

UNITIL ENERGY SYSTEMS, INC.

**DIRECT TESTIMONY OF
RICHARD L. FRANCAZIO**

New Hampshire Public Utilities Commission

Docket No. DE 11-__

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Attachment 1 – Tropical Storm Irene After Action Report

Attachment 2 – October Snow Storm After Action Report

1 **I. INTRODUCTION**

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

3 A. My name is Richard L. Francazio and my business address is 6 Liberty Lane West,
4 Hampton, New Hampshire.

5
6 **Q. What is your position and what are your responsibilities?**

7 A. I am the Director of Emergency Management and Compliance for Unitil Service
8 Corp. (“USC”), which provides centralized management and administrative
9 services to all Unitil Corporation’s affiliates including Unitil Energy Systems, Inc.
10 (“UES” or the “Company”). In this position, I am responsible for preparing the
11 organization to respond to emergency events while ensuring the company
12 maintains compliance with all applicable regulatory requirements.

13
14 **Q. Please describe your business and educational background.**

15 A. I have over 30 years of experience in the utility industry with expertise in all
16 aspects of the distribution and transmission energy delivery business. Prior to
17 joining USC in March 2009, I was employed for 25 years at National Grid, and
18 before that, for five years at Florida Power & Light. After working for 5 years at
19 FP&L as a system protection engineer, I joined the New England Electric System
20 (now National Grid) in 1984 as a Supervisor in the Substation Operation and
21 Maintenance department. While at National Grid, I worked in a variety of

1 operational and leadership roles including the Supervisor of Substations, Manager
2 of the Meter Department, Manager of Engineering, and Director of Shared
3 Services which included support activities such as Fleet, Forestry, Clerical,
4 Environmental and Safety. I was the Director of Operations for two National Grid
5 divisions (Hopedale and Brockton), Vice President of New England Electric
6 Operations which included Rhode Island, Massachusetts and New Hampshire,
7 Vice President of Construction Services, and Vice President and Director of
8 Emergency Planning for National Grid US.

9

10 As Vice President and Director of Emergency Planning I was responsible for all of
11 National Grid US Incident Management procedures including storm emergency
12 response, business continuity planning, pandemic influenza preparations, strike
13 preparations, gas emergency response plans and corporate crisis management plan.
14 I led company efforts to revise the company's emergency procedures to reflect the
15 National Incident Management System (NIMS) guidelines. From 1995 to 2009 I
16 also served as the System Storm Director responsible for implementing and
17 coordinating restoration efforts across National Grid. I retired from National Grid
18 in 2009 and joined USC in April of that year. I have a Bachelor of Science degree
19 in Electrical Engineering from Roger Williams College and a Masters of Business
20 Administration from Boston University.

21

1 **Q. Have you previously testified before the New Hampshire Public Utilities**
2 **Commission ("Commission")?**

3 A. Yes. I testified before the Commission regarding UES' deployment of resources
4 following the 2008 ice storm in Docket DE 10-001.

5

6 **II. SUMMARY OF TESTIMONY**

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

8 A. The purpose of my testimony is to support the Company's proposal to increase its
9 Storm Recovery Adjustment Factor ("SRAF") to recover the costs of Tropical
10 Storm Irene ("Irene") and the recent October nor'easter ("October Snow Storm").
11 My testimony will describe the impact of Irene and the October Snow Storm on
12 the distribution infrastructure of UES, the Company's planning, restoration and
13 recovery efforts, the resulting costs of those efforts, and I will explain why Irene
14 and the October Snow Storm are qualifying major storms as defined by the
15 Commission.

16

17 **Q. How is your testimony organized?**

18 A. The remainder of my testimony consists of two sections. First, I will describe the
19 impact of Tropical Storm Irene and the October Snow Storm and the Company's
20 response. Second, I will explain why Irene and the October Snow Storm qualify as
21 major storms under the Commission's definition of a major storm.

