

**STATE OF NEW HAMPSHIRE  
PUBLIC UTILITIES COMMISSION**

**DE 10-001**

**UNITIL ENERGY SYSTEMS, INC.**

**Investigation of Unitil's December 2008 Ice Storm Response**

**Order Approving Staff Report and Recommendations**

**ORDER NO. 25,148**

**September 24, 2010**

**APPEARANCES:** Gary M. Epler, Esq., and Orr & Reno, P.A. by Susan S. Geiger, Esq., for Unitil Energy Systems, Inc.; Meredith Hatfield, Esq., Consumer Advocate, on behalf of New Hampshire residential ratepayers; and Lynn Fabrizio, Esq., for Staff.

**I. PROCEDURAL HISTORY**

In the aftermath of the December 2008 ice storm, the Commission undertook an extensive review of New Hampshire utilities' emergency preparedness and response procedures. The results of the review were set forth in the Commission's After Action Review dated December 3, 2009 (After Action Review) and an assessment report from the Commission's consultant, NEI Electric Power Engineering, dated October 28, 2009 (NEI Report). In its After Action Review, the Commission developed a number of action items to facilitate improvements in utility emergency response and provide for further inquiry into certain aspects of the After Action Review results. One of those action items required the commencement of an adjudicative proceeding to examine the reasonableness of the ice storm response by Unitil Energy Systems, Inc. (UES or the Company).

On January 8, 2010, the Commission issued an order of notice commencing an adjudicative proceeding to consider issues related to the reasonableness of UES's response,

including response timing, restoration priorities and strategies, and the procurement and allocation of resources in New Hampshire and Massachusetts. As UES is part of a holding company with electric utility operations in two states, exploration of the issues required inquiry into actions and decision-making by both UES and its parent, Unitil Corporation (Unitil), on a company-wide basis. The scope of inquiry involved consideration of the emergency response resources available to UES and its Massachusetts affiliate, Fitchburg Gas and Electric Light Company (Fitchburg), prior to the ice storm, the deployment of those resources on behalf of UES and Fitchburg, the responsibility for the deployment of those resources and the reasons therefor, the impacts of the deployment on UES's customers, and potential remedies, as appropriate.

The Office of the Consumer Advocate (OCA) filed a notice of participation on behalf of residential ratepayers on January 26, 2010. On January 25, 2010, Granite State Electric Company d/b/a National Grid petitioned to intervene as a public utility providing retail electric service in New Hampshire with a "substantial interest in monitoring the proceeding." On February 23, 2010, the Commission issued a secretarial letter ruling that National Grid had not stated facts demonstrating that its rights, duties, privileges, immunities, or other substantial interests may be affected by the proceeding pursuant to RSA 541-A:32 1(b). Accordingly, Granite State's request was denied. There were no other petitions to intervene.

On January 29, 2010, pursuant to the order of notice, UES filed the joint testimony of Thomas P. Meissner, Raymond A. Letourneau, Jr., and Richard Francazio, all Unitil personnel with responsibilities that include storm response. Technical sessions for purposes of discovery were held on February 25, 2010 and March 22, 2010. On July 30, 2010, Staff filed a report with recommendations as a proposed means of resolving the issues raised in the docket. The

Commission conducted a hearing on the merits of Staff's report and recommendations on August 4, 2010, at which Staff and UES witnesses testified.

## **II. BACKGROUND - NEI REPORT AND NHPUC AFTER ACTION REVIEW**

### ***A. NEI Report***

The NEI Report concluded that Unitil's restoration strategy during the ice storm was to attempt to get all customers restored at the same time.<sup>1</sup> *NEI Report at II-48*. NEI contrasted Unitil's strategy with that of the other electric utilities, where, according to NEI's assessment, the goal was to try and restore service to the largest number of customers as rapidly as possible. *Id. at II-49*. According to NEI, Unitil's stated goal of accomplishing "full restoration to all customers at approximately the same time"<sup>2</sup> would mean that some customers who could be restored quickly with little effort might have to wait until available resources have also restored more heavily damaged customers. NEI concluded that Unitil's stated strategy was inappropriate, noting that customer restoration data for all the electric utilities, including UES, show a relatively steep exponential shape, suggesting that Unitil's philosophy was impractical and probably inappropriate. *Id.*

NEI further suggested that, notwithstanding Unitil's stated strategic goal, the customer restoration graphs indicate that, in fact, UES's restoration efforts resulted in the restoration of many customers at the beginning of the response, similar to the results achieved by the other utilities. Nevertheless, NEI expressed concern that Unitil may have improperly allocated its resources, based on a table showing that Unitil's Massachusetts service territory received what appeared to be an inordinate number of crews relative to the number of customers without power. *Id.* NEI commented that since the damage in Massachusetts was known to be more

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<sup>1</sup> NEI's statement was based on UES's response to Staff Ice Storm Review 1-47, discussed in more detail below.

