

UNITIL ENERGY SYSTEMS, INC.

DIRECT TESTIMONY OF
KRISTINA M. GUAY

New Hampshire Public Utilities Commission
Docket No. DE 13-079

TABLE OF CONTENTS

I.	INTRODUCTION	Page 1
II.	PURPOSE OF TESTIMONY	Page 2
III.	SUMMARY OF TESTIMONY	Page 2
IV.	LEAD LAG STUDY METHODOLOGY	Page 3
V.	2012 STUDY RESULTS	Page 4
VI.	CONCLUSION	Page 11

LIST OF SCHEDULES

Schedule KG-1: Unitil Energy Systems, Inc. 2012 Default Service and
Renewable Energy Credits Lead Lag Study

Schedule KG-2: Confidential/Redacted Workpapers for the Unitil Energy Systems, Inc.
2012 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 Kristina M. Guay. My business address is 6 Liberty Lane West,
4 Hampton, New Hampshire 03842.

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

7 A. I am a Senior Financial Analyst for Unitil Service Corp., a subsidiary of Unitil
8 Corporation that provides managerial, financial, regulatory and engineering
9 services to Unitil Corporation's principal subsidiaries: Fitchburg Gas and
10 Electric Light Company, Granite State Gas Transmission, Inc., Northern
11 Utilities, Inc., and Unitil Energy Systems, Inc. ("UES" or the "Company"). In
12 this capacity I perform complex financial planning, forecasting and analysis
13 and generate high quality and analytical information and reports.

15 **Q. Please describe your educational and professional background.**

16 A. I received a Bachelor of Science degree in Business with a concentration in
17 Accounting from Southern New Hampshire University in May of 2007. I
18 came to work for Unitil Service Corp. in August of 2004. I began working in
19 the Customer Accounting department as the Senior Financial Systems
20 Analyst. In this position I was responsible for coordinating the month end
21 revenue reconciliation for all Unitil subsidiaries. I also directed the Billing
22 Associates in the maintenance of the customer billing system, ensuring

1 accurate and timely bills were generated. In August of 2010, I was promoted
2 to Senior Financial Analyst as a member of the Finance Department. From
3 my prior role in Customer Accounting, I have direct experience with revenue
4 reconciliation and customer billing which are direct inputs into this lead lag
5 study. I also have several years of experience in financial planning,
6 forecasting and analysis from my approximate 9 years at Unitil in various
7 roles.

8
9 **Q. Have you previously testified before the New Hampshire Public Utilities**
10 **Commission (the "Commission")?**

11 A. Yes, I have previously presented testimony before this Commission in Docket No.
12 DE 11-028 and DE 12-003.

13
14 **II. PURPOSE OF TESTIMONY**

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

16 A. I will discuss the development of the 2012 UES Default Service and Renewable
17 Energy Credits Lead Lag Study ("2012 Study"), which is integral to the
18 calculation of cash working capital to be recovered in Default Service rates for G1
19 and Non-G1 customers.

20
21 **III. SUMMARY OF TESTIMONY**

22 **Q. Please summarize your testimony.**

1 A. My testimony presents and supports UES' 2012 Default Service ("DS") and
2 Renewable Energy Credits ("RECs") Lead Lag Study. The 2012 Study, presented
3 in this filing as Schedule KG-1, is based upon data for the period January 1, 2012
4 through December 31, 2012 and calculates the net lead period for G1 customers to
5 be 20.11 days and net lag period for Non-G1 customers to be 1.35 days.

6
7 **Q. Are the results of the 2012 Study included in the DS rates proposed in this**
8 **filing?**

9 A. Yes, the 2012 Study results are used to derive supply-related working capital
10 costs included in DS rates beginning May 1, 2013, as described in the testimony
11 of UES witness Linda S. McNamara.

12

13 **IV. LEAD LAG STUDY METHODOLOGY**

14 **Q. How was the 2012 Study conducted?**

15 A. The 2012 Study follows similar methodology as in UES' 2011 Default Service
16 and Renewable Energy Credits Lead Lag Study ("2011 Study") that was
17 submitted in Docket No. DE 12-003. The 2012 Study determines the number of
18 days between the time funds are required to pay for DS purchased power and
19 REC purchases (expense lead) and the time that those funds are available from the
20 payment of customer bills (revenue lag). The revenue lag period includes four
21 calculations: "receipt of electric service to meter reading", "meter reading to
22 recording of accounts receivable", "billing to collection", and "collection to

1 receipt of available funds". The expense lead period consists of the lead in
2 payment of DS purchased power costs and REC costs based upon the following
3 calculations: lead period, average days lead, weighted cost, days lead and
4 weighted days lead. Each of these steps is explained in more detail below. UES
5 based its 2012 Study upon data for the twelve months ended December 31, 2012,
6 and calculated net lead lag days separately for the G1 and Non-G1 customer
7 classes.