1 **III. DESCRIPTION OF TROPICAL STORM IRENE**

2 **Q. When did Irene strike New England and the UES service territory?**

3 A. New England was impacted by Irene on Sunday, August 28, 2011. The storm's
4 impact was widespread and stretched from the Carolinas to New England. In the
5 wake of Irene, more than 7 million homes and businesses across 13 states and the
6 District of Columbia lost power and at least 21 deaths were attributed to the event.
7 The impacts of Irene on UES' service territory peaked at approximately 14:00
8 hours on August 28th. The tropical system brought sustained winds of 35 to 40
9 miles per hour (mph), wind gust of up to 60 mph, and more than three inches of
10 rainfall. The event lasted well into the afternoon with winds diminishing slowly
11 throughout the day, although a second period of wind gusts was reported in the
12 early evening hours. Most damage to utility infrastructure was caused by tree
13 limbs breaking from the sheer force of the winds.

14

15 **Q. Please describe Unital's preparations for Irene.**

16 A. Unital¹ mobilized its Incident Command System (ICS) well in advance of the
17 storm's impact and was able to secure commitments for over 152 line crews, 61
18 tree crews, 93 damage assessment/wires down, and support personnel in advance
19 of the storm. Ultimately, 95 line crews, 38 tree crews and 65 damage assessment
20 and wire down personnel were allocated to UES. Due to the forecast path of Irene

¹ For purposes of this discussion, "Unital" refers to the unified storm preparation activities of USC, UES, and UES' affiliate, Fitchburg Gas and Electric Light Company.

1 along the eastern US coastline, resource availability in the mid-Atlantic, New
2 England, and New York regions was noticeably limited by Wednesday, August
3 24th. As a result, commitments were made to obtain resources from the Michigan,
4 Tennessee, and Canada.

5
6 As the storm rapidly approached New England, the Company implemented its
7 multi-layered, communications protocols detailed within its Electric Emergency
8 Response Plan (ERP). This implementation focused on informing customers via
9 social networking, coordinating with local and state emergency response officials,
10 providing frequent updates to regulators and elected officials, partnering with the
11 news and print media to distribute public service announcements (PSAs), briefing
12 emergency response agencies like the American Red Cross (ARC) on our
13 preparations, and updating employees and contractors on the Company's
14 preparations. Prior to impact UES Regional-EOC's held their first municipal call
15 to ensure that local municipal emergency response officials understood the
16 communication protocols when the inevitable Public Safety concerns arise.

17

18 **Q. How many UES customers were impacted by Irene?**

19 At peak, approximately 31,355 customers or 42% of UES' 74,095 customers were
20 without power. Over the course of the 36 hour restoration period, a cumulative
21 total of 42,300 customers experienced interruptions. The Company experienced

1 260 individual “trouble locations”, including outages in 30 of the 34 communities
2 it serves in New Hampshire.

3

4 **Q. When did the Company restore service to all customers?**

5 A. The Company successfully restored service to all storm-impacted customers by the
6 evening of Monday, August 29th – a time period of 36 hours from the time the
7 effects of Irene were initially felt.

8

9 **Q. When did the Company release the contracted resources it had acquired in
10 advance of Irene?**

11 A. After restoring power to all its New Hampshire customers, UES was able to
12 provide significant resources to other New England utilities. By the morning of
13 Tuesday, August 30th, the Company had released 256 contractor line and tree
14 crews to five (5) utilities in four (4) states, with 83 of these crews directed to other
15 New Hampshire utilities.

16

17 **Q. Did the Company complete an After Action Report for UES following Irene?**

18 A. Yes. The UES After Action Report for Tropical Storm Irene is provided as
19 Attachment 1. This report provides extensive information about Irene, the resulting
20 damage and customer impacts, as well as the Company’s planning, restoration and
21 communication strategy.

22

1 **IV. DESCRIPTION OF OCTOBER SNOW STORM**

2 **Q. When did the October Snow Storm strike New England and the UES service**
3 **territory?**

4 A. New England was impacted by the October Snow Storm on Saturday, October 29,
5 2011. The storm's impact was widespread and stretched from the Mid-Atlantic
6 through New England and to the Canadian Maritimes. In the wake of the
7 nor'easter, more than 3 million homes and businesses across 12 states and the
8 Canadian Maritimes lost power and at least 39 deaths were attributed to the event
9 with 35 of those in the US. The impact of the nor'easter on UES' service territory
10 peaked at approximately 2:00 AM on October 30th. The nor'easter brought
11 sustained winds of 17 miles per hour (mph), wind gust of up to 30 mph, and
12 heavy, wet snowfall in amounts between 19-25 inches across the NH service
13 territory. The event lasted throughout the evening and into the early morning
14 hours with snow and winds diminishing throughout the mid-morning hours on
15 October 30th.