<sup>2</sup> UES Data Response to Staff Ice Storm Review 1-47 (Feb. 27, 2009); *see* Exh. No. UES Panel-1, attached to UES Testimony (Jan. 29, 2010).

severe, it would be expected that restoration efforts would be more effective and more of Unitil's customers would be restored at a faster rate by assigning resources to the New Hampshire service territories first, even though this would have delayed restoration in Massachusetts.

NEI recommended that Unitil adopt a storm restoration strategy that is based on achieving restoration for the largest number of customers in the least amount of time, similar to the approach of the other electric utilities. *NEI Report II-50*. In NEI's opinion, Unitil should allocate storm restoration resources among communities or circuits within the service territory or between non-contiguous parts of the service territory based on the number of customers without power. *Id.* NEI further stated that crews should not be assigned purely based on the extent of the damage but instead should be targeted at restoring service to large numbers of customers as expeditiously as possible. *Id.*

#### ***B. NHPUC After Action Review***

In its After Action Review the Commission stated that, according to the data set forth in the NEI Report, contractor line crews appeared to have been deployed away from Unitil's New Hampshire service territories to assist in the restoration of its Massachusetts service territory, possibly contributing to a longer overall restoration time for New Hampshire customers. *See After Action Review at 30-31*. According to the Commission, the data also indicated that more crews were deployed in Massachusetts at times when there were greater numbers of customers without power in New Hampshire. *Id. at 29*. Moreover, other data indicated that, compared to other New Hampshire electric utilities, UES had the lowest ratio of crews per customer without power between December 12 and December 15, the days immediately following the start of the ice storm on December 11. *Id. at 31*.

### III. POSITIONS OF THE PARTIES AND STAFF

#### A. Unitil Energy Systems, Inc.

In its pre-filed testimony, UES disagreed with two principal areas of the NEI Report as they relate to this proceeding. *See UES Pre-filed Testimony at 7-8.* First, it maintained that NEI wrongly concluded that Unitil's strategy was to restore all customers at the same time and therefore concluded incorrectly that Unitil's restoration strategy was different from that of other New Hampshire electric utilities. Second, UES maintained that the summary data relied on by NEI did not reflect the underlying restoration activities of the Company and therefore are not an appropriate basis for judging the reasonableness of its storm restoration response.

##### *i. Restoration Strategy*

UES distinguished between restoration priorities within a service territory and resource allocations among service territories. UES stated that priority within each service territory is given first to public safety (wires down), then to critical facilities, then to critical needs customers, and finally to restoration of customers as rapidly as possible (*i.e.*, outages are prioritized in order of the greatest number of customers impacted and speed of repair time). *UES Pre-filed Testimony at 9-10.*

Regarding resource allocations among service territories, UES stated that Unitil's goal is to accomplish full restoration to all customers as soon as possible under the circumstances. *Id. at 12.* Its strategy for accomplishing this goal is to base resource allocation decisions on the results of damage assessments and estimates of when restoration would be complete, thus matching resources to the amount and type of repairs required and assignment of crews to where they were most needed which, according to UES, is standard utility practice. *Id. at 12.* It presented a graph to show that the rate at which its customers were restored was consistent across all the utilities,

indicating, in the Company's view, not only that Unitil's restoration strategy was identical to that of other utilities but also yielded similar results. *Id. at 15.*

UES disagreed with NEI's recommendation that resources should be allocated based on the number of customers experiencing outages, noting that restoration of service to the largest number of customers as rapidly as possible is based on prioritization decisions related to which outages are more important, and which outage should be assigned next. *Id. at 16-17.* UES stated that a utility could experience an outage to thousands of customers due to a single problem and that the same number of customers could be interrupted due to hundreds of individual problems, each requiring extensive repairs. In UES's view, the appropriate goal is to assign the number and type of resources needed to restore service. *Id. at 17.* Assigning resources solely on the basis of the number of customers without power, according to UES, could result in the assignment of a disproportionate number of resources relative to the amount and type of repairs required, thus reducing the efficiency of the restoration effort and delaying restoration to all customers. *Id. at 17-18.*

