that the full amount of the CIS project costs are reasonable and justifiable, and is pursuing full recovery in rates of these costs. Northern Utilities, Inc.'s New Hampshire division has not yet sought recovery of CIS project costs in base rates.

## III. PROPOSED CHANGES TO TERMS AND CONDITIONS FOR DISTRIBUTION SERVICE

**Q. Is the Company proposing changes to its Terms and Conditions for Distribution Service?**

A. Yes, the proposed changes are reflected in the Company's redline tariffs included with this filing. The changes reflect updated language consistent with NHPUC rules as well a few minor changes reflecting Company current practice.

**Q. Does that conclude your testimony?**

A. Yes it does.