

UNITIL ENERGY SYSTEMS, INC.

DIRECT TESTIMONY OF

ROBYN A. TAFOYA

**New Hampshire Public Utilities Commission
Docket No. DE 09-009**

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LIST OF SCHEDULES

Schedule RT-1: Unitil Energy Systems, Inc. 2008 Default Service and
Renewable Energy Credits Lead Lag Study

Schedule RT-2: Confidential/Redacted Workpapers for the Unitil Energy Systems, Inc.
2008 Default Service and Renewable Energy Credits Lead Lag Study

1 **I. INTRODUCTION**

2 **Q. Please state your name and business address.**

3 A. My name is Robyn A. Tafoya. My business address is 6 Liberty Lane West,
4 Hampton, New Hampshire 03842.

5

6 **Q. What are your positions and what are your responsibilities?**

7 A. I am the Director of Finance for Unitil Service Corp., which provides
8 centralized management and administrative services to all Unitil Corporation
9 ("Unitil") affiliates including Unitil Energy Systems, Inc. ("UES" or the
10 "Company"). In this capacity, I direct the treasury, financial analyses and
11 financial forecasting activities, as well as the preparation of revenue
12 requirements and cost of capital, of Unitil and its subsidiaries including UES.

13

14 **Q. Have you previously testified before the New Hampshire Public Utilities**
15 **Commission ("Commission") on behalf of the UES?**

16 A. Yes, I have previously presented testimony before this Commission in Docket
17 Nos. DE 04-041, DE 05-064, DE 05-178 and DE 07-013.

18

19 **II. PURPOSE OF TESTIMONY**

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

21 A. I will discuss the development of the 2008 UES Default Service and Renewable
22 Energy Credits Lead Lag Study ("2008 Study"), which is integral to the

1 calculation of cash working capital to be recovered in Default Service rates for G1
2 and Non-G1 customers.

3

4 **III. SUMMARY OF TESTIMONY**

5 **Q. Please summarize your testimony.**

6 A. My testimony presents and supports UES' 2008 Default Service ("DS") and
7 Renewable Energy Credits ("RECs") Lead Lag Study. The 2008 Study, presented
8 in this filing as Schedule RT-1, is based upon data for the period January 1, 2008
9 through December 31, 2008 and calculates the net lag periods for G1 and Non-G1
10 customers to be 7.06 days and 16.80 days, respectively.

11

12 **Q. Are the results of the 2008 Study used to derive supply-related working**
13 **capital costs for inclusion in the DS rates proposed in this filing?**

14 A. Yes, the 2008 Study results are used to derive supply-related working capital
15 costs included in DS rates beginning May 1, 2009, as described in the testimony
16 of UES witness Linda S. McNamara.

17

18 **IV. LEAD/LAG STUDY METHODOLOGY**

19 **Q. How was the 2008 Study conducted?**

20 A. The 2008 Study follows the same methodology as UES' 2006 Purchased Power
21 Lead / Lag Study ("2006 Study") that was submitted in Docket No. DE 07-013.

22 The 2008 Study determines the number of days between the time funds are

1 required to pay for DS purchased power and REC purchases (expense lead) and
2 the time that those funds are available from the payment of customer bills
3 (revenue lag). The revenue lag period includes four calculations: “receipt of
4 electric service to meter reading”, “meter reading to billing”, “billing to
5 collection”, and “collection to receipt of available funds”. The expense lead
6 period consists of the lead in payment of DS purchased power costs and REC
7 costs based upon the following calculations: lead period, average days lead,
8 weighted cost, days lead and weighted days lead. Each of these steps is explained
9 in more detail below. UES based its 2008 Study upon data for the twelve months
10 ended December 31, 2008, and calculated net lag days separately for the G1 and
11 Non-G1 customer classes.

12
13 **Q. Please define the terms “lag days” and “lead days.”**

14 A. Lag days are the number of days between delivery of electric service by UES to
15 its customers and the receipt by the Company of available funds from customers’
16 payments (revenue lag). Lead days are the number of days between the mid-point
17 of the energy delivery period to UES and the payment date by UES to DS
18 suppliers or for RECs (expense lead).