16

17 **Q. Please describe Unital's preparations for the snow storm.**

18 A. Unital² mobilized its Incident Command System (ICS) well in advance of the
19 storm's impact and was able to secure commitments for over 163 line crews, 55
20 tree crews, 109 damage assessment and wires down personnel, plus company

² For purposes of this discussion, "Unital" refers to the unified storm preparation activities of USC, UES, and UES' affiliate, Fitchburg Gas and Electric Light Company.

1 support personnel across its service territory. Ultimately, 81 line crews, 34 tree and
2 61 damage assessment and wire down personnel were allocated to UES along with
3 internal support personnel. Due to the increased snow amounts and wet
4 consistency forecasted across the region on Friday, October 28th, resource
5 availability in the mid-Atlantic, New England, and New York regions were
6 noticeably limited. As a result, commitments were made to obtain resources from
7 the Pennsylvania, Michigan, and Canada.

8
9 As the storm rapidly approached New England, the Company implemented its
10 multi-layered, communications protocols detailed within its Electric Emergency
11 Response Plan (ERP). This implementation focused on informing customers via
12 social networking, coordinating with local and state emergency response officials,
13 providing frequent updates to regulators and elected officials, partnering with the
14 news and print media to distribute public service announcements (PSAs), briefing
15 emergency response agencies like the American Red Cross (ARC) on our
16 preparations, and updating employees and contractors on the Company's
17 preparations. Prior to impact UES Regional-EOC's held their first municipal call
18 to ensure that local municipal emergency response officials understood the
19 communication protocols when the inevitable Public Safety concerns arise.

20

21 **Q. How many UES customers were impacted by the snow storm?**

1 A. At peak, approximately 51,262 customers or 69% of UES' 74,498 customers were
2 without power. Over the course of the 84 hour restoration period, a cumulative
3 total of 71,973 customers experienced interruptions. The Company experienced
4 368 individual "trouble locations"; including outages in 31 of the 34 communities
5 it serves in New Hampshire.

6

7 **Q. When did the Company restore service to all customers?**

8 A. The Company successfully restored service to 99 % of its affected customers in 72
9 hours with the remaining individual customers restored by 6 a.m. on Wednesday,
10 November 2nd. The majority of damage was the result of tree limbs breaking from
11 the weight of heavy, wet snow. Contributing to the tree damage was the amount of
12 foliage still on the trees which provided greater surface area for the wet snow to
13 compile causing major tree and limb breakage. As a result UES experienced
14 interruptions to 7 sub-transmission lines and 23 distribution circuits primarily in
15 the Seacoast region of UES.

16

17 **Q. Did the Company complete an After Action Report for UES following the**
18 **snow storm?**

19 A. Yes. The UES After Action Report for the October Snow Storm is provided as
20 Attachment 2. This report provides extensive information about the storm, the
21 resulting damage and customer impacts, as well as the Company's planning,
22 restoration and communication strategy.

1

2 **V. QUALIFYING MAJOR STORMS**

3 **Q. Why are Irene and the October Snow Storm considered to be major storms?**

4 A. The Commission has established criteria for each utility in New Hampshire, based
5 on the number of “troubles” and the percentage of customers interrupted, under
6 which a severe weather event would be classified as a “major storm”. Troubles are
7 defined as interruption events occurring on either primary or secondary lines.
8 Because the criteria incorporate information about the number of trouble locations
9 (the number of individual outages) in addition to the number of customers
10 interrupted, large outages caused by non-storm events cannot exceed the defined
11 thresholds and are thus screened out. These definitions have worked well for over
12 a decade and ensure that only significant storms meet the criteria for a major
13 storm.