***ii. Restoration Performance: Procurement and Allocation of Resources***

The Unitil system began to experience outages in the late night hours of December 11, and into the early morning hours of December 12, 2008. *Id. at 19.* Fitchburg's entire system was out of service by the early morning hours of December 12. *Id. at 19-20.* According to UES, preliminary reports from Fitchburg's crews in Massachusetts suggested a significant number of broken poles, an early indication of extensive damage. *Id. at 21.* The data available overnight indicated fewer customers without service and fewer broken poles in New Hampshire than in Massachusetts, an indication to Unitil of less extensive damage in New Hampshire. *Id.* In addition, weather reports predicted the potential for significant icing in the Fitchburg service

territory while temperatures in UES's Seacoast service territory were expected to rise above freezing during the overnight hours. *Id.*

By daybreak on December 12, UES's Seacoast service territory began reporting tens of thousands of customers without power, primarily due to outages of subtransmission lines. *Id.* UES's Capital service territory reported fewer problems and experienced a lower percentage of customers without power than in Unitil's other two service territories. *Id.* Prior to the ice storm, Unitil had six bucket crews in Massachusetts and 19 bucket crews in New Hampshire, including outside contractors. *Id. at 22.* According to UES, Unitil contacted one of its contractors during the overnight hours and requested that six crews that had been working in the Seacoast service territory be sent to Fitchburg on the morning of December 12. *Id.* The contractor was further asked to transport off road equipment to Fitchburg in order to begin work on the transmission system. *Id.* UES stated that this allocation of resources was based on information available at the time regarding system damage, the type of damage, and the number of resources on the system. *Id.* Of the six bucket crews sent to Fitchburg, three were replaced the same day by the contractor and sent to the Seacoast service territory. *Id.*

Unitil participated in conference calls of the Northeast Mutual Aid Group (NEMAG) on December 11 and 12. *See id. at 22-23.* As a result of those calls, Unitil obtained commitments for 40 crews and expected those crews to arrive on December 13. Unitil also called contractors on December 12 in a continuing search for crews, but because of the very broad impact of the storm across the Northeast, virtually all crews in the region were already committed to other utilities. *Id. at 23.* Unitil stated that, late in the day on December 12, it learned that 14 crews<sup>3</sup> from Ohio pledged to Unitil during the last NEMAG call would not be coming. *Id. at 25.*

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<sup>3</sup> Each of these crews were configured as construction crews, comprised of 2 bucket trucks, a digger truck, and a foreman in a pickup truck.

Ultimately, Unitil was able to secure 13 construction crews from Tennessee, representing 39 individual crews, which were expected to arrive in New Hampshire on December 15, but were delayed by a day due to difficult weather conditions on route to New Hampshire.

UES stated that damage assessments had been hindered by the widespread damage, though the quality of damage information improved with each day of the restoration effort. *Id. at 26-27.* However, ice laden trees and branches continued to fall onto Unitil's electric facilities well into December 13 and 14. *Id.* After the damage stabilized on December 14, information available to Unitil to support crew allocation decisions improved. *Id.*

According to UES, the data in the Commission's After Action Review indicate that the ratio of UES crews to customers without power at the outset of the storm was materially different from that of other New Hampshire electric utilities on only two days, December 12 and 13. *Id. at 29-33.* UES explained that December 12 was the first day of the restoration effort when information was limited, little damage assessment had been performed, field conditions were difficult, resources were focused on restoration of the subtransmission system, and efforts were underway to recruit more crews. *Id. at 25.*

UES stated that the data in the After Action Review and in the self assessments issued by the electric utilities after the ice storm showed that, by December 15, UES had restored service to over 70% of customers who had lost power on December 12. *Id. at 30.* UES presented a graph to show that its speed of restoration was generally in line with other utilities. *Id. at 31.*

According to UES, the number of crews per customers without power has little relevance as an evaluative metric because there is little correlation to the amount and type of damage and the efforts required to restore power. *Id.*



Regarding the outside contractor crews that left New Hampshire for Fitchburg in the initial phase of restoration efforts, Unitil stated that it had adjusted its crew assignments in the early morning hours of December 12 in response to preliminary damage reports. *Id. at 33.* Other than shifting the six contractor crews to Fitchburg, which was experiencing a complete blackout, there were no other decisions to shift resources out of New Hampshire until the completion of restoration activities in New Hampshire. *Id.*