8
9 **Q. Does the 2012 Study incorporate the requirements of the Lead Lag**
10 **Settlement Letter dated July 16, 2009, under docket DE 09-009?**

11 A. Yes, the 2012 Study conforms to the requirements specified in the Settlement
12 Letter under Docket No. DE 09-009. The 2012 Study follows the same
13 methodology as used in the 2009, 2010 and 2011 Studies which conform to the
14 requirements of the Settlement.

15
16 **V. 2012 STUDY RESULTS**

17 **Q. Please define the terms "lag days" and "lead days."**

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

1

2 **Q. How is revenue lag computed?**

3 A. Revenue lag is computed in days, consisting of four time components: (1) days
4 from receipt of electric service to meter reading; (2) days from meter reading to
5 recording of accounts receivable; (3) days from billing to collection; and (4) days
6 from collection to receipt of available funds. The sum of the days associated with
7 these four lag components is the total revenue lag. The calculations are
8 performed separately for G1 and Non-G1 customer classes, as appropriate. Refer
9 to Schedule KG-1, pages 4 through 19 of 23.

10

11 **Q. What is the lag period for the component "receipt of electric service to meter
12 reading" in the 2012 Study?**

13 A. The 2012 average lag for "receipt of electric service to meter reading" is 15.25
14 days. This lag was obtained by dividing the number of days in the test year (366
15 days) by 24 to determine the average monthly service period. This result is
16 applicable to both the G1 and Non-G1 customer classes. See Schedule KG-1,
17 page 5 of 23.

18

19

20 **Q. What is the lag period for the component "meter reading to recording of
21 accounts receivable?"**

1 A. The 2012 average "meter reading to recording of accounts receivable" lag is 1.12
2 days, which is applicable to both the G1 and the Non-G1 customer classes. This
3 lag determines the time required to process the meter reading data and record
4 accounts receivable. See Schedule KG-1, pages 6 through 10 of 23.

5
6 **Q. What is the lag period for the component "billing to collection?"**

7 A. The 2012 average "billing to collection" lag is 21.51 days for G1 customers and
8 33.10 days for Non-G1 customers. This component was calculated separately for
9 the G1 and Non-G1 customer groups and is derived by the accounts receivable
10 turnover method. The lag reflects the time delay between the mailing of customer
11 bills and the receipt of the billed revenues from customers. See Schedule KG-1,
12 pages 11 and 12 of 23 for G1 and Non-G1 results, respectively.

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

16 A. The 2012 average "collection to receipt of available funds" lag is 1.28 days. This
17 represents the average weighted check-float period, or the lag that takes place
18 during the period from when payment is received from customers to the time such
19 funds are available for use by the Company. This result is applicable to both the
20 G1 and Non-G1 customer classes. See Schedule KG-1, pages 13 through 19 of
21 23.

22

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

2 A. Yes. The total revenue lag of 39.16 days for G1 customers and 50.75 days for
3 Non-G1 customers is computed by adding the number of days associated with
4 each of the four revenue lag components described above. This total number of
5 lag days represents the amount of time between the recorded delivery of service to
6 customers and the receipt of the related revenues from customers. See Schedule
7 KG-1, page 4, line 6.

8

9 **Q. Please turn to the lead periods in the 2012 Study. In determining the expense**
10 **lead period, how is the weighted days lead in payment of DS purchased**
11 **power costs determined?**

12 A. First, the monthly expense lead for each DS power supply vendor is determined
13 by aggregating (1) the average days in the period that the energy or service is
14 received and (2) the additional billing period including the payment day.

15

16 The aggregate lead days are then weighted by the dollar amount of the billings.
17 Weighted days lead are calculated separately for G1 and Non-G1 customers, by
18 supplier, and are shown in the Confidential Workpapers to the 2012 Study,
19 Schedule KG-2.

