



ORIGINAL
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Exhibit No. <i>#3</i>
Witness <i>Panel'</i>
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December 23, 2009

BY OVERNIGHT and E-MAIL

Debra A. Howland, Executive Director and Secretary
New Hampshire Public Utilities Commission
21 S. Fruit Street, Suite 10
Concord, NH 03301-2429

RE: Amendment to Emergency Response Plan

Dear Director Howland:

Enclosed on behalf of Unitil Energy Systems, Inc. ("UES" or "Company"), please find an original and six copies of the Company's amendment to its Emergency Response Plan which outlines how crews are allocated when simultaneous large-scale events occur in multiple states and jurisdictions. This filing is made pursuant to the New Hampshire Public Utilities Commission's December 2008 Ice Storm After-Action Review, Action Item 5.4.

Please do not hesitate to contact me if you have any questions concerning this filing.

Thank you for your consideration in this matter.

Sincerely,

/s/ Gary Epler

Gary Epler
Attorney for Unitil Energy Systems, Inc.

Enclosure

cc: Thomas Frantz, Director, Electric Division
Randall Knepper, Director, Safety Division

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Acquisition and Allocation of Resources



Foreword

NH Code of Administrative Rules, Part Puc 304.03, Section (a)(2) *Interruptions of Service* requires that utilities plan for unexpected events.

Unitil's acquisition and allocation of resources begins in the preparation phase of an event and continues until restoration is complete (i.e., all event-related customer interruptions have been restored). Throughout this time, the System Incident Commander (S-IC), in concert with the System Planning Chief (S-PC), is responsible to develop the restoration strategy and its associated resource requirements. Due to every event's unique nature, subjective analysis is needed to convert weather or other hazard conditions into a "resource acquisition equation."

For forecasted major events, the Company utilizes a three-day checklist, and through a series of event conference calls, the S-IC aligns and mobilizes the organization into action. The S-IC's role is to anticipate damage and establish an "ideal" number of pre-positioned resources in advance of the event's forecasted impact. Often, this alignment is based on work experience during similar events and from historical impacts that have occurred elsewhere in the country. Pre-positioned resources may be internal or external to the Company.

Internal resources may be line crews from an affiliate or mobilized office employees. *The exception and change to present policy is that the use of internal line crews for Unitil Energy System (New Hampshire subsidiary) will be restricted to only NH-based restoration efforts until such time that NH customers are restored.*

As part of its self-assessment, Unitil identified the need for acquiring sufficient resources either as part of the preparation phase or start of the public safety phase. For the new process to be effective Unitil has significantly expanded its portfolio of external resources.

The first step in the process is to retain local line contractors, as well as communicating early with the Northeast Mutual Assistance Group – a regional mutual assistance group (RMAG) that represents utilities from New England and eastern Canadian provinces. Next is to check with larger line and tree contractors that Unitil has established purchase orders for providing additional resources. If even more resources are needed, the Company will call upon participants in the Edison Electric Institute (EEI) RestorePower.com resource portal. This process should result in ample resources to cover all three regions of Unitil's service territory.

For a regional event, the Regional Operations Area Chief (ROAC) and Director of Operations will often confer on the topic of resource acquisition. For system events, which are multi-regional and require additional logistical support, the S-IC will determine and direct resource acquisition and deployment, based on the forecasted weather and anticipated damage.

Process

As indicated, the acquisition, deployment and allocation of resources is a dynamic process. For major events (i.e., restoration completed in excess of 48 hours of the event's impact), the damage assessment is instrumental in determining the ideal number of resources and skills sets required to effect a timely restoration. The Phase I Damage Assessment (see Section V of Unitil's ERP for the procedure) will provide such information within 24 to 36 hours of the event's impact.

The damage assessment focuses initially on the distribution backbone of the electric system (i.e., main line feeders), as well as the condition of the transmission, sub-transmission and associated electric substations. This information is extrapolated and merged with other variables such as: driving conditions, temperatures and future forecasted weather events. The result of this merger should validate the resources required (by region) and provides a global estimated time or restoration (ETR).

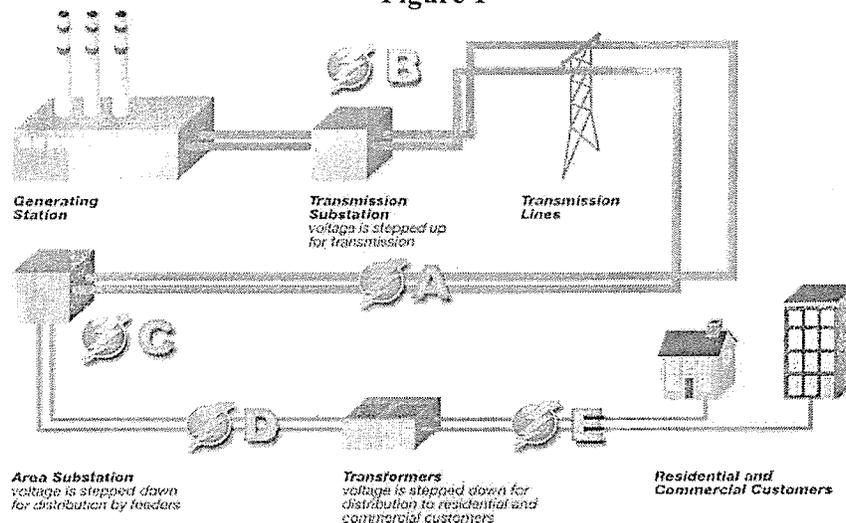
While the Phase I Damage Assessment is occurring, available resources are focused on public safety issues, where the line crews work with the municipal emergency response officials and customers to address wires down and other unsafe conditions (e.g., broken poles or ruptured transformers). During this time, the majority of restored customers are associated with transmission and sub-transmission repairs and not distribution repairs.