At hearing, UES testified that the ice storm had exposed the vulnerability of the electric system to widespread, multi-jurisdictional storms and revealed the need for more rigorous planning and practices to ensure that the entities charged with responsibility for restoration are able to perform in the most effective manner possible. According to UES, the Company has undertaken a major, ongoing effort to improve its response capability, adding new personnel, investing millions of dollars in new equipment, and spending many hours participating in practice drills. Unitil added, however, that the fact that improvements were necessary does not mean that its response to the December 2008 ice storm was unreasonable. Unitil further emphasized that Unitil's restoration performance was consistent with that of other utilities. Unitil also maintained that the Company has had a good history of storm restoration performance and in the past had always been able to obtain the necessary number of crews through mutual aid agreements and similar processes. Unitil asserted that the data show that the Company used its resources in a highly effective and efficient manner, and that its crew restoration rate was the highest among the four electric utilities reviewed. Unitil believes it made the correct allocation decisions at the time with the resources and information available to it.

The Company further testified that, while it did not agree with every statement in Staff's report, it agreed with a number of Staff's statements and conclusions, including that Unitil's

prioritization and restoration targets were similar to those of other electric utilities, that its achievement of full restoration was not materially different in timing from that of other utilities, and that it did not act in a manner that fell beyond the range of reasonable actions. Unitil commits to the additional steps outlined in Staff's report and intends to continue the dialogue and make continuous improvements in its storm restoration capabilities.

With respect to recent Massachusetts legislation concerning utility resource planning and deployment during emergencies and governmental authority to direct utility decision-making in such situations, Unitil stated its intention to never allow itself to be in a situation that would trigger the statute. Unitil concluded its testimony at hearing by expressing its support for the Commission's adoption of Staff's report and recommendations.

#### **B. Office of the Consumer Advocate**

At hearing, the OCA posed a number of questions to Staff and Unitil witnesses to clarify that recommendations proposed in Staff's report and agreed to by the Company had not yet been reviewed for associated cost implications, and that the storm recovery costs Unitil incurred would be subject to review in the separate rate case proceeding in Docket No. DE 10-055. The OCA commended Staff for its careful and thorough review of utility practices and the issues raised in the proceeding, but did not take a position with respect to the reasonableness of the recommendations proposed by Staff, deferring instead to Staff's expertise. The OCA stated that it was pleased that the Company has agreed to implement all of the recommendations Staff had made. With respect to the costs incurred during the ice storm as well as those related to implementing policy and procedure changes in the future, the OCA looks forward to working with the Company and Staff to resolve those issues in the ongoing distribution rate case, Docket No. DE 10-055.

### C. Staff

In its review, Staff undertook to examine “the reasonableness of the timing of Unitil’s response to the ice storm, the priorities of its restorations and the allocation of its resources in New Hampshire and Massachusetts” in accordance with Action Item 5.3 of the Commission’s After Action Review. Toward that end, Staff took as a starting point certain data presented by NEI in its report, which had been reviewed by the Commission and relied on in certain of the Commission’s own observations in its After Action Review, including the observations leading to Action Items 5.3 and 5.4. In particular, Staff reviewed data provided by Unitil to NEI on the number of crews allocated to the Company’s New Hampshire and Massachusetts service territories and the number of customer outages in each territory. Staff also examined the Company’s Emergency Response Plan, including certain amendments made to the Plan pursuant to the Commission’s request through Action Item 5.4 of the After Action Review.

Reviewing the actions and decision-making by Unitil on a company-wide basis, Staff sought at the outset to understand Unitil’s ice storm response goals and strategies in a difficult situation where there was a shortage of resources available for the restoration of service in two states<sup>4</sup> and where, especially at the beginning of the storm response, Unitil was operating with incomplete and uncertain information regarding the amount and type of damage and the exact number of customers without power. Staff concluded that UES’s stated priorities for service restoration within a service territory were correct. Giving priority first to public safety (wires down), then to critical facilities, then to critical needs customers, and finally to restoration of customers as rapidly as possible, as Unitil did, is a common prioritization approach used by other

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<sup>4</sup> Staff noted that Unitil was not the only electric utility in New Hampshire that experienced a resource shortfall at the beginning of the ice storm.

electric providers operating in New Hampshire. Staff found no reason to believe that UES improperly implemented its prioritization strategies in New Hampshire.

Regarding the separate question of the allocation of resources among service territories, Staff focused its review on Unitil's interstate allocation goals and decisions. Part of UES's response to Staff Ice Storm Review 1-47, which inquired about the process used to assign and deploy resources across state lines when handling simultaneous outages, stated, "[t]he company's [allocation] goal is to accomplish full service restoration to all customers at approximately the same time." *See UES Pre-filed Testimony, Exhibit UES Panel-1.* In Staff's opinion, Unitil's statement, as applied to the allocation of crews between New Hampshire and Massachusetts service territories, especially during the beginning stages of the storm, suggests that Unitil chose to allocate crews in a manner that aimed for simultaneous restoration to each territory, with resource allocation based on the perceived extent of physical damage. Staff noted that resource procurement and allocation are elements of overall restoration strategy, whereas the prioritization of restoration targets is a tactical element. In Staff's view, Unitil appeared to have equated the prioritization of restoration targets with overall restoration strategy.

In general, Staff agreed with the Company's position that decisions to allocate resources should not necessarily be based on a single factor, such as number of customers without power in a service territory. Staff expressed its belief, however, that such decisions should not automatically be based on the absolute amount of damage in a service territory. Staff stated that, all else being equal, including the amount of damage in different service territories, resources should initially be allocated to the service territory with the most customers without power. In the case of the December 2008 ice storm, as is typical in the most wide-scale, multi-state, and damaging storms, decisions on crew procurement and associated allocations are often made prior

to the availability of refined damage assessment information and without the benefit of established estimated times of restoration (ETRs). According to Staff, most critical decisions regarding crew procurement and allocation are made during the earliest stages of a storm. Staff asserted that, if a service territory has both more customers without power and suffers wide-scale, heavy damage in multiple locations, then resources initially should be focused on that service territory until more refined assessments can be made.

Staff observed that, as reflected in the Commission's final report, the number of customers without power in UES's service territories during the first three days of the ice storm and response efforts (December 11-13)<sup>5</sup> significantly exceeded the number of customers without power in Fitchburg's service territory. Starting on December 14, the situation reversed, with the number of customers without power in Fitchburg's service territory exceeding the number of customers without power in UES's New Hampshire service territories. Although the data regarding the amount of damage and the number of customers without power are now more fully developed, Staff acknowledged that Unitil did not have precise or certain knowledge when it had to make its initial decisions regarding resource allocations.

Data provided through discovery indicated to Staff that Unitil's actual allocation of resources between the states was not as disproportionate, relative to the extent of customer outages, as suggested by data examined in the After Action Review. Nonetheless, the data indicate a greater number of crews in Fitchburg compared to the number in UES New Hampshire service territories during the early stages of the storm (*i.e.*, from December 12 through December 15). In Staff's view, the revised data, considered in the full context of the storm and restoration

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<sup>5</sup> Staff noted that the ice storm hit New England in the late evening of December 11. Outage data began to arrive close to midnight on that date, but did not provide an accurate assessment of the extent of outages until the following day, December 12.

chronology, indicate that Unitil did not act unreasonably, given the specific circumstances of the storm and the resulting fast-paced changes in resource needs.

Staff recognized that UES's response time was not materially different from the response times achieved by the other New Hampshire electric utilities. Staff further noted that Figure 1 on page 15 of UES's pre-filed testimony indicated that UES's restoration strategy was similar to that of the other electric companies. Staff agreed, based on analysis conducted as part of the Commission's after action review, that Unitil's restoration performance, including its tactical prioritization of restoration targets, was consistent with that of other electric utilities. Moreover, given the extraordinary nature of the ice storm, Staff observed that it would be hard to say with any certainty precisely how much faster service in UES service territories would have been restored if Unitil had allocated more of its available resources to New Hampshire.

In Staff's view, but for the failure of the Ohio crews to show up, UES would have achieved full restoration more quickly. The data concerning allocation of field crews between New Hampshire and Massachusetts service territories revealed the shortcomings of the NEMAG process in a widespread, multi-state emergency event such as the December 2008 ice storm. Based on its review of the mutual aid process in the context of the ice storm, Staff concluded that the decision to request outside assistance and line up additional crews should be made as soon as certain pre-established benchmarks appear in forecasts, and when warnings of a widespread, multi-state emergency event that could affect large numbers of customers are confirmed. In Staff's view, the decisions made by an electric utility during the initial hours of an emergency event on the scale of the 2008 ice storm are critical. At that early stage of a major weather event, it can be difficult and dangerous to obtain accurate assessments of restoration needs. If safety concerns preclude a utility from sending crews out immediately, it needs to be able to revise its

damage assessment policy quickly. According to Staff, this can sometimes be achieved by pre-positioning damage assessors in the field, as well as at emergency operations centers.

After its review of the record, including data obtained from Unitil through discovery and numerous discussions with company officials, the Company's revisions to its Emergency Response Plan, and testimony in this proceeding, Staff concluded that Unitil's response to the ice storm, the priorities of its restoration efforts and the allocation of its resources across state lines were not unreasonable. Nonetheless, Staff noted that a number of deficiencies in the company's emergency response capabilities and response actions had been revealed. Staff reported that Unitil had been cooperative in working with Staff to develop steps to remedy those deficiencies. With respect to costs associated with the recommendations, Staff noted that, while it had not conducted a cost-benefit analysis for each recommended step, it had assessed the general benefits of improved emergency response procedures in view of the effect of prolonged outages on customers. Staff further clarified that the recommendations outlined in its report reflect expectations that Staff generally considers to apply to all electric utilities.

In summary, Staff reiterated that it did not find Unitil's response to be unreasonable, given the overall context of the storm itself, including the wide scale, multi-state destruction and the competition Unitil was faced with regarding the demand for outside resources. Nevertheless, Staff found room for improvement in Unitil's emergency response strategy and plan. Staff recommended the Commission approve the report and recommendations as a just and reasonable resolution of the issues raised in the docket.

Staff's conclusions and recommendations were set forth in its report as follows:

*Staff Conclusions:*

(1) The revised data regarding Unitil's allocation of resources to its New Hampshire and Massachusetts service territories indicate that the allocation was not as disproportionately favorable to the Fitchburg service territory as it initially appeared.

(2) Unitil suffered a major set back on December 12 when it learned that the 14 contractor crews from Ohio pledged to Unitil in the NEMAG process would not be coming. In retrospect, it is apparent that mutual aid from other utilities is not a fully reliable means of obtaining immediate emergency assistance for a region-wide weather event. In addition, obtaining assistance from outside contractors involves competition among utilities for limited resources, a competition in which Unitil is significantly disadvantaged, due to its relatively small size and its lack of alternative resources from parent or affiliate companies. To address the shortcomings of the NEMAG process, Staff recommends that Unitil continue its current efforts to broaden its resource acquisition process by: (a) increasing its contractor pool, (b) working with local contractors already on property to agree to a right of first refusal that enhances its ability to procure appropriate resources on short notice for wide-scale, multi-state forecasted events, and (c) revising its procedures to reflect the mutual aid process as a post-event resource augmentation option.

(3) Dividing crews from a single outside contractor between service territories in order to achieve a more proportionate allocation of crews based on service territory size and customer outage numbers, while not impossible, could bring a risk of inefficiencies and difficulties.

(4) Although subsequent to the December 2008 ice storm and therefore not directly relevant to the question of reasonableness during the storm itself, Staff recognizes that Unitil has taken a number of steps to strengthen its emergency planning and response capabilities subsequent to the 2008 ice storm, including the hiring of a senior-level director dedicated to emergency response and preparation plans, more frequent drills with municipal officials, an extensive revision of the company's Emergency Response Plan, and the development of management-level guidelines and policy covering storm resource procurement and allocation among the company's service territories as well as between New Hampshire and Massachusetts, filed with the Commission in response to Action Item 5.4 of the PUC's After Action Review. Staff believes the last item needs further refinement to ensure that the Company's planning and response actions do not inappropriately divert resources to the detriment of New Hampshire customers, as set forth below.

*Staff Recommendations:*

Staff and Unitil agreed on the following steps the Company will take to further improve its emergency response policies and procedures:



(1) UES will work with Staff to provide a virtual network interface by which Staff could obtain emergency response information from UES in real time during emergencies. Staff recommended expedited implementation of such a network by December 31, 2010.

(2) Unitil will submit a report to the Commission within 30 days of this order outlining improvements the Company has made and will make concerning resource procurement, including revised resource acquisition procedures that reflect a higher level of availability assurance, including pre-staging, or other measures that address reliability issues and demonstrate that the Company is not as reliant on mutual aid agreements as a primary source of restoration resources. The report will demonstrate the certainty that appropriate resources will be available from the onset of a wide scale, multi-state outage.

(3) Unitil will file within 30 days of this order a revision to its Emergency Response Plan (ERP) that reflects recommendations Staff has provided in this proceeding, including clearly defined resource allocation procedures both before and after major storm events. Changes to the ERP will reflect the process by which resources are pre-staged at Regional Emergency Operations Centers prior to a wide-scale forecasted event that will affect all regions simultaneously. This process will afford weighting to the number of customers served and the infrastructure configuration in each service territory. Under such conditions, Unitil's restoration crews – both in-house and outside crews - generally will be pre-staged and initially allocated according to a 65 to 35 ratio between its UES and Fitchburg affiliates, respectively. Once an event that results in widespread service interruptions in more than one territory has occurred, resource allocations will be adjusted based on best available information. Initial resource allocations will be based primarily on the number of customers without service (“customers interrupted”) in each territory until more detailed information is available from field damage assessment.

Unitil will define within its ERP the process by which resource acquisition and allocation will occur once damage assessment has been completed. The process will rely on information provided by the two-step damage assessment process Unitil filed with the Commission in December 2009: (1) the number of line hours needed to effect repairs at each instance of damage and; (2) the total crew hours required to restore damage by region, as determined through damage assessments, will support the decision to allocate any additional crews to distressed areas of the system. This process shall be incorporated into approximate estimated time of restoration (ETR) calculations, as well. Resources may be redirected to other regions of the system, if, based on the communicated ETR, a surplus of crew hours exists for the estimated remaining hours of work within that region. Unitil also agrees that if it intends to move resources between its operating affiliates it will notify the Commission or designated staff within two hours of the reallocation decision.

#### **IV. COMMISSION ANALYSIS**

This proceeding provided an opportunity to examine certain aspects of UES's response to the ice storm in greater detail than was possible during the course of our post-storm review of

utility performance. The After Action Review scrutinized Unitil's emergency response practices prior to, during and immediately following the ice storm of December 2008. In particular, Staff was tasked with investigating Unitil's decisions regarding the procurement and allocation of emergency response resources in its New Hampshire and Massachusetts service territories. Staff undertook an extensive review of Unitil's actions in December 2008, through discovery, technical sessions and conference calls. Staff then drafted a report with conclusions and recommendations, and solicited comments from both Unitil and the OCA. The end result was a reasoned and thorough report on Unitil's resource procurement and allocation practices, with a number of recommendations designed to improve Unitil's emergency response procedures and to resolve issues raised during the course of inquiry into Unitil's ice storm response. As its witnesses testified, Unitil agreed to each of the recommendations outlined in Staff's report.

Although Staff's report is not presented in the form of a settlement agreement, we find that the understanding reached by Staff and Unitil regarding the proposed resolution of the issues raised in this proceeding merits review under similar standards.<sup>6</sup> Accordingly, we reviewed the report and its accompanying recommendations to determine whether the terms and conditions set forth therein are in the public interest, and whether Staff's conclusions and recommendations reflect a fair balancing of ratepayer and investor interests.

In its report and testimony at hearing, Staff noted certain circumstances, such as the multi-state impact of the ice storm and consequent competition among utilities in the region for resources, the failure of the Ohio crews to arrive, and the shortcomings of the NEMAG process. Based on its review of the data in this proceeding, Staff found, for example, that Unitil's assessments in the early phases of the ice storm event underestimated the impact of the forecast

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<sup>6</sup> N.H. Code Admin. Rules Puc 203.20(b) provides that the Commission shall approve a settlement if it determines that the result is just and reasonable and serves the public interest.

and, as a result, efforts to ramp up resource procurement efforts were not timely or efficient, and resources went to other companies seeking extra crews. As a smaller utility without the benefit of access to substantial parent company and affiliate resources, Staff believes Unitil should have started the emergency procurement process sooner. Staff further believes that Unitil should have considered acting early by pre-staging resources based on the forecast.

Staff concluded, however, that the deficiencies in response planning and procedures – many of which have been subsequently addressed by extensive reforms in Company policy – were not unreasonable. In Staff's view, Unitil's procurement and resource allocation actions with respect to its New Hampshire and Massachusetts territories were not as disproportionately favorable to the Fitchburg service area as earlier data had suggested, and the Company's restoration response was not materially different from that of other electric utilities in New Hampshire.

In sum, Staff concluded that the Company's response and restoration timing, as well as its restoration priorities and strategies were consistent with those of other New Hampshire electric utilities. Staff further found that Unitil's resource procurement and allocation decisions were critically affected by the unique circumstances of the ice storm, including its widespread, multi-jurisdictional footprint and the resulting shortcomings of the regional mutual assistance system. We find that the factual conclusions Staff reached in its review and analysis are supported by the record.