19
20 **Q. How is revenue lag computed?**

21 A. Revenue lag is computed in days, consisting of four time components: (1) days
22 from receipt of electric service to meter reading; (2) days from meter reading to

1 billing; (3) days from billing to collection; and (4) days from collection to receipt
2 of available funds. The sum of the days associated with these four lag
3 components is the total revenue lag. The calculations are performed separately
4 for G1 and Non-G1 customer classes, as appropriate. Refer to Schedule RT-1,
5 pages 3 through 18 of 22.
6

7 **Q. What is the lag period for the component "receipt of electric service to meter**
8 **reading" in the 2008 Study?**

9 A. The 2008 average lag for "receipt of electric service to meter reading" is 15.25
10 days. This lag was obtained by dividing the number of days in the test year (366
11 days) by 24 to determine the average monthly service period. This result is
12 applicable to both the G1 and Non-G1 customer classes. See Schedule RT-1,
13 page 4 of 22.
14

15 **Q. What is the lag period for the component "meter reading to billing?"**

16 A. The 2008 average "meter reading to billing" lag is 3.16 days. This lag determines
17 the time required to process the meter reading data and to send out customer bills
18 based on the collected data. This billing lag is influenced by factors such as
19 contract terms, billing investigations, and the nature of the billing. This result is
20 applicable to both the G1 and the Non-G1 customer classes. The billing lag
21 results include weekends and holidays. See Schedule RT-1, pages 5 through 9 of
22 22.

1

2 **Q. What is the lag period for the component "billing to collection?"**

3 A. The 2008 average "billing to collection" lag is 23.81 days for G1 customers and
4 30.80 days for Non-G1 customers. This component was calculated separately for
5 the G1 and Non-G1 customer groups and is derived by comparing Accounts
6 Receivable balances to average daily sales revenues. The lag reflects the time
7 delay between the mailing of customer bills and the receipt of the billed revenues
8 from customers. Collection lag in individual circumstances is influenced by
9 special payment terms, postal delivery delays, customer inquiries, billing disputes,
10 and other factors. See Schedule RT-1, page 10 and 11 of 22 for G1 and Non-G1
11 results, respectively.

12

13 **Q. What is the lag period for the component "collection to receipt of available**
14 **funds?"**

15 A. The 2008 average "collection to receipt of available funds" lag is 1.13 days. This
16 represents the average weighted check-float period, or the lag that takes place
17 during the period from when payment is received from customers to the time such
18 funds are available for use by the Company. This result is applicable to both the
19 G1 and Non-G1 customer classes. See Schedule RT-1, pages 12 through 18 of 22.

20

21 **Q. Is the total revenue lag computed from these separate lag calculations?**

1 A. Yes. The total revenue lag of 43.35 days for G1 customers and 50.34 days for
2 Non-G1 customers is computed by adding the number of days associated with
3 each of the four revenue lag components described above. This total number of
4 lag days represents the amount of time between the recorded delivery of service to
5 customers and the receipt of the related revenues from customers. See Schedule
6 RT-1, page 3, line 6.

7
8 **Q. Please turn to the lead periods in the 2008 Study. In determining the expense**
9 **lead period, how is the weighted days lead in payment of DS purchased**
10 **power costs determined?**

11 A. First, the monthly expense lead for each DS power supply vendor is determined
12 by aggregating (1) the average days in the period that the energy or service is
13 received, and (2) the additional billing period up to the day the payment is
14 transmitted. Then the aggregate lead days are weighted by the dollar amount of
15 the billings. The result is most heavily influenced by the payment terms
16 associated with DS supply contracts. Weighted days lead are calculated
17 separately for G1 and Non-G1 customers, by supplier, and are shown in the
18 Confidential Workpapers to the 2008 Study, Schedule RT-2.

19
20 **Q. How is the weighted days lead in payment for RECs determined?**

21 A. The weighted days lead in payment for RECs was determined using the same
22 methodology applicable to DS power suppliers described above. In applying this

1 methodology to 2008 RECs, two assumptions were made to reflect the fact that as
2 of March 1, 2009, UES had not made payment toward any RECs for its 2008
3 commitment. First, a payment date of June 30, 2009 was used for all 2008 RECs,
4 which is the last day to obtain 2008 RECs and/or make alternative compliance
5 payments. Second, the monthly cost of the RECs was assumed to be equivalent to
6 the estimated costs of RECs included in rates in 2008. See Schedule RT-1, page
7 20 of 22 for the RECs summary related to G1 customers and page 22 of 22 for the
8 RECs summary related to Non-G1 customers
9

10 **Q. What are the combined weighted days lead in payment of DS purchased**
11 **power costs and RECs for G1 and Non-G1 customers?**

12 A. The weighted days lead for G1 customers is 39.06 days, as shown on Schedule
13 RT-1, page 19 of 22. The weighted days lead for Non-G1 customers is 37.48
14 days, as shown on Schedule RT-1, page 21 of 22.
15

16 **Q. How is the total DS and REC lag determined?**

17 A. For G1 customers, the DS and REC expense lead of 39.06 days is subtracted from
18 the lag in receipt of revenue of 43.35 days to produce the total DS and REC lag of
19 4.29 days. For Non-G1 customers, the DS and REC expense lead of 37.48 days is
20 subtracted from the lag in receipt of revenue of 50.34 days to produce the total DS
21 and REC lag of 12.86 days. See Schedule RT-1, page 3 of 22.
22

1 **Q. How do the results of the 2008 Study compare to the 2006 Study for G1**
2 **customers?**

3 A. For G1 customers, the net lag in the 2008 Study of 4.29 days is lower than the net
4 lag in the 2006 Study of 13.49 days. The decrease of 9.20 days is mainly the
5 result of an increase to the DS and REC expense lead of 11.81 days and an
6 increase in revenue lag of 2.61 days (2.61 days less 11.81 days = (9.20 days)).