14

15 **Q. How does the Commission define a qualifying major storm for UES?**

16 A. Consistent with the definition in the Company’s Major Storm Cost Reserve,
17 qualifying major storms include severe weather events causing 16 concurrent
18 troubles (interruption events occurring on either primary or secondary lines) and
19 15 percent of customers interrupted, or 22 concurrent troubles, in either the Capital
20 or Seacoast regions of UES. The Company undertakes planning and preparation
21 activities in advance of severe weather if a qualifying major storm is likely occur.

1 A qualifying major storm is considered likely to occur if the Estimated Impact
2 Index (“EII”)³ from the Company’s professional weather forecaster reaches an EII
3 level of 3⁴ or greater with a “high” (greater than 60 percent) level of confidence.

4

5 **Q. Did Irene meet the definition of a qualifying major storm?**

6 A. Yes. During Irene, UES experienced approximately 52 concurrent troubles in the
7 Capital and 80 in Seacoast with 42 percent of total customers interrupted at peak,
8 significantly greater than the thresholds defined under the Commission definition.
9 In addition, the event was forecast as an EII level of 4 with a “High” level of
10 confidence.

11

12 **Q. Did the October Snow Storm meet the definition of a qualifying major storm?**

13 Yes. For this storm, UES experienced approximately 75 concurrent troubles in the
14 Capital and 102 in Seacoast with 69 percent of total customers interrupted at peak,
15 significantly greater than the thresholds defined under the Commission definition.
16 The weather forecasting service predicted an EII level of 3 with a “High”
17 confidence level for this weather event.

18

³ EII levels are indices developed by Unifit’s weather forecast provider – TELEVENT Metrologic’s (DTN). An EII level is a qualified indicator of both the possibility and severity of a particular weather event that results in the potential for customer outages.

⁴ A EII level of 3 is defined by weather conditions meeting any combination of the following criteria – strong storms where isolated yet severe pockets are possible with moderate to severe lightning; icing between 3/8 to 3/4 inch accretion; less than 6 inches of heavy wet snow; soil moisture greater than 6 g/kg; sustained winds of 30 to 40 mph with many wind gusts between 40 to 50 mph, and with a few in excess of 50 mph.

1 **Q. Is the Company seeking recovery of the costs of these two storms through the**
2 **Major Storm Cost Reserve?**

3 A. No. As explained in Testimony of Ms. Asbury, the Storm Reserve was established
4 to deal with the more frequent (“typical”) major storms that have a higher
5 probability of occurring on an annual basis. It was not designed to include low
6 frequency storms that are extraordinary in magnitude, such as these two storms.
7 The reserve established in DE 10-055 in the amount of \$400,000 annually was not
8 set at a level that would be sufficient to recover the costs of storms such as Irene
9 and the October Snow Storm. If these costs (estimated to be \$5.6 million) were
10 added to the reserve, the reserve would be in a significant deficit.

11

12 **Q. For what activities and costs is the Company is seeking recovery?**

13 A. The non-capitalized portion of the costs of restoration activities including
14 contractor crews, incremental compensation of employees, meals, lodging, staging
15 sites, and related expenses are included in the Company’s filing. In addition,
16 planning and preparation activities in advance of the storms including pre-staging
17 of crews, standby arrangements with external contractors, incremental
18 compensation of employees, and other costs to prepare are also included.

19

20

21

22

1 **VI. CONCLUSION**

2 **Q. Please summarize your testimony.**

3 A. To summarize, UES has had two successful restorations as measured by our
4 customers, the municipals emergency response officials the media and the
5 commission. In both cases, UES was able to restore service to 99% of its
6 customers in less than 72 hours. The adjustments UES has made since the 2008 ice
7 storm has proven effective in a variety of ways including restoration and cost
8 mitigation. The ability to pre-stage resources and release resources to support
9 surrounding utilities has benefited not only our customers but also the state as
10 whole. Both events were significant for the people of New Hampshire and far
11 exceeded the major storm threshold. In light of the Company's performance and
12 the fact that both storms far exceeded the commission definition of a major storm
13 event we respectfully request the adjustment to SRAF as described in testimony.

14

15

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

17 A. Yes, it does.