The exceptions to distribution repairs during the public safety focus are municipal and utility-identified critical facilities. If resources are available, then prioritization of repairs begins with such facilities. Therefore, the restoration sequence will generally proceed as follows:

1. Public safety
2. Transmission circuits and transmission substations (A and B)
3. Distribution substations, main line feeders and critical facilities (C and D)
4. Lateral feeders off main line distribution feeders (E)
5. Customer service drops

The letters above correspond to those in Figure 1.

Figure 1



The reallocation of resources is performed after the Phase I (Main Line) Damage Assessment is complete (within 24-36 hours of event conclusion). One of the results from the damage assessment is the number of line hours needed to effect repairs at each instance of damage (see Figure 2). This results in the totaling of crew hours required to restore damage by region. This value is then matched with the total number of available resources to arrive at an approximate ETR.

Resources are redirected to other regions, if a surplus of crew hours exists for the estimated work within that region. For example, the company has estimated the event will take 4 days to restore based on the times associated with; completing the public safety phase, the time to complete damage assessment, clearing of debris for crew deployment and other factors. As a result, the company determines a global restoration time of 4 days however, individual regions may differ based on actual damage and the results of the Phase II (Side Taps and Services) Damage Assessment.

For example:

1. There are 1,500 crew hours of work *remaining* in region 1 (determined by damage assessment)
2. There are 2000 crew hours of work *remaining* in region 2
3. There are 50 line crews currently available for work in region 1
4. There are 30 line crews currently available for work in region 2
5. Based on a 12 hour work day, after travel and breaks are subtracted the resulting crew hours/day available in region 1 is 600cr/hr and in region 2 360cr/hr
6. The ETR for region 1 is approximately 2.5 days
7. The ETR for region 2 is approximately 6.7 days
8. To meet the target objective of 4 days will require a redistribution of available resources

In this example, there is a surplus of crew hours in region 1, which would permit the reallocation of resources to other regions. The System Incident Commander (S-IC) would target region 1 for a 3-day restoration and region 2 for a 4-day restoration. What can be debated is when you move resources. Do you move 10 crews day one or 25 crews day three or should we seek additional resources?

The practicality of that decision is often linked to the restoration's logistics. The flow of material to the affected region often peaks 12 to 24 hours after the initial resources have been deployed due to transportation needs and vendor re-supply. Also the first 24 hours is dedicated to public safety and damage assessment and other factors such as resource availability (and travel time) once the event has occurred.

The Company must retain the flexibility to provide the best options for the customer based on field conditions. The decisions must remain with Unitol's System Incident Commander's experience and judgment. The process of deployment is complex yet structured within Unitol's revised Emergency Response Plan. Checks and balances now exist for an expeditious recovery after an event.

Therefore, the reasonability and practicality of the derived ETR is at the crux of the matter. Again many variables are considered during the decision-making process to redirect resources, including the necessity of staging sites, access to facilities, material deployment and re-supply and amount of off-road or right-of-way work required. Often, additional resources limit any statistically significant improvement in the ETR.

Usually, the S-IC makes the decision to acquire additional resources for other impacted regions or will make the decision to redirect resources. In most cases, the acquisition of additional resources is preferable; however, the event's impact on other regional utilities, resource availability and locations are key to making that decision. In these instances, the Company may be compelled to move beyond its associated RMAG and request assistance from other, unaffected RMAGs or utilize the EEI RestorePower.com resource portal. Due to the time required for these resources to reach New England, additional time may be needed before the completion of the restoration effort.

Some argue that resources should be allocated based upon the ratio between available resources and customer interruptions (see Figure 4 for the means by which these values are monitored). This is an uncertain metric because events often arise that have a high customer interruption count but with an abbreviated ETR. The loss of a sub-transmission line (i.e., < 69 kilovolts) can impact a number of distribution substations along with several thousand customers. However, one line crew can remove the trouble (e.g., a tree or branch resting on the line) and restore all customers immediately upon arrival.

The ability to move resources across regions throughout a restoration effort is an effective tactical solution that utilities, in general, need to retain throughout the duration of the restoration effort. Without this ability, utility flexibility will be compromised along with timely ETRs for all of its service territory.

Figure 4

Unitil Restoration Status Report (RSR)-Seacoast					
General Assessment: Strong winds throughout the service territory					
Town	Customers Interrupted	ETR	Comments		
Atkinson	0				
Brentwood	0				
Danville	0				
E Hampstead	0				
East Kingston	50				
Exeter	300				
Greenland	0				
Hampstead	0				
Hampton	0				
Hampton Beach	0				
Hampton Falls	0				
Kensington	100				
Kingston	80				
Newton	0				
Plaistow	0				
Seabrook	20				
Seabrook Beach	0				
South Hampton	0				
Stratham	0				
All Others					
	Unitil	Contractor	Tree	Support	Total
Crews Working	5	2	1	2	10
Crews Resting	0	0	0	0	0
Total Crews	5	2	1	2	10
Uncorrected Troubles:	5	# of Services to Repair:	Unknown		
Total Corrected Troubles:	9	Peak # of Customers off:	2000		
Total Customers Off:	550	Date/Time Peak Occurred:	11/28/2010 12:30		