Staff also noted several steps that could be taken to improve Unitil's overall restoration strategy and performance structure, including (1) the establishment of clear, Company-wide procedures in the event of a major emergency, (2) the improvement of mutual aid agreements, including those with contractors, to ensure sufficient resources when needed, and (3) the pre-

positioning of resources to address New Hampshire customer requirements where key outage variables are not yet known.

Based on our review of the record, we find that the report and recommendations submitted by Staff meet the standards required of a public interest finding. The factual conclusions reached by Staff support a finding that Unitil did not act unreasonably under the particular circumstances of this case and, moreover, the Company's restoration priorities, strategy, and timing were consistent with those of other New Hampshire electric utilities. We further find that Staff's analysis supports the conclusion that, while there are a number of areas where Unitil's response procedures require improvement, the Company's restoration performance during the 2008 ice storm and its aftermath did not reveal a level of structural inadequacy with respect to the Company's existing emergency response practice and procedures that would require a finding of unreasonableness.

Finally, we find the recommended improvements set forth by Staff in its report to be consistent with the statutory obligation of utilities to provide ratepayers with safe and adequate service and the related safety and service quality obligations set forth in our rules. *See, e.g.*, RSA 374:1 (“[e]very public utility shall furnish such service and facilities as shall be reasonably safe and adequate and in all other respects just and reasonable”) and N.H. Code Admin. Rules Puc 304.03. Staff's recommendations are also consistent with the State's emergency response policies and the National Incident Management System (NIMS), an emergency planning structure designed at the national level to be adopted at state and local levels to ensure effective management of large-scale or multi-jurisdictional incidents. *See NHPUC After Action Review* at 5-7. Unitil's acceptance of each of the recommendations proposed by Staff suggests that the Company, too, recognizes the merit of undertaking the recommended actions.

Accordingly, we conclude that approving Staff's report and adopting the recommendations contained therein will produce a just and reasonable resolution of the issues raised in this docket concerning Unitil's emergency response performance during and after the December 2008 ice storm. The steps recommended by Staff fairly balance customer interests in safe and reliable electric service while recognizing Unitil's need to maintain a degree of flexibility in its response to emergency situations of the scale presented by the 2008 ice storm. We, therefore, approve the adoption of Staff's report and recommendations as being in the public interest.

We note that this ruling does not decide rate related issues. As Staff and the Company explained at hearing, issues related to the recovery of costs incurred as a result of the December 2008 ice storm will be examined in the pending rate proceeding in Docket No. DE 10-055.

**Based upon the foregoing, it is hereby**

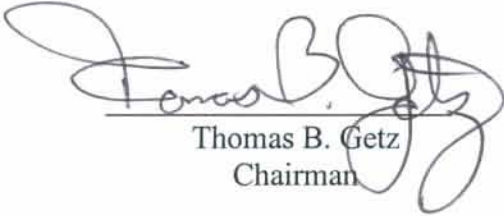
**ORDERED**, that Staff's Report and Recommendations are approved; and it is

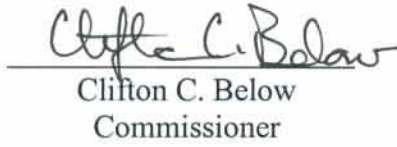
**FURTHER ORDERED**, that Unitil work with Staff to develop and implement a virtual network interface for purposes of exchange emergency response information in real time during emergency situations by no later than December 31, 2010; and it is

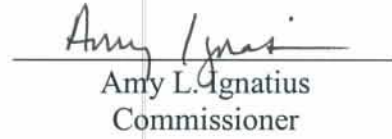
**FURTHER ORDERED**, that Unitil submit a report to the Commission within 30 days of this order outlining improvements the Company has made and will make concerning resource procurement, as described in the recommendations set forth above; and it is

**FURTHER ORDERED**, that Unitil file within 30 days of this order a revision to its Emergency Response Plan (ERP) that reflects recommendations Staff has provided in this proceeding.

By order of the Public Utilities Commission of New Hampshire this twenty-fourth day of  
September, 2010.

  
Thomas B. Getz  
Chairman

  
Clifton C. Below  
Commissioner

  
Amy L. Ignatius  
Commissioner

Attested by:

  
Debra A. Howland  
Executive Director