20

1 As of March 29, 2013, prior period adjustments made in 2013 related to 2012
2 were included in the calculation. Prior year adjustments made in 2012 that relate
3 to 2011 were not included in the calculation.
4

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

6 A. The weighted days lead in payment for RECs was determined using the same
7 methodology applicable to DS power suppliers described above. In applying this
8 methodology to 2012 RECs, three assumptions were made to reflect actual
9 payment activity towards the Company's 2012 REC commitment. First, the
10 monthly cost of the RECs was assumed to be equivalent to the estimated costs of
11 RECs included in rates in 2012. Second, actual payment activity as of March 29,
12 2013 towards the Company's 2012 REC commitment was applied in
13 chronological order to the earliest month's estimated cost. Third, a payment date
14 of July 1, 2013 was used for all remaining 2012 REC commitments, which is the
15 last day to obtain 2012 RECs and/or make alternative compliance payments. See
16 Schedule KG-1, page 21 of 23 for the REC summary related to G1 customers and
17 page 23 of 23 for the REC summary related to Non-G1 customers.
18

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

1 A. The weighted days lead for G1 customers is 59.27 days, as shown on Schedule
2 KG-1, page 20 of 23. The weighted days lead for Non-G1 customers is 49.40
3 days, as shown on Schedule KG-1, page 22 of 23.

4
5 **Q. How is the total DS and REC lead lag determined?**

6 A. For G1 customers, the DS and REC expense lead of 59.27 days is subtracted from
7 the lag in receipt of revenue of 39.16 days to produce the total DS and REC lead
8 of 20.11 days. For Non-G1 customers, the DS and REC expense lead of 49.40
9 days is subtracted from the lag in receipt of revenue of 50.75 days to produce the
10 total DS and REC lag of 1.35 days. See Schedule KG-1, page 4 of 23.

11
12 **Q. How do the results of the 2012 Study compare to the 2011 Study for G1**
13 **customers?**

14 A. For G1 customers, the net lead in the 2012 Study of 20.11 days represents a
15 difference of 19.26 days from the net lead in the 2011 Study of 0.85 days. The
16 difference was driven by an increase in DS and REC expense lead of 15.83 days
17 and by an overall revenue lag decrease of 3.43 days.

18
19 The revenue lag component, "billing to collection" in the 2012 Study is 21.51
20 days compared to 24.73 days in the 2011 Study, a decrease of 3.22 days. All of
21 the other components in revenue lag decreased a total of 0.21 days in the 2012

1 Study compared to the 2011 Study. The combined change in all of the revenue
2 lag components resulted in an overall revenue lag decrease of 3.43 days.

3
4 The DS and REC expense lead is 59.27 days in the 2012 Study compared to 43.44
5 days in the 2011 Study, an increase of 15.83 days. The overall net increase in the
6 REC portion of the expense lead is attributable to an increase in the weighted days
7 lead which was driven by the increase in weighted cost from 3.48% in the 2011
8 Study to 6.91% in the 2012 Study. The overall net increase in the DS portion of
9 the expense lead is largely attributable to an increase in average days lead of
10 33.71 days in the 2011 Study to 40.50 days in the 2012 Study.

11
12 **Q. How do the results of the 2012 Study compare to the 2011 Study for Non-G1**
13 **customers?**

14 **A.** For Non-G1 customers, the net lag in the 2012 Study of 1.35 days is 10.86 days
15 less than the net lag in the 2010 Study of 12.21 days. The decrease in net lag is
16 attributable to a 0.27 day decrease in revenue lag and a 10.59 day increase in the
17 DS and REC expense lead.

18
19 The revenue lag component, "meter reading to recording of accounts receivable"
20 was 1.12 days in the 2012 Study, which is 0.23 days less than that in the 2011
21 Study. "Billing to collection" was approximately 0.06 days less and all other
22 revenue lag components improved approximately 0.02 days in the 2012 Study

1 compared to the 2011 Study. The net effect of all of the changes in the revenue
2 lag components resulted in a 0.27 decrease in the 2012 revenue lag compared to
3 2011.

4
5 The DS and REC expense lead is 10.59 days higher in 2012 compared to 2011. In
6 2012, the average days lead for DS was 34.74 days compared to 29.33 days in
7 2011. The REC portion of the expense lead went up from 10.43 weighted days
8 lead in 2011 to 16.52 weighted days lead in 2012. This increase was largely
9 driven by an increase in the weighted cost from 3.26% in 2011 to 5.35% in 2012.

10

11 **VI. CONCLUSION**

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

13 **A.** Yes, it does.