7
8 The increase in DS and REC expense lead of 11.81 days, to 39.06 days in the
9 2008 Study from 27.25 days in the 2006 Study, was the result of differences in the
10 G1 DS supplier payment terms between the two periods, and the inclusion of
11 RECs in the calculation. In 2008, a higher proportion of G1 DS supplier
12 payments were made once per month, whereas in 2006, most of G1 DS supplier
13 payments were made twice per month. In addition, RECs contributed to the
14 increase in expense lead because RECs may be purchased at any time, up to six
15 months after the end of the calendar year. UES has not yet made payment toward
16 RECs for calendar year 2008, therefore the payment date used in the analysis was
17 conservatiely assumed to be the last possible date to purchase 2008 RECs. See
18 Schedule RT-1, page 24 of 22.

19
20 The increase in G1 expense lead was partially offset by an increase in revenue lag
21 of 2.61 days, to 43.35 days in the 2008 Study from 40.74 days in the 2006 Study,
22 which is mainly due to the higher “meter reading to billing” and “billing to

1 collection” results. The “meter reading to billing” result increased by 1.34 days,
2 to 3.16 days in the 2008 Study from 1.82 days in the 2006 Study, and mainly
3 reflects changes resulting from full implementation the Advanced Metering
4 Infrastructure (“AMI”) project. In 2008, meter readings from AMI were uploaded
5 into the billing system and processed the day following receipt of meter reading
6 data, whereas prior to the implementation of AMI, in 2006, bills were processed
7 the same evening that meter reading data was received. This change in procedure
8 allows better monitoring and management review of the preparation and
9 processing of customers’ bills using AMI meter reading data. The G1 “billing to
10 collection” result also increased by 1.65 days, to 23.81 days in the 2008 Study
11 from 22.16 days in the 2006 Study. The 2008 result, while varying somewhat
12 from the 2006 result, is consistent with the result from UES’ Revised 2005 Lead /
13 Lag Study of 23.79 days.

14
15 **Q. How do the results of the 2008 Study compare to the 2006 Study for Non-G1**
16 **customers?**

17 A. For Non-G1 customers, the net lag in the 2008 Study was 12.86 days compared to
18 the net lag in the 2006 Study of 10.25 days. This increase of 2.61 days is the result
19 of an increase in revenue lag of 6.21 days, offset by increases in expense lead of
20 3.60 days (6.21 days less 3.60 days = 2.61 days). The Non-G1 revenue lag
21 increased by 6.21 days, to 50.34 days in the 2008 Study from 44.13 days in the
22 2006 Study, mainly due to higher “billing to collection” and “meter reading to

1 billing” results. The Non-G1 “billing to collection” result increased 5.25 days, to
2 30.80 days in the 2008 Study from 25.55 days in the 2006 Study, and suggests
3 that on average, Non-G1 customers are taking longer to pay their bills. This result
4 is consistent with observed increases in UES’ overall uncollectible accounts
5 experience. UES’ 2008 allowance for doubtful accounts increased 71 percent
6 compared to 2006, from \$560,995 in 2006 to \$961,285 in 2008, while accounts
7 written off increased 177% percent, from \$282,485 in 2006 to \$783,512 in 2008.
8 In addition, the Non-G1 increase in revenue lag was partially due to the “meter
9 reading to billing” result which increased by 1.34 days. This result is the same for
10 both G1 and Non-G1 classes, and is discussed above.

11
12 Non-G1 expense lead increased mainly due to the inclusion of REC expense leads
13 in the calculation, as discussed above.

14
15 **Q. Please provide an estimate of the dollar impact of these changes on G1 and**
16 **Non-G1 customers.**

17 A. For the G1 customer class, the estimated dollar impact of using 4.29 days instead
18 of 13.49 days for DS and month-specific REC days lag calculations for the
19 projected 3-month period from May through July 2009 is a decrease of \$27 in the
20 working capital allowance. For the Non-G1 customer class, the estimated dollar
21 impact of using 12.86 days instead of 10.25 days for DS and -257.98 days for

1 REC for the projected 6-month period from May through October 2009 is an
2 increase of \$25,787 in the working capital allowance.

3

4 **V. CONCLUSION**

5 **Q. Does this conclude your testimony?**

6 A. Yes, it does